EFFECTS OF DIGITAL CREDIT ON THE FINANCIAL HEALTH OF YOUTH IN NAIROBI

JESSE RUGA WANG'OMBE

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DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the Research Proposal contains no material previously published or written by another person except where due reference is made in the Research Proposal itself.

Jesse Ruga Wang'ombe. [Name of Candidate]

J.R. [Signature]

15th October 2021. [Date]

This Research Proposal has been submitted for examination with my approval as the Supervisor.

..…John Waweru Kamau..... [Name of Supervisor]

……J.W.K..... [Signature]

……28th Feb 2022..... [Date]

Strathmore University Business School

Strathmore University

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Dedications

I would like to dedicate this project to God.

ABSTRACT

Digital credit has within the last seven years become the main channel through which the majority of Kenyans acquire loans. Its rapid adoption has brought with it several positive and negative unintended outcomes such as increased default rates and negative listings on the Credit Reference Bureau. Furthermore, the largest user segment of digital credit is the youth. This study seeks to assess whether digital credit impacts the financial health of the youth in Nairobi. The study has four primary objectives. These are to evaluate the effect of digital credit on the rate and amount of savings of youth in Nairobi, to assess the effect of digital credit on the rate of borrowing among the youth in Nairobi, to examine the effect of digital credit on the rate of defaults among youth in Nairobi and to assess the utilisation of digital credit by the youth in Nairobi. The study utilised a questionnaire to get primary data to assess the effect of digital credit on the financial health of the youth in Kenya. The questionnaire was disbursed electronically. The study found that there was no significant effect of digital credit on the financial health of youth in Nairobi as measured by the savings and borrowings metrics.

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CHAPTER ONE

INTRODUCTION

1.1 Background Information

The financial sector has undergone several evolutions throughout the course of time. These evolutions and transformations in the finance sector and financial industry have been driven by technology (Seese, Weinhardt, & Schlottmann, 2008). According to Puschmann (2017) digitization has had a strong impact on the financial services industry. Khiewngamdee and Yan (2019) also remarked that technology has always played a vital role in the financial sector in the past decades.

Puschmann (2017) states that the digitization of financial services has occurred in a gradual, five-step process from single customer channel and no system integration in the 1960s to hybrid customer channels and external non-financial system integration. This has significantly aided in global economic development. Greater financial inclusion as a by-product of the digitisation of financial systems positively accelerates economic growth (Khera et al., 2021).

The term used to reflect the convergence of finance and technology is "fin-tech" (Puschmann, 2017). Although the term came into prominence recently, as it was earlier alluded to, the convergence of technology and financial service is over 60 years in the making. The first notable convergence of technology with financial services was in 1950 when the first credit card was invented. In the 1960s, the automated teller machines (ATMs) were introduced into the market which improved the safety and efficiency of walking with money(Muchiri, 2020). In the late 1990s, the advent of the internet and e-commerce lead to payment verification done via the world wide web through companies such as PayPal. Additionally, technology at this time was continually replacing the paper-based systems at the commercial bank level which is evidenced by Wells Fargo offering an online alternative to viewing one's checking account in 1995.

At the turn of the century, the first mobile payment was realized. The evolution of the financial industry continued throughout the mid-2000s which was spearheaded by the continual development of the internet which later become a universal necessity. The exponential growth period for fin-tech was the global financial crisis of 2007/2009 that necessitated new regulatory initiatives (Philippon, 2016). During the financial crisis, a great distrust of financial intermediaries grew in the developed world giving ground and leeway to

the proliferation of fintech services into the mainstream. However, in the developing world particularly in Kenya, the novel M-PESA was developed and due to its efficient money transfer system was adopted by the masses.

In its earlier stages, the rate of development of fin-tech was gradually progressing given that the integration of technology in the financial sphere was in its infancy. Currently, fin-tech s fully integrated with ordinary life as financial institutions are able to offer diversified products and services through digital lending, mobile wallets, payment applications and online banking (Huei, Seong, AyeKhin, & LehBin, 2018). This integration has been primarily brought about by disintermediation. on. According to Nicoletti (2017), fintech companies are continuously in a process of disintermediation through innovation; the companies leverage technological concepts of big data, blockchain, robo-advisors, internet of everything with a far more exploitative approach of the said digital channels. The disintermediation leads to improved operational efficiency and reduced cost as noted by Philippon (2016) which leads to firstly greater financial inclusion and customer satisfaction. This integration has led to a greater societal dependency on fintech services and products.

At the forefront of the aforementioned fintech assimilation into society is the prevalent use of digital lending services. According to Microsave (2019), of the loans disbursed in Kenya, 86% of them are disbursed digitally. This trend is further witnessed across Sub Saharan Africa as the number of mobile money accounts significantly outnumbers those for traditional bank accounts. This is a clear indication that the lending subsector of the financial industry will be fully immersed in the digital lending space in the near future.

Furthermore, according to FSD Kenya (2019), the demographic aged 18 to 35 years are 60% more likely to acquire digital credit. This happens to be age demographic which is classified constitutionally youth. Additionally, FSDKenya (2019) indicates that the majority of the borrowers of digital loans reside within urban regions. Another study conducted by Geopole and the Digital lenders Association of Kenya indicated that undergraduates are 53% more likely to undertake a digital loan.

1.1.1 Digital Credit

Digital credit as the name suggests is the request, processing, and disbursement of loan facilities through digital channels. According to Hwang (2016), there are four main features

of digital credit offering. These are loan eligibility is enabled by existing data, automated, remote and short-term.

Digital credit offerings usually leverage the digital data of the consumer to assess the creditworthiness of the customer. Existing digital data is leveraged to gain predictive insights into a potential borrower's likelihood of default, how to manage their customer journey, and how to follow up for loan collections (Hwang & Tellez, 2016). The data used to assess the debtor's capacity to pay the loan includes mobile money transaction rate and airtime. Some credit scoring models may also include social media and utility payment histories, among other data, to inform credit decisions (Hwang & Tellez, 2016). Digital credit providers often employ big data techniques and complex algorithms to assess and evaluate potential debtors' creditworthiness. The use of big data helps digital credit providers to react to the dynamic changes of consumer behaviour so as to mitigate the risk of default.

Secondly, digital credit is often fully automated in that the process of loan application occurs without human intervention. The process from loan request to disbursement and eventual repayment is done through the utilization of pre-set digitized standards. These standards and parameters are however adjusted to reflect the current economic landscape. Through the automated digital lending process, consumers are able to get instant loans and repay the said loans to their convenience (Byoung-Hwa, 2016).

Thirdly, digital credit services are remote in that they do not require a trip to the bank or financial institution. The remote nature of digital credit brings an obvious risk of personnel identification and because of this many digital credit providers employ robust identification procedures utilising the aforementioned data sources together with national identification parameters. These procedures are vital to the credit risk management procedures used by the various service providers. Remote identification is especially critical for non-performing loans (Byoung-Hwa, 2016).

Lastly, digitally distributed loans usually have a short maturity date and are costly. As an additional mitigative measure, digital credit services usually have a maturity rate of below 90 days. A short repayment period reduces the overall risk incurred by the lenders. Furthermore, digital credit tends to be more costly as compared to traditional loans. This phenomenon is brought about by shallow debtor assessment and the instant nature of digital loans. Traditional financial institutions such as banks use the five-c model to assess the

creditworthiness of a potential debtor. They assess the financial capacity to repay the loan, the character of the potential debtor, collateral, capital and conditions. Though this process is significantly longer, the net result is a more comprehensive and robust evaluation leading to lower risks and a subsequently lower rate of default. The difference between the effectiveness of the assessment process of traditional forms of lending and digital lending can be demonstrated by the number of non-performing loans (adjusted for differences in the actual number of loans disbursed). According to MicroSave (2019), the number of non-performing active loans for traditional banks and lenders stood at around 3% while the number of non-performing active loans for digital credit providers stood at 27%. Due to this phenomenon that is the high probability of non-performing loans in the digital credit space, the digital lenders utilise high interest rates and APRs to cover their potential losses. Additionally, most digital credit services have high facilitation fees. For example, M-Shwari charges 7.5% facilitation fees making the effective APR for a M-Shwari loan sit at 138% (Francis, Blumenstock, & Robinson, 2017).

Additionally, the aforementioned instant characteristics of digital credit services is the precursor to the challenge of shallow debtor assessment. In other words, for the digital credit model as it is right now to work, the interest rates have to be high and the maturity dates have to be short. Although digital products are still relatively new, and it is probable that they will evolve over time but currently the initial loan size is typically small, and loan terms are generally short (Hwang & Tellez, 2016).

Adoption of digital credit in Kenya has been rapid since its inception in 2012 through the M-Shwari platform. Just three years after its inception, 1 in 5 Kenyans were using M-Shawri and has since disbursed over 200 million in loans. Currently, there are over 49 providers of digital credit in Kenya.

The benefits of digital credits cannot be overstated. Digital credit has led to the financial inclusion of many Kenyans that were previously underserved with regard to the accessibility of financial services. However, there are glaring negative effects especially with regard to the youth. As mentioned earlier, the majority of digital credit consumers are youth between the ages of 18 years and 35 years (Microsave, 2019). Furthermore, the default rate of active digital loans sits at 21% (Microsave, 2019). This results in negative listing of young individuals in the Credit Reference Bureau. Negative listing total to 3.2 million people majority of whom acquired their loan through digital means (GUGUYU, 2020). It has also

been noted that a debtor of digital loan facilities is five times more likely to default as compared to debtors of traditional loan facilities (Microsave, 2019).

Furthermore, practices adopted by digital lenders in Kenya such as data sharing and debt shaming really affect the lives of individual debtors. As mentioned earlier, digital lenders utilized digital data to access the creditworthiness of a consumer. In order for this to happen, the consumer must give consent to the sharing of digital information with the digital lending providers. This includes but is not limited to, access to financial transactions, access to contact lists and access to social media activity among others (Mwaura, 2021). Upon default of a loan facility, digital lenders may use the data that they have access to compel the debtor to repay the loan. Some digital lenders use unethical means such as threats in an effort to get repayment on the loan.

In summary, digital loans are considerably more expensive as compared to traditional loans, hence the risk of default is higher. Upon defaulting, one is publicly shamed and negatively listed. This problem is compounded by the factor that digital lenders in Kenya are not regulated by the Central Bank of Kenya. As a result, the practices adopted by digital credit lenders in Kenya are unregulated.

1.1.2. Financial Health

Financial health is the measure of an individual's monetary well-being (Kagan, 2021). Other scholars define financial health as smooth short-term finances, including the ability to meet ongoing financial obligations and consumption needs(Rhyne et al., 2020). The U.S Consumer Protection Bureau defines financial health as a state of being wherein a person can fully meet current and ongoing financial obligations, can feel secure in their financial future, and is able to make choices that allow them to enjoy life. Just as in physical health, the financial health of an individual has several measuring indicators to assess the monetary well-being of that individual(Huston, 2015). Scholars have devised four components of financial health which include spend, save, borrow and plan (Parker et al., 2016). This paper will address two significant components of financial health which are savings and borrowings. Furthermore, scholars point to the distinction between financial health and financial behaviours. Financial health refers to a state of being not doing while financial behaviours refer to activities done in a continuum(Rhyne et al., 2020). However, Kempson and Finney (2017) in their work on financial health point to an intimate relationship between financial health and behaviours.

They point to three behaviours strongly linked to financial health. These are a propensity to live beyond one's means, risky borrowing/ credit use for daily living expenses and propensity to save and plan for the future.

Digital credit has made it easier than ever to borrow funds. This means that it is quite easy to utilise digital credit to cover daily expenses which is a predictive financial behaviour of poor financial health. Furthermore, the high cost of borrowing using digital means could encroach on an individual's savings. Moreover, the relationship between an individual's savings and borrowing habits is a largely under-researched area in Africa and this study aims to bridge this gap.

1.1.2.1 Savings

Savings refers to the process of setting aside a portion of current income for future use, or the flow of resources accumulated in this way over a given period of time (Britannica, 2019). Savings usually take the form of cash deposits in a bank or safe as well as the purchase of highly liquid short-term securities (Britannica, 2019).

Individuals usually save in order to cushion themselves from future uncertainties or accumulate funds that will be utilised in the future. In Kenya, an average of 55% of households hold at least one formal savings account(Mwangi, 2020). Additionally, majority of Kenyans save using M-Pesa or commercial banks (Ravi & Tyler, 2012).

The youth in Kenya however are yet to adopt a savings culture. This was indicated in a study by FSD (2015) which showed that 50% of non-savers are in the age bracket of 18-24 years. This phenomenon is not exclusive to Kenya as a study in Ghana indicated that the majority of college students do not save as a result of certain contributory factors such as meagre salaries and economic hardships (Fiergbor, 2020).

It should be noted that youth in Kenya have an aggregated income of $47 million (Kibe, 2019). However, 33% of these funds never reach a bank account or a digital finance platform. Furthermore, according to a study done by CGAP, youth are two to five times more likely to save than adults to save using informal means(Anderson & Ahmed, 2016). This indicates that Kenyan youth do have the capacity to save yet choose not to.

Digital credit platforms provide the youth with an incentive to save as it is a metric used to evaluate the creditworthiness of an individual. Services such as M-Shwari increase the amount one can borrow using the data from their savings. At the onset of M-Shwari, users

had to have a fixed deposit of a similar amount to carter any possibility of default(Cook & Mckay, 2015). Such digital lending practices incentivize the youth to save at a higher rate.

On the inverse, the high cost of debt characterised by digital credit impacts one's ability to save. The study by Wathome (2020) on the youth of Kangemi indicated that utilisation of digital credit among the youth-led to indebtedness. Platforms such as Fuliza which is a micro-overdraft facility, immediately deduct the principal and interest amounts from one's savings as soon the sufficient funds are available in the said account.

1.1.2.2 Borrowings

Financial inclusion in the form of access to credit is essential for the prosperity of the youth. A study in Uashin Gishu County concluded that access to credit facilities was a significant indicator in predicting youth economic development (Kurgat, 2017).

As mentioned earlier, the majority of digital loan consumers range between the ages of 18 to 35 years (Microsave, 2019). A study conducted by UNCDF indicated that youth are five times more likely to borrow from informal sources than formal sources. This indicates that there is a demand for credit facilities that is yet to be met by digital lending platforms.

On the other side, however, a study conducted in Tanzania showed that youth are less likely to repay loans on time (Carlos et al., 2018). Furthermore, youth that utilise digital credit services are more likely to engage in activities that are highly correlated with poor financial health such as gambling (Microsave, 2019). This means through unsophisticated practices youth borrowers may borrow too much, may get shut out of the system through accidental default(Francis et al., 2017). There is a simultaneous growth in demand for digital credit amount the youth and unsophisticated credit utilisation practices among the youth. It is thus incumbent that the effects of digital credit as a means to financial inclusion be assessed.

Under the financial health indicator of debt, there are three aspects that are going to be assessed, repayment rate (on a timely basis), rate of default and utilisation of the credit received. These factors provide a holistic approach to investigating the impact of digital credit through the lens of debt.

1.1.2.2.1 Utilisation of Digital Credit

This metric indicates how the loan received was utilised. Under this metric, there is a primary focus on the utilisation of digital credit facilities on the following: to finance business needs,

to finance day to day needs, to finance emergencies, to finance investment as well as to finance lifestyle needs among other things.

These indicators are group into positive utilisation of digital credit and negative utilisation of digital credit.

1.1.3 Youth

According to the government of Kenya, between the ages of 18 to 35 one is considered a youth. According to the National Council for Population and Development, youth in Kenya account for 29% of the population and it is the fastest growing segment of the population.

As previously mentioned, youth are among the majority of the population that utilise digital credit. Given that the youth predominately utilise digital credit and the fact that the future of the nation lies in their hands, presents a need to assess if the current credit practices are suitable for economic well-being which is a direct consequence of individual financial well-being. Furthermore, Whitebread & Bingham (2013) noted that financial habits form from sevens years of age and continue to develop throughout and as such, it is necessary that we cultivate responsible financial habits in our youth.

1.2 Problem Statement

Digital credit has led to the financial inclusion of youth at a larger scale than traditional financial intermediaries. In the right context, access to financial services can be an enabler for young people, contributing to their empowerment and increased wellbeing, according to their needs and life stage(Bianca 2020).

The youth are a significant and growing portion of the Kenyan population and their financial inclusion is necessary for the future economic well-being of Kenya. However, the ills of digital credit may have a net negative effect on the financial health of youth in Kenya brought about by high interest rates, negative listings on the Credit Reference Bureau, data sharing malpractices, lack of regulation and debt shaming among other things

With the rapid growth of digitalisation in Kenya, digital credit seems to be the future of financial intermediaries as evidenced by the proportion of digital loans (86%) as compared to traditional loans (less than 14%), it is incumbent that the impact of digital lending is assessed. Moreover, youth, as they transition to adulthood, are the custodians of the future of Kenya and as such, it is critical to assess if the financial systems currently employed are supporting

the current financial prosperity of the youth that will translate to the future. How countries manage this demographic transition depends in part on how they address the individual level transitions (Kilara & Latortue, 2012).

Several studies have been done assessing the impact of digital credit on the financial inclusion of youth as well as the need for regulation within the current digital credit landscape. However, little research has been done in the area of financial health as a metric to assess the future financial stability of Kenya. This study aims at assessing the impact of digital credit on the financial health of youth in their current and future landscape.

1.3 Research Objective

1.3.1 General Objective

This research aims to assess the effect of digital credit on the financial health of youth in Nairobi.

1.3.1 Specific Objective

1. To evaluate the effect of digital credit on the rate and amount of savings of youth in Nairobi..

2. To examine the effect of digital credit on the rate of defaults among youth in Nairobi.

3. To assess the utilisation of digital credit by the youth in Nairobi.

1.4 Research Questions

1. What is the effect of digital credit on the rate and amount of savings of youth in Nairobi?

2. What is the effect of digital credit on the rate of defaults among youth in Nairobi?

3. How do youth in Nairobi utilize their digital loans?

1.5 Significance of the Study

Digital credit is a recent innovation with less than 10 years in the market. Furthermore, the digital lending market is continually growing as the rate of digitization grows in Nairobi. As result, research in this field should be done continuously to gauge the effect of digital credit on the market as a whole. Additionally, being that digital credit is still in its infancy, there are

several research gaps that need to be filled. This study will aid in these efforts by providing tangible evidence on the effect of digital credit on the youth. The study is of significance to the following stakeholders:

1.5.1 Youth Consumers

The study will aid in the sensitisation of the positive and negative by-products of acquiring a loan especially as a youth in Kenya. Furthermore, the study may lead to improvement of the digital credit services which in turn will lead to greater financial inclusion of youth in Kenya.

1.5.2 Digital Credit Providers

This study will support digital credit providers in developing and improving their products to better serve their youth customers. Digital credit providers could draw from this study, recommendations that will support them in tailoring their products to support youth in becoming more financially healthy as this will benefit them in the long run. Furthermore, digital credit providers can draw from this study an understanding of the youth market and its potential.

1.5.3 Regulators

This study can provide policymakers and regulators with the requisite information to address the myriad of challenges within the digital credit space. It will support regulators such as the Central bank of Kenya in developing stringent policies with regard to the digital credit service provision.

1.5.4 Academia

This research will advance the knowledge and understanding of the research market apropos the youth.

1.6 Scope

This study seeks to assess the effect of digital credit on the financial health of youth in Nairobi who are approximately 13.7 million. The study will take place between August 2021 to January 2022.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, literature from relevant past research papers and studies are reviewed. The first section consists of three theoretical models that could explain the utilisation and effects of digital credit. The second section reviews several studies that have been conducted with reference to the variables under investigation in this study. The last section highlights the gap present in the current literature which has necessitated this study.

2.2 Theoretical Framework.

The theories underpinning this study are Technology Acceptance Theory, Financial Intermediation Theory and Behavioural Economics.

2.2.1 Technology Acceptance Theory

Technology Acceptance Model was a model developed by Davis in 1989. The model offers an explanation of users' acceptance of technology. The TAM theory was developed on the backbone of the Theory of Reasoned Action Chuttur M.Y. (2009). Davis offers two key variables as to users' acceptance of a new technology. These are Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Davis defined perceived usefulness as the degree to which an individual/ individuals believe that using a particular system would enhance their job performance and perceived ease of use is defined as the degree to which an individual/individuals believe that using a particular system would be free from a physical and mental effort. These indicators have been backed by several scholars such as Swanson who hypothesised that users made a decision based on trade-offs between information usefulness and cost to acquire the information.

This model also touches on the theory of trade-offs as it asserts that both factors play a behavioural role in the utilisation of technology. The theory likewise indicates that the convenience and saw utility factors that determine acceptance of technology are also affected by outside influences(Alharbi & Drew, 2014).

Wang et al. (2003)states that any new idea's acceptance is closely associated with its ease of usage. His observation seems to be true. According to a study done FSD Kenya the most commonly cited reason why some utilised digital credit was convenience and disbursement

speed(Gubbins & Totolo, 2018). They also discovered that for urban women under 30 years, convenience was the primary factor cited. The perceived convince of digital loans is based on their flexible usability be it on a mobile phone or other digital devices. For youth in Kenya majority of whom have access to mobile phones, accessing mobile network-enabled digital loans is quite easy.

Perceived usefulness of digital credit comes in the form of its utilisation, in other words, what an individual can do with the credit received. Some of the common uses of digital lending according to FSD are business operation, day to day use and education among other things(Gubbins & Totolo, 2018).

The relevance of this model to the study is that it provides a foundational explanation as to why youth gravitate towards digital loans. This theory will additionally be used to assess whether the current positive and negative results of the utilisation of digital credit can be attributed to the aforementioned fundamental characteristics of digital credit such as instant disbursement which results from the automated operations of the said disbursement process.

2.2.2 Financial Intermediation Theory

The financial intermediation theory was first developed and proposed by Akerlof in 1970. The theory has two classical views. First that financial intermediaries lower transaction costs and secondly that act to bridge the information asymmetry that exists in the lending process. However, this theory has come under scrutiny as financial intermediaries continue to increase and yet the cost of transaction and asymmetric information continue to decrease. Furthermore, the role of intermediaries has increased through the development of new features such as options.

Financial intermediation theory has two foundations. The first stresses the importance of financial intermediaries in providing liquidity. (Freixas & Rochet, 2008). The second one involves the capacity of the said financial intermediaries to transform the risk characteristics of assets in credit lending (Howells & Bain, 2007).

The aspect of information asymmetry is of particular importance to this study. Information asymmetry occurs when one party to an economic transaction possesses greater material knowledge than the other party (Bloomenthal, 2021). Information asymmetry in the context of lending usually involves borrowers having more information about their capabilities as compared to lenders and can occur either ex-ante or post ante. Ex-ante information asymmetry involves when lenders are not in a position to distinguish between borrowers

having different credit risks before advancing loans to them (Allen & Santomero, 1998)This in turn brings up a moral hazard; a situation whereby the borrower engages in activities that are most likely to result in loan repayment default (Nzayisenga, 2017).

In the context of this study, the financial intermediation theory underpins the reasons as to why defaults in digital loans are witnessed. Furthermore, youth undertake digital loans for various reasons unbenounced to the lenders. Additionally, borrowers engage in activities such as betting which increase the probability of default.

2.2.3 Behavioural Economics

Standard traditional economics ideated a world populated by emotionless, calculating maximisers persons who were named Homo economicus. The homo-economicus has three characteristics. These are unbounded rationality, unbounded willpower and unbounded selfishness (Doucouliagos, 1994). The critics of this economic model are self-evident but were clearly brought out by Conlisk who expressed that the failure to incorporate bounded rationality into the economic model is just bad economics. Herbert Simon 1955 another critic of the model suggested bounded rationality as people differ in their information processing capabilities. Due to the serious faults in the standard economic model brought about several departures from the said such as prospects theory. Prospect theory was one of the early instantiations of behavioural economics.

According to Lafevre & Chapman (2017), behavioural problems of consumers are manifested when making decisions concerning the consumption of financial products. The behavioural approach to economics is most promising when looking at savings. In a study in Tanzania to access the behavioural themes that influence savings among Tanzanians Busara 2017). The study concluded those four main themes were prevalent in the saving decisions of Tanzanians. These are namely mental accounting the use of mental shortcuts to building associations between their preferred savings mechanism and their reason for saving, agency which refers to whether people feel like their savings product gives them control over some aspect of their lives, trust and risk as well as social influences which included social norms, networks and trends all which influenced Tanzanians' savings behaviour and the channels they use to save. (Rashmi & Nichoas, 2017)

Behavioural economics is critical to this study as it explains the psychological process of consumer decisions. It addresses the significant notion that consumers have bounded

rationality and bounded willpower which in turn will lead to financial decisions that may not be apt to meet the demand or need witnessed. Behavioural economics can be used to describe consumer behaviour, defaults and fraud(Ebong & George, 2020)This indicates that youth who utilise digital credit could be taking up liability for purposes that are not suitable to ensure financial health. Furthermore, Carlsson et al., (2017) expressed that digitisation affects an individual's financial behaviour. The works of Carlsson et al., (2017)relates to and can be applied to explain young people's vulnerability to digital credits and the rising incidence of gambling using digital credit and youth Ebong & George, (2020).

2.3 Empirical Review

2.3.1 Digital Credit

In the past few years, digital credit has emerged as an alternative mechanism for providing short-term loans(Francis et al., 2017). IT has been readily adopted by majority of the Kenyan population mainly due to the ease of access. As such, there have been numerous studies investigating the various components and the overall impact of digital credit.

Francis et al., (2017) in their study aimed to capture the landscape of digital credit. The paper utilised secondary data to fortify its points and conclusions. Furthermore, the study clearly captured some areas of concern with regard to digital credit namely, high interest rates and consumer privacy. The paper stood as a call to action to other researchers to assess the positive and negative impacts of digital credit on society. The paper was however conducted in 2017 and since then there has been rapid development in the digital lending space such as mobile money overdraft facilities. This study is to capture the current landscape of digital credit with regard to its effects on the financial health of the youth.

Wathome, 2020 sought to understand the effect of digital credit on the financial inclusion of the youth. The study concentrated on the youth of Kangemi who are approximately 152000. The study used a stratified sampling method to get a target sample of 384. The data collection method used was questioners which were administered physically. The study concluded that digital credit has a direct influence on the financial inclusion of youth. Furthermore, the study concluded that youth are unaware of the value creation capabilities of digital credit. The utilised face to face questioners. The administering of questioners' face to face could lead to the possibility of reactivity whereby the researcher affects the subject of the study.

Ebong and George, (2020) sought to assess the factors that drive demand for credit among businesses on high density markets in Kampala and its suburbs and draw implication from innovations and applications of digital lending, The study was conducted using both qualitative and quantitative approaches. Ebong & George, (2020) concluded that fintech providers in Uganda should improve the speed of disbursement. This study heavily focused on the utility of digital credit in product innovation.

Oyier, (2020) studied the impact of access to digital nano credit on the economic welfare of the low-income earners in Nairobi, the study used a cross-sectional survey to collect and analyse data and had a sample size of 196. The study concluded that there is a positive relationship between economic welfare and access to digital nano credit,

Additionally, researchers have been focusing on the regulatory aspect of digital credit. Muli (2020)studies the possibility of regulating the digital lending environment in Kenya. The study noted that strict regulation of digital lending could stifle the growth of the industry as was the case in Nigeria. The paper concluded that an enabling law should be enacted as well as a regulatory supervisor to prevent the negative consequences of digital lending. This study utilised secondary data to reach its conclusions. This study aims to use primary data so as to provide up to date data on the issues relating to digital lending.

2.3.2 Financial Health

The working definition of financial health is still heavily discussed and disputed. That said, similar characteristics can be drawn from the available definitions. There are four characteristics that can be drawn. These are smooth short-term finances (daily systems), including the ability to meet ongoing financial obligations and consumption needs, preparedness to meet and recover from financial shocks (resilience, secure), a longer-term perspective that involves maintaining or improving well-being and a level of achievement beyond the bare minimum that implies feelings of confidence and well-being(Rhyne et al., 2020)

Kempson and Finney (2017) are at the forefront of research on financial health and well-being. In 2017 they conducted a study with a sample of 2058 respondents from Norway. The study also weighted for education and place of residence. The study found that all three measures of financial well-being share three behaviours as their main drivers. These are ‘active saving’, ‘spending restraints’ and ‘not borrowing for daily expenses. Additionally, ‘locus of

control' stood out as an important explanatory variable, with significant impacts on all three levels of well-being. This study aims to utilize the concepts defined by Kempson and Finney, (2017) to understand the relationship between digital credit and financial health.

Rhyne et al., (2020) noted that in the U.S there has been a significant degree of poor financial health among population segments expected to be relatively financially healthy. CFPB's 2016 survey found that one-third of the U.S. population scored at a level that indicated a high probability of struggling financially (CFPB, 2017). The Financial Health Network's Pulse Survey estimated that 17% of Americans are struggling with most or all elements of their financial lives, and another 54% have difficulty with at least one major element (FHN, 2019). The findings alerted policymakers and financial service providers that an enormous share of their constituents or customers are not experiencing financial well-being.

The Central Bank of Kenya in partnership with FSD conducted a study on financial inclusion which had aspects of financial health such as resilience. The study concluded that there was a drop in 2017 in the percentage of people who were financially healthy from 39% in 2014 to 22% in 2017, despite an increase in financial inclusion which was brought about by digital financial services (Rhyne et al., 2020).The occurrence of the said decrease was not clear. Various scholars hypothesised that the decrease was due to the overall decrease in economic growth witnessed as a result of drought in the region being that Kenya is an agricultural dependent country.

These studies though informative, do not address the emergent contributing factor to digital health that being digital credit.

2.3.3 Savings and Digital Credit

Financial inclusion for youth, particularly involvement in savings programs, is associated with a wide range of positive outcomes in areas such as health, education, social-emotional development, and financial well-being (Chowa et al. 2013; Huang et al. 2014; Ssewamala et al.2009). Having savings has been associated with greater income and assets, better reproductive and preventive health knowledge, improved physical and mental health, academic achievement, and performance in a number of studies in Sub-Saharan Africa (Child and Youth Finance International Research Working Group 2012; Sharma et al. 2015). All and in all, youth who save are better positioned in most aspects of life. Hence it is incumbent that youth are incentivized to save any disposable income in their possession.

Digital credit providers such as M-Shwari support and incentivize savings. Depositors can deposit high amounts of money in M-Shawri which will be used as a source of data in the event an induvial would like a loan. Hence M-Shwari is promoting a saving culture(Wathome, 2020)

Zou et al., (2015) sought to find out the facilitators and obstacles in youth savings in Ghana and Kenya. Their study obtained first-hand information about the contributory factors that aid in youth savings. Among the said facilitators of savings was support from financial institutions. This study aims to add to the knowledge from Zou et al., (2015) by evaluating whether digital credit facilitates or obstructs youth from saving.

Kaffenberger et al., (2018) studied the landscape of digital credit in Kenya and Tanzania. The study found that digital credit users have dipped into their savings to repay their loans. This study aims to focus on the youth in Nairobi as opposed to nationwide studies. Furthermore, there have been advents in digital credit after the research conducted by Kaffenberger et al., (2018) whose effects should be assessed.

2.3.4 Debt, Debt Utilisation and Digital Credit

The World Bank (2017) warns that while digital loans can benefit borrowers by enhancing access to credit, they have a related array of unconventional risks. Several studies have been undertaken to access the impact of digital credit on its borrowers.

A study by FSD (2017) in Kenya found that 2 out of every 3 digital borrowers aged 30 and below who resided in rural areas were likely to not repay a loan. Furthermore, Francis et al., (2017) point out that digital credit can in principle be useful to cash-strapped youth by providing liquidity in times of high need, it may also be detrimental, causing over-indebtedness thereby making it hard to fulfil debt obligations. These studies point to the fact that digital credit could have negative outcomes in particular outstanding debt obligation.

Kaffenberger et al., (2018) additionally point out that digital credit users some forgo meal and tuition payments in order to repay digital loans. Additionally, the study revealed that over a third (35%) of digital borrowers had engaged multiple digital lenders and that 14 per cent of borrowers were juggling loans from several digital lenders at the time of the study.

The current research that exists fails to link digital credit with financial health.

2.4 Research Gap Summary

Several studies have been done to access the various variables included in this study namely, savings, debt, financial health and digital credit. However, the research fails to link these variables together.

Wathome, 2020 in her research, studied the effect of digital credit on financial inclusion on the youth in Kangemi. The research focused on respondents from Kangemi and financial inclusion. This study however did not cover the effects of digital credit on the financial health of the youth. Oyier, (2020) on the other hand studied the impact of access to digital nano credit on the economic welfare of low-income earners in Nairobi. This study however was not focused on the youth as its primary population target. Kaffenberger et al., (2018) in their study on the revolution of digital credit in Kenya and Tanzania sought to find the effects of digital credit on the borrowers. He found that several digital credit borrowers about 11% reduce food purchases in order to make repayments of digital loans. This study however failed to single out the youth as a demographic of interest. This study aims to single out the youth as its target population.

Studies done to measure the financial health of individuals such as Kempson and Finney (2017) were done in areas where the prevalence of digital credit is not as concentrated as it is in Nairobi. Hence there is a gap in the research done to assess the financial health of individuals that reside within Nairobi.

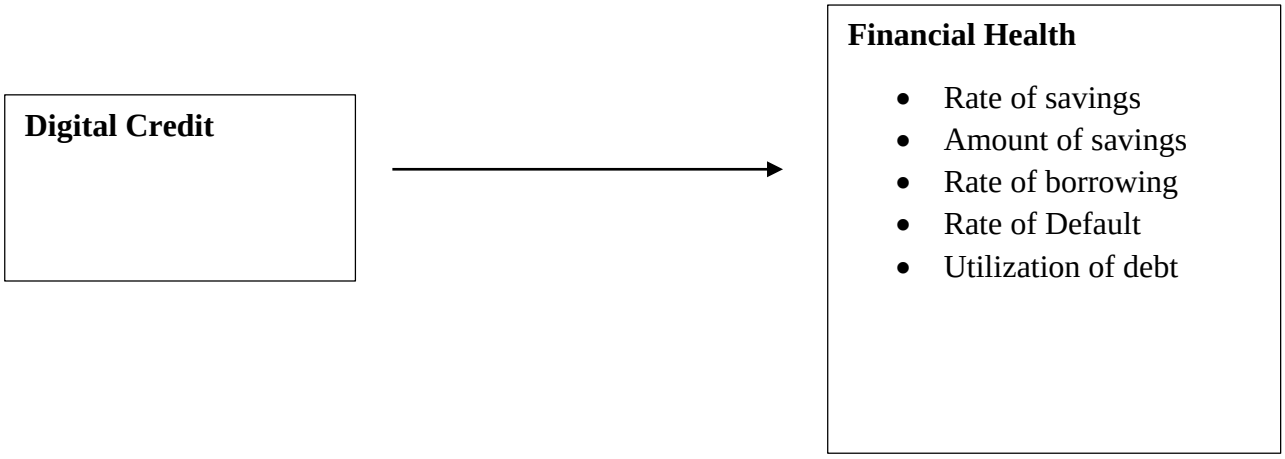
Additionally, the digital credit industry is a rapidly developing industry and hence it is still in its infancy. As such, there is a need to continuously update the information about digital credit and its effects on society at large.

2.5 Conceptual Framework

Below is a diagrammatic representation of the variables of the study.

Figure 2.5

Independent variable **Dependent variable**


Digital Credit
Financial Health
Rate of savings
Amount of savings
Rate of borrowing
Rate of Default
Utilization of debt

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the research design, population, sampling technique, data collection, data analysis, validity and ethical issues of the study are described.

3.2 The Research Design

Easterby-Smith, Thorpe and Jackson (2015) describe research design as the logical sequence that connects the empirical data to a study's initial research questions and, ultimately, to its conclusions. For this study, a cross-sectional survey design was employed. In a cross-sectional study, the investigator measures the outcome and the exposures in the study participants at the same time(Setia, 2016).

A cross-sectional research design is appropriate for this study as various time constraints inhibit the performance of a longitudinal study. All the data for this was collected at the same time.

3.2 Population and Sampling

A population is an entire group about which some information is required to be ascertained(Banerjee & Chaudhury, 2010).

The population of this study was the youth in Nairobi. Youth in Kenya are approximately 29% of the country's population. Nairobi has a population of 4,397,073 according to the census conducted in 2019 therefore it is reasonable to estimate that the population of youth in Nairobi sits at around 1.3 million.

3.3 Sampling Technique

Sampling refers to the process of selecting a smaller group of participants to tell us essentially what a larger population might tell us if we asked every member of the larger population the same questions(Adwok, 2015).

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3.3.1 Sample size

The sample size for this study was determined using the Gill and Johnson sample size formula:

$$n = \frac{p\,(100-p)\,Z^2}{E^2}$$

Where:

n is the required sample size

P is the percentage occurrence of a state or condition

E is the percentage maximum error required

Z is the value corresponding to the level of confidence required

The maximum error E for this study was set at 5% that is 0.05. Furthermore, according to Bartlett et al., the maximum variance of the population should be set at 50% that is 0.5. Additionally, the Z value was set at 1.96 given the confidence level is set at 95%.

$$= \frac{0.5(1-0.5)\,1.96^2}{0.05^2}$$

$$= \frac{0.9604}{0.0025}$$

= 384

3.4 Data Collection

The study utilises primary data only. The primary data was collected through a questionnaire that was administered to youth in Nairobi. Questionnaires as an instrument for the collection of data make it possible to collect data from a large number of respondents. This was the primary reason as to why a questionnaire was chosen. The questionnaire administered is structured into two parts. The first consists of questions meant to establish the frequency of utilisation of digital credit by the respondents. The second section consists of questions that are meant to assess the financial health of the respondents. Section two comprises of a Likert scale statements to effectively measure the financial health of the respondents. The questionnaire was administered through an online platform namely Google Forms.

3.5 Data Analysis

According to Denscombe (2010) data analysis refers to the visualizing, interpreting and sense-making of data collected. Data collected was first cleaned and edited and thereafter was

analysed using Microsoft Excel. A descriptive-analytical model was utilised. These include standard deviation, mean, median and percentages.

3.6 Validity testing

The validity of the content was determined firstly by the expert consultation from my supervisor. Secondly, a pilot test was conducted to assess the understandability and consistency of the questionnaire. The initial 5% of total expected responses was utilised as the assessment was used as the pilot phase.

3.6 Ethical issues

This study explicitly asked for consent for the data to be utilised for research purposes. Furthermore, in order to respect the anonymity and confidentiality of the respondents, the names and emails of the respondents were not collected.

CHAPTER 4

RESULTS AND FINDINGS

4.1 Introduction

This section presents the results and the discussion of the study. It consists of the research results and findings based on the three specific objectives.

4.2 Response rate

The questionnaire was digitally administered to sixty individuals of which 58 responded. This represents a 97% response rate which is very high. This data was obtained between October 2021 and January 2022.

4.3 Validity Testing

In order to assess the validity of the study, 5% of the responses were used as pre-assessment to gauge the appropriateness of the study's methodology. The Cronbach's Alpha test was utilised to assess the internal consistency of the results of the research. According to Lee Cronhach, internal consistency describes the extent to which responses of a survey are interrelated and connected. The measure is expressed as an absolute figure between 0 and 1. It should be noted that difference between 1 and figured arrived at using the Cronbach's Alpha formula represents an error variance or random error. Cronbach's Alpha test formula is

$$P_t = \frac{K^2\,\underline{\sigma ij}}{\sigma^2 x}$$

P_t =tau-equivalent reliability

K^2 = number of items

$\underline{\sigma ij}$ =covariance between Xi and Xj

$\sigma^2 x$=item variances and inter-item covariances

The results of the internal consistency test using Cronbach's Alpha test were 0.54 which test reliability as the error variance is 0.46. Moreover, the duration of this study should be put into consideration as this affects the magnitude of the error variance(Tavakol & Dennick, 2011).

4.4. Results

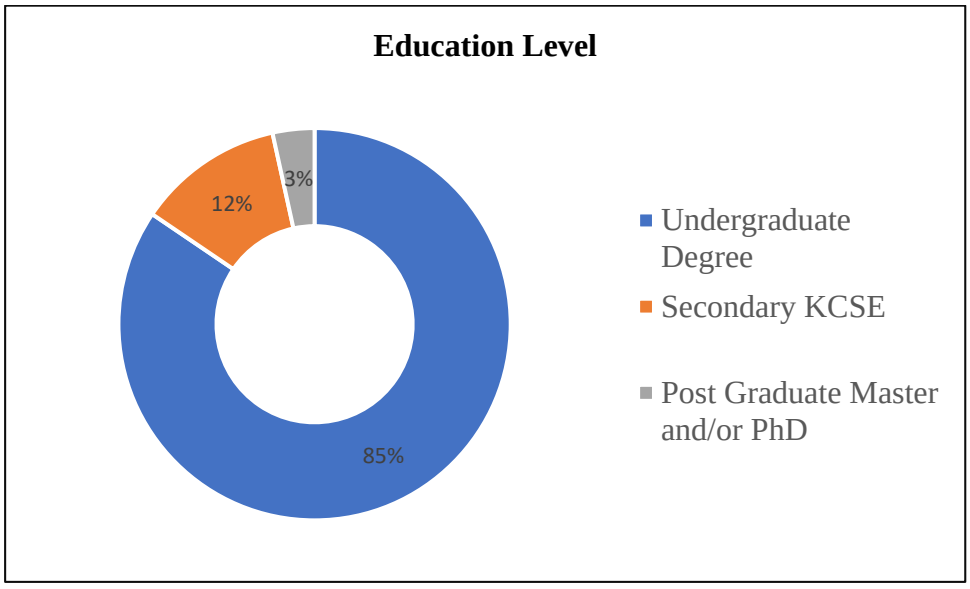
4.4.1 Section One- General Information

This section details the results of the respondents with regards to general information relevant to understanding the digital credit ecosystem.

4.4.1.1 Education Level

This research project examined the education levels of the respondents. Figure 4.1 below indicates that the majority of the respondents were university-level students.

Figure 4.1 Education level

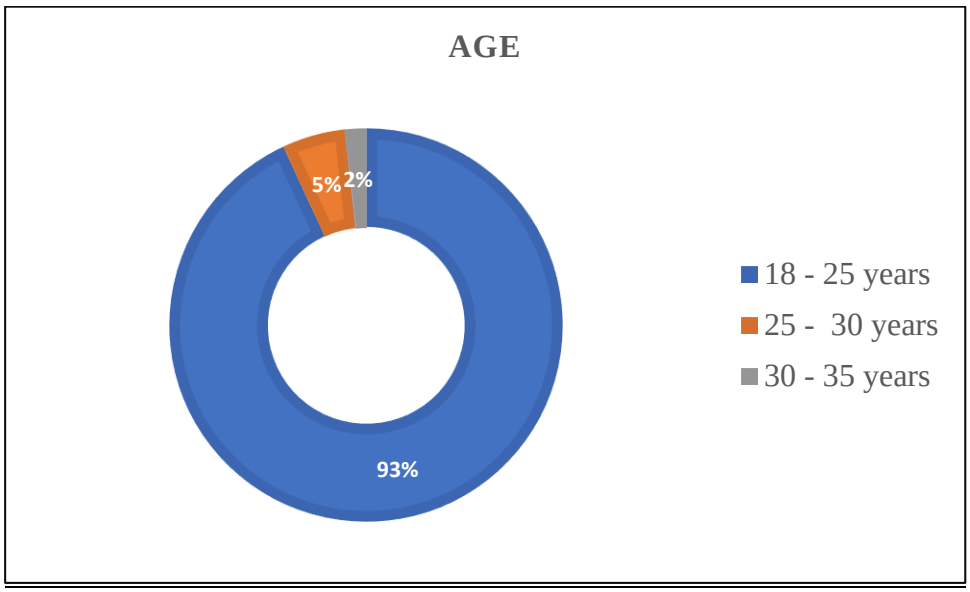


Source: Author (2022)

4.4.1.2 Age

The research project assessed the age distribution of the respondents of the questionnaires in figure 4.2 below. 93% of the respondents were between the age of 18 to 25 years while 7% of the respondents were between the age of 25 and 35 years. Further analysis was done to assess the correlation between age and digital credit decisions.

Figure 4.2

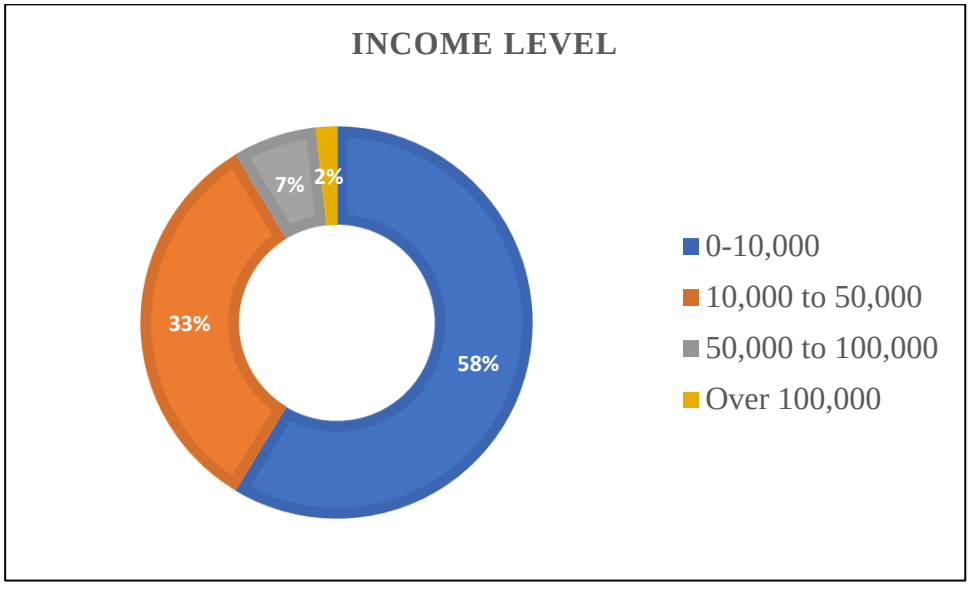


Source: Author (2022)

4.4.1.3 Income Level

The income level research participants were analysed and presented in figure 4.3 below. Majority of the respondents 58% had a monthly income of 0 to 10,000 Kenyan shillings while 37% of the respondents had a monthly income between 10,000 to 50,000 Kenyan shillings.

Figure 4.3



Source: Author (2022)

4.4.2 Section Two- Effect of Digital Credit on the Financial Health of Youth in Nairobi

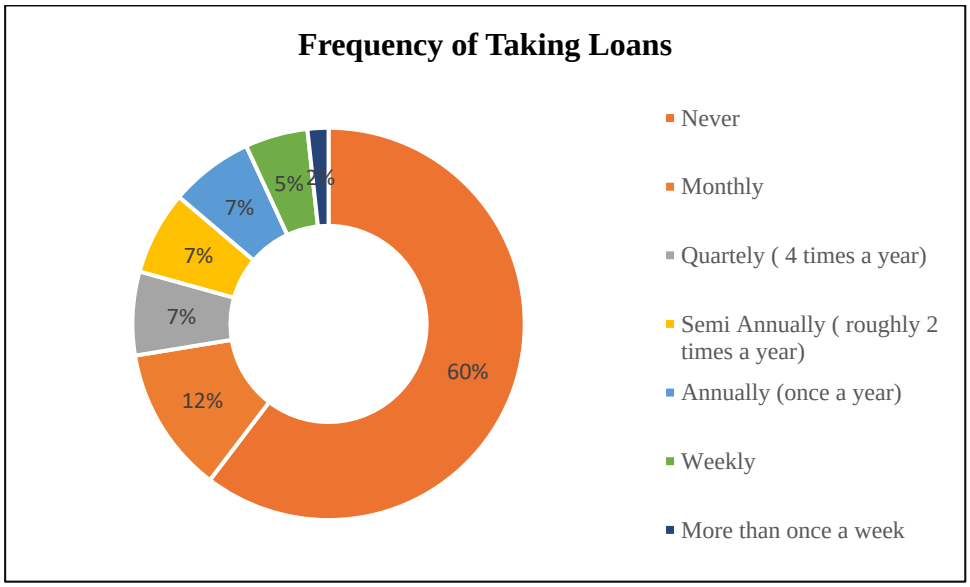
This research project was aimed at examining the effects of digital credit on the financial health of youth in Nairobi. As mentioned earlier, two pillars are utilised in this study to assess the financial health of youth in Nairobi. These pillars are saving and borrowings.

The data collected to analyse the three objectives of the study were collected using a questionnaire that had a Likert Scale whose responses ranged from 1-Not at all, 2. Not much like me 3. Neutral 4. Somewhat like me 5. Completely like me and 1- Never 2. Rarely 3. Every once in a while, 4. Sometimes 5. Always.

These responses were then analysed using a descriptive analytical procedure such as pie charts and mean computations to evaluate and determine the effects of digital credit on financial health.

In order to ascertain the effects of digital credit on the financial health of youth in Nairobi, a control group of youth that do not utilise digital credit was used for comparison purposes. Meaning, this study compares the financial health of youth that utilise digital credit with youth that do not utilise digital credit to gauge the overall effect of digital credit on financial health. The difference in magnitude of the financial health results between the two groups (namely Group A- youth that utilised digital credit and Group B- youth that do not utilise digital credit) provides a strong indication of the effect of digital credit on financial health.

Figure 4.4



Source: Author (2022)

The majority of the respondents (60%) of this study had never taken a digital loan and as such were used as the control group in the study.

4.4.2.1 Effect of digital credit on the rate and amount of savings of youth in Nairobi

Table 4.1

Description	Mean Group A	Mean Group B
I spend less than I earn	3.08	3.71
I have sufficient liquid savings	3.17	3.28
I have sufficient long-term savings	2.6	2.82
If an unexpected expense come about, I could handle it	3.21	3.60
I have money left over at the end of the month	3.41	3.57
I am securing my financial future.	3.96	4.05
It is a concern of mine that the money I have saved won't last	3.69	3.80

Source: Author (2022)

The first objective of this study was to assess the effect of digital credit on the amount and rate of savings of youth in Nairobi. As previously mentioned, savings represents a foundational pillar in the building blocks of financial health.

Most respondents affirm that they are neutral with regards to their saving habits that is, they spend less than they earn (Mean Group A= 3.08, Mean group B= 3.71), they have sufficient liquid savings (Mean group A=3.17 Mean Group B= 3.28), they have sufficient long term savings (Mean Group A=2.6 Mean Group B=2.82), if an expected come about, they could handle it (Mean Group A= 3.21 Mean Group B= 3.6) they have money left over at the end of the month (Mean group A= 3.41 Mean Group B= 3.57), they are securing their financial future (Mean Group A= 3.96 Mean Group B= 4.05) and it is a concern of mine that the money I have saved won't last (Mean Group A= 3.69, Mean Group B= 3.80)

It is keen to note that apart from the last metric which is 'It is a concern of mine that the money I have saved won't last' the mean for group B is higher relating to a more positive

savings culture. This indicates that youth that do not utilise tend to save more, however, the difference is marginal.

4.4.2.2 Effect of digital credit on the rate of defaults among youth in Nairobi

Table 4.2

Description	Mean Group A	Mean Group B
I repay my loan on time	4.54	4.61
I have manageable debt	3.91	3.91
I am currently or usually behind with regard to my finances.	2.78	2.31
I have a prime credit score, that is, I have never been negatively listed or I have paid off any outstanding loan balance.	4.54	4.43

Source: Author (2022)

The next objective was to analyse the effect of digital credit on rate defaults among youth. Majority of the respondents agreed that: they repay their loans on time (Mean Group A= 4.54, Mean Group B= 4.61), that they have manageable debt (Mean Group A= 3.91, Mean Group B= 3.91) as well as have a prime credit score (Mean Group A= 4.54, Mean Group B=4.43).

No notable difference has been noted between the groups.

4.4.2.3 Utilisation of digital credit by the youth in Nairobi.

Table 4.3

Description	Mean Group A
I have taken a digital loan for purposes I consider beneficial	4.04

Source: Author (2022)

The last objective was assessing the utilisation of digital credit by youth in Nairobi. The results expressed that the majority of the youth that utilise digital credit use it in a manner they consider beneficial (Mean Group A =4.04)

4.5 Chapter Summary

This chapter has comprehensively presented the result of the study which were analysed using excel models.

CHAPTER FIVE

SUMMARY

5.1 Introduction

This chapter summarises and discusses the results of the study as well as provides a recommendation for future studies.

5.2 Summary

This study aimed to evaluate the effects of digital credit on the financial health of youth in Nairobi. The study was targeted at the youth of Nairobi who are currently 2.7 million in number. The research adopted a descriptive research methodology and as such the data was analysed using pie charts and mean processes.

The result concluded that the majority of the users of digital credit were between the age of 18 years and 25 years. Furthermore, the study also concluded that the majority of the youth that utilises digital credit have an income level of between 0 to 10,000 Kenyan shilling per month. The study also found that 40% of youth utilise digital credit. The other 60% of respondents were utilised as a control segment in the study.

The study additionally found an insignificant effect of the utilisation of digital credit on the financial health of youth in Nairobi

5.3 Discussion

5.3.1 Effect of digital credit on the rate and amount of savings of youth in Nairobi

Given that savings is a foundational pillar of the financial health of an individual, this study sought to assess the difference between saving habits of utilisers of digital credit and non-utilisers of digital credit. This study found no significant difference between the saving culture of youth that use digital credit services from those that do not.

Wathome (2020) in her study on the effects of digital credit on financial inclusion of the youth found that platform such as M-Shwari encouraged youth to save more in order to have access to digital credit. This study however found no conclusive data to indicate that digital credit encourages youth to save.

Kaffenberger et al., (2018) in their study in 2018 found out that youth in Kenya and Tanzania dipped into their savings in order to pay their interest and principal payments for their digital

loans thereby reducing the amount of savings. This study however found that there is no significant effect of digital credit on the rate and amount of savings among the youth.

5.3.2 Effect of digital credit on the rate of defaults among youth in Nairobi

While assessing the financial health pillar borrowing, this study sought to find the effect of digital credit on borrowing culture among the youth. The research findings indicate that there was no clear benefit or detriment to the utilisation of digital credit with regard to the default rates among the youth of Nairobi.

This finding is contrary to the study done by FSD in 2017 which indicated that 2 out 3 individuals aged below 30 years are likely to default their loans. This study however points out that digital credit may not be the primary factor contributing to the high default rates witnessed among the youth.

5.3.3 Utilisation of digital credit by the youth in Nairobi

Lastly, this study was aimed at assessing the utilisation of money received through digital loans. The study found that the majority of youth in Nairobi were utilising their digital credit loans for purposes that they deemed beneficial.

MicroSave had reported that some youths were engaging in activities such as gambling using short term credit however the said youth were not representative of all utilisers of digital credit.

Furthermore, Ebong and George (2020)indicated that youth tend to utilise their digital loan disbursements to perform activities that are no beneficial such as gambling. This study however indicates that youth for the most part utilise their digital credit for purposes they deem beneficial.

5.4 Conclusion

From the study, we can conclude that digital credit does not have a significant effect on the financial health of youth in Nairobi. Additionally, the study indicates that other underlying issues could be at play when evaluating financial health metrics among youth in Nairobi.

5.5 Limitations

The sample size in this study was too small to represent the entire population of Nairobi. This challenge was primary experienced due to cost and time constraints. Additionally, different

modes of delivery of the questionnaire should be utilised in order to include a more diverse sample group.

5.6 Suggestion for further researchers

This study recommends that further investigation further investigation goes into the evaluating the relationship between behavioural finance concepts and digital credit. This will go a long way in furthering knowledge with regard to the decision-making process of digital credit utilisers. This study would look into the various cognitive biases that affect and influence the decision to take up a digital loan.

Furthermore, this study recommends an evaluation of the possibility of a wide scale government deployment of digital credit services given the insignificant effect it has on the financial health of youth as shown by this study.

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Appendix 1: Questionnaire

Section 1: General Information

What is the highest level of education that you have attained?

- Primary level (KCPE)
- Secondary (KCSE)
- Undergraduate
- Graduate
- PhD

What is your level of income?

- 0 to 10,000
- 10,000 to 50,000
- 50,000 to 100,000
- Over 100,000

Section 2: Digital Credit

How often do you acquire a digital loan?

- Never
- Monthly
- Semi-Annually
- Once in the last year

How well does this statement describe your financial situation? *5-point scale from completely to not at all*

1. Not at all 2. Not much like 3. Neutral 4. Somewhat like me 5. Completely like me

	1	**2**	**3**	**4**	**5**
I pay bills/expenses on time					
I spend less than I earn					
I have sufficient liquid savings					
I have sufficient long-term savings					
I have manageable debt					
I have a prime credit score, that I have never been negatively listed or I have paid off any outstanding loan balance.					
I usually plan ahead with regard to financial matters.					
If an unexpected expense come about, I could handle it					
I am securing my financial future.					
I can describe my financial situation as “just getting by”					
It is a concern of mine that the money I have saved won’t last					
I am securing my financial future.					

How often does this statement describe your financial situation? 5-point scale Always to never

1. Never 2. Rarely 3. Every once in a while 4. Sometimes 5. Always

	1	2	3	4	5
I have money left over at the end of the month.					
I am currently or usually behind with regard to my finances.					
My finances control my life.					

How often does this statement describe your digital credit experience? 5-point scale Always to never

1. Never 2. Rarely 3. Every once in a while, 4. Sometimes 5. Always

	1	2	3	4	5
I repay my loan on time					
I have taken a digital loan for purposes I consider beneficial					
I have taken a digital loan for purposes I do not consider beneficial					

Appendix 2 Similarity Report

Curiginal

Document Information

Analyzed document	Jesse Ruga -Effect of Digital Credit on the Financial Health of Youth in Nairobi.docx (D128993431)
Submitted	2022-02-28T01:30:00.0000000
Submitted by	
Submitter email	Jesse.Wang0mbe@strathmore.edu
Similarity	10%
Analysis address	library.strath@analysis.urkund.com

Sources included in the report

W URL: https://core.ac.uk/download/392335685.pdf
Fetched: 2022-01-17T02:26:05.4070000 6