FINANCIAL INCLUSION AND THE FINANCIAL PERFORMANCE OF

SELF-HELP GROUPS IN KENYA

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DECLARATION

Declaration by Candidate

I declare that this research project is my original work and has not been submitted for

an award of a degree in any other university for examination purposes.

Signed: _____ Date _____

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Declaration by Supervisor

I confirm that this research project has been developed by the candidate under my supervision.

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DEDICATION

I dedicate this work to my family for standing with me throughout the academic journey.

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LIST OF ABBREVIATIONS AND ACRONYMS

ASCAP	Accumulating Savings and Credit Associations
KPIs	Key Performance Indicators
MFIs	Microfinance Institutions
NACOSTI	National Commission of Science, Technology and Innovation
NPAs	Non-Performing Assets
ROSCAs	Rotating Savings and Credit Associations
SACCOS	Savings and Credit Cooperative Societies
SHGs	Self-Help Groups
SME	Small and Medium Enterprises
SPSS	Statistical Package for the Social Sciences
US	United States

OPERATIONAL DEFINITION OF TERMS

- Access to credit This is the provision of microloans to SHGs and/or their members to stimulate economic activities/incomegenerating projects at low or zero interest rates. In this study, access to unsecured and/or secured loans was used as a proxy for credit access.
- Access to savings This is the provision of deposit account services by financial institutions where members of SHGs can securely remit their share contributions as a common pool to build their capital. Thus, ownership of the deposit account and ease of access was used as proxies.
- Financial educationThis refers to the provision of financial literacy to create
and/or enhance financial awareness and knowledge of
SHG members to help them to make better financial
decisions and practices. Therefore, participation in
literacy programs proxied financial education.
- Financial inclusionThis is the provision of affordable access to and use of a
variety of financial products and services irrespective of
income level. The proxy for financial inclusion is the
affordability of credit, availability of deposit services,
and provision of financial education.

- Money transfer services These are services offered by financial institutions to enable SHGs to transfer money electronically typically via mobile phone but also through electronic funds transfer. Thus, proxies for money transfer services are mobile transfers and bank transfers.
- Performance This refers to the financial and non-financial achievements or growth of the group as indicated by the extent to which members can together mobilize savings, attract and take advantage of bank loans and develop a working policy for lending to their members for use and ness purposes and loan recovery. Self Help Group's portfolio quality and outreach was used as performance proxies.
- Self-help groupsThese are groups of people who share certain common
characteristics coming together to voluntarily pool
together their financial resources regularly, which are
then saved in a common pool. The money is then used
to acquire collateral free loans as deemed by the group.
- **Ready Access**This refers to the ease of accessing credit or financial
resources from a financial institution.
- **Fixed deposits** This is the provision where the client do not have direct and immediate access to the funds they have deposited in a bank

Unsecured loans	These are credit facilities and funds that requires a
	collateral to be given to client. The collateral for securing the loan include a title deed or a log book.
Mobile transfer	This is the process of sending and receiving funds through mobile transactions
Budget training	The process of educating individuals or groups on how to create, manage, and stick to a budget effectively.
Financial literacy training	Educational process of providing individuals with the knowledge, skills, and tools necessary to make informed and effective financial decisions.

ABSTRACT

Self-help groups contribute to society through economic empowerment and social participation of the underprivileged. However, the lack of financial inclusion hinders them from achieving their objectives. The general objective of the study was to establish the influence of financial inclusion on the performance of self-help groups in Kenya. The specific objectives were: to investigate the influence of access to savings products on the performance of self-help groups in Kenya; to determine the influence of access to credit facilities on the performance of self-help groups in Kenya; to establish the influence of access to money transfer services on the performance of self-help groups in Kenya and to evaluate the influence of financial education services on the performance of self-help groups in Kenya. Descriptive research design was used. The population were all self-help groups in Kenya while the sample frame was one hundred and six self-help groups. A sample size of eighty-four self-help groups was used. A stratified sampling technique was used to select the self-help groups to be included in the sample. Data was collected from group chairpersons using a structured questionnaire. Inferential analysis techniques such as correlation analysis and regression modeling were used to establish the relationships between the study variables and to test the hypotheses. The theory framework used in the study utilized the three theories of the theory of financial intermediation, the actor-network theory, and the social learning theory. Results evidenced positive contribution of financial inclusion on performance of self-help groups in Kenya. Firstly, it emerged that financial education was the most significant component of financial inclusion, followed by access to savings, then access to credit and least contributing factor was access to money transfer services. The study revealed that 46.2 % of variations in performance of self-help groups was influenced by changes in access to savings products, access to credit facilities, access to money transfer services and access to financial education services. Accordingly, the study recommends self-help groups to engage in educating members as this has potential of improving their financial literary levels that positively enhances the performance of the self helps groups. More surveys can be done in all counties in Kenya in order to gather more information on self-help group's performance as a function of financial inclusion components.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Financial inclusion is a subject of ongoing relevance across the globe due to its perceived contribution to the economic growth and development of a nation (Ardic, Heimann, & Mylenko, 2011). It draws both the unbanked and under-banked populace into the financial system to participate in the production of goods and services towards economic growth through favorable financial services and opportunities (Bhatia & Singh, 2019). Given the apparent benefits of financial inclusion, governments and non-government institutions have been actively promoting financial inclusion as a tool for poverty alleviation and a vehicle for improving the quality of life for people at the bottom of the socioeconomic pyramid (Kamal et al., 2021).

Bank International Settlement (2015) further notes that financial inclusion helps in poverty reduction and prov provides a means through which they can protect their income, stabilize their consumption/ investment and expand their saving capacity through the provision of adequate finance products. Financial inclusion stabilizes the financial system of an economy through balanced growth by spurring financial thrift and investment in population segments where there are deficits (Teka et al., 2020). Empirical evidence also suggests that through financial inclusion, income per capita increases while the socioeconomic inequality within a nation significantly gets narrowed (Kanga et al., 2021; Omar & Inaba, 2020).

Widespread access to finance is thus considered one of the effective ways of stimulating investment and growth ((Aduda & Kalunda, 2012; Dubus & Van Hove, 2017) and facilitating fair wealth distribution (Mwangi, 2017).Various policies, models, and strategies of financial inclusion have been tested and tried, and no one-size-fits-all solution has been discovered. As a result, proponents of financial inclusion continue to develop and experiment with new models. As knowledge increases and technology advances, new approaches to reaching the unbanked populations have been innovated (European Investment Bank, 2016; Patwardhan et al., 2018). For instance, traditional microfinance has been expanded through the digital space that has opened new channels of financial service delivery through, among others, the exploitation of the potential inherent in mobile telephony (Beck, 2020). Several models are also being experimented with to safeguard the financial system from moral hazards and adverse selection problems associated with financial inclusion initiatives (Mhlanga, 2021).

Self-help groups, which have been popularized in the third-world, have become popular vehicles of economic empowerment and participation of the hitherto financially excluded populations in the organized financial system and economy (Narang, 2012). The idea behind self-help group is centered on the idea of pooling resources to achieve a common goal. People often come together to form self-help groups to improve their economic well-being this, there has been a corresponding interest in financial intermediation to nurture their potential (Mehta, Mishra, & Singh, 2011).

Historically, self-help groups have been used as the main channel through which the unbanked and under-banked populations get access to financial services that meet their needs (Shetty & Pinto, 2015). Financial service providers thus have an interest in how self-help groups perform.

High performing self-help groups are an asset to financial service providers since they contribute to the realization of financial intermediation goals. On the other hand, a high prevalence of un-performing or underperforming self-help groups is a concern to financial service providers because of the economic resources that are incurred in meeting their needs (Lotto, 2018).

Self-help groups are predominantly established to assist members in meeting their needs in respect to social needs. In essence, self-help groups are not only formed to achieve some economic goals but are also formed to address some common problems that people face (Nandini & Sudha, 2016). For instance, people can establish self-help groups to address insecurity in their neighborhood. At the same time, the basic structure of self-help groups is based on the concept of mutual interests and free will in respect to joining and leaving. The binding block of self-help groups is existence of common interests that can be diverse. For example, where people are unable to access credit from lenders, they join hands and establish self-help groups which they use as platforms for savings mobilizations which in the end assist in poverty eradication and human development. As such, self-help groups are essential vehicles that steer communities forward due to their key roles in development and social progress (Yntiso, 2015).

Around the globe, self-help groups are attributed to be crucial drivers of poverty eradication considering that they bring people together to advance their plight, most in economic and social development. Moreover, self-help groups are known to offer solutions to problems that face communities. In their formation, the entities lead to cohesion among the thereby improving social ties, are used as platforms for training and more importantly are important components of financial inclusion (Roy & Biswas, 2016).

Self-help groups are essential drivers of spread of micro-credit market considering that they are formed to among other reasons improve the economic welfare of the members. At the same time, self-help groups are fundamental in offering communities with skills and capacity to improve their welfare. In essence, self-help groups provide support to people in disadvantaged classes such as youths and women and this improves their welfare (Yntiso, 2015).

This chapter discusses background information of financial inclusion and performance. The constituent parts of financial inclusion are then presented in relative to financial and non-financial measures of SHGs. The statement of the problem is also stated, in addition to the objectives of the study and research questions of the study. The chapter lastly gives preview of how the remaining part of the study is organized.

1.1.1 Financial Inclusion

Financial inclusion can be described as the degree to which people are able to access affordable and utilize various financial products and services regardless of their economic class (Mugo & Kalonzo, 2017). The dimensions of financial inclusions encompass savings, credit, money transfer services and related education that are made universally accessible. The dimensions enable everyone to partake in an organized financial system in a responsible and sustainable way (Abel et al., 2018; Hamada, 2010; Dubus & Van Hove, 2017).

The factors that are related to the financial inclusion significantly affect the performance of the self-help groups. Access to savings, loans, and financial education has a significant influence on the performance of the self-help groups, as determined by how well the members are able pay and service their loans.

The success of the self-help groups and the reputation in the society tend to attract more members, which is also an essential measure of the performance and the success of these self-help groups. Saving is the act of keeping and/or accumulating money in an account over a short, medium or long period of time for future use (Dubus & Van Hove, 2019). Financial inclusion initiatives stimulate savings through incentives to SHGs that mobilizes pooling of funds into a savings account (Barajas et al., 2020).

Among the incentives include creating savings opportunities, eliminating savings costs, provision of interest-generating savings products, channeling grants through savings accounts, among others (Omar & Inaba, 2020). Financial inclusion through savings is typically measured by the ratio of individuals with money stored in a savings account to the total number of people in the group (Wiedrich et al., 2017). Demirgul-Kunt, Klapper & Singer (2017) observe that for financial inclusion commences when one opens a bank account and/or has a mobile phone through which they can either receive money or receive payment. Financial inclusion is especially made easier because of the innovations which have taken place over a couple of years. This in turn has significantly not only reduced the cost of transaction, but also improved privacy and control and traction data (Innovation for Poverty Action, 2017). Again, since financial transactions can be safely be done through mobile phones, there has been transport cost to financial institutions have significantly reduced. The opening of account by SHG paves way for engagement with financial institutions and

other government agencies. The SHG is able to access various savings account products and pass on the benefits to members. Through SHG, members are therefore able to build a saving culture which Cull, Ehrbeck & Holle (2014) asserts helps households to manage cash flow spikes and smoothen consumptions and help in building capital.

Aduda and Kalunda (2012) add that SHG is avenue through the government and its institutions are able to channel social protection services like health and calamity insurance to the vulnerable. Financial inclusion enables the poor and vulnerable to acquire credit which they have otherwise been able to (Mwangi, 2017). Microfinance and other finance agencies are able to leverage on technology to advance cheap loans at low interest rates. The financial history of the lender can easily to acquire financial history through mobile money transfer service. For example, a businesswoman borrows some money to buy vegetables for resale in the morning and returns the money to the lender before the end of the day. The aim of financial inclusion through formal credit dimension is to lower information cost and cost of credit so as to spur productivity and investment (Qamruzzaman & Wei, 2019).

Access to credit facilities can encourage asset investment thus enabling SHGs to grow their financial muscle. Additionally, more credit means that borrowers have better liquidity and with it, are able to pursue investment opportunities (Aduda &Kalunda). This means that the SHGs can enjoy the advantage of capital accumulation and economic growth. The deal is sweetened when lending institutions give a two-month grace period before they begin paying the loan, since this gives them a chance to further diversify their inventory, invest in durable assets and realize higher profit accrued during the two-month mortarium (Cull, Ehrbeck, & Holle 2014). Women are more active as far as formation and the management of SHGs is concerned. Self-help groups when supported by microcredit provide a fertile ground for empowering women economically, creating a ripple effect on other members of the community.

Women in the third world countries are known to be economically vulnerable. SHGs provides an avenue for wealth creation and for the economically vulnerable by facilitating financial mobility, setting women free from poverty, empowering and emboldening them to acquire assets (Deka, 2015).

Another feature of financial inclusion is money transfer which is the facilitation of movement of money from one person to another, typically through a current account but sometimes also through a checking account (Ahodode et al., 2020). Electronic funds transfer, which is the direct debit and credit (account-to-account) represents one of the ways through which this takes place (World Bank Group, 2016). Many financial inclusion initiatives require beneficiaries to maintain a checking account through which transfer payment disbursements can be made (Riley & Kulathunga, 2017).

Money transfer services, a recent innovation, has democratized the financial sector, making easy for the unbanked poor to access financial services without the need for break and mortar banking halls. Since its innovation, it has become central in the delivery of financial products and services (Innovation for Poverty Action, 2017). Digital payment has made it easier and convenient to make and receive payment. The cost of digital payment is lower and at the same time faster; previously, rural peasants were forced to travel long distance to access financial institutions, money transfer services, remittance or money from the government (Demirguk-Kunt, Klapper, & Singer, 2017).

Financial inclusion can also be gauged by the improved economic wellbeing of the users of the financial products or service (Aduda & Kalunda, 2012). From impact perspective, financial inclusion is seen to promote the establishment of a more effective financial system to create equal opportunities so that those who are otherwise excluded are effectively integrated into the economy Vasantha et al., 2015). The goal behind financial inclusion is to enable all members of society and especially people with limited earnings and/or savings to seize opportunity for growth and economic development (Vasantha, Paveethiraa, & Nagar, 2015).

This is anchored on empirical studies which has shown that the more people participate in the financial system, they increase their ability to manage risks, undertake investments and engage in income generating activities (Innovation for Poverty Action, 2017). The relationship between financial education and performance is implied in the established correlation between financial literacy and financial inclusion (Lotto, 2018). Financial literacy consists of awareness, knowledge, skills, attitudes and behaviors that are necessary to make financial decisions (Gammage, Kes, Winograd, Sultana, Hiller, & Bourgault, 2017). Mwangi (2017) avers it is important to facilitate financial training for borrowers to make prudent financial decisions and gain helpful financial discipline. Financial training may also help

reducing incidents of financial exclusion. Further, such trainings make individuals appreciate the essence of how to access finance, the optimal capital structures, finance management as well as business skills that would create an avenue for sustainable financial inclusion.

The benefits of financial literacy is obvious; financial literate persons are able to understand and evaluate financial products which include account statements, credit and loan products, payment options, investment portfolio and insurance products. Conversely, empirical studies affirms that people with limited financial literacy are likely to have challenges managing debts, having a savings plan and may have challenges planning for their future(Wachira & Kihiu, 2012). From a benefits angle, financial inclusion is expressed in terms of availability, access, quality, affordability and degree of use of financial services (Barajas et al., 2020). According to Singh and Roy (2015), the features of availability of financial services are timeliness and adequacy, meaning that for financial inclusion to be useful, it should be provided when needed and, in the quantity, needed by the underserved population.

Financial access has to do with the ability of a person to access financial services products from recognized financial institutions (Aduda & Kalunda 2012). Affordability aspect is concerned with the cost of financial product or service and the flexibility of terms of use (Riley & Kulathunga, 2017). According to Aduda and Kalunda (2012), financial inclusion should aim to a complete understanding of financial products, thus enriching the depth of financial service and usage. This means

that in addition to availability and access, financial inclusion is not achieved without use, signifying the active involvement of the target population for any financial inclusion initiative (Ozili, 2020). This is because the choice to utilize formal financial services when availed rests with the prospective consumer (Villarreal, 2017).

Financial inclusion is also evaluated by the positive changes in the life individuals and which can be attributed to the utilization of financial service (Aduda & Kalunda, 2012). From an impact perspective, financial inclusion is seen to promote the establishment of a more effective financial system to create equal opportunities so that those who are otherwise excluded are effectively integrated into the economy Vasantha et al., 2015). The goal behind financial inclusion is to enable all members of society and especially people with limited earnings and/or savings to seize opportunity for growth and economic development (Vasantha, Paveethiraa, & Nagar, 2015). This is anchored on studies which have attested to the fact that people who participate in financial system easily, manage risks, are able to make investment decisions and engage in entrepreneurial activities (Innovation for Poverty Action, 2017).

Interest in financial inclusion emerges against the backdrop of a large population that remains outside organized financial system: research shows that at the global level, 56 percent of adults are unbanked (Ardic, Heimann, & Mylenko, 2011; Patwardhan, Singleton, & Schmitz, 2018). This translates to approximately 2.7 billion people (Aduda & Kalunda, 2012). Furthermore, over 50 percent of the adult population who are extremely poor are financially excluded (Mugo & Kilonzo, 2017). Of this, Africa accounts for the highest proportion of the unbanked (Ardic et al, 2011). As a result, thrice as many adults borrowed from family and friends rather than from financial institutions (Demirguk-Kunt, Klapper, & Singer, 2017). As a result, many countries in Africa such as Zimbabwe have demonstrated commitment to financial inclusion through various policies and programs targeting the financially excluded (Abel, Mutandwa, & Le Roux, 2018).

According to European Investment Bank (2016), a digital financial service is seen to drive financial inclusion in Kenya and the wider East Africa region through mobile banking. With 11% mobile bank account, Sub-Sahara Africa boost the highest number of holders of mobile bank account. Mobile money transfer has eliminated the need to travel long distance to access financial institutions. Moreover, mobile money transfer has helped to integrate unbanked rural populations and people leaving in informal settlement into the financial system, especially in East Africa. For example, in Rwanda, 89 % of the population had access to financial access in 2016, compared to 75 % in 2012. Digital money transfer services have made it easy, safe and efficient transact business at comfort of the offices. Moreover, compared to banking in brick and mortar halls, digital money transaction is cheaper since the cost of travel to banking halls is eliminated.

Consequently, people have more disposal income, and phones have become secure banking facility, especially for those working in the informal sector. With mobile money, it is easy for the poor to save money through savings and credit cooperative societies, which in turn has accelerated financial inclusion. In Kenya, financial inclusion has been spurred through the licensing of microfinance banks which, according to Mugo and Kalonzo (2017) had a loan portfolio of nearly 50 billion. According Aduda& Kalunda (2012), the Kenyan financial sector includes of the banking sector, microfinance institutions (MFIs), Savings and Credit Cooperatives (SACCOs), mobile money transfer services. Others include the informal financial services sector comprising of Rotating Savings and Credit Associations (ROSCAs) and Accumulating Savings and Credit Associations (ASCAs).

In terms of financial inclusion, Patwardhan, Singleton, & Schmitz (2018) avers that 80% of Kenyans either owns a bank account or mobile money transfer services like MPESA. Equity Bank also opened up the banking for the unbanked and underbanked in East Africa (Allen, Carletti, Cull, Qian, Senbet, & Valenzuela, 2012). Despite this impressive growth in recent decades in the history of banking in Kenya, it has been observed that financial access in Kenya is still inadequate as credit facilities is still skewed in favor of the high-income populations (Aduda & Kalunda, 2012). A study undertaken by Dubas (2016) in western Kenya suggests that financial inclusion is not just about creating access to savings products for instance, but demonstrating the value addition in operating the savings account. Further, a recent report revealed that only 7.6 per cent of Kenyans have never saved on an M-PESA account (Dubus & Hove, 2017). In view of this Dubas & Hove (2017) says a concerted effort needs to be made in in improving the reliability of the quality of the financial services offered.

Dubas (2016) add that financial inclusivity may not be simply achieved by reducing monetary or time cost. Skills development is one of the financial inclusions benefits that individuals derive from being members of self-help groups. When the individuals organize themselves into self-help groups, they become attractive targets for training programs such as entrepreneurship and financial literacy training organized by governments, financial institutions and non-governmental organizations providing such interventions (Mwangi, 2017).

Awareness creation is another financial inclusion service offered to self-help groups. This is based on the notion that information is power. Self-help groups provides convenient forums for information dissemination for various stakeholder groups interested in the welfare and development of communities (Roy & Biswas, 2016). Through self-help groups, members get aware of the various financial products and services available, government services, opportunities and programs that they can utilize. Self-help groups also create markets for companies because of their numbers (Rathore & Garg, 2013).

Financial inclusion through self-help groups also facilitate the participation of the unbanked population in the financial system by acting as deposit taking institutions and extending microloans to members (Shetty & Pinto, 2015). Thus, they undertake financial intermediation by taking money from members who wish to save and extending credit to members who wish to borrow (Demirguc-Kunt, Klapper, & Singer, 2017; Uma & Rupa, 2013). As a result, self-help groups are catalysts for financial inclusion, and this is one of the reasons why they attract a lot of interest from financial inclusion actors in the fight against poverty (Sarania & Maiti, 2014).

1.1.2 Performance of Self-Help Groups

Within the context of SHGs, Reddy and Reddy (2012) define performance as the financial and non-financial achievements or growth of the group as indicated by the

extent to which the SHGs can mobilize savings from members, leverage bank loans and build group corpus with the objective of lending to their members for investment purposes. The indicators of SHG performance used by the scholars include leverage, repayment rate and profitability.

Some scholars measure performance of SHGs in terms of financial thrift (Allen, Carletti, Cull, Qian, Senbet & Valenzuela, 2012; Cull, Ehrbeck, & Holle, 2014; Shetty & Pinto, 2015). Others use loan repayment rates (Hamada, 2010). Others measure SHG performance using indicators such as the borrowed amount, the growth in business assets, additional employment created and sales turnover generated (Duvendack, Palmer-Jones, Copestake, Hooper, Loke, & Rao, 2011). However, Dovendack et al. (2011) asserts the above measurement matrices mean nothing unless there is touchable growth in profit, increase in household income, and expansion of expenditure.

In this study, SHG performance was expressed in terms of changes in savings, credit repayments and dividend payments. Further, loan repayment among members was used to proxy performance as an improvement depicted good performance. Performance of self-help groups boosts the survival chances, while at the same time ensures that the groups grow to exhibit financial stability. In essence, the overall performance of self-help groups is better measured using the combination of both financial and non-financial aspects as done in this study.

1.1.3 Self-Help Groups

Self-Help Groups (SHGs) can be defined as small groups of people who share have the same economic characteristics and who voluntarily agree to belong to the group and save a certain amount of money regularly. The money is then saved in a common pool fund to provide collateral-free loans by the group (Thangamani & Muthuselvi, 2013). Their primary aim should be leverage on their collective financial and human resources to improve their living standard (Roy & Biswas, 2016).

According to Rav (2014), the principles of SHGs include: voluntary formation, mutual help as a basis for formation, homogeneity of the group, regular interaction among group members, independent decision making by the group and management of its affairs, affinity as the force behind group formation, participation of all members through the process, cooperation and discussion as cornerstone of group functioning, and diminishing return on group effectiveness beyond a certain size of membership, typically 20 members.

Empirical studies suggest that SHGs are effective vehicles for economic empowerment and growth (Nandini & Sudha, 2016). A study done in Ethiopia indicated that the advantages of taking loans from SHGs as opposed to banks or MFIs were multiple: no collateral requirements, low interest rates, fast disbursement, nonbureaucratic procedures and flexibility in repayments (Yntiso, 2015). Therefore, SHGs have become one of the targets of financial inclusion to which financial products have been tailored in the developing world. This is especially pronounced in the rural areas which host the greatest bulk of the financially excluded population.

Self-help groups are popular vehicles for poverty eradication and economic development of a country (Nandini & Sudha, 2016). They offer a variety of products and services to their members. Most SHGs facilitate skill development and awareness creation, provision of mechanism for participation in the financial system, undertaking of income generating projects, inculcation of thrift and management of

credit for the unbanked populations (Thangamani & Muthuselvi, 2013). The important contribution that SHGs make to economic growth is reflected in the high investment that governments, non-governmental organizations and microfinance institutions make on them.

They are seen to promote savings and economic activity, thus contributing to employment creation and income generation. If properly nurtured, empowered and developed, SHGs can transform in to large organizations that not only promote the local economy, but make major positive contribution to the fight against poverty. However, most SHGs grapple with a myriad of challenges, most notably, enforcing group discipline and financial risk exposures to members: a small reduction in the quality of their loan portfolio can adversely affect their performance (Srinivasan, 2003). This study explored financial inclusion in Kenya.

1.2 Statement of the Problem

Self-help groups are important to the social-economic wellbeing of the society, by helping members in pooling their financial resources. However, lack of financial inclusion potentially hinders them from achieving their objectives, with empirical evidence suggesting that limited accessibility of factors of production including financial capital constrained the performance of SHGs (Mutua & Juster, 2021). The implication of this is that outreach performance in terms of the number and frequency of loans granted to members is curtailed (Nichols, 2021). This also stifles the growth in portfolio size and quality (Mutua & Juster, 2021). Financial inclusion is only useful if used to help people to improve their economic wellbeing (Patwardhan et al., 2018). This means that various interventions targeting SHGs should reflect in their performance and growth. However, while theory suggests that financial inclusion

should translate into expanded investment, the evidence on the impact of financial inclusion such as provision of microcredit on recipients is mixed and yields modest, if any positive effects (Demirguk-Kunt et al., 2017). For instance, a study in Ghana undertaken by Apiors and Suzuki (2018) revealed that financial inclusion spurred investment in micro businesses, land and buildings.

In contrast, recent evidence from India suggest that financial inclusion has detrimental effects on targeted groups, thereby exposing them to further social and environmental vulnerabilities (Banerjee & Jackson, 2017). Empirical studies have raised the question of whether the objectives of financial inclusion intended by such products and services are achieved. Aduda and Kulunda (2012) suggest that more studies need to be undertaken to measure the impact of financial inclusion in Kenya as past studies have revealed different results. However, there are limited documented studies that have responded to this call for research within the context of self-help groups. Outside the country, Mehta, Mishna, & Singh, (2011) also note are very few studies on SHGs, particularly on issues related to their performance and sustainability.

In our local setting, Onyango (2011) examined the role played by microfinance institutions in the growth of small enterprises in Gikomba Market. Onyango (2011) investigated financial inclusion indicators such as access to credit, savings and financial education. However, the study does not implicitly state that the study was conducted among enterprises owned by SHGs. This study therefore sought to fill the knowledge gap on the impact of financial inclusion dimensions such as savings, credit, money transfer and financial education on self-help groups by focusing on self-help groups in Kenya.

1.3 Objectives of the study

1.3.1 General Objective of the Study

The main objective of the study was to establish the effect of financial inclusion on the performance of self-help groups in Kenya.

1.3.2 Specific Objectives of the Study

- i. To examine the effect of access to savings products on the performance of self-help groups in Kenya.
- To determine the effect of access to credit facilities on the performance of self-help groups in Kenya.
- To establish the effect of access to money transfer services on the performance of self-help groups in Kenya.
- iv. To evaluate the effect of financial education services on the performance of self-help groups in Kenya.

1.4 Hypothesis of the study

- H₀₁. There is no effect of access to savings products on the performance of self-help groups in Kenya.
- H_{02} . There is no effect of access to credit facilities on the performance of self-help groups in Kenya.

 H_{03} . There is no effect of access to money transfer services on the performance of self-help groups in Kenya.

 H_{04} . There is no significant effect of financial education services on the performance

of self-help groups in Kenya.

1.5 Significance of the Study

This study is beneficial to a number of stakeholders. The study can be used by financial institutions as an evidence base upon which to develop policies and programs that not only deepen financial inclusion but contribute to performance and growth of SHGs under their program. The report can also be used by the leadership and membership of SHGs to evaluate the value addition that financial intermediaries contribute to their economic performance at an individual and group level.

Regulatory authorities can also draw from insights revealed from the study to come up with financial intermediation laws that better fosters the growth and development of SHGs as important stakeholders in the fight against poverty. Last but not least, researchers and academicians interested in advancing studies on the relationship between financial inclusion and SHG performance may use the study as a reference material.

1.6 Scope of the Study

Performance of SHGs was determined in several facets such as dividend payouts, stability and outreach success. Although financial inclusion has many facets, the scope of the study entailed the facets of access to savings, access to credit, access to money transfer services and access to financial education. The study was undertaken between April to September 2022 and considered Self-help group operations that have existed for more than one year since their formation.

1.7 Limitations of the Study

This study may be constrained by a few factors. Firstly, language barrier may be a problem because the instrument to be used for data collection is in the English language which some respondents may not be conversant with. This challenge was mitigated by employing research assistants who are conversant with the local language in order to facilitate communication during data collection. Some SHGs may have poor record keeping, and this may make it difficult to get accurate performance data from the SGHs. This lengthened the data collection process, which meant that

more time was needed to complete the work. Others entities declined to participate in the study due to confidentiality concerns.

1.8 Organization of the Study

This chapter has presented a background overview of the study and discussed the study variables as well as operationalized the key terms. The chapter has also stated the problem and outlined both the specific objectives and the study questions. Similarly, it has explained the importance of the study and described the scope and limitations. The rest of the project is organized as follows;

Chapter two reviewed the existing theoretical and empirical literature in order to consider what is already known about financial inclusion and SHG performance. Literature gaps was discussed and how the present study filled the gaps is explained. The chapter further provided a conceptual framework that acted as a conceptual map for undertaking the study.

Chapter three described the methodology to be applied. This entailed the choice and justification of elements such as research design, population and sampling design, sampling technique to be used and data collection methods. The chapter also detailed the data analysis plan and the ethical procedures to be followed.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter gives appraisals present literature on financial inclusion and performance of self-help groups. The review of literature has two major parts, section one discusses theories on financial inclusion with the concept of SHGs in perspective. The second section navigates through past studies with the intent of establishing research gaps. A synthesis of the literature follows and culminates to a conceptual framework that guided variable conceptualization.

2.2 Theoretical Review

This subsection discusses the various theories underpinning the study. Specifically, three theories are reviewed. These are: the theory of Financial Intermediation, Actornetwork Theory and Social Learning Theory.

2.2.1 Theory of Financial Intermediation

Financial intermediation theory exists to explain the reason why banks, as financial intermediaries, exist (Bongomin et al., 2017). According to this theory, banks undertake three main functions: to provide liquidity, transform assets and reduce the bridge information gap between lenders and borrowers (Julia, 2018). The three functions have been found to be components of financial inclusion in emerging economies (Bongomin et al., 2017). This theory assumes that the development of financial intermediaries has influenced on the development of financial markets and which lead economic development (John & Nwekemezie, 2019). The main concept underpinning these links is that savings precede investments and as such, need to be mobilized first (Werner, 2016).

In this theory, the main percepts is pegged on existence of imperfect or asymmetrical information. Due to this phenomenon, financial intermediaries sprout in order to achieve the needs of both savers and borrowers (Ratnawati, 2020). In terms of its operationalization in addressing financial markets influx, this theory is postulated in consideration of three pertinent issues. Foremost, the theory depict that due to imperfect information possession among entities or individuals in the market, there arises market problems. These market problems are tend to inflate transaction costs for transactions that bring savers and borrowers into the same platform. Moreover, the issue of regulations came into being as the financial intermediation is regulated by the state to avoid over exploitation of parties in the market (Olena & Verdier, 2018). For example, banks in as much as entities solely established to earn profits, the government regulates them to ensure that customers are not subdued in the process.

During financial intermediation, entities in the financial markets are able to pool funds from savers and issue the same funds in form of loans to borrowers. In essence, the lenders act as coalitions of lenders and through this economies of scale, borrowers are able to access credit affordably (Bavoso, 2022). In the event that this does not happen, borrowing becomes expensive and untenable due to long process and transaction costs involved. Moreover, this theory presents a good argument on the mechanisms through which financial markets operate (Boda & Zimkova, 2018). For instance, due to information problems, bank lend based on information lending that include asset base lending, financial statements and credit rating and relationship lending.
In this aspect, financial intermediation is made practical through provision of certain minimum information required by lenders from the borrowers. Without these processes, financial intermediation is flawed and prone to errors thus hampering the development of financial markets (Adeniyi, Adeyinka, & Babayaro, 2019; Drissi & Angade, 2019). The utility of this theory is immense in that the financial inclusion of hitherto financially excluded populations through extending credit and training to selfhelp groups potentially lead to better performance of the groups which in turn, spurs the development of financial markets. Moreover, the theory presents subtle discussion on how savers and borrowers are linked through intermediaries. Intermediaries exist to bridge the market imperfections presented by in usual markets. In essence, this theory relevantly relates to the whole idea of financial inclusion at least two facets. Firstly, the theory indicates that financial intermediaries exist to counter imperfections between savers and borrowers. Secondly, this theory underpins financial intermediaries are present and exist in most economies. In this study, the broad objective aims at examining role of financial inclusion on financial outcomes of SHGs.

2.2.2 Actor- Network Theory

This theory is premised on the facet that change is considered a function of associations between different entities in a network (Ozuem, Silvia, Willis, Serena, & Howell, 2021; Matthews, 2021; Stalph, 2019). This theory has been used more profoundly to elucidate on how technology shapes social outcomes and processes. This theory indicates that there are no externalities influencing social processes, but social processes are as a result of interaction by forces within the society. The theory

further envisages that actors are not isolated to human forms (Adaba & Ayoung, 2017).

These actors act in a social process to influence how people adopt new things from within themselves. More importantly, ANT theory indicates that all actors do no originate externally but all internally found in the society and therefore are social parameters that shape social interactions. Moreover, the theory considers change as a result of interactions and not from outside environment (Kadia, 2019). Actor-network theory posits that an introduction of an actor in a network causes disturbances in the entire system. In essence, a new actor causes changes in the entire organisation, community, country or system (Macleod, Cameron, Rola, Jonathan, & Kits, 2019). It thus indicates that social systems are networks that are formed by inter-connected actors, both human and non-human. At the same time, there are intermediaries that exist in the network whose role is to transmit new technologies.

This theory too deciphers spread of technologies in local networks and also in broad spectrums (Labelle & Aka, 2021). It offers a holistic explanation on what causes adoption of new ideas in a social system. Whilst, it has fundamental postulates that aid in understanding what shapes social processes, the theory has a few cons. Firstly, it lays more emphasis on non-human components in the social process of change without considering that some changes are purely human made (Sage, Vitry, & Dainty, 2019). Again, the theory indicates that there is external force in social associations and thus attributes changes to internal aspects. Secondly, the theory does not envision human interactions as functions of conscious and intentional actions. This means that it may not be applicable in understanding new technologies, changes,

behaviors or conditions that are caused by intentional doings of actors (Wang & Selina, 2018).

Adoption of this theory in this study is pegged on the reason that the theory is fundamental in explaining reception of technology in a given society. This inquiry seeks to examine role of money transfer services on results of SHGs. Money transfer services is an emergent concept that has become common in Kenya. In line with the precepts of ANT, it is evident that money transfer services do not exist due to external forces but because, social actors invent them. The theory indicates that associations between actors in a network is crucial in advancing technologies. Hence and in essence, the spread in use of money transfer services among group members emanates from social constructions among the people. It further asserts that actors are enrolled into a network from time to time. This social constructionism aids in understanding how spread in use of money transfer services is adopted by various members of the self-help groups.

2.2.3 Social Learning Theory

Bandura (1977) introduced social learning theory to substantiate how new knowledge and behaviors are acquired by members in a societal. The theory articulates that new behavior can be learnt through observation or by imitating others. In essence, this theory stipulates that learning occurs through convergent of cognitive processes in which individuals observe or are made to observe and act in a certain desired manner (Narod & Anwar, 2020). Therefore, leaning in a social context is a function of what is already in the social environment. The theory attributes learning to more effective if there are reinforcements. In this theory, reinforcements are attributes that either foster or prevent an individual from behaving or acting in a certain manner (Koutroubas & Galanakis, 2022). As such, reinforcement can be rewards or punishments that tend to influence conduct of individuals.

Again, the theory depicts learning as means of societal interdependence as people learn from one another in a typical stimulus-response kind of a relationship. Moreover, the theory shows that learning is controlled by the environment and the same environment is influenced by individuals' behaviors. This reciprocal determinism association creates a sound framework of understanding human behavior and knowledge acquisition in different environmental setups (Janet, Danfei, & Melissa, 2020).

Use of social learning theory is wide. For instance, this theory has been adopted in management particularly in employee motivation. It has been used to offer insights on how behaviors can be instilled in staff either by observation, instructions or by a combination of the two. Again, this theory depicts that vicarious experience is subtle in learning which largely entails observing others and being in their physiological states (Koutroubas & Galanakis , 2022). Social learning theory crucially identifies that learning does not solely happens as there must be the intention to observe or imitate others. Understanding this is instrumental in that it helps in creation of a typical model for identification of the learning process. Moreover, social learning theory suitably explains behavioral change for an individual in different environments. The theory indicates that learning emanates from cues in the environment and thus behaviors change can be explained by looking at the change in the environment (Smith, 2021).

In spite of social learning theory having pros, it has a few limitations that may compromise its adoption. Foremost, the theory alienates the kind of learning that is solely and purely acquired by thoughts and feelings. Instead, social learning theory draws its inspiration from the idea that learning is a directly attributed to observing or imitating others which are in essence cognitive aspects (Yilmaz, Ugur, & Ece, 2019).

Learning too can occur through thinking and feelings which in turn can control individual actions or behaviors. Secondly, the theory posits that a change in environmental condition may lead to a change in behavior of an individuals which is not always bound to happen. For instance, individuals do not necessarily portray violence because violence has erupted in the environment. In addition, social learning theory substantially evades the aspect of biological factors in the process of learning. For example, hormones and genetics are known to play a role in learning process. Lastly, this theory negates other natural happens such as behavior change when a child becomes an adult and also does not envision a situation where a person in isolation and there is no one to observe or copy to learn from (Tekleab, Reagan, Boram, Levi, & Lichman, 2021).

Social learning theory has been adopted in this theory essentially because it offers good understanding of the fourth variable: financial education. Considering that selfhelp groups are entities formed by societal members with common interests, the members are likely to learn from each other. Social learning theory idealises that learning is embedded in the capacity of individuals in observing or imitating others. Thus, members in a self-help group are likely to acquire financial skills by learning from peers in the groups. Thus, observational learning can be used to enhance financial literacy among group members. With this information, the theory provides a valuable premise of linking learning and financial education and how financial education impacts on wellness of self-help groups in Kenya.

2.3 Empirical Review

2.3.1 Access to Savings Products and Performance of SHGs

Rupnawar and Upadhye (2015) studied and analyzed various activities of SHGs towards women empowerment and the impacts of SHG activities in Karjat Taluka Raigad Maharashtra, India. The global mission was to link between financial inclusion through savings access and SHG performance. The findings showed that financial inclusion constituents, that is, access to savings, the women were economically independent and contributed to increase their household income. The study concluded that SHGs promoted savings, enabling them to easily qualify for loan from financial inclusion through SHGs. The research however did not explore the performance of the SHGs in terms of portfolio quality. Furthermore, the study was conducted in India which enjoys a relatively well-established financial inclusion environment owing to its rich history of SHGs and microfinance institutions. The present research investigated whether similar performance results would be obtained among SHGs in Kenya.

Shetty and Pinto (2015) did a study on financial inclusion through SHG bank networks in Karnataka State in India. The specific objective was to establish the difference in level of savings before and after spread of access to various components of financial inclusion. Data was collected from seven hundred and sixty six SHGs while hypotheses were tested using non-parametric statistics and tested using Wilcoxon Signed Ranks Test.

The results showed financial inclusion helps in promoting savings and financial thrift before and after SGH-BLP. However, the difference was not statistically significant. The practical importance of financial inclusion thus warranted further empirical enquiry. In the study, financial inclusion was used as the outcome variable.

Rathore and Garg (2013) investigated the role of financial inclusion via SHGs in selected SHGs Yamuna Nagar District in India. The broad goal was to establish facets of financial inclusion with implication on SHG welfare. The study sample was 50 SHGs randomly selected and subjected to unstructured interviews and questionnaires. Emergent themes included lack of capital and limited financial strength. The study concluded that financial inclusion SHGs has become an important vehicle to meet the savings needs financially undernourished individuals, especially women in rural areas. However, financial inclusion was encumbered by a myriad of problems that stifled SHG performance. The study was undertaken in India where financial inclusion through SHGs was pioneered. The methodology applied was qualitative and hence, did not evaluate effect size. In the present research, financial inclusion was conceptualized as access to savings, which was then be tested against SHG performance to establish statistical significance.

Onyango (2011) studied microfinance institutions as vehicles promoting the growth of small business concerns in Gikomba market, Nairobi County. The reviews' main

objective was to investigate how provision of financial access influenced performance. Research instruments were administered to a stratified sample of 72 enterprises with potential linkages to SHGs. Output from descriptive analysis, established that microfinance institutions played a significant role in the growth of SMEs by fostering a savings culture.

The study suggested the expansion of financial access by boosting number of saving account of beneficiaries. The study is of important as it provides a contextually relevant analysis association of financial inclusion and SHG welfare. However, the research was conducted in urban areas and as such, the findings may not be generalized to the rural places. The present study was carried out among SHGs in Kenya.

Allen, Carletti, Cull, Qian, Senbet and Valenzuela (2021) explored financial inclusion as the incubator of SMEs performance. The broad goal was to document evidence on improving access to banking in Kenya. The study which targeted market vendors, most of them women, established that savings account ownership promoted savings culture. The same study also revealed that individual expenditure grew by 38 percent while investments by 60 percent compared to a control group. A typical feature of the market vendors was membership in SHGs as a path to financial inclusion. Conclusion was drawn that financial inclusion was effective through deployment of strategies that targeted the underserved. The research however did not distinguish constituents of financial inclusion in terms of effect size. Furthermore, just like the research by Onyango (2011), their study was also geographically limited to urban centers, hence did not represent the unique constraints of SHGs in rural counties.

2.3.2 Access to Credit Facilities and Performance of SHGs

Clamara, Pena, and Tuesta (2014) investigated cause and effect of financial institutions activities in the welfare of self-help groups. The study applied quantitative methodology whereby correlation analysis through probit models was performed on survey data. Results showed that loan accessibility is an indicator for financial inclusion than saving products. The study concluded that the best predictor of performance was access to credit.

The study recommended for the expansion of access to the financial system. However, the study was conducted in South America and as such, it remains to be seen whether similar results would be generated in the Kenyan SHG context. The current review delved in Kenya to address this knowledge gap.

Uma and Rupa (2013) undertook a case study of SHGs in Mysore District of Karnataka State in India. Their objective was to highlight the role of SHGs in financial inclusion. They achieved this objective by administering questionnaires to a random sample of 300 SHG members. The study used rise in bank accounts, availability of credit and repayment as markers of financial inclusion. Hypotheses were tested using paired sample t-tests. Results showed that initiatives to enhance access to credit to SHGs found that the SHGs were earning income by utilizing the loans for productive purposes. Specifically, a statistically significant difference was found before and after financial inclusion. The study concluded that financial inclusion was positively related to SHG performance. The recommended of SHGs as a vehicle for economic empowerment of financially underserved populations. However, the study did not analyze the relationship between different financial inclusion archetypes and SHG performance in terms of portfolio quality. The present

study addresses this gap in conceptualization of SHG performance using SHGs in the Kenyan context.

Mehta, Mishra, and Singh (2011) studied the role played by Gramudyog Hastakala Kendra, an Indian NGO, in the performance of SHGs. The specific objectives were to study the socioeconomic impact and empowerment of members during the pre and post SHG period. Descriptive research design was used. Questionnaires were administered to 162 members of 10 SHGs. Data analysis was implemented using descriptive statistics.

The study reported a significant rise in savings culture and marginal rise in borrowing although the majority of the members started taking loans from SHGs and banks. However, there was a corresponding steady increase in Non-Performing Assets (NPAs), suggesting that the positive gains of financial inclusion through access to credit did not apply across the board. The study concluded that SHGs are suitable alternative channels of financial inclusion of the underserved and should be strengthened to enhance outreach and effectiveness. The study also established financial inclusion empowered women, reinforcing their behavior thereby building their self-esteem. The study was important because it utilized portfolio quality and measure of SHG performance, thereby entrenching outreach as the а multidimensionality notion of SHG performance. However, the study was conducted in Asia and used NPA as an indicator of performance. The present study was conducted in Kenya with repayment rate being the KPI.

Demirguc-Kunt, Klapper and Singer (2017) reviewed empirical evidence on financial inclusion and inclusive growth around the world and examined the impact of savings, loans and insurance. Literature review methodology was adopted. The study

examined the case of Bosnia and Herzegovina. The findings were mixed, there was evidence of growth of profit even as there was a reduction of savings and consumption suggesting the loans were too small to make impact on the business. The study also suggested that there was growth in income. With this in mind, the study recommended that realization of financial inclusion benefits call for tailoring financial products to the needs of SHG members and innovations that increase the economic viability of small transactions.

However, the study did not draw conclusions from primary research, hence presenting a gap with respect to the current state of affairs. In this study, analysis was based on primary data. Sarania and Maity (2014) delved on role of financial inclusion on rural people's welfare in Assam. The specific objectives were to: to evaluate the impact SHG -bank linkage program had on the advancement of financial inclusion with respect to banking access, thrift, credit utilization and insurance by SHG members in comparison to non-members. The objective end was to propose policy recommendations. They did this by comparing the performance of 90 participants with 90 nonparticipants. The study found that the SHG-Bank linkage helped in improving financial inclusivity among SHG household as compared by the nonparticipating households. The findings showed that the working together of banks and SHGs promoted financial inclusion among participators' households. However, the study did not explore the contribution of financial inclusion to the performance of SHGs as measured by savings and returns, hence the need for this study.

Chetry (2014) examined the role of SHGs in the women empowering under Revenue Circle in Goalpara of Assam in India. The study utilized primary data gathered using a questionnaire administered to 188 members of 47 SHGs who had been members for at least 3 years. The findings established that 83 percent of the participating women were empowered and profited after working together with SHG. This finding signal SHG performance and outreach was directly correlated to financial inclusion. The study recommended the scaling up of financial inclusion through outreach by stimulating the development of more SHGs especially among the poor and disadvantaged women in society.

The study sample was however limited to women-owned SHGs thus presenting a gap in knowledge with respect to male-oriented SHGs. This study addressed this gap by sampling members of SHGs across the gender divide.

Roy and Biswas (2016) in Lataguri region of West Bengal, India aimed to showcase the impact of financial inclusion on the women empowerment through SHGs by highlighting the role HGS play in promoting financial inclusion of women. The study relied on data generated from primary and secondary sources. Primary sources were a stratified sample of 60 members of 12 SHGs in the region. The data collection tool used was questionnaire. The study utilized t-test technique to analyze data. A positive change was reported in terms of improved economic status of the women such as their monthly income, consumption and expenditure. This was indicated by account opening, credit utilization and increased purchasing power. The study recommended the education and awareness creation among women to pool together through new SHG formations and to establish a working partnership between banks and SHGs. The research was useful in the sense that it demonstrated the direct relationship between SHGs and financial inclusion through expansion of outreach. However, the study was carried out among female only SHGs. In the present research, both male and female participants were included in the sample. The research was undertaken in Kenya.

Banerjee (2009) studied the economic impact of SHGs who were beneficiaries of a government program in India. The study surveyed 300 group members of 27 SHGs in West Bengal. The data scope included income, savings and consumption expenditure. Data was analyzed descriptively using measures of central tendencies, dispersions and skewness while inferential analysis was performed using regression analysis to establish the statistical significance between pre- and post-group performance.

Results revealed that intervention improved income generation among members of self-help groups, suggesting that financial access positively influenced growth. The research is useful in highlighting the socioeconomic impact of financial inclusion on group performance. However, the research was conducted in India which has a comparatively well-developed SHG landscape hence not generalizable to the Kenyan context. This presented a gap in knowledge that the present study endeavored to fill.

Banerjee and Jackson (2017) sometime later undertook an ethnographic study on the role microfinance in poverty alleviation in three villages in Bangladesh. The study utilized ethnographic research methodology to make sense of financial inclusion impact through microfinance. Data was administered and collected using in-depth interviews and focus group discussions. The dimensions covered in the data included household consumption, interest rates, and loan provision. Fieldwork was carried out three rural villages of Matlab district in Bangladesh. The study revealed that the villagers' loans borrowed from the microfinance institutions led to more debts, suggesting the villagers were not financially literate. Thus, it is not clear whether financial inclusion through microfinance yields positive gains alone. The study

presented a comprehensive display of audit trail that enhanced the credibility of the research.

However, the utilization of qualitative methods implied that the research results could not be generalized outside the research context. The present study utilized quantitative methodologies to advance research into the impact of financial inclusion on SHG performance using samples drawn from urban areas. Mixed evidence of impact of financial inclusion on performance on SHGs is also reported in the few studies that have been documented in Africa (Demirguk-Kunt, Klapper, & Singer, 2017; Ibor, Offiong, & Mendie, 2017; Yntiso, 2015).

Ibor et al. (2017) investigated financial inclusion and performance of micro, small and medium enterprises in Nigeria. They found that respondents' attribution to growth was in form of better profitability (71.5%), operational efficiency (78.5%) and enhanced customer service (69.25%).

Yntiso (2015) evaluated the nexus between financial inclusion and SHG performance in Ethiopia. The research adopted qualitative methodology based on historical account of lived experience of SHG members. The study established that taking loans was a common practice among SHGs and defaults were rare, if not absent. Further, the frequency and amount of loans increased steadily. The finding suggest that financial inclusion had a positive impact on SHG performance. From these findings, it can be speculated that financial inclusion contributes to better performance of SHGs. However, the study did not distinguish which dimensions of financial inclusion had the greatest explanatory power on SHG performance, hence the need for this study.

Demirguk-Kunt et al. (2017) reviewed financial inclusion practice around the world with a view to analyze the benefits of financial inclusion through various channels including SHGs. The study applied literature review methodology whereby empirical evidence was summarized to generate conclusions. The study established that in Morocco, financial inclusion among the previously unserved communities helped in the growth business dealing with agricultural activities only. Surprisingly, the study found after two years after the introduction of credit, the level of income in the villages had not increased. Further probing revealed that the intended benefits was channeled towards offsetting work ages.

The study however did not demonstrate the relationship between financial inclusion and SHG performance as measured by portfolio growth and outreach. The current research addresses this gap in knowledge by adopting quantitative methods to estimate the predictive power of various aspects of financial inclusion on SHG performance using primary data.

Onyango (2011) studied the role of microfinance institutions in the growth of small and medium enterprises in Gikomba market of Nairobi. The study objective was to assess the predictive power of financial access, financial literacy, savings mobilization and role modelling contributed to SME growth. The study applied descriptive research design and analysed data using quantitative techniques. The study found that the institutions played a vital role in the growth of SMEs through provision of seed capital. The study recommended for more training to enhance the financial literacy of SME owners. This finding signals that the most manifest contribution of financial inclusion through microfinance institutions was credit expansion. However, it was not clear whether the study sample was from members of SHG and thus, deducing performance of SHGs was difficult. In the current research, the study sampled members of SHGs to draw insights into the relationship between financial inclusion and SHG performance.

2.3.3 Access to Money Transfer Services and Performance of SHGs

Demirguk-Kunt et al. (2017) examined role of digital money in performance of organisations. The study found that digital payments also money for businesses. Again, the study also found that digital payment platforms cut the government administrative expenses by 20 percent. The study further observed by shifting payments to digital platforms, it is easier to keep and access data history which can be relied upon to access credit.

Shetty and Pinto (2016) evaluated the role of SHGs in achieving inclusive in India, Mangalore District of Karnataka State from 2006 to 2013 by collecting data from 766 SHG members. It was found that financial inclusion improved the general welfare of the SHGs members and encouraged the push for more financial inclusivity.

Uma and Rupa (2013) analyzed the role of SHGS in financial inclusion and its role on improving life. It was found that there was enormous increase in the number of bank accounts by members from 83 percent from 17 percent. The study revealed financial inclusion improved the life in Mangalore District, India.

2.3.4 Financial Education Services and Performance of SHGs

According to Deka (2015) financial education hence financial inclusion for SHGs. The SHGs are able to understand how the various products can be utilized for their benefit. Financial inclusivity also helps in enhancing decision making, the SHGs are able to compare data from various financial instruments for their utilization. The SHGs are to benefit from the skillset gained from trainings on financial planning and budgeting, budgeting and cashflow management and the benefits of banking. The training also takes care of asset allocation and management to meet financial goals.

As a result, the educated members are able to make correct investment decision, with the attendant possibility of growing their income (Narang, 2012). For instance, a study Roy and Biswas (2016) in Ethiopia revealed that the success of the SHGs depended, in part, on the intensity of training they received.

In Kenya, Wachira and Kihiu (2012) studied the impact of financial literacy on access financial services accessibility. The study found that probability of a financially illiterate person remaining financially excluded is significantly high, thus there is need to support financial education programs to curtail the trend.

Another study was undertaken in Gikomba market, Nairobi, by Onyango (2011) who examined the part played by microfinance institutions in the advancement of small and medium enterprises. The study found that the institutions played a vital role in the growth of SMEs through impartation of financial skills training. However, both studies did not demonstrate the impact of financial education on SHG performance, hence the need for the current study to fill this knowledge gap.

2.4 Critique of Literature Review

Demirguc-Kunt, Klapper and Singer (2017) used content analysed to establish role of financial inclusion on savings, growth and insurance in Bosnia. Use of content analysis limits results to what is already documents. The current study used field data to examine components of financial inclusion on performance of self-help groups in Kenya. Whilst Rupnawar and Upadhye (2015) examined performance of self-help groups in India study was conducted in India which enjoys a relatively wellestablished financial inclusion environment owing to its rich history of SHGs and microfinance institutions. Equally, Shetty and Pinto (2015) investigated role of financial inclusion on savings for self-help groups in India. The study was done out of Sub-Saharan Africa that has under developed financial markets. Rathore and Garg (2013) still focused on welfare of SHGs in India. Evidently, there is a contextual gap that warranted undertaking of the current study.

Clamara, Pena, and Tuesta (2014) examined role of financial inclusions on savings in South America. The study revealed that financial inclusion improved savings and credit movements in the financial markets. However, this did not expressly seek to establish role of financial inclusion on performance of self-help groups as this study seeks to.

Roy and Biswas (2016) focused on role of financial inclusion on economic welfare of women in India. However, the study did not examine financial inclusion in view of its potential role on performance of ventures. Banerjee and Jackson (2017) focused on microfinance financial solutions among rural dwellers in Bangladesh. Whilst the result showed that there is microfinance finance was subtle in improving welfare of rural population, the study did not expressly look into role of other components such as access to savings, credit, money transfer and education on performance of self-help groups. Yntiso (2015) used content analysis to investigate performance of self-help groups and noted that financial inclusion boosts welfare of SHGs. The current study used primary data to elucidate on role of financial inclusion on performance. Wachira and Kihiu (2012) reviewed financial literary and its role on access to finance while the current study envisioned to investigate on financial inclusion on performance of self-help groups.

2.5 Summary of Empirical Review and Research Gaps

A summary of the empirical literature and research gap is presented in Table 2.1. The table summarizes the key empirical studies in terms of objectives, overall finding, research gaps and how the gaps were addressed in the present research.

Researcher	Objective	Finding	Research gap	Focus of the current study
Rupnawar and Upadhye (2015)	To analyze various activities of SHGs towards women empowerment and the impacts of SHG activities in Karjat Taluka Raigad Maharashtra, India	As a result of financial inclusion through access to savings, the women were economically independent and contributed to increase their household income.	Study was conducted in India. The link to financial inclusion was not empirically tested.	This inquiry delved on SHGs in Kenya
(2015)	To determine the level of financial inclusion achieved through SHG- bank linkage programme	There was a positive difference in the level of savings indicators before and after SHG-BLP, suggesting that access to savings products promoted financial thrift.	Financial inclusion was used as the outcome variable	The outcome variable for this study was performance of SHGs
Clamara, Pena, and Tuesta (2014)	To investigate determining financial inclusion in Peru	Loans access contributes to financial inclusion.	An inquiry in South America	The current study was conducted in Kenya
Mehta, Mishra, and Singh (2011)	To determine the performance of SHGs in India	There was a steady increase in Non- Performing Assets (NPAs), suggesting that the positive gains of financial inclusion through access to credit did not apply across the board.	Study was conducted in Asia and used NPA as an indicator of performance	Study was conducted in Kenya with repayment rate being the KPI
Sarania and Maity (2014)	To establish financial inclusion and its association welfare of people in Baksa, Assam.	SHGs significantly boosted financial inclusion for participating households.	The study did not explore the contribution of financial inclusion to the performance of SHGs.	The focus was to link financial inclusion and SHG performance
Roy and Biswas (2016)	To showcase linkage between financial inclusion and women	A positive change was reported in terms of improved economic status	Study was undertaken in	This study was undertaken in

Table 2.1 Summary of Empirical Review and Research Gaps

Researcher	Objective	Finding	Research gap	Focus of the current study
	enrichment in SHGs	of the women such as their monthly income, consumption and expenditure.	Lataguri region of West Bengal, India	Kenya
Ibor et al. (2017)	To investigate financial inclusion and financial wellness of SMEs Nigeria.	Respondents' attribution to growth was realized through improved profits (71.5%), efficiency in operations (78.5%) and improved customer service (69.25%).	Study was not undertaken among members of SGHs	This study delved on performance of SHGs
Shetty and Pinto (2016)	To evaluate the role of SHGs in achieving inclusive growth in Mangalore District of Karnataka State in India from 2006 to 2013	Financial inclusion made a significantly improved financial inclusivity through SHG.	Study did not examine group performance as measured by loan repayment	This study looked at the link between financial inclusion and loan repayment rate of SHGs in Kenya
Wachira and Kihiu (2012)	To relate financial literacy and accessibility of financial services in Kenya.	Financial illiteracy is a predictor to financial exclusivity, thus there is need to resource financial literacy programs.	Study collected data from individuals rather than members of SHGs	Study focused on SHGs as the unit of analysis

Source: Author (2022)

2.6 Conceptual Framework

The term conceptual framework refers to an illustration of how variables in a study are related (Adom, Joe, & Hussein, 2018). Drawing from the research gap realized from the theoretical and empirical review, the conceptual framework which was used to guide the undertaking of the study is as follows:



Figure 2: 1Conceptual Framework

Source: Research Data (2023)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The thematic contents of this chapter encompasses substantive elucidation on design that was adopted. Also, target population, sample identification and size are discussed. The third, fourth and fifth components in this section are data collection, variable measurement and data analysis mechanism. At the tail end of this chapter is a presentation of ethical considerations that were followed in the entire study.

3.2 Research Design

Research design refers to an outline collecting, measuring and data analysis to meet the research objective (Odoh & Chinedum, 2014). According to Makombe (2017) key considerations in adopting design should be type of data, variables measurements and objectives definition. In this light, this particular study was undertaken following descriptive design. Descriptive design entails the combination of both quantitative and qualitative approaches to the collection and analysis of data (Schoonenboom & Johnson, 2017). The justification for this particular design was because the researcher is interested in triangulating the quantitative findings on performance variables with the in-depth insights from interviews to be held with key informants. The independent variables are: access to: credit, savings, money transfer services and financial education. Performance of SHGs was measured in a set of items using Likert scale. The application of descriptive design helped to strengthen and expand the study's conclusions (Schoonenboom & Johnson, 2017).

3.3 Target Population

In research target population presents all units that are subjects in a study (Jacobsen, 2016). Considering that target population identifies units that results are generalized for, this study as all self-help groups in Kenya as the target population.

3.3.1 Sampling Frame

A part of population that is picked for sample computation is known as sampling frame. This particular study, selected 106 SHGs from which a sample was picked from.

3.3.2 Sampling Design

Sampling design entails a description of the sampling process including sampling technique and sample size. Hence, it is the mechanism in which a representative of the whole population is arrived at (Denscombe, 2014). In this study, the following formula was employed to determine the sample size at 95 percent confidence level at p=0.5 as illustrated by Singh and Masuku (2014):

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

Pegging from the formula, connotation n element is the sample size, e is an element that is dependent on alpha (5 %).

$$n = \frac{106}{1 + 106(0.05)^2} = 84$$

Therefore, a sample size of 84 SHGs was used. Individual self-help groups were selected by using stratified sampling technique were the sample was partitioned into different strata depending on nature of membership. This randomized the sample and ensured that data was selected from various diverse self-help groups in Kenya. Stratification of the sample is showcased on Table 3.1

 Table 3: 1 Sample

Description	Sample
Women owned Self-help groups	28
Men owned self-help groups	28
Open membership	28
Total	84

Source: Author's Computation (2023)

Table 3.1 shows that the sample was distributed evenly among the three categories in order to collect data from randomized samples that could improve representativeness of the sample. Moreover, the individual self-help groups were identified in random way. In the end, results for the sample that associated financial inclusion and performance of groups could thus be generalized without sampling biases.

3.4 Data Collection Instruments

For purpose of gathering raw data from self-help groups, a questionnaire was used. The questionnaire was sectioned into four and is on Appendix I. Section A captured the background information of the SHGs such as category (youth or women group), number of members, year of formation, source and value of grants received and source and size of loan borrowed by the group if any. Section B comprised questions relates to the four facets of financial inclusion namely: access to savings, access to loans, money transfer services, and access to financial education. The last section collects data on performance of self-help groups.

3.4.1 Data Validity

Validity of research instruments purposes to measure of how well the items or questions cover the entire scope of that which is being investigated so addresses quality of constructs in matching the intentions of data collection (Tahedoorst, 2016).

For the purpose of this study, validity of the instrument was assured through seeking expert advice from the researcher's supervisor.

3.4.2 Instrument Reliability

Instrument reliability denotes the degree of holistic alignment of constructs in representing concepts and variables (Makombe, 2017). In this study, the focus was on internal reliability that evaluates congruency of items in measuring a concept. The common practice is to determine instrument reliability by calculating Cronbach's alpha (Taber, 2017). Cronbach's alpha is expressed as a value between 0 and 1, whereby an alpha of 0.7 evidences acceptability (Denscombe, 2014).

3.5 Data Collection Procedures

The procedure to be followed in undertaking the study entailed first obtaining an approval to collect data from University which was used to obtain research permit from the National Commission of Science, Technology and Innovation. The permit from NACOSTI was then be submitted to Social Development Office in the area of study which then facilitated the researcher with the contact list of all registered SHGs in the region was obtained. The questionnaire was administered to the chairperson of each SHG in the sample. Chairpersons were selected as respondents because they are the senior most leaders of the groups. It is therefore considered that they are not only knowledgeable about the groups' operations, but occupy the most influential position. The questionnaires were administered face-to-face and also in online means. The researcher enlisted the services of two research aides who were trained before the being dispatched to collect data. The chairpersons of the groups were contacted by phone to build rapport necessary to facilitate the smooth collection of data. This activity was completed within a period of four weeks.

3.6 Operationalization and Measurement of the Study Variables

The operationalization and measurement of the study variables is presented in Table 3.1. The table lists the variables, variable type, level of measurement and data analysis technique.

Variable	Type of	Measureme	Operationalizati	Indicators	Measurement
Performanc e of SHGs	Dependent variable	Ability to pay credit and Increase in members investments	The financial and non- financial achievements or growth of the group as indicated by financial soundness, stability, savings level and dividend payouts	Ability to pay credit Dividends payouts Change in savings	Nominal
Access to savings	Independe nt variable	Ready access And fixed deposit	Provision of deposit accounts services by financial institutions where members of SHGs can securely remit their share contributions as a common pool to build their capital	Savings accounts Fixed deposit accounts Funds for investments	Nominal
Access to credit	Independe nt variable	Secured loans Unsecured loans	Provision of microloans to SHGs and/or their members to stimulate economic activities/ income generating projects at low	Secured credit Unsecured credit Cost of credit Credit terms	Nominal

 Table 3.1 Operationalization and Measurement of the Study Variables

			or zero interest rates.		
Money transfer	Independe nt variable	Mobile transfer And bank transfer	Services offered by financial institutions to enable SHGs to transfer money electronically typically via mobile phone but also through electronic funds transfer.	Mobile money transfers Control of finance Record keeping	Nominal
Financial education	Independe nt variable	Participatio n in financial literacy training	Provision of key skills that enable robust decision making.	Financial literacy Financial knowledge Debt management	Ordinal

Source: Author (2022)

3.7 Data Analysis and Presentation

The process of analyzing and presenting data entailed first checking for completeness and accuracy of the data collected. Thereafter, the data was entered into SPSS where descriptive statistical operations were performed. Descriptive analysis was done. This led to the generation of frequencies, mean and standard deviations of the dataset. Inferential analysis techniques such as correlation analysis and regression model was used to establish the relationships between the study variables and to test the hypotheses. The data collected was analyzed using multiple regression model as shown below:

 $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$

Where; y= Performance of SHGs, $\beta_0=$ Y-intercept

 X_1 = Access to savings

 X_2 = Access to loans X_3 = Money transfer X_4 = Financial education e= Error term

The findings were presented in tables. The tables contains key statistics that useful in interpretation of results in regard to the aims of each aspect of data analysis. These were interpreted and discussed in light of existing literature to inform appropriate drawing of conclusions.

3.8 Ethical Considerations

Ethical conduct is an important requirement of every research undertaking (Osho, 2017). On this respect, the researcher made a number of ethical considerations and adhere to ethical principles of research involving human subjects. This includes assuring respondents of their anonymous participation in the study and protecting their confidentiality, obtaining their informed consent and guarding their right to voluntary participation and withdrawal of their participation in the study at any time, and being truthful when engaging with the research subjects and when reporting the findings.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATIONS

4.1 Introduction

This section documents the results that were realized on analyzing data. The results were obtained by analyzing data in two main techniques; descriptive statistics for frequencies and inferential methods were used to empirically elucidate individual and combined role of access to savings, access to credit, money transfer services and financial education on performance of self-help groups. Structure-wise, chapter four is arranged to cover subtle item including response rate, results on general information, item statistics and regression analysis results. At the end, the chapter presents a distinctive discussion of results in respect to their inference on the research problem and interpretations.

4.2 Response Rate

This study achieved a response rate of 86.9 % considering that 73 questionnaires of the 84 questionnaires distributed were filled and found fit for use in data analysis. This response rate was achieved because data collection was done in two media: physical delivery questionnaire and by use online means. For a survey, a response rate of more than 50 % is considered excellent and the resulting findings of data analysis are statistically fit for generalization.

4.3 General Information of Respondent Self-Help Groups

The target self-help groups were analyzed inform of their nature, age, key activities and number of members. The results showed that 31.5 % of the SHG were exclusive for men, 28.8 % were exclusive for women and 39.7 % were open to both men and women. It indicates that open membership was the common type of SHG in Kenya.

It emerged that most self-help groups had existed for less than 5 years at 64.4 %, those for 6-10 years were 27.4 %, those between 11-15 years were 4.1 % and those more than 15 years were 4.1 %. It indicates that most self-help groups were young. Others were old and this mix was a good to achieve unbiased results. In addition, results indicated that most SHG engaged in table banking comprising of 64.4 % and those that undertook trading and agri-business activities tied at 17.8 %. It infers that most self-help groups are involved in savings mobilizations where members save and share the funds in a merry go round kind of arrangement. Most SHG had between 11-19 members and this comprised of 49.3 % of them, 20.5 % of the SHG had over 30 members, those with less than 10 members were 17.8 % and the least at 12.3 % had 20-29 members. These results evidences that SHG in Kenya are large in terms of membership.

4.4 Reliability of the Questionnaire

The results for Cronbach's alpha are presented on Table 4.1 Drawing from statistics on Table 4.1, access to savings products scored a Cronbach's alpha of 0.788 with seven items. Data on access to credit services was collected using eight items and a Cronbach's Alpha of 0.777 was achieved. Moreover, money transfer services and financial education services scored a Cronbach's alpha of 0.772 and 0.831. The finding on the statistic for all the items show that the they collate well and have high internal reliability and thus can be used to derive observations for variables. This being the case, none of the items were dropped as the minimum threshold was achieved for all variables.

Cronbach's	Cronbach's Alpha Based on	N of
Alpha	Standardized Items	Items
0.788	0.795	7
0.777	0.775	8
0.772	0.776	7
0.831	0.843	9
0.801	0.811	5
	Cronbach's Alpha 0.788 0.777 0.772 0.831 0.801	Cronbach's AlphaCronbach's Alpha Based on Standardized Items0.7880.7950.7770.7750.7720.7760.8310.8430.8010.811

Table 4: 1 Reliability Test Output

Source: Research Findings (2023)

4.5 Diagnostic Tests

Diagnostic tests compromising of multicollinearity, heteroskedasticity and normality were tested.

4.4.1 Multicollinearity

Multi collinearity depict high linear association among variables as it manifests linear predictability of one variable by other input variables. This study used variance inflation factor to test multi collinearity whose results are shown on Table 4.2

Model	Collinearity Statistics		
	Tolerance	VIF	
1 Access_savings	.545	1.834	
Access_credit	.646	1.549	
Access_Money_Transfer	.635	1.574	
Financial_Education	.567	1.763	
a. Dependent Variable: Performance			

Table 4: 2	Collinearit	y Statistics
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Source: Research Data (2023)

Output on Table 4.2 illustrates that access to savings, access to credit services, access to money transfers and financial education had a VIF of 1.834, 1.549, 1.574 and 1.763 respectively. Where VIF for collinearity statistics is less than 10, the predictors do not lineally predict each other and thus can be treated as independent variables.

4.4.2 Normality

Normality indicates symmetrical of data. It is crucial as it depicts randomness of observations for the variable. Normal distribution was tested by use of skewness and kurtosis whose results are shown on Table 4.3

Table 4: 3 Normality Test

	Ν	Skewness		Kurtosis	
	Statisti	Statisti	Std.	Statisti	Std.
	с	c	Error	С	Error
Performance	73	364	.281	565	.555
Access_savings	73	765	.281	.660	.555
Access_credit	73	411	.281	391	.555
Money_transfer_Ser	73	414	.281	369	.555
vices					
Financial_education	73	070	.281	806	.555
Valid N (listwise)	73				

Source: Research Data (2023)

4.4.3 Heteroskedasticity

Heteroskedasticity exist where there is non-constant variance in residuals. This indicates that it the predictive power of model is diminished due to lack of homogeneity in variance of residuals. This study tested heteroscedasticity using Breusch-Pagan statistics as shown on Table 4.4

Table 4: 4 Test for Heteroskedasticity

Breusch-Pagan Test for Heteroskedasticity ^{a,b,c}						
Chi-Square		Df	Sig.			
	1.244	1	.265			
a. Dependent variable: Performance						
b. Tests the null hypothesis that	the variance o	f the errors does	not depend on the			
values of the independent variables.						
c. Predicted values from design: Intercept + Access_savings + Access_credit +						
Access_Money_Transfer + Finan	ncial_Education	on				

Source: Research Data (2023)

The Breusch-Pagan P-value was 0.265 means that the null hypothesis for homoscedasticity was not rejected. B-P hypothesis was set as: residuals do not have constant variance. Therefore homoscedasticity was not violated and therefore the data was free from heteroskedasticity. Thus, residuals were normally distributed and the model estimates were valid.

4.6 Descriptive Statistics

This study has descriptive statistics on variables.

4.5.1 Access to Savings Products and Performance of Self-Help Group

Results for savings accounts adopted by the self-help groups are indicated on Table

4.5

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Table 4: 5 Savings Institution

Institution for Savings	Frequency	Percent
Commercial Banks	28	38.4
Microfinance Institutions	11	15.1
Savings and Credit Cooperative Societies	24	32.9
Others	10	13.7
Total	73	100.0

From Table 4.4, it is evident that a majority of SHG saved with commercial banks at 38.4 %, those that saved with SACCOs were 32.9 %, those that saved with microfinance institutions were 15.1 % and the least saved with other platforms such as home savings and through purchase of assets. These results indicates that self-help groups are used different media to save resources in order to achieve their financial goals. Further, the availability of various methods of savings is a manifestation of an increased level of financial deepening in rural areas. Results on savings methods are shown on Table 4.6

Savings Methods Adopted by Self Help Group	Frequency	Percent
Money Market	13	17.8
Fixed Deposit Accounts	25	34.2
Current accounts	31	42.5
Others	4	5.5
Total	73	100.0

 Table 4: 6 Savings Methods Adopted by Self Help Group

Source: Research Data (2023)

Pegging from results on Table 4.5, most self-help groups saved in currents at 42.5 %, those that saved using fixed deposit accounts were 34.2 %, those that saved using money markets were 17.8 % and the rest used other methods such as home banking were 5.5 %. Thus, bank current accounts were mostly used for savings. Current accounts are accessible and the funds in them are withdrawable on call basis and thus are fit for use by self-help groups as they enable the groups take up new opportunities as and when they arise. Whilst fixed deposit accounts earn interest, the funds in the accounts cannot be withdrawn until expiry of the investment time. Table 4.7 has items statistics on statements used to proxy access to savings products.
Items on access to savings products	Mean	Std.	Ν
		Deviation	
By use of banking services, there is ready access to	3.58	1.026	73
savings enabling us take up investments			
Access to fixed deposits services earns interest	3.58	1.224	73
improving our returns			
We use the savings as collateral to secure credit for	3.70	1.277	73
our expansion			
Savings in a financial institutions improves our	4.12	.832	73
financial resource base for future investments			
Bank savings enable us to have readily available	3.97	1.027	73
cash for working capital needs			
Savings services instils a saving culture to members	4.29	.993	73
of the self- help group			
With savings, we are able to undertake investments	4.16	.986	73
and earn income more efficiently			

Table 4: 7 Access to Savings Products and Performance of Self-Help Groups

Source: Research Data (2023)

Output Table 4.7 starts by showing that by use of banking services, there is ready access to savings enabling us take up investments in a small extent as shown by the mean 3.58 whose standard deviation was 1.026. This reveals that savings are instrumental in fostering investments among SHG. Financial resources are a key ingredient towards investments and this is the reason most respondents agreed that having savings was a major driver of their wellbeing. Secondly, respondents noted that access to fixed deposits services earns interest improving their returns and this boosted their performance metrics to a large extent as shown by the mean of 3.58. This indicates that interest on fixed deposits boosted financial wellbeing of self-help groups.

Additionally, use the savings as collateral to secure credit for expansion scored a mean of 3.70 with a standard deviation of 1.277. Moreover, results showed that savings in a financial institutions improved financial resource base for future investments as evidenced by the mean of 3.12. Having savings in financial institutions also enhances financial stability of the groups. In addition, it emerged that bank savings enabled the SHG to have readily available cash for working capital needs as shown by the mean of 3.97. With savings, the groups were able to take up investments opportunities as they arose in their vicinity without delays. At the same time, it was found out that savings services instils a saving culture to members of the self- help group as shown by the mean of 3.29. Results further shown that firms are able to able to undertake investments and earn income more efficiently.

4.5.2 Access to Credit Facilities and Performance of Self-Help Group

Results on whether the self-help groups had applied for loans indicated that all had. However, there were variations in terms of whether the credit amount was granted in full. Majority, 64.4 % of the SHG did not get full amount of credit applied while only 35.6 % got all credit as applied. Table 4.8 shows the results for whether the amount applied was sufficient to undertake the investments sought by the self-help groups.

	Frequency	Percent
Not at All	17	23.3
Very Small Extent	8	11.0
Small Extent	21	28.8
Large Extent	19	26.0
Very Large Extent	8	11.0
Total	73	100.0

Table 4: 8 Sufficiency of Credit Granted

Source: Research Data (2023)

It emerged as on Table 4.8, that the credit applied was only sufficient to a small extent as revealed by most SHG at 28.8 %, those that indicated not at all and very small extent were 23.3 % and 11.0 % respectively. Those groups that indicated that the funds granted were sufficient to a large extent were 26.0 % and to a very large extent were 11.0 %. These results shows that whilst the SHG had sought for credit from institutions and in other means, the amounts they got did not meet their financial needs. Moreover, this can show that financial inclusion is yet to wholly spread in the region from which the sample was drawn. Table 4.9 presents results of challenges that self-help groups in accessing credit from various sources.

	Frequency	Percent
Lack of collateral	24	32.9
Poor recording keeping	6	8.2
High cost of credit	27	37.0
Lack of knowledge	8	11.0
Inadequate loan repayment period	8	11.0
Total	73	100.0

Table 4: 9 Inhibitions towards access to Credit Facilities

Source: Research Data (2023)

Further results as on Table 4.9, indicated that the major impediment towards access to credit was high cost of credit as shown by 37.0 % of groups and 32.9 % of the self-help group shown that lack of collateral was a major challenge. 11.0 % of self-help groups responded that lack of knowledge on credit sources and inadequate loan repayment period impaired their chances of getting credit. Lastly, 8.2 % of self-help groups did not get credit due to poor record keeping. These manifests that inability to

secure credit is caused by a variety of factors. Table 4.10 has results for items that proxied access to credit facilities.

Statements on access to credit facilities	Mean	Std.	Ν
		Deviation	
To what extent has expansion of financial markets	3.33	.987	73
enabled provision of secured loans			
Provision of unsecured loans by financial entities have	3.75	.954	73
improved our welfare			
Access to non-collateralized boosts our resilience	3.67	1.155	73
Credit application process is no longer cumbersome	3.62	1.221	73
Consequential costs of credit such as facilitation and	3.33	.944	73
legal fees are fair			
Insurance on credit is accessible to our Self-help	3.49	1.156	73
group and this improves our welfare			
Low interest loans boost our returns	3.81	1.186	73
Financial markets have favourable credit terms.	3.30	1.127	73

Table 4: 10 Access to Credit Facilities and Performance

Source: Research Data (2023)

Output Table 4.10 shows that expansion of financial markets enabled provision of secured loans to a large extent as shown by the mean of 3.33. This reveals that financial markets have provided opportunities for self-help groups to access loans. These loans are crucial in provision of working capital for self-help groups that undertake economic activities such as trading or agri-business. Most respondents indicated that provision of unsecured loans by financial entities have improved SHG's welfare as supported by the mean of 3.75 with a standard deviation of 0.954. This indicates that unsecured loans are vital as they enable those SHG without assets to get credit for trading.

Similarly, a mean of 3.67 with a standard deviation of 1.155 was achieved on Access to non-collateralized boosts our resilience showing that financial inclusion not only made credit accessible and available but also affordable to most self-help groups. Further results showed that credit application process is no longer cumbersome as per the mean of 3.62 with a standard deviation of 1.221. It reveals that financial inclusion had streamlined credit application and appraisal which made seeking credit efficient. At the same time, respondents agreed that consequential costs of credit such as facilitation and legal fees are fair to a large extent as shown by the mean of 3.33 with a standard deviation of 0.944. Hence, financial inclusion had reduced hidden charges on loans and this boosted performance of the groups. Moreover, insurance on credit is accessible to the self-help group and this improved welfare as per the mean score of 3.49 with a standard deviation of 1.156. This is in congruent with results on extent of low cost loans and favorability of credit terms which scored a mean of 3.81 with a standard deviation of 1.186 and 3.30 with a standard deviation of 1.127 respectively. This indicates that financial inclusion had made credit facilities affordable and accessible to the self-help groups and this positively impacted on their performance.

4.5.3 Access to Money Transfer Services and Performance of Self-Help Group

Table 4.11 has output for data analysis on media used for money transfer survives in respect to receiving money and making payments among members of self-help groups.

	Frequency	Percent
Through mobile phone	47	64.4
Through electronic funds transfer	8	11.0
Through a visit to the bank	12	16.4
Directly through physical cash	6	8.2
Total	73	100.0

 Table 4: 11 Medium Often Used in Money Transfer Services

Source: Research Data (2023)

Mobile phone money transfers was most common at 64.4 %, followed by bank deposits at 16.4 %, use of electronic funds transfer was used by 11.0 % of the respondents and physical delivery of cash was used by 8.2 % of respondents. These outcomes evidence that money transfer services were being adopted and most particularly mobile money.

Additionally, it shows that a variety of money transfer media were available for members to receive or make payments towards the welfare of the self-help groups. Table 4.12 has results for challenges that characterized money transfer services among the selected self-help groups.

 Table 4: 12 Challenges Facing Money Transfer Services

	Frequency	Percent
Cost of transacting	55	75.3
Difficult in use	6	8.2
Security of the media	12	16.4
Total	73	100.0

Source: Research Data (2023)

Whilst members used various money transfer services, majority at 75.3 % revealed that cost of transacting was a major hindrance towards use of money transfer services, 16.4 % doubted the security of some money transfer services and a few, 8.2 % had difficult in use of money transfer services. Hence, in spite of financial inclusion being present and widespread, its affordability, accessibility and reliability was still in question among the self-help groups. Table 4.13 shows results for money transfer services on performance.

Item Statistics			
	Mean	Std.	Ν
		Deviation	
Money transfer services has reduced paper work.	4.30	.893	73
Control of finances is efficient where money transfer	4.27	.902	73
services are employed			
Money transfer services have increased our	3.56	.986	73
members' contributions.			
Money transfers have created a savings culture for	3.96	1.006	73
our members			
Loan repayments through modern money transfers	4.03	.957	73
make our operations efficient			
Money transfer services improves our savings	4.03	.763	73
mobilizations			
Money transfers enable tracking of records for our	4.45	.727	73
members			

Table 4: 13 Money Transfer Services and Performance

Source: Research Data (2023)

The findings showed that in overall, money transfer services as a facet of financial inclusion bettered performance of self-help groups in Kenya. Firstly, most respondents indicated that money transfer services has reduced paper work as per the mean of 4.30 with a standard deviation of 0.893. Reduction in paperwork, saves on printing and stationery costs hence saving on costs of undertaking transactions. Secondly, the respondents indicated that control of finances was efficient where money transfer services are employed as supported by the mean of 4.27 with a

standard deviation of 0.902. This is because, use of the platforms allowed tracking of receipts and payments.

Moreover, it was found out that money transfer services had increased members contributions as shown by the mean of 3.56 with a standard deviation of 0.986. This is because, members were able to make deposits to their groups more frequently and affordably, particularly by use of mobile money transfers.

In addition, it emerged that money transfers have created a savings culture for the members as depicted by the mean score of 3.96 with a standard deviation of 1.006. At the same time, loan repayments through modern money transfers made operations efficient as per the score of 4.03. Similarly, the findings indicated that money transfer services boosted savings mobilizations and tracking of records as evidenced by the mean score of 4.03 with a standard deviation of 0.763 and 4.45 with a standard deviation of 0.727 respectively. These findings support the idea that money transfer services are fundamental in boosting performance of self-help groups given that such services saves on costs of running activities of the groups.

4.5.4 Access to Financial Education Services and Performance of Self-Help Group

Table 4.14 has results that presents frequencies on where self-help groups received financial education from.

	Frequency	Percent
Commercial banks	11	15.1
Microfinance Institutions	22	30.1
Non-government institutions	19	26.0
Government Bodies	5	6.8

Table 4: 1	14 Source of	Financial	Education	for Sel	f-Help	Groups
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Training institutions	16	21.9
Total	73	100.0

Source: Research Data (2023)

Drawing from frequencies on Table 4.14, a majority representing 30.1 % of SHG got financial education training microfinance, 26.0 % from non-governmental organizations, 21.9 % from training institutions, 15.1 % from commercial banks and 6.8 % had obtained training from government bodies. These results show that financial education can be obtained from various sources.

Financial education is important as it improves the financial literacy of members of SHG helping them plan well in order to timely and efficiently achieve their financial and social goals. Table 4.15 has results for descriptive statistics for items that were used to proxy financial education variable.

Table 4: 15 Access to Financial Education and Performance	

Item Statistics			
	Mean	Std.	Ν
		Deviation	
Financial management awareness has led to	4.07	.770	73
prudence management of fund			
Financial knowledge saves on our resources	3.90	.988	73
Financial education boosts our asset growth	4.11	.809	73
We are able to apply financial education acquired	4.23	.698	73
skills in decision making			
Financial education boosts harmony amongst group	4.21	.912	73
members			
Financial education betters financial planning	4.42	.686	73
capacity			
Good financial education lead to self-reliance	4.19	.758	73
We have acquired key knowledge in debt	3.86	1.004	73
management			
Through financial education, we are able to budget	4.32	.664	73
well			

Source: Research Data (2023)

Data analysis output on Table 4.15 showed that access to financial education improved performance of self-help groups in Kenya. Foremost, respondents indicated that financial management awareness has led to prudence management of fund as per the mean score of 4.07 with a standard deviation of 0.770. This suggests that financial management enabled the self-help groups to plan their financial matters prudently which translated to good performance.

At the same time, financial education led to financial knowledge that was deemed to save resources and boost asset growth as per the mean of 3.90 with a standard deviation of 0.988 and mean of 4.11 with a standard deviation of 0.809 respectively. Thus, financial education plays a major role in imparting skills that helped the self-helped groups improve in performance. Moreover, results revealed that apply financial education acquired skills in decision making as inferred by the mean of 4.23 with a standard deviation of 0.689. Thus, the members had received adequate training for use in making robust decisions.

In addition, the results showed that financial education boosts harmony amongst group members as per the mean of 4.21 with a standard deviation of 0.912. Similarly, financial education improved SHGs' financial planning capacity as inferred by the mean of 0.912 and also improved self-reliance of most groups as per the mean of 4.42 whose standard deviation was 0.912. These results shows that financial education was a key impetus towards wellbeing of the self-help groups as it boosted financial management abilities for the groups. Moreover, respondents agreed that debt management and budget education were important components in financial education as depicted by the mean score of 3.86 whose standard deviation was 1.004 and mean

of 4.32 whose standard deviation was 0.664 respectively. In overall, access to financial education bettered performance of self-help groups.

4.5.5 Performance of Self-Help Group

The descriptive statistics for items that proxied performance of self-help group are presented on output table 4.16

Table 4: 16 Performance of Self-Help Groups

Performance	Mean	Std.	Ν
		Deviation	
The level of savings has improved	4.26	.782	73
The returns on our investments has improved	3.92	.759	73
Our credit repayment ability has improved	3.86	.887	73
Dividends payout to members of the self-help	3.92	.968	73
groups has increased			
Loan repayment among members has improved	3.93	.751	73

Source: Research Data (2023)

Information on output Table 4.16 shows that the level of savings had improved as shown by the mean of 4.25 with a standard deviation of 0.782. Returns on investments had improved as shown by mean 3.92 whose standard deviation was 0.759. Credit repayment ability had improved as the mean was 3.86 with a standard deviation of 0.887. Dividends pay out to members of the self-help groups has increased to a large extent as shown by the mean of 3.98 with a standard deviation of 0.968. Lastly, it emerged that loan repayment among members has improved to a large extent by a mean of 3.93 with a standard deviation of 0.751.

4.6 Inferential Statistics

This study used a multiple linear regression using an Ordinary Least Squares in order to derive an equation that linked predictors to the dependent variables. Before this equation was derived, the data set was examined on whether it met the assumptions pertinent in undertaking linear regression. These are absence of highly correlated variables and absence of multicollinearity.

4.6.1 Correlation Analysis

Output Table 4.17 has results for correlation analysis. The study had four input variables.

Correlations								
		Access_	Access	Access_Mone	Financial_	Performa		
		savings	_credit	y_Transfer	Education	nce		
Access_	Pearson	1						
savings	Correlation							
	Sig. (2-tailed)							
	Ν	73						
Access_	Pearson	.574**	1					
credit	Correlation							
	Sig. (2-tailed)	.000						
	Ν	73	73					
Access_	Pearson	.444**	.393**	1				
Money_	Correlation							
Transfer	Sig. (2-tailed)	.000	.001					
	Ν	73	73	73				
Financia	Pearson	.546**	.399**	$.570^{**}$	1			
l_Educa	Correlation							
tion	Sig. (2-tailed)	.000	.000	.000				
	Ν	73	73	73	73			
Perform	Pearson	.515**	.436**	.462**	.634**	1		
ance	Correlation							
	Sig. (2-tailed)	.000	.000	.000	.000			

Table 4: 17 Correlation Analysis

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

Source: Research Data (2023)

Access to savings had a positive correlation of access to credit, access to money transfer services, financial education and financial performance of 0.574, 0.444, 0.546 and 0.515 respectively. Access to credit services had a positive correlation with access to money transfer services, financial education and financial performance of 0.393, 0.399 and 0.436 respectively.

Access to money transfer services had a positive correlation with financial education and financial performance of 0.570 and 0.462 respectively. Financial education had a positive correlation with financial performance of 0.634. All correlations were significant. The correlation statistics shows that none of the predictors highly correlated and thus were fit for use in one regression analysis. Moreover, there were moderate positive correlation of all predictors on financial performance of self-help groups.

4.6.2 Regression Analysis

This present study undertook regression analysis in form of multiple regression analysis. The Ordinary Least Squares method was used and data analysis was done at 95 % confidence level. The results of the analysis are presented in this part.

4.6.2.1 Model Summary

Output Table 4.18 has findings for the model summary.

Table 4: 18 Model Summary							
Model Summary							
Model	Model R R Square Adjusted R Std. Erro		Std. Error of				
			Square	the Estimate			
1	$.680^{a}$.462	.430	.470			
a. Predictors: (Constant), Financial_Education, Access_credit,							
Access_Money_Transfer, Access_savings							

Source: Research Data (2023)

The Table 4.18 shows an R of 68.0 % that shows good correlation among the variables used in the model. Output also shows an R^2 of 46.2 % which shows that 46.2 % of variations in performance of self-help groups is influenced by changes in financial education, access to credit services, access to money transfer services and access to savings.

Moreover, it means that 53.8 % of variations in performance of self-help groups is influenced by changes in other variables other than the four examined in this study.

This study had four predictors namely access to savings products, access to credit services, access to money transfer services and financial education. The dependent variables was performance of self-help groups. Regression coefficients were obtained by running an OLS regression as the data was cross sectional in nature. Output table 4.19 has the results of model parameters with focus being on coefficients and p-values.

Coefficients ^a						
Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B Std.		Beta		
			Error			
1	(Constant)	.474	.476		.995	.323
	Access_savings	.138	.106	.157	1.299	.198
	Access_credit	.123	.101	.135	1.218	.227
	Access_Money_Transfer	.091	.119	.085	.763	.448
	Financial_Education	.520	.138	.446	3.779	.000
a. Dependent Variable: Performance						

Table 4: 19 Model Estimation

Source: Research Data (2023)

Drawing from statistics on Table 4.19, regression model was derived as:

 $Y = 0.474 + 0.138X_1 + 0.123X_2 + 0.091X_3 + 0.520X_4$

Where, 0.474 is performance of self-help groups in absence of the four input variables, 0.138 is increase in performance where access to savings increases in 1 unit, 0.123 is increase in performance where access to credit increases in 1 unit, 0.091 is increase in performance where access to money transfer services increases by 1 unit. Further, 0.520 is the increase in performance where financial education increases in 1 unit.

In addition, it can be deduced that all input variables (access to savings products, access to credit services, access to money transfer services and financial education) have positive influence on performance of self-help groups.

4.6.3 Hypothesis Testing and Discussion of Findings

All hypothesis in this study were set in null form. The first hypotheses tested relationship between access to savings products and performance of self-help groups in Kenya. Firstly, results showed that there was a positive effect of access to savings products on performance as the coefficient was 0.138. The p-value was 0.198 which was more than 0.05 and thus the null hypotheses could not be rejected. Thus, contribution of access to savings products on performance of self-help groups was not statistically significant. This results are in agreement with the findings Rupnawar and Upadhye (2015) who activities of SHGs towards women empowerment and found that access to savings products was instrumental towards wellbeing of self-help groups although it did not have statistically significant contribution. In another, Shetty and Pinto (2015) found out that savings platforms are instrumental towards financial welfare of self-help groups. Also, Rathore and Garg (2013) too concluded that financial inclusion components such as savings played a role on wellbeing of self-help groups in India.

The second null hypothesis was also not rejected because the p-value for access to credit was 0.227 that was more than 0.05. Thus, access to credit services did not influence performance of self-help groups in Kenya in a statistically significant way. However, the association between access to credit services was positive as shown by the coefficient of 0.123.

Clamara, Pena, and Tuesta (2014) examined role of financial entities on welfare of self-help groups and noted that access to credit was a major boost to stability of the firms. Credit facilities are essential to SHGs since they enable the groups to undertake ventures that can turn out to be profit making thus improving their wellness.

Uma and Rupa (2013) undertook a case study of SHGs in Mysore District of Karnataka State in India and reported that credit availability from various lenders was positively related to performance of SHGs. Moreover, the study also documented that financial inclusion boosts performance of SHGs. Credit is one of the most significant driver that impact all organisations regardless of their nature. With easy access to affordable credit, organisations are able undertake operations without stoppages. Also, credit enhances growth because it enables organisations to take up opportunities as and when they are available. In absence of affordable credit, organisations faces challenges and this can translate to poor or unsustainable performance.

The third hypotheses was also not rejected as the p-value was 0.448 which was more than 0.05. However, there existed a positive relationship between access to money transfer services on performance as shown by positive coefficient of 0.091. It means that an increase in access to money transfer services tends to boost performance but in a non-significant way. Money transfer services in most parts of Kenya are readily available and perhaps, this is the reason, results indicate low influence. DemirgukKunt et al. (2017) examined role of digital money in performance of organisations. The outcome of the study showed that use of digital money occasioned a cut in administrative costs which enhanced overall performance of entities.

Also, Shetty and Pinto (2016) evaluated the role of SHGs in achieving inclusive in India and noted that financial inclusion improved the general welfare of the SHGs members and encouraged the push for more financial inclusivity. In this aspect, money transfers platforms are essential in saving costs for entities thus improving on performance. In absence of these services, individuals would use a lot of time and resources to make payments and deposits which would hamper growth and performance of self-help groups. Moreover, the money transfer services improve timely remittances by members.

Lastly, the fourth null hypothesis was rejected as the p-value was 0.000 which was less than 0.05. This indicates that financial education was the most important variables in boosting performance of self-help groups in Kenya. Financial education is an integral aspect of propagating wellness of self-help groups as it equips members with knowledge on how to undertake various investments in order to boost their earnings. Moreover, financial education instills financial discipline which glues the members together in fulfilling their duties to the group. Wachira and Kihiu (2012) studied the impact of financial literacy on access financial services accessibility and noted that financial education enhanced performance because it enable individuals to plan their resources well. Similarly, Deka (2015) examined role of financial education on performance of SHGs and reported that knowledge in financial planning was instrumental in enhancing performance. Knowledge betters how resources are planned

and how financial priority is achieved. Moreover, financial education is not limited to resource use but also on record keeping which at the end betters financial decisions.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This is the last chapter of this study and has the results in a summarized way for each objective, conclusions, limitations that were encountered in undertaking this study, recommendations based on findings and ends with a suggestion for further studies.

5.2 Summary of Findings

This study achieved a response rate of 86.9 %. Data analysis was done using SPSS and into main methods; using descriptive and inferential statistics. The tool for data collection passed internal reliability test. The study revealed that 46.2 % of variations in performance of self-help groups was influenced by changes in access to savings products, access to credit facilities, access to money transfer services and access to financial education services. Moreover, the model linking the predictors and performance of self-help groups was statistically significant as the ANOVA test had p-value of 0.000. The next sub-section presents findings in specific objectives:

5.2.1 Access to Savings Products on Performance of Self-Help Groups

The study found out that access to savings products had a statistically non-significant positive effect on performance of self-help groups. It emerged that access to savings products had positive influence on performance of self-help groups in Kenya. Further,

this relationship was not statistically significant. Thus, an increase in access to savings products boost performance of self-help groups although in a non-significant manner. Access to savings products is an important component of financial inclusion as it enables self-help groups to mobilize funds to undertake projects. In absence of savings platforms, self-help groups would find it difficult to implement their financial objectives. Moreover, access to savings products enable entities to have readily available financial resources to take up investments.

5.2.2 Access to Credit Facilities on Performance of Self-Help Groups

The study found that access to credit facilities had a statistically non-significant positive effect on performance of self-help groups. Results showed that access to credit facilities had positive influence on performance of self-help groups in Kenya. Further, this relationship was not statistically significant. Thus, an increase in access in access to credit facilities boost performance of self-help groups although in a non-significant manner. Credit facilities are essential in ensuring that self-help groups can get funds for working capital. However, most self-help groups seldom use credit to fund their activities and this is perhaps the reason that findings indicated that access to credit insignificantly boost performance of self-help groups.

5.2.3 Access to Money Transfer Services on Performance of Self-Help Groups

The study found out that access to money transfer services had a positive but statistically non-significant effect on performance of self-help groups. It emerged that access to money transfer services had positive influence on performance of self-help groups in Kenya. Further, this relationship was not statistically significant. Thus, an increase in access to money transfer services boost performance of self-help groups although in a non-significant manner. Money transfer services facilitate payments for group materials or items for businesses. However, this did not appear to influence performance in a major way. Money transfer services are common in Kenya and this does pose any challenge for self-help groups.

5.2.4 Access to Financial Education Services on performance of Self-Help Groups

The study findings revealed that financial education services had a positive influence on performance of self-help groups in Kenya. Further, this relationship between financial education services and performance was statistically significant.

This suggests that access to financial education services is a major component of financial inclusion as it has a strong bearing on performance. Financial education equips individuals with skills that are vital in making robust financial decisions on financial resources. Financial education imparts financial literacy skills to members of self-help groups and this makes the capable of using their financial resources better.

5.3 Conclusion

This study draws the following conclusions:

5.3.1 Access to Savings Products on Performance of Self-Help Groups

The study found that access to savings products affected performance of self-help groups in a positive but statistically significant manner. It was the concluded that access to savings products positively impacts performance of self-help groups in Kenya. Access to savings credit products ensure SHG have money readily available for investments, fixed deposits earn interest, savings create a savings culture among members, creates wealth and ensure that investments can be taken up seamlessly.

5.3.2 Access to Credit Facilities on Performance of Self-Help Groups

Findings showed that access to credit had positive but statistically non-significant effect on performance of self-help groups. It was the concluded that access to credit facilities affected performance of self-help groups in a positive way. This is because, access to credit facilities enabled self-help groups to secure loans for investments. Moreover, cost of credit was affordable and that both collateralized and non-secured loans boosted access to credit facilities.

In addition, it was concluded that financial inclusion through access to credit facilities had lowered cost of credit, insurance on credit was lower than previously, there were low interest loans and generally favorable credit terms which in overall bettered performance of self-help groups in Kenya.

5.3.3 Access to Money Transfer Services on Performance of Self-Help Groups

The study found that access to money transfer services had positive but statistically non-significant effect on performance of self-help groups. It was then concluded that access to money transfers services had a positive effect on performance of self-help groups in Kenya. This is because, money transfer services had reduced the amount of paperwork, were efficient, increased members contribution, motivated members to save more , made loan repayments easy and enabled tracking of records for members. Access to money transfers services is crucial as it creates efficient media for receiving and making payments without visiting banking halls. Members of self-help groups are able to use money transfer services to make their contributions without visiting banking halls. This too benefited the self-help groups as it was easy to reconcile transactions without much paperwork.

5.3.4 Access to Financial Education Services on Performance of Self-Help Groups

The study found out that access to financial education had statistically significant positive effect on performance of self-help groups. It was then concluded that access to financial education services was the most significant component of financial inclusion that influenced performance of self-help groups in Kenya. The study concluded that access to financial education services had statistically significant positive role on performance of self-help groups.

This is because, financial education instils financial literacy in members of the groups which in the end boosts their financial understanding and enables them make robust financial decisions. Moreover, financial education makes the members capable of managing their resources prudently thus boosting asset growth, improve harmony amongst themselves, build capacity to plan on debt management and budget appropriately. All these in combination tends to boot the welfare of the self-help group.

5.4 Limitations of the Study

This study has three limitations. Firstly, a sampling risk is inherent as data was sampled from selected self-help groups. Therefore, the findings could be different if a census was done. However, the sample size was selected using probabilistic means that lowered sample biases. Secondly, performance of self-help groups is a function of many factors and it was assumed that the respondents were honest in their responses. To improve on validity, the questionnaire was constructed and presented to an expert in financial inclusion who noted that content validity was in essence fit. Moreover, internal validity was ensured in data collection. Lastly, limitation of finance made the

researcher sample a few self-help groups and focus on one division only. Nevertheless, this does not hinder generalization of research outcomes for the entire of Kenya as sample selection followed a scientific method.

5.5 **Recommendations**

This study makes four recommendations. Firstly, the Ministry of State for Cooperatives, Trade and Industry need to need to enshrine self-help groups in its mandate of improving trade. The ministry ought to train self-help groups on loan funds that can improve performance of self-help groups.

Moreover, self-help groups should train members on financial education as it was noted to be a significant factor in influencing performance of self-help groups positively. Leadership of self-help groups should collaborate with training institutions to impart knowledge on financial education on members.

Secondly, self-help groups should create capital and loan funds that encourage savings. The self-help groups need to save more in order to have funds for investments in income earning projects. This can be done by regular savings by members towards contribution. Additionally, self-help groups can save in many platforms such as bank accounts and in investments such as money market funds to boost savings for the self-help groups. Having more savings can boost investment capacity of self-help groups.

Thirdly, self-help groups should utilize opportunities presented in an expanded financial inclusion to access credit facilities to boost investment capacities. Credit facilities enable self-help groups to undertake projects that can enhance their performance. Self-help groups should undertake credit facilities presented by Fintech technologies to advance their projects. Lastly, self-help groups should revitalize on use of money transfer services in order to boost their savings mobilizations. Use of money transfer services can be used as a good impetus towards mobilizing funds for use in investments.

5.6 Contribution to Knowledge

This study contributes to knowledge in three folds. Firstly, the results are important in policies that seek to improve performance of self-help groups. The results offers a new dimension of delving into self-help groups and their performance. Secondly, this study improves extant literature that is already available on financial inclusion. Moreover, the study has further promoted development of constructs of financial inclusion such as money transfer services and financial education. Lastly, this study has provided an opportunity for comparison of results with global and regional perspectives.

5.7 Suggestions for Further Studies

Since this study delved in determining effect of financial inclusion on the performance of self-help groups in Kenya and sampled SHGs from a single county, a similar study can be done in other counties in order to compare and contrast the results. Moreover, another study can be done using other constructs such as financial regulations and financial markers liberations on top of the four tested in this study to have more insights on financial inclusion and performance of self-help groups.

Lastly, the study can be duplicated and done as survey of all counties in Kenya in order to have a country overview of the role of financial inclusion on performance of other entities other than self-help groups such as small and medium enterprises in rural areas.

REFERENCES

- Abel, S., Mutandwa, L., & Le Roux, P. (2018). A review of determinants of financial inclusion. *International Journal of Economics and Financial Issues*, 8(3), 1-8.
- Adaba, G., & Ayoung, D. A. (2017). The development of a mobile money service: an exploratory actor-network study. *Information Technology for Development*, 23(4),668-686.
- Adeniyi, D. J., Adeyinka, A. J., & Babayaro, I. (2019). Insurance companies and the efficiency of financial intermediation in Nigeria. *American International Journal of Economics and Finance Research*, 1(1),21-33.
- Adom, D., Joe, A. A. & Hussein, E. K. (2018). Theoretical and conceptual framework: Mandatory ingredients of a qualitative research. *International Journal of Scientific Research*, 7(1), 438-441.
- Aduda, J. & Kalunda, E. (2012). Financial inclusion and financial sector stability with reference to Kenya: A review of literature. *Journal of Applied Finance and Banking*, 2(6), 95-120.
- Ahodode, B. G. C., Eloundou, O. E. B. & Yolande, B. N. T. (2020). *Financial inclusion, financial innovation and enterprise performance.* https://aercafrica.org/
- Allen, F., Carletti, E., Cull, R., Qian, J., Senbet, L. & Valenzuela, P. (2012). *Improving access to banking: Evidence from Kenya*. Washington DC: World Bank.
- Apiors, E. K. & Suzuki, A. (2018). Mobile money, individuals' payments, remittances, and investments: Evidence from the Ashanti region, Ghana. *Sustainability*, *10*(1), 2-26.
- Ardic, O. P., Heimann, M., & Mylenko, N. (2011). Access to financial services and the financial inclusion agenda around the world. Washington DC: World Bank.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191-215.
- Banerjee, S. B. & Jackson, L. (2017). Microfinance and the business of poverty reduction: Critical perspectives from rural Bangladesh. *Human Relations*, 70(1), 63-91.
- Banerjee, T. (2009). Economic impact of self-help groups: A case study. *Journal of Rural Development*, 28(4), 451-467.
- Bank for International Settlements (2015). *Financial inclusion indicators*. Retrieved on 5th September 2019 from www.bis.org
- Barajas, A., Beck, T., Belhaj, M., & Naceur, S. B. (2020). Financial inclusion: What have we learned so far? What do we have to learn? (IMF Working Paper No. WP/20/157). https://www.imf.org

- Barrawclough, D. (2018). The Ins and Outs of inclusive finance: Some lessons from microfinanceand basic income. Retrieved on 16th September 2019 from https://unctad.org/en/PublicationsLibrary/gdsmdp2017d3_en.pdf
- Bateman, M. (2014). The rise and fall of Muhammad Yunus and the microcredit model. *International Development Studies*, 1(1), 1-36.
- Bavoso, V. (2022). Financial intermediation in the age of FinTech: P2P lending and the reinvention of banking. *Oxford Journal of Legal Studies*, 42(1),48-75.
- Beck, T. (2020). Fintech and financial inclusion: opportunities and pitfalls. (ADBI Working Paper 1165). https://www.adb.org/publications/fintech-financialinclusion-opportunities-pitfalls
- Bhatia, S. Singh, S. (2019). Empowering women through financial inclusion: A study of urban slum. *The Journal for Decision Makers*, 44(4), 182–197. DOI: 10.1177/0256090919897809 journals.sagepub.com/home/vik.
- Boda, M., & Zimkova, E. (2018). Measuring financial intermediation: a model and application to the Slovak banking sector. *Technická univerzita v Liberci*, 21(3),155-170.
- Bongomin, G. O. C., Ntayi, J. M., Munene, J. C., & Akol, C. M. (2017). Financial intermediation and financial inclusion of poor households: Mediating role of social networks in rural Uganda. *Cogent Economics & Finance*, 5(1), 1-16.
- Chai, S., Chen, Y., Huang, B. & Ye, D. (2018). Social networks and informal financial inclusion in the People's Republic of China. *Asia Pacific Journal of Management*, 802(1), 1-32.
- Chetry, R. (2014). Women in Action: The Role of SHG in Women Empowerment in Goalpara District, Assam. *IOSR Journal of Economics and Finance*, 5(6), 48-53.
- Clamara, N., Pena, X., & Tuesta, D. (2014). Factors that matter for financial inclusion: Evidencefrom Peru. Retrieved on 8th September 2019 from https://www.bbvaresearch.com/wpcontent/uploads/mult/WP_1409_tcm348-426338.pdf
- Cull, R., Ehrbeck, T., & Holle, N. (2014). *Financial inclusion and development: Recent impact evidence*. Retrieved on 8th September 2019 from https://www.cgap.org
- Deka, P. P. (2015). Financial literacy and financial inclusion for women empowerment: A study. *International Journal of Applied Research*, 1(9), 145-148.
- Demirguc-Kunt, A., Klapper, L. & Singer, D. (2017). *Financial inclusion and inclusive growth: A review of empirical literature*. Retrieved on 22nd March 2019 from http://documents.worldbank.org/curated

- Drissi, S., & Angade, K. (2019). Islamic financial intermediation; The role of emergence of a new model. *EuropeanJournal of Islamic Finance*, 12(1),1-7.
- Dubus, A. & Hove, L. V. (2017). *M-PESA and financial inclusion in Kenya: of paying comessaving?* Retrieved on 24th March 2019 from https://hal.archives-ouvertes.fr/hal-01591200/document
- Dupas, P., Green, S., Keats, A., & Robinson, J. (2012). Challenges in banking the rural poor: Evidence from Kenya's Western Province. Retrieved on 22nd March 2019 from https://www.nber.org/papers/w17851
- Duvendack, M., Palmer-Jones, R., Copestake, Hooper, Loke, & Rao, N. (2011). *What is theevidence of the impact of microfinance on the well-being of poor people?* Retrieved on 15th September 2019 from https://www.givedirectly.org/wpcontent/ uploads/2019/06/DFID_microfinance_evidence_review.pdf
- Ellis, K., Lemma, A. & Rud, J. (2010). *Investigating the impact of access to financial services on household investment*. London, UK: Overseas Development Institute.
- European Investment Bank (2016). *Banking in sub-Saharan Africa: Recent trends and digitalfinancial inclusion*. Retrieved on 15th March 2019 from https://www.eib.org/attachments/efs/economic_report_banking_africa_digital_financial_inclusion_en.pdf
- Feroze, S. M. &Chauhan, A. K. (2010). Performance of dairy Self-Help Groups (SHGs) in India: Principal Component Analysis approach. *Indian Journal of Agricultural Economics*, 65(2), 308-320.
- Gammage, S., Kes, A., Winograd, L., Sultana, N., Hiller, S., & Bourgault, S. (2017). Gender andfinancial inclusions: What do we know and what do we need to know? Retrieved on 15th September 2019 from https://www.icrw.org/wpcontent/uploads/2017/11/Gender-anddigital-financial-inclusion.pdf
- Hamada, M. (2010). Financial services to the poor: An introduction to the special issue on microfinance. *The Developing Economies*, 48(1), 1-14.
- Hassan, M., Le, T. & Hoque, A. (2021). How does financial literacy impact on inclusive finance? *Financial Innovation*, 7(40), 1-23. https://doi.org/10.1186/s40854-021-00259-9.
- Herath, H. M. W. A., Guneratne, L. H. P., & Sanderatne, N. (2015). Impact of microfinance on women's empowerment: a case studyon two microfinance institutions in Sri Lanka. Sri Lanka Journal of Social Sciences, 38(1), 51-61.
- Ibor, B. I., Offiong, A. I. & Mendie, E. S. (2017). Financial inclusion and performance of micro, small and medium scale enterprises in Nigeria. *International Journal of Research*, 5(3), 104-122.

- Janet, A., Danfei, H., & Melissa, V. (2020). Do as I do, not as I say": Using social learning theory to unpack the impact of role models on students' outcomes in education. *Social and Personality Psychology Compass*, 14(2),1257.
- John, E. I. & Nwekemezie, O. A. (2019). Effects of financial intermediation on economic development of Nigeria. *IOSR Journal of Economics and Finance*, 10(1), 23-32.
- Julia, M. (2018). What does financial intermediation theory tell us about Fintechs? *Studies and Articles*, 38-46.
- Kadia, G. A. (2019). Actor-network theory to understand, track and succeed in a sustainable innovation development process. *Journal of Cleaner Production*, 225(1),524-540.
- Kamal, A., Hussain, T., & Khan, M. M. S.(2021). Impact of financial inclusion and financial stability: Empirical and theoretical review. *Liberal Arts and Social Sciences International Journal*, 5(1), 510-524. https://doi.org/10.47264/idea.lassij/5.1.33
- Kim, M., Zoo, H., Lee, H. & Kang, J. (2018). Mobile financial services, financial inclusion, and development: A systematic review of academic literature. *Electronic Journal of Information Systems in Developing Countries*, 84(1), 1-17.
- Koutroubas, V., & Galanakis, M. (2022). Bandura's social learning theory and its importance in the organizational psychology context. *Psychology Research*, 12(6),315-322.
- Labelle, F., & Aka, K. G. (2021). The collaborative process of sustainable innovations under the lens of actor–network theory. *Sustainability*, 13(19),10756.
- Lotto, J. (2018). Examination of the status of financial inclusion andits determinants in Tanzania. *Sustainability*, 10(2873), 1-15.
- Macleod, A., Cameron, P., Rola, A., Jonathan, T., & Kits, O. (2019). Actor-network theory and ethnography: Sociomaterial approaches to researching medical education. *Perspectives on Medical Education*, 8(1),177-186.
- Makombe, G. (2017). An expose of the relationship between paradigm, method and design in research. *The Qualitative Report*, 22(12), 3363-3382.
- Matthews, A. (2021). Blurring boundaries between humans and technology: postdigital, postphenomenology and actor-network theory in qualitative research. *Qualitative Research in Sport, Exercise and Health*, 13(1),26-40.
- Mehta, S. K., Mishra, H. G., & Singh, A. (2011). *Role of self-help groups in socioeconomicchange of vulnerable poor of Jammu region*. Retrieved on 5th September 2019 from http://ipedr.com/vol4/103-F10147.pdf

- Mhlanga, D. (2021). Financial inclusion in emerging economies: The application of machine learning and artificial intelligence in credit risk assessment. *International Journal of Financial Studies*, 9(39), 1-16. https://doi.org/10.3390/ijfs9030039
- Mugo, M. & Kilonzo, E. (2017). Community level impacts of financial inclusion in Kenya withparticular focus on poverty eradication and employment creation. Retrieved on 22nd March 2019 from https://www.un.org/development/desa/dspd/
- Mutua, J. & Juster, N. G. (2021). Influence of Income Generating Activities and Resource Accessibility on Empowerment of Women in Makueni County. *Journal of Economics*, 5(1), 65-82. https://doi.org/10.53819/81018102t4022
- Mwangi, C. (2017). Factors hindering sustainable financial inclusion of rural women in Kenya, a case of Garissa County, Kenya. Retrieved on 20th March 2019 from http://41.89.49.13:8080/xmlui/bitstream/handle/123456789/1272/Mwangi-
- Nandini, R. & Sudha, N. (2016). A study on women empowerment through self-help groups with special reference to Ramanagar District, Karnataka. *BIMS International Journal of Social Science Research*, 1(1), 1-15.
- Narang, U. (2012). Self-help group: An effective approach to women empowerment in India. *International Journal of Social Science and Interdisciplinary Research*, 1(8), 8-16.
- Narod, F., & Anwar, R. (2020). Social learning theory—Albert Bandura. *Science Education in Theory and Practice*, 1(1),85-99.
- Ndinda, M. D. (2016). Contribution of youth self-help group initiatives to socioeconomic wellbeing of youth in Dandora, Nairobi City County, Kenya. (Unpublished Thesis). Kenyatta University.
- Nichols, C. (2021). Self-help groups as platforms for development: The role of social capital Carly Nichols. *World Development*, 146(2021), 1-12 https://doi.org/10.1016/j.worlddev.2021.105575
- Odoh, M. & Chinedum, I. E. (2014). Research designs, survey and case study. *IOSR Journal ofVLSI and Signal Processing*, 4(6), 16-22.
- Olena, H., & Verdier, M. (2018). The financial intermediation role of the P2P lending platforms. *Comparative Economic Studies*, 60(1),115-130.
- Omar, A. & Inaba, K. (2020). Does financial inclusion reduce poverty and income inequality in developing countries? A panel data analysis. *Journal of Economic Structures*, 9(37), 1-25. https://doi.org/10.1186/s40008-020-00214-4
- Onyango, K. A. O. (2011). The role of microfinance institutions in the growth of small and mediumenterprises (SMEs): A case of SMEs in Gikomba Market,

Nairobi, Kenya. Retrieved on 25th March 2019 from http://repository.mua.ac.ke

- Ozili, P. K. (2020). Financial inclusion in Nigeria: determinants, challenges and achievements. (MPRA Paper No. 99173). https://mpra.ub.uni-muenchen.de/99173/
- Ozuem, W., Silvia, R., Willis, M., Serena, R., & Howell, K. (2021). Exploring customers' responses to online service failure and recovery strategies during Covid-19 pandemic: An actor–network theory perspective. *Pychology & Marketing*, 38(9),1440-1459.
- Patwardhan, A., Singleton, K., & Schmitz, K. (2018). *Financial inclusion in the digital age*. Washington DC: World Bank Group.
- Qamruzzaman, M. & Wei, J. (2019). Financial innovation and financial inclusion nexus in South Asian Countries: Evidence from symmetric and asymmetric panel investigation. *International Journal of Financial Studies*, 7(61), 1-27. Doi: 10.3390/ijfs7040061 www.mdpi.com/journal/ijfs
- Rathore, R. & Garg, M. (2013). Role of financial inclusion through self-help group: A study of selected SHGS in Yamuna Nagar (District Haryana) India. *International Journal of Advanced Research in Management and Social Sciences*, 2(2), 121-135.
- Ratnawati, K. (2020). The influence of financial inclusion on MSMEs' Performance through financial intermediation and access to capital. *The Journal of Asian Finance, Economics and Business*, 7(11),205-218.
- Rav, P. K. (2014). A study on self-help groups in Sultanpur District of Uttar Pradesh. Varanasi, IND: Institute of Agricultural Sciences, Banaras Hindu University.
- Reddy, K. R. & Reddy, C. S. (2012). Self-help groups in India: A study on quality and sustainability. Retrieved on 8th September 2019 from http://www.apmas.org/pdf/self-helpgroups-in-india-a-study-on-quality-andsustainability.pdf
- Reddy, K. R. & Reddy, C. S. (2012). *Self-help groups in India: A study on quality and sustainability.* ENABLE.www.enableindia.net
- Republic of Kenya (2013). *First County integrated development plan 2013-2017*. Retrieved on April 1st 2019 from https://www.kenyampya.com
- Riley, T. A. & Kulathunga, A. (2017). *Bringing e-money to the poor*. International Bank for Reconstruction and Development /The World Bank.
- Roy, N. C. & Biswas, D. (2016). Women empowerment through SHGS and financial inclusion: A case study on Lataguri region in West Bengal. *International Journal of Management Research & Review*, 6(6), 827-834.

- Rupnawar, B. S. & Upadhye, S. G. (2015). Women empowerment through self-help group: A study of karjat taluka raigad district Maharashtra. *International Journal of Multidisciplinary Research and Development*, 2(10), 568-571.
- Sage, D., Vitry, C., & Dainty, A. (2019). Exploring the organizational proliferation of new technologies: An effective actor-network theory. *Organization Studies*, 41(3),345-363.
- Sarania, R. & Maiti, S. (2014). Self Help Groups (SHGs) and financial inclusion: A case study in Baksa District of Assam. *International Journal of Humanities & Social Science Studies*, 1(3), 137-146.
- Schoonenboom, J. & Johnson, R. B. (2017). How to construct a descriptive research design. *Koln Z Soziol*, 69(1), 107-131.
- Shadrack, J. (2020). Effect of performance of microenterprises supported by 410 Bridge International on well-being of households in Makueni County, Kenya. (Unpublished Thesis). University of Nairobi.
- Shetty, N. & Pinto, P. (2015). Financial inclusion through SHG-BLP. A case study of SKDRDP and NGVCT in India. *World Reviews of Business Research*, 5(3), 91-107.
- Shetty, N. & Pinto, P. (2016). *Self-help group model: A strategy for inclusive growth*. Retrieved on 15th September 2019 from http://globalbizresearch.org
- Sing, A. S. & Masuku, M. B. (2014). Sampling techniques and determination of sample size in applied statistics research: An overview. *International Journal* of Economics, Commerce and Management, 2(11), 1-22.
- Singh, R. & Roy, S. (2015). Financial inclusion: A critical assessment of its concepts and measurement. Asian Journal of Research in Business Economics and Management, 5(1), 12-18. www.aijsh.org.
- Smith, M. (2021). Social learning and addiction. *Behavioural Brain Research*, 398(1),112954.
- Srinivasan, R. (2003). Self-help groups as financial institutions: Policy implications using a financial model. *Journal of Microfinance*. Retrieved on 4th November 2019 from https://scholarsarchive.byu.edu/journals.html
- Stalph, F. (2019). Hybrids, materiality, and black boxes: Concepts of actor-network theory in data journalism research. *Sociology Compass*, 13(11),12738.
- Suzuki, Y., Barai, M. K., Adhikary, B. K. & Wanniarachchige, M. K. (2011). The Grameen Bank "Empowering the Poor" Model of Microcredit: An Institutional Comparison with the Traditional Mode of the Japanese Banking System, *The Journal of Comparative Asian Development*, 10(1), 129 – 156.

- Taber, K. S. (2017). The Use of Cronbach's Alpha When Developing and Reporting Research Instruments in Science Education. *Research Science Education*, 48(1), 1273–1296.
- Teka, B. M., Nahusenay, S., & Asmare, T. (2020). Determinants of financial inclusion in East Gojjam, Ethiopia. *Journal of Applied Finance & Banking*, 10(4), 69-88.
- Tekleab, A., Reagan, P., Boram, D., Levi, A., & Lichman, C. (2021). Translating corporate social responsibility into action: A social learning perspective. *Journal of Business Ethics*, 171(1),741-756.
- Thangamani, S. & Muthuselvi, S. (2013). A study on women empowerment through self- help groups with special reference to Mettupalayam Taluk in Coimbatore District. *IOSR Journal of Business and Management*, 8(6), 17-14.
- Tony, N. & Desai, K. (2020). Impact of digital financial literacy on digital financial inclusion. *International Journal of Scientific & Technology*, 9(1), 1911-1915. www.ijstr.org
- Uma, H. R. & Rupa, K. N. (2013). The role of SHGs in financial inclusion: A case study. *International Journal of Scientific and Research Publications*, 3(6), 1-5.
- Van Hove, L. & Dubus, A. (2019). M-PESA and financial inclusion in Kenya: Of paying comes saving? *Sustainability*, *11*(568), 1-26. Doi: 10.3390/su11030568. www.mdpi.com/journal/sustainability
- Vasantha, S., Paveethiraa, R., & Nagar, V. (2015). Challenges of financial inclusion to reach the poor. *American International Journal of Research in Humanities, Arts, and Social Sciences, 15*(134), 127-131.
- Villarreal, F. G. (2017). *Financial inclusion of small rural producers*. https://repositorio.cepal.org/bitstream/handle/11362/42639/1/S1700575_en.pd f
- Wachira, M. I. & Kihiu, E. N. (2012). Impact of financial literacy on access to financial services in Kenya. *International Journal of Business and Social Sciences*, 3(19), 42-50.
- Wang, J. J., & Selina, Y. (2018). Case studies on transport infrastructure projects in belt and road initiative: An actor network theory perspective. *Journal of Transport Geography*, 71(1),213-223.
- Wangari, W. T. (2014). Factors influencing performance of self-help groups: A case of Muungano Self-Help Group in Kianjokoma, Embu County. *Unpublished Thesis*, University of Nairobi, Kenya. Retrieved on 4th November 2019 from http://erepository.uonbi.ac.ke/
- Werner, R. A. (2016). A lost century in economics: Three theories of banking and the conclusive evidence. *International Review of Financial Analysis*, 46(1), 361-379.

- Wiedrich, K., Rice, S., Sims, L., & Wiesman, H. (2017). On track or left behind? Findings from the 2017 Prosperity Now Scorecard. https://prosperitynow.org/files/PDFs/2017_Scorecard_Report.pdf
- World Bank Group (2016). *Payment aspects of financial inclusion*. Bank for International Settlement and World Bank Group. https://www.bis.org/cpmi/publ/d144.pdf

Yilmaz, M., Ugur, Y., & Ece, N. Y. (2019). The relation between social learning and visual culture. *International Electronic Journal of Elementary Education*, 1(1),421-427.

Yntiso, G. (2015). The self-help groups approach in Ethiopia: Promising achievements and formidable challenges. *Journal of Ethiopian Studies*, 48(1), 33-60.

APPENDICES

Appendix I: Questionnaire

Dear Respondent,

This questionnaire contains four short sections that should take only a few moments of your time. Please respond the questions provided as accurately and as completely as possible.

SECTION A: DEMOGRAPHIC INFORMATION

1.	What is the nature of your self-help group?				
	Men Owned SHG	[]		
	Women Owned SHG	[]		
	Open Membership	[]		
2.	How long has the self-help gro	oup exi	isted	?	
	Less than 5 years	[]		
	6-10 Years	[]		
	11-15 years	[]		
	More than 15 years	[]		
3.	What are your key activities?				
	Trading	[]		
	Table banking	[]		
	Agri-business	[]		
4.	How many members does you	ır SHG	has?)	
	Less than 10	[]		
	11-19 members			[]
	20-29 members]]
	30 members and above			[]

SECTION B: ACCESS TO SAVINGS

5. Which institution does the Self Help Group mostly use for savings? Commercial banks [] Microfinance Institution [] Savings and Credit Cooperative Societies [] Other (specify)..... 6. Which is the most preferred savings methods adopted by your group?

Money Market Funds	[]
Fixed Deposit Facilities	[]
Current Accounts	[]
Savings	[]
Others		

7. To what extent do you agree with the following statements in respect to performance of your Self-Help Group? 1=Not at all; 2= Very small extent; 3= Small extent; 4= Large extent; 5= Very large extent

	1	2	3	4	5
i) By use of banking services, there is					
ready access to savings enabling us take					
up investments					
ii) Access to fixed deposits services					
earns interest improving our returns					
iii) We use the savings as collateral to					
secure credit for our expansion					
iv) Savings in a financial institutions					
improves our financial resource base for					
future investments					
v) Bank savings enable us to have					
readily available cash for working					
capital needs					
vi) Savings services instils a saving					
culture to members of the self- help					
group					
vii) With savings, we are able to					
undertake investments and earn income					
more efficiently					

SECTION C: ACCESS TO LOANS

- 8. Kindly indicate if any form of credit, you have applied was approved in full amount?
 - Yes [] No []
9. If partially granted, was the loan amount awarded sufficient?

Not at all	[]
Very small extent	[]
Small extent	[]
Large extent	[]
Very large extent	[]

10. Which is the largest inhibition towards access to credit for your group?

Lack of collateral	[]
Poor recording keeping	[]
High cost of credit	[]
Lack of knowledge	[]
Inadequate loan repayment period	[]

11. To what extent has access to credit contributed to the performance of your group? 1=Not at all; 2= Very small extent; 3= Small extent; 4= Large extent; 5= Very large extent

	1	2	3	4	5
i)Expansion of financial markets enables					
provision of secured loans					
ii) Provision of unsecured loans by					
financial entities have improved our					
welfare					
iii) Access to non-collateralized					
boosts our resilience					
iv) Credit application process is no					
longer cumbersome					
v) Consequential costs of credit					
such as facilitation and legal fees are					
fair					
vi) Insurance on credit is accessible					
to our Self-help group and this					
improves our welfare					
vii) Low interest loans boost our					
returns					
viii) Financial markets have					
favourable credit terms.					

SECTION D: MONEY TRANSFER

12. How does the group or its members receive and make payments? (Please tick one that is mostly used)

Through mobile phone	[]
Through electronic funds transfer	[]
Through a visit to the bank	[]
Directly through physical cash	[]

13. What is the most challenges limiting use of money transfer services

Cost of transacting	[]
Difficult in use	[]
Security of the media	[]

14. To what extent has access to money transfer services contributed to the performance of your group? 1=Not at all; 2= Very small extent; 3= Small extent; 4= Large extent; 5= Very large extent

	1	2	3	4	5
i) Money transfer services has reduced					
paper work.					
ii) Control of finances is efficient where					
money transfer services are employed					
iii) Money transfer services have					
increased our members' contributions.					
iv) Money transfers have created a					
savings culture for our members					
v) Loan repayments through modern					
money transfers make our operations					
efficient					
vi) Money transfer services					
improves our savings mobilizations					
vii) Money transfers enable tracking					
of records for our members					

SECTION E: FINANCIAL EDUCATION

- 15. Where do you often financial education and training from?
 - Commercial banks []

Microfinance Institutions	[]
Non-government institutions	[]
Government Bodies	[]
Training institutions	[]

16. To what extent has financial education programs contributed to the performance of your group? 1=Not at all; 2= Very small extent; 3= Small extent; 4= Large extent; 5= Very large extent

	1	2	3	4	5
i)Financial management awareness has					
led to prudence management of fund					
ii) Financial knowledge saves on					
our resources					
iii) Financial education boosts our					
asset growth					
iv) We are able to apply financial					
education acquired skills in decision					
making					
v) Financial education boosts					
harmony amongst group members					
vi) Financial education betters					
financial planning capacity					
vii) Good financial education lead to					
self-reliance					
viii) We have acquired key					
knowledge in debt management					
ix) Through financial education, we					
are able to budget well					

SECTION F: PERFORMANCE OF SELF-HELP GROUPS

17. In the following section, please indicate the current performance status of your group? 0=Not at all; 1= Very small extent; 2= Small extent; 3= Large extent; 4= Very large extent

	1	2	3	4	5
i) The level of savings has					
improved					
ii) The returns on our investments					
has improved					

iii)	Our credit repayment ability has			
impro	ved			
iv)	Dividends payouts to members of			
the sel	f-help groups has increased			
v)	Loan repayment among members			
has im	proved			

Thank you for your time and cooperation

Appendix II: Letter of Authorization



KENYATTA UNIVERSITY GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

P.O. Box 43844, 00100 NAIROBI, KENYA Tel. 8710901 Ext. 57530

Our Ref: D53/CTY/PT/39281/2016

DATE: 27th September, 2022

Director General, National Commission for Science, Technology and Innovation P.O. Box 30623-00100 NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR JANET MUTUNGI – REG. NO. D53/CTY/PT/39281/2016.

I write to introduce Janet Mutungi who is a Postgraduate Student of this University. The student is registered for MBA degree programme in the Department of Accounting and Finance.

Janet intends to conduct research for a MBA Project Proposal entitled, "Financial Inclusion and the Performance of Self-Help Groups in Kenya."

Any assistance given will be highly appreciated.

Yours faithfully,

4 10 PROF. ELISHIBA KIMANI DEAN, GRADUATE SCHOOL

AM/Inn

Appendix III: Research Permit

