

Performance of Semi-Formal Microfinance Institutions in Tanzania:

A case study of selected SACCOs and BRAC Tanzania

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Summary

1. Introduction

Tanzania is a low-income country on the eastern coast of Africa and has what can be considered a small economy. A large proportion of the population lives below the poverty baseline of USD 2 a day. One important means of reducing poverty is ensuring access to financial services. However, in Tanzania, as in most developing countries, access to financial services is extremely limited. There are three categories of financial service providers in the country: formal, semi-formal, and informal. The formal microfinance institutions (MFIs) mainly comprise banks. The semi-formal MFIs consist of savings and credit cooperatives (SACCOs) and non-governmental organizations (NGOs), such as BRAC Tanzania. Informal MFIs comprise of informal groups such as rotating savings and credit associations (ROSCAs).

Financial services from formal MFIs are available only to a very small fraction of the population. The lack of collateral is one of the main reasons for this. Due to limitations in the formal sector, the microfinance sector in Tanzania relies largely on the semi-formal and informal MFIs. However, informal MFIs are confronted with several challenges, such as unreliability and high interest rates, a common feature found in many developing countries.

Due to the reasons mentioned, semi-formal MFIs can be considered a better option because they serve the poor who have been excluded from formal MFIs by providing a wide range of financial services such as small-sized loans and savings services. Most importantly, semi-formal MFIs have introduced collateral substitutes. NGO MFIs have introduced group lending, in which members form groups and guarantee each other whereas cooperative-based MFIs (SACCOs) use savings as a collateral substitute, where members can borrow against their savings.

2. Purpose and Significance of the Research

In discussing the performance, this study first examines the outreach of the selected SACCOs and BRAC Tanzania in terms of credit expansion. Second, the study analyzes the efficiency of the selected SACCOs and BRAC Tanzania in terms of operating costs. Third, it examines the repayment performance of BRAC Tanzania group loans, and finally, it empirically assesses the factors that determine loan repayment performance of group loans implemented by BRAC Tanzania.

Several academic studies discuss various topics regarding semi-formal MFIs, but a gap in this area still remains in the literature. To the best of the author's knowledge, there are no studies on Tanzanian semi-formal MFIs that focus on both SACCOs and NGOs using institutional and members' data to assess the performance of these institutions.

3. Methodology of the Research

This study used both primary and secondary data. The primary data were collected through observations, interviews, and questionnaires. The interviews and questionnaires were conducted with various BRAC Tanzania and SACCOs key informants and BRAC Tanzania members. The secondary data were obtained from reports and financial statements of the two representative semi-formal MFIs.

The analysis of the performance of the selected SACCOs and BRAC Tanzania is based on different samples. In analyzing performance in terms of outreach and efficiency, three representative SACCOs (Nanenane Women, Krokoni, and Umatama) were selected from the roster of SACCOs operating in the Arusha region. While selecting, the following criteria were used: (i) community-based, (ii) have a long-standing operating experience (five years or more), and (iii) hold a large amount of outstanding loans compared to other SACCOs in the region. In analyzing the repayment performance of BRAC Tanzania group lending, ten groups from the Tengeru branch, one of

the BRAC Tanzania branches in the Arusha region, were randomly selected. The questionnaires were administered to 177 members. Lastly, to empirically determine factors for the repayment performance of the BRAC Tanzania group lending, 183 groups were randomly selected.

4. Research Findings

The study finds notable differences between the selected SACCOs and BRAC Tanzania in various aspects. First, the selected SACCOs offer both credits and savings services, while BRAC Tanzania offers only credits services; this is because NGO MFIs in Tanzania are not allowed to accept savings. Second, the selected SACCOs lends to individuals, whereas BRAC Tanzania uses group lending. Third, BRAC Tanzania offers loans of a smaller size than the selected SACCOs suggesting that BRAC Tanzania serves poorer borrowers than the selected SACCOs. Fourth, the interest rates charged by BRAC Tanzania are considerably higher than those charged by the selected SACCOs. Fifth, BRAC Tanzania has higher operating costs than that of the selected SACCOs.

Regarding performance, the study finds that the representative semi-formal MFIs are successful in increasing outreach through credit expansion. Although BRAC Tanzania is barred from accepting deposits by regulations, SACCOs members benefit from access not only to credit services but also to savings services. The difference in the level of outreach between BRAC Tanzania and the selected SACCOs reflects the difference in their target clients, business orientation, and mission. The selected SACCOs serve members who are united by a common bond, providing them with bigger loans whereas BRAC Tanzania mainly focuses on poor women. The selected SACCOs are also diversified in various aspects, such as their target clients, types of loan, and loan amounts and durations, which suggests that the selected SACCOs serve a wider variety of clients.

In discussing efficiency, descriptive and empirical analyses were used. Based on the descriptive analysis, the study did not find a clear trend in terms of efficiency for the analysis period. To confirm this, a regression analysis was conducted. The results show that operating costs did

not decrease over time, implying that there was no efficiency gain, possibly due to a lack of cost reduction innovations. BRAC Tanzania had higher operating costs than the selected SACCOs. The observed difference is caused by the difference in the loan amounts offered by the selected SACCOs and BRAC Tanzania. The latter, on average, offers small-sized loans compared to those offered by the selected SACCOs and managing very small-sized loans involves high transaction costs. Due to its higher operating costs, BRAC Tanzania charge higher interest rates than the selected SACCOs.

Using the case of BRAC Tanzania group lending, the study finds that BRAC Tanzania has achieved high repayment performance. Approximately 96% of all loans are recovered. This constitutes proof that even the poor can repay their loans on time when the appropriate mechanisms are in place. Institutional design such as frequent client visits, frequent repayment schedules, and strict loan approval processes also play an important role.

To examine the determinants of the repayment performance in the BRAC Tanzania group lending, a logit regression was used. The results confirm as well as contradict the views generally stated in the literature. Peer pressure and social ties in the groups show no significant effects on improving repayment performance. This is contrary to what the theory would predict. Also, groups located in different areas appear to enforce repayment within their membership in different ways. In urban groups, repayment rates are improved primarily by joint liability. For groups located in rural areas, where information can be obtained at low cost, peer screening is an important factor in improving the repayment rates. The functions of groups also differ according to the location. In rural areas, peer screening and peer monitoring show significant effects, whereas in urban areas, only peer monitoring exhibits a significant effect.

5. Policy Implications

Based on the findings, this study has the following policy implications: The representative semi-formal MFIs differ despite the fact that they fall under the same category. Their differences include their institutional structures, products, and target clients. This study, therefore, suggests diversification of the underlying regulations to address the differences in operations and services offered by semi-formal MFIs.

Furthermore, representative semi-formal MFIs fail to achieve efficiency. Greater attention must be paid to reducing operating costs and enhancing efficiency so that a large proportion of the poor can be served by semi-formal MFIs. It is important for the government to support and create an environment that encourages innovations in financial systems. Such support can include investment in infrastructure or in innovations that aims to achieve a cost-effective provision of financial services.

The results suggest that even poor borrowers can pay back the loans reliably and on time. For this reason, the government should encourage and promote broader participation of other MFIs, especially formal MFIs to fill the unmet demands gap. Semi-formal MFIs have already tried and proved that they can work with the poor. Government support may motivate other providers such as commercial banks to offer microloans. Many potential lessons might be drawn from semi-formal MFIs. For example, a variety of collateral substitutes and repayment incentives can be used. Continued promotion and support of semi-formal MFIs is also important.

List of Acronyms and Abbreviations

AA	Area Accountant
ACB	Akiba Commercial Bank
ADP	Adolescents Development Program
AO	Area Office
ASA	Association for Social Advancement
BA	Branch Accountant
BM	Branch Manager
BoT	Bank of Tanzania
CGAP	Consultative Group to Assist the Poor
CO	Community Organizer (commonly known as credit officer)
COASCO	Cooperative Audit and Supervision Corporation
CR	Country Representative
CRDB	Cooperative and Rural Development Bank
DANIDA	Danish International Development Agency
DCO	District Cooperative Officer
DO	Division Office
EAC	East African Community
ELA	Empowerment and Livelihood for Adolescents
KCB	Kenya Commercial Bank
MF	Microfinance Program
MFIs	Microfinance Institutions

MNO	Mobile Network Operator
MUCOBA	Mufindi Community Bank
NBC	National Bank of Commerce
NGOs	Non-Governmental Organizations
NORAD	Norwegian Agency for Development Cooperation
PM	Program Manager
RA	Regional Accountant
RITA	Registration, Insolvency, and Trusteeship Agency
RM	Regional Manager
RO	Regional Office
ROSCAs	Rotating Savings and Credit Associations
SACAs	Savings and Credit Associations
SACCOs	Savings and Credit Cooperatives
SDGs	Sustainable Development Goals
SEP	Small Enterprise Program
SRM	Senior Regional Manager
SSA	Sub-Saharan Africa
TCDC	Tanzania Cooperatives Development Commission
TShs	Tanzanian Shillings
VICOBA	Village Community Banks
VO	Village Organization
VSLAs	Village Savings and Lending Associations
WeSOLVE	Women Entrepreneurship through the Solar Value Chain for Economic Development

YOSEFO Youth Self Employment Foundation

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Chapter 1.

Introduction

1.1 Background of the Study

Around 736 million people lived on less than 2 USD a day, which is equivalent to 10 percent of the world's population. More than half of the extreme poor in the world live in Sub-Saharan Africa (SSA). The number has increased by 9 million, with 413 million people living on less than USD 2 a day in 2015, more than all the other regions combined. If this trend continues, by 2030, nearly 9 out of 10 extreme poor will be in SSA ([World Bank, 2019](#)). Tanzania is one of the countries in SSA and has what can be considered a small economy. A large proportion of the population lives below the poverty baseline of USD 2.¹ This is especially true in rural areas ([Marr and Tubaro, 2011a](#); [IFAD, 2015](#)).²

Access to financial services is one of the important means of poverty alleviation ([Yunus, 2007](#); [Dunford, 2006](#)). It is also acknowledged by [Klapper et al. \(2016\)](#) as a key enabler in achieving sustainable development goals (SDGs). Furthermore, access to financial services has been credited in improving financial outcomes including savings and the accumulation of assets such as furniture or a sewing machine, as well as non-financial outcomes such as health, food security, nutrition, education, women's empowerment, housing, job creation, and social cohesion ([Afrane, 2002](#); [Barnes, 1996](#); [Barnes and Keogh, 1999](#); [Beck et al., 2004](#); [Hietalahti and Linden, 2006](#); [Hossain and Knight, 2008](#); [Khandker, 2001](#); [Odell, 2010](#); [Schuler et al., 1997](#); [Wright, 2000](#)).

In Africa, explosive growth in microfinance is creating new opportunities for many households. For example, in Tanzania, [Winter-Nelson and Temu \(2005\)](#) found evidence that supports the beneficial effects of access to finance for credit-constrained coffee growers. [Mwakaje and Girabi \(2013\)](#) also found that smallholder farmers with access to credit realized high agricultural

¹ Approximately 70% of Tanzanians live below the international poverty line of USD 2 a day ([World Bank, 2015](#)).

² 80% of the poor and extremely poor people in Tanzania live in rural areas and depend on subsistence agriculture for their livelihood ([World Bank, 2015](#)).

productivity compared to those without access to credit. Studies have also found that a lack of access to finance can lead to poverty traps and increase levels of income inequality ([Beck et al., 2007](#)). The underlying logic is that by providing financial services to the poor, for example in the form of credit or savings, they manage their money, invest, acquire productive assets, increase their skill levels, and open new businesses. Hence, economic and social structures can be transformed, and poverty can be alleviated ([Morduch, 1999](#)).

Despite the evidence on the importance of access to financial services in fighting poverty, in the countries where poverty prevails outreach by the microfinance institutions remains a small percentage of the population. Globally, about 1.7 billion adults remain unbanked — without an account at a financial institution or through a mobile money provider ([Demirgüç-Kunt et al., 2018](#)). Most of the unbanked adults live in SSA. While worldwide, 50% of adults have an account at a formal financial institution, barely 23% of adults in SSA do so ([Demirgüç-Kunt and Klapper, 2013](#)). Many African adults without a formal account lack access in the sense that costs are prohibitively high, or banks and other financial institutions are located too far away, or financial services are not available because of legal barriers, regulatory constraints, information impediments, or cultural deterrents. The share of adults who use formal credit and savings in SSA is also low. In 2011 the share was 4.5% and 12%, respectively which was below the worldwide average of 9% and 22%, respectively ([Demirgüç-Kunt et al., 2015](#)). The poor, youth, and rural residents are more likely to report greater barriers to access to financial services in SSA ([Allen et al., 2012](#)).

In Tanzania, as in most SSA countries, access to financial services is extremely limited. Financial service providers are estimated to serve approximately 500,000 clients, which is just 5% of the estimated total demand in the country ([Mftransparency, 2019](#)). Thus, there appears to be a huge unmet demand for financial services.

There are three categories of financial service providers in Tanzania: formal, semi-formal, and informal (Figure 1.1). The formal microfinance institutions (MFIs) comprise banks that are

licensed and supervised by the Bank of Tanzania (BoT). The financial services of the formal MFIs are available only to a very small fraction of the population. In 2017, only 5.3% of the population above 15 years had obtained loans from formal financial institutions (World Bank, 2018). The lack of collateral is one of the main reasons for this. Due to limitations in the formal sector, the microfinance sector in Tanzania relies on the semi-formal and informal sector. It is estimated that 3 million people benefit from the existing semi-formal and informal MFIs (World Bank, 2013b).

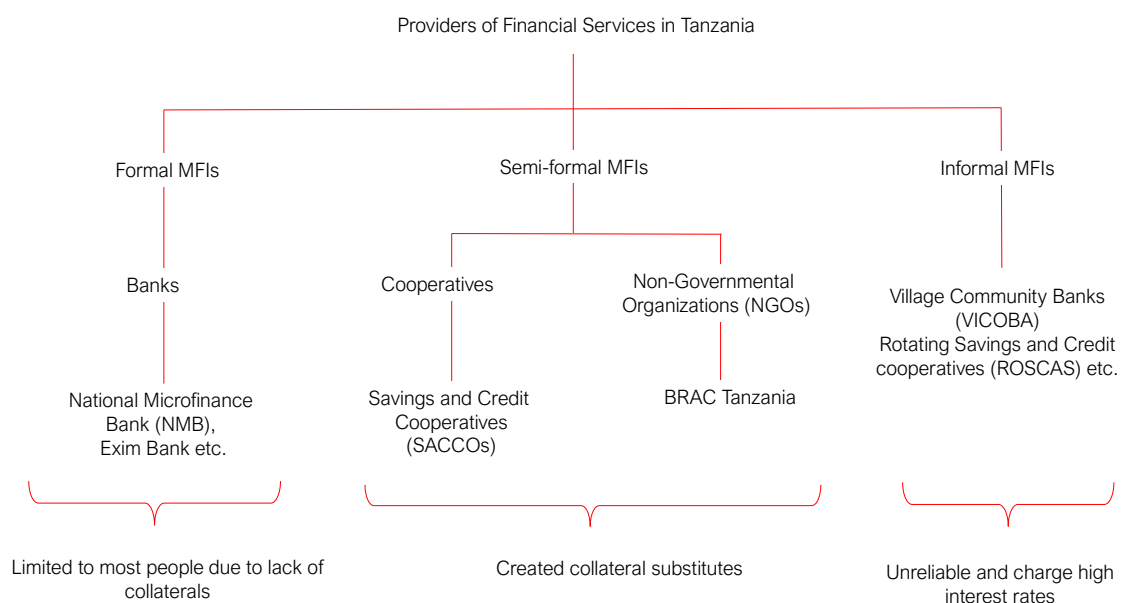


Figure 1.1: Providers of financial services in Tanzania

Source: Author, 2019

The semi-formal MFIs are legal entities registered by different government authorities, but their businesses are either regulated by non-financial regulators (as is the case of savings and credit cooperatives (SACCOs) or not regulated at all (as is the case of non-governmental organizations (NGOs)). SACCOs need to register with the regional cooperative office under the Ministry of Agriculture, Food Security, and Cooperatives (MAFC). NGOs need to register with the Registration, Insolvency, and Trusteeship Agency (RITA) and Tanzania's ministry of foreign affairs. As of March 2013, there were 5,559 registered SACCOs in mainland Tanzania, with 55% of those in ru-

ral areas. They had more than 1.1 million members, representing approximately 25% of the clients in the financial sector (including those serviced by formal and other semi-formal providers). Similarly, 71 financial NGOs provide credit services to approximately 690,000 clients ([World Bank, 2013b](#)).

The third category of MFIs covers self-regulated informal institutions, such as savings and credit associations (SACAs), village community banks (VICOBAs), rotating savings and credit associations (ROSCAs), and village savings and lending associations (VSLAs). In 2011, 45.1% of the population above 15 years in Tanzania were relying on informal credit and 28.2% on informal savings services ([World Bank, 2014](#)). The consequences of relying on informal means to manage the day to day financial needs are well documented by [Collins et al. \(2009\)](#). Using the detailed information from the financial diaries of the individual, the authors provide insight into the challenges faced by the unbanked. For instance, the financial diaries list the time and effort spent by poor individuals to compensate for the lack of access to services such as savings accounts, credit, and insurance. Other challenges of using informal providers include unreliability and high interest rates. The fact that informal loans carry high interest rates is a common feature found in many developing areas ([Conning and Udry, 2007](#)). For example, [Banerjee et al. \(2017\)](#) find this to be the case in Hyderabad, India. In Tanzania, Ghana, Malawi, and Nigeria, [Steel et al. \(1997\)](#) found that moneylender interest rates are at least 50 percentage points higher than formal MFIs rates.

The consequences of relying on the informal MFIs and the difficulties of assessing the formal MFIs make semi-formal MFIs to be of great significance in Tanzania. Their importance in Tanzania is well documented in the extant literature. These include the following: (i) provide financial services to the poor ([Wangwe and Lwakatare, 2004](#)); (ii) promote mutual support among the poor ([Maghimbi et al., 2010](#)); (iii) contribute to financial intermediation and household savings ([Qin et al., 2013](#)); (iv) contribute to economic growth ([Qin and Ndiege, 2013](#)); (v) provide the predom-

inant form of external financing for small and micro enterprises ([Bwana and Mwakujonga, 2013](#)); and (vi) reduce poverty ([Kwai and Urassa, 2015](#)).

Based on the aforementioned reasons, this study focuses on semi-formal MFIs by referring to selected SACCOs and BRAC Tanzania, a non-governmental international development organization as representative of semi-formal MFIs. BRAC Tanzania is one of the leading NGO MFIs in terms of the number of borrowers, branch network and outstanding loans ([Mftransparency, 2019](#); [BRAC Tanzania, 2018](#)).

1.2 Objectives of the Study

The main objective of this study is to examine the performance of semi-formal MFIs, to offer suggestions for their future improvement. More specifically, this study aims:

- (i) To understand the financial services of the selected SACCOs and BRAC Tanzania.
- (ii) To examine the outreach and efficiency of the selected SACCOs and BRAC Tanzania.
- (iii) To assess the repayment performance of BRAC Tanzania's group lending.
- (iv) To examine the factors that determine the repayment of BRAC Tanzania's group lending.
- (v) To assess the functions of the groups used by BRAC Tanzania.

1.3 Research Questions

With the above research objectives, this study seeks to answer the following questions.

- (i) What are the financial services offered by selected SACCOs and BRAC Tanzania?
- (ii) What are the differences between the selected SACCOs and BRAC Tanzania?
- (iii) To what extent do selected SACCOs and BRAC Tanzania reach the poor?
- (iv) Are the selected SACCOs and BRAC Tanzania operating efficiently?
- (v) What is the loan recovery rate of BRAC Tanzania's group lending?
- (vi) What are the factors that determine the repayment of BRAC Tanzania's group lending?
- (vii) What are the functions of groups used by BRAC Tanzania?

1.4 Significance of the Study

Semi-formal MFIs remain to be an essential provider of financial services in Tanzania due to the fact they serve the poor who have been excluded from formal MFIs by providing a wide range of financial services such as small-sized loans and savings services. Most importantly, semi-formal MFIs have introduced collateral substitutes. NGO MFIs have introduced group lending, in which members form groups and guarantee each other whereas cooperative-based MFIs (SACCOs) use savings as a collateral substitute, where members can borrow against their savings. Their progress in Tanzania has also been notable. For example, while BRAC Tanzania began operating in Tanzania in 2006, it has already established 11,321 microfinance groups, with 214,046 members (BRAC Tanzania, 2018). Likewise, from 2005 to 2012, the annual average growth rates of the number of SACCOs and SACCOs members were 18.9% and 25.5%, respectively (Qin et al., 2013).

Several academic studies discuss various topics regarding semi-formal MFIs, but a gap in this area still remains in the literature. To understand this gap, an extensive review of academic publications related to microfinance in Tanzania was conducted.³ Table 1.1 summarizes the publications.

Most publications on Tanzania semi-formal MFIs focus on the impact of financial services on borrowers' livelihood, business, and other aspects, such as women's empowerment. However, the author has found only few publications focusing on institution-side factors. For example, Chijoriga (2015) conducts a non-empirical analysis to discuss the institutional transformation of NGO MFIs, while Mkuu and Yusoff (2017) discuss the potential of MFIs that follow Islamic principles in Zanzibar. Ishengoma (2015) and Jeje (2015) focus on how outreach can be improved through the linkage between SACCOs and formal MFIs, and the development of financial products. Magali (2013a) examines the impact of credit risk management on the profitability of semi-formal MFIs.

³The review was conducted by searching for articles of interest in three academic databases: (i) JSTOR; (ii) Science Direct; and (iii) Google Scholar. To narrow down the search results, journals and keywords related to microfinance were specified.

Table 1.1: Publications related to MFIs in Tanzania

Category	Publications	Overviews of topics discussed
Financial sector in general	Temu (1998) .	The impact of financial sector reforms in Tanzania.
MFIs (overall)	Kaleshu and Temu (2012) ; Kipesha (2013b) ; Aloisi et al. (2002) ; Kuzilwa (2005) ; Lindvert et al. (2015, 2019) ; Salia (2014) ; Satta (2004) ; Selejio (2015) ; Josephat et al. (2017) ; Kipesha (2013a) ; Abbas and Honghui (2016) ; Berge et al. (2012) ; Bjorvatn and Tungodden (2010) ; Magali (2018) .	Evaluating the impact of microcredit on borrowers, MFIs regulations, and government intervention on financial services.
Formal MFIs	Chuku and Ndanshau (2017) ; Cull and Spreng (2011) ; Clacher et al. (2006) ; Anand and Jayaramaiah (2013) ; Kalimang'asi et al. (2014) ; Makore (2014) ; Satta (2006b,a) ; Temu and Andilile (2015) ; Weber and Musshoff (2012) ; Mwizarubi et al. (2015) .	Policy changes, performance evaluation, agricultural finance, effects of technological changes on institutions operations, and risk management
Semi-Formal MFIs	Sigalla and Carney (2012) ; Chijoriga (2015) ; Magali (2013a,b) ; Flora et al. (2015) ; Kaseva (2017) ; Maleko et al. (2013) ; Mkuu and Yusoff (2017) ; Mori et al. (2017) ; Ngonyani and Mapesa (2019) ; Ssendi and Anderson (2009) ; Tundui and Tundui (2013) ; Ishengoma (2015) ; Jeje (2015) ; Kabung'a and Masoud (2015) .	Evaluating the impact of microcredit on borrowers, operations of MFIs on various aspects, determinants of loans repayments by borrower and linkage between Semi-Formal MFIs and other financial sectors.
Informal MFIs	Kimuyu (1999) ; Dercon et al. (2006) ; Aikaruwa et al. (2014) .	Examines operations and services offered by Informal MFIs.
Macro-level study	Abbott (1976) ; Aterido et al. (2013) ; Barry and Tacneng (2014) ; Beck et al. (2013) ; Bjorvatn and Tungodden (2010) ; de Koker and Jentzsch (2013) ; del Puerto Soria et al. (2019) ; Fisman (2001) ; Gallardo et al. (2005) ; Marr and Tubaro (2011b, 2013) ; Minani (2013) ; Nyanzu et al. (2019) ; Steel et al. (1997) ; Tehulu (2013) .	Cross-country comparison of operations, performance and regulations of financial institutions, comparative reviews of impact evaluations studies.

Source: Author (2020).

Another publication that focuses on the institutional side is [Magali \(2013b\)](#), which examines the determinants of repayment of SACCOs by using institutional factors.

Therefore, to the best of the author's knowledge, there are no studies on Tanzania semi-formal

MFIs that focus on both SACCOs and NGOs using institutional and members' data to assess the performance of these institutions. Another unique aspect of this study is that it uses various performance indicators, such as outreach, efficiency, repayment performance, and its determinants.

By examining the performance of semi-formal MFIs in Tanzania, this study aims to offer suggestions on their future improvement and contribute to the knowledge of the microfinance sector in Tanzania and other developing countries. In discussing the performance, this study considers the differences in the selected semi-formal MFIs in Tanzania.

1.5 Methods of the Study

1.5.1 Primary data

The primary data were collected from field surveys conducted during different periods between 2015 and 2019. Observations, interviews, and questionnaires were used in the data collection. Observations were done on how BRAC Tanzania group meetings are conducted, how repayments are collected, and other group aspects. The interviews and questionnaires were conducted with various BRAC Tanzania and SACCO's key informants and BRAC Tanzania members. The data collection schedule was as follows:

January to March 2015

The interview was conducted with BRAC Tanzania regional manager for Arusha. The information from this interview covered the BRAC Tanzania mission, business characteristics (e.g., target clients and services provided), and details on credit service specifics such as the type of loan, loan amount, annual interest rates, and loan duration.

In the case of SACCOs, the interview was conducted with the assistant registrar of cooperative for the Arusha region. The purpose was to understand the status and the challenges faced by SACCOs in the Arusha region. Also, interviews were conducted with officers and leaders of selected SACCOs. The purpose was to understand the selected SACCOs mission, an overview of the

current situation, target clients, type of loans offered, interest rates, credit terms, and challenges.

December 2017 to April 2018

Interviews with key informants of BRAC Tanzania, including microfinance program manager, Arusha regional manager, area managers, branch managers, and community organizers was conducted. The interviews were on different aspects of group lending, including characteristics of the groups, group operations, and repayment. Questionnaires were administered to 177 members of ten randomly selected groups. Several questions were asked regarding socioeconomic characteristics, loan amounts, loan uses, and repayment.

March to August 2019

Interviews were conducted with different staff, including BRAC Tanzania microfinance program manager, Arusha regional manager, area managers, branch managers, and community organizers. The interviews focused on different aspects of BRAC Tanzania's group lending program. With the help of an enumerator, questionnaires were administered to 183 randomly selected groups. Questions were about the functions of the groups (peer screening, peer monitoring, and peer pressure) the existence of social ties, group characteristics and repayment.

1.5.2 Secondary data

The secondary data was obtained from books, government reports, websites, BRAC Tanzania reports, selected SACCOs reports and several journal publications. Books which were used include Sustainable Banking with the Poor, an Institutional and Financial Perspective, The New Microfinance Handbook; A Financial Market System Perspective, The Handbook of Microfinance, Portfolio of the Poor, The Microfinance Revolution, The Poor and Their Money, The Economics

of Microfinance, Freedom from Want, Disciplinary Technologies of Microfinance Institutions in Bangladesh a Comparison of BRAC and BRDB Programs, and Finance Against Poverty.

The National Bureau of Statistics and Bank of Tanzania reports were used. Some information was obtained from the following websites: <https://www.ushirika.go.tz>, <https://www.bot.go.tz>, <http://www.brac.net>, and <https://www.kilimo.go.tz>. Publications from journals about microfinance, group lending, performance of MFIs and related topics were revised.

Other secondary data for the case of BRAC Tanzania was obtained from country headquarters and regional office. The data include; trend reports, members' admission reports, overdue reports, and other reports. For the case of SACCOs, data on a list of all SACCOs in the Arusha region, their registration dates, types, and their outstanding loan amounts were obtained from the assistant registrar of cooperative at Arusha regional office. The financial statements were obtained from the selected SACCOs offices.

1.5.3 Data analysis

For the analysis of the performance of semi-formal microfinance institutions, descriptive and empirical analyses were done. The details of the analyses are presented in the specific chapters.

1.6 Definitions and History of Microfinance

1.6.1 Definitions of microfinance

Several authors have defined the term microfinance, and below are some of the definitions. [Ledgerwood \(1999\)](#) defined microfinance as a development approach that provides financial and social intermediation. The financial intermediation includes the provision of savings, credit, and insurance services, while social intermediation involves services such as group formation, development of self-confidence, training in financial literacy, and management capabilities among members of a group.

According to [Robinson \(2001\)](#), microfinance refers to small-scale financial services—primarily

credit and savings— provided to people who farm or fish or herd; who operate small enterprises or microenterprises where goods are produced, recycled, repaired, or sold; who provide services; who work for wages or commissions; who gain income from renting out small amounts of land, vehicles, draft animals, or machinery and tools; and to other individuals and groups at the local levels of developing countries, both rural and urban. [Meyer \(2014\)](#) defined microfinance as small-size transactions and products specifically designed for low-income households and small-scale businesses, often concentrated in urban or densely populated rural areas, but increasingly penetrating more rural locations. According to the [CGAP \(2019\)](#), microfinance refers to financial services for poor and low-income clients. [Karlan et al. \(2011\)](#) defined microfinance (i.e., micro-credit) as the provision of small-scale financial services to people who lack access to traditional banking services. In their definition, they added that microfinance implies very small loans to low-income clients for self-employment, often with the simultaneous collection of small amounts of savings.

The above definitions differ in some senses, but they all touch upon some of the important features of microfinance which are access to financial services beyond credit such as savings and insurance to low-income household and small business which cannot easily have access to traditional financial services. In addition to above definitions, [Karlan et al. \(2011\)](#) mentioned nine traditional features of microfinance which are: (1) small transactions and minimum balances (whether loans, savings, or insurance) (2) loans for entrepreneurial activity (3) collateral-free loans (4) group lending (5) focus on poor clients (6) focus on female clients (7) simple application processes (8) provision of services in underserved communities (9) market-level interest rates.

This study employs [Robinson \(2001\)](#) and [Karlan et al. \(2011\)](#) definitions that microfinance is the provision of small-scale financial services mainly credits and savings to the people who lack access to traditional banking services. This is because the provision of other financial services such as insurance is seldom conducted by semi-formal MFIs in Tanzania.

Institutions that provide financial services are known as MFIs. MFIs may also offer other services as a means of improving the ability of its clients to utilize financial services. Most MFIs offer social intermediation to some extent ([Ledgerwood, 1999](#)). They also include a wide range of providers that vary in their legal structure, mission, and methodology ([Jasmina and Meritxell, 2012](#)).

1.6.2 A brief history of microfinance

Microfinance began as a series of small-scale lending experiments in the villages of Bangladesh in the 1970s—associated in particular with the Grameen Bank.⁴ Economics professor and Grameen founder, Muhammed Yunus, and his students were trying a social experiment on a category of people deemed ineligible for credit by formal lenders—women involved in a variety of cottage industries, who needed loans for their raw materials. The surprisingly positive results of this experiment, especially in terms of repayment rates, paved the way for the microfinance model ([Yunus, 2008](#)).

In its original vision, microfinance entailed providing small loans for productive purposes. The core of microfinance was group, where borrowers at most MFIs were organized into groups of five to ten members. Lending was based on joint liability—or the idea that a second member of the group could not get a loan until the first paid back, thereby creating an incentive for “peer monitoring” (as first described by Stiglitz in [1990](#)). Groups have served a crucial social purpose in the functioning of microfinance as an institution, and it has been a subject of extended academic debate.

By the 1980s, microfinance had become well known in development circles. The Grameen and BRAC alone extended loans to several million borrowers. The success of pioneers leads

⁴The roots of microfinance can be found in many places, but the best-known story is that of Mohammad Yunus and the founding of Bangladesh’s Grameen Bank ([Armendáriz and Morduch, 2010](#)). However, several studies show BRAC microfinance program starts before that of Grameen Bank ([Smillie, 2009](#); [Todaro and Smith, 2011](#); [Hussain, 2015](#)). By the end of 1976, when Grameen Bank started, BRAC was already five years old. It had formed more than 75 cooperatives and smaller experimental groups of borrowers and provided loans of more than one million taka ([Smillie, 2009](#)).

to replications around the world. Grameen currently lends to approximately 8.4 million women and has replicas in eighty-four different countries, while BRAC boasts 7 million borrowers in Bangladesh alone and a global reach of over 100 million ([Haldar and Stiglitz, 2016](#)).

Through the 1990s, microfinance emerged as one of the—if not the—most important development programs on the horizon. The widespread was due to support by international organizations such as the United Nations and the World Bank. Recognition of microfinance came in 2006 when Yunus and the Grameen Bank were jointly awarded the Nobel Peace Prize, leading Yunus to comment that microfinance would put “poverty in museums.”

1.7 Structure of the Thesis

This thesis is divided into seven chapters including the present one. This chapter, Chapter 1, has set the background of the study. The chapter began by explaining the poverty situation around the world, SSA and Tanzania. It also explains the importance of access to financial services in fighting poverty. In explaining the importance of access to financial services, it also stresses how access to financial services is limited in SSA and Tanzania. The objectives, research questions, and the significance of the study are also discussed here.

Chapter 2 presents an overview of the providers of financial services in Tanzania. It started by giving the historical background of the current MFIs and brief overview of the financial reforms of the 1980s. This chapter also presents the general overview of formal, semi-formal, and informal MFIs in Tanzania. In discussing the formal MFIs, the chapter explains the bank and nonbank financial services providers and challenges that limit access to formal microfinance institutions in Tanzania. It also discusses semi-formal MFIs separately as SACCOs and NGOs, followed by the discussion of informal MFIs. Lastly, it offers explanation of BRAC and its replication in other countries mainly in Tanzania.

Chapter 3 explains the profile of the study area, which is the Arusha region, one of the 31

administrative regions in Tanzania. The chapter explains the basic information of Arusha region including population, major economic activities in the region, the contribution of the region to the national GDP, the status of SACCOs and BRAC Tanzania in the region, their growth and the challenges in the region.

Chapter 4 examines the performance of the selected SACCOs and BRAC Tanzania by focusing on outreach, as well as efficiency in terms of operating costs. The chapter starts by explaining the financial services of the selected SACCOs and BRAC Tanzania, followed by outreach in terms of the expansion of credit and then efficiency. In discussing the efficiency, descriptive and empirical analyses are presented.

Chapter 5 discusses the repayment performance of group lending using the case of BRAC Tanzania. The chapter begins with a literature review on the origins of groups, advantages and disadvantages of the groups. This is followed by characteristics of BRAC Tanzania group lending programs, group formation and peer selection, group member's characteristics and loan use based on the field survey. Finally, the repayment performance of BRAC Tanzania's microfinance program is discussed.

Chapter 6 presents empirical evidence on the determinants of repayment performance in BRAC Tanzania group lending. It presents a literature review on the determinants of the repayment performance. The descriptive and empirical analysis results of the determinants of the repayment performance of BRAC Tanzania group lending are discussed.

Chapter 7 provides the conclusion of this study and offers policy implications for the future improvement of the financial sector in Tanzania. It also highlights the limitations of the study and areas for future research.

Chapter 2.

An Overview of the Financial Sector in Tanzania

2.1 Historical Background

The history of current microfinance institutions in Tanzania is closely linked to the emergence of saving associations and credit cooperatives societies in early 1965. By that time, savings and credit cooperatives were associated with agriculture cooperative societies. In this regard, they were very prominent in the areas where agriculture was the main economic activity. The saving associations and credit cooperatives, however, suffered from serious funding problems and financial mismanagement. This was partly caused by political influence and interference. As a result, the mainstream banking system was the only provider of financial services throughout the country. The banking system, however, could not provide small scale financial services demanded by the poor. The scope of their services and geographical coverage was also limited. This resulted in the reliance on informal financial services by most of Tanzanians ([Nyamsogoro, 2010](#)).

In the 1980s, Tanzania embarked on financial reforms. The financial reforms were aiming at, among others, improving access to financial services by all sectors previously excluded by financial service providers. The financial sector reforms included, among others, liberalization of interest rates, eliminating administrative credit allocation, and strengthening the Bank of Tanzania's role in regulating and supervising financial institutions. The reforms were also meant to restructure state-owned financial institutions and to allow the entry of private financial institutions in the market ([Nord et al., 2009](#)). However, following the restructuring of state-owned financial institutions and privatizations of the National Bank of Commerce (NBC) and the Cooperative and Rural Development Bank (CRDB), 78 branches were closed throughout the country most of which were in the rural areas leaving rural areas without reliable financial services ([Satta, 2002](#); [Steel et al., 1997](#)).

In the early 1990s, the evolution of MFIs, as financial intermediaries for the poor and their advocacy as a poverty reduction tool around the world, created hope of having financial services, especially in the rural areas. Inspired by success stories from microfinance institutions like Grameen Bank in Bangladesh, in 2000, the government, in collaboration with the donor community, started to implement a rural financial program to reinstate the rural financial services, which gave rise to the current savings and credit cooperatives (SACCOs). NGOs also started to enter the market as the microfinance provider due to the supply gap created by the banking system. It has been reported that member-based MFIs (i.e., SACCOs) and several donors assisted NGOs are principal providers of microfinance services in Tanzania ([Randhawa and Gallardo, 2003](#)).

2.2 Classification of Microfinance Institutions in Tanzania

2.2.1 Formal microfinance institutions

Formal microfinance institutions are institutions that are licensed, registered, subjected to laws, banking regulation, and supervision of the Bank of Tanzania. The formal microfinance institutions mainly comprise of banks.¹ The bank sector in Tanzania is still small and at a relatively nascent stage of development. As of 2017, there was a total of 54 banks and 29 were foreign owned. The rest were domestic owned (18 banks) and government owned (7 banks). Commercial banks hold 95.7% of all the assets in the bank sector, with the rest held by two development banks, seven community banks, and five microfinance banks. Commercial banks also hold the largest share of the bank assets to GDP (24.7%) ([IMF, 2018](#)).

In Tanzania's formal financial system, there are also non-bank financial service providers. These include insurance companies, pension funds, and collective investment schemes. As of 2017, there were 31 insurance companies, six pension funds which merged in two institutions in 2018, and five collective investment schemes (Table [2.1](#)).

In addition to the above mentioned formal financial institutions, mobile financial services

¹22 banks are offering microfinance services ([Ministry of Finance, 2019](#)).

Table 2.1: Formal financial institutions in Tanzania

Institutions	Number of institution	Assets in billion TShs	Percentage of total bank assets	Percentage of total assets	Percentage of GDP
Banks					
Commercial banks	40	28,635	95.7	68.6	24.7
Community banks	7	156	0.5	0.4	0.1
Development banks	2	935	3.1	2.2	0.8
Microfinance banks	5	184	0.6	0.4	0.2
Total	54	29,910	100.0	71.6	25.8
Non-bank financial institutions					
Insurance companies	31	870		2.1	0.7
Pension funds	6	10,745		25.7	9.3
Collective Investment schemes	5	249		0.6	0.2
Total financial system		41,774		100.0	36.0

Source: Compiled by author using reports from [Bank of Tanzania \(2019\)](#).

Notes:

1. Data is as of December 2017, insurance companies' data is as of June 2017, and pension funds data is as of September 2017.
2. Commercial banks include Akiba Commercial Bank (ACB), National Bank of Commerce (NBC), Kenya Commercial Bank (KCB), Exim Bank (Tanzania), CRDB, and Citi Bank. Community banks include Mufindi Community Bank (MUCOBA), and Mwanga Rural Community Bank. Development banks include Tanzania Agricultural Development Bank (TADB) and TIB Development Bank. Microfinance banks include EFC Tanzania Microfinance Bank and FINCA Microfinance Bank.
3. Pension funds include six mandatory social security funds.
4. GDP here refers to the nominal GDP in 2017, which was TShs 116.16 trillion.

(mobile banking and mobile money) are also regarded as a gateway to access formal financial services. Mobile banking is the capacity of an account holder or client to access their bank accounts and financial services through mobile devices. On the other hand, mobile money refers to the capacity to transfer or receive a unit of account (credits) between mobile devices to make payments for purchases of goods or services, or in the payment of obligations. While mobile banking is an extension of banking services and therefore linked to a formal financial institution, mobile money can be provided by a mobile network operator (MNO), a bank, or combination of the two ([Aron et al., 2017](#)).

Before the use of mobile financial services, Tanzania had one of the highest rates of financial exclusion in SSA. Mobile payments (service offered by MNO) have made a significant impact in facilitating access to financial services, particularly payment services (person to person) to most of

the population which are unbanked. The World Bank's global financial inclusion (global finindex) database suggests that while only about 19% of adults had a bank account at a formal financial institution in 2014 from 17.3% in 2011, the proportion doubles to 39.8% when mobile accounts are included. The number rose to 46.8% in 2017 when mobile accounts are taken into account (Table 2.2).

Table 2.2: Access to formal financial institutions in Tanzania(% of aged 15+)

Use of formal financial institution	2011	2014	2017
Formal financial institution account			
Tanzania	17.3	19.0	21.0
SSA	23.2	28.8	32.8
Mobile money account			
Tanzania		32.4	38.5
SSA		11.6	20.9
Account*			
Tanzania	17.3	39.8	46.8
SSA	23.2	34.2	42.6
Credit			
Tanzania	6.6	6.7	5.3
SSA		7.5	8.4
Saving			
Tanzania	11.9	9.0	6.1
SSA		15.8	14.9

Source: [World Bank \(2018\)](#).

Notes:

1. Percentage of aged 15+ is the percent of respondents aged above 15 years who had formal account, mobile account, obtained loan or saved at formal financial institution at the end of 2017.
2. The population above 15+ years old in Tanzania is equivalent to 30.5 million people as of 2017.
3. Account* refers to ownership of both formal financial institution and mobile money account.
4. Credit refers to borrow at a formal financial institution or use a credit card.
5. Data of 2011 on account ownership did not consider mobile money.

Despite the recent improvement in access to formal financial services mostly contributed by mobile financial services, several challenges remained, which limits access to formal microfinance institutions in Tanzania. First, the competitive landscape for mobile and traditional financial services does not facilitate the gradual upgrading of customers from transaction services to savings and credit services, which remains the domain of the banking sector. Second, the formal bank-

ing sector serves a very small group of individuals and companies. Tanzania ranks at the bottom among East African Community (EAC) for measures of firms' access to credit and other financial services. In the 2013 World Bank global enterprise survey, almost 44% of the firms identified access to finance as a major constraint, the highest proportion in the EAC ([World Bank, 2013a](#)). Third, access to financial infrastructure and branch penetration is still poor. Fourth, interest rates remain high, and access to credit very restricted. This is evidenced by the ratio of credit to the private sector over GDP. This ratio stands at less than 15 percent, a very low level compared to other emerging economies and less than half the level of the neighboring country of Kenya (36 percent). Fifth, high collateral requirements negatively impact entrepreneurs with insufficient fixed assets, particularly women. Lastly, high loan costs, and short tenures, which are not suitable for investment purposes. Consequently, only 13% of small formal enterprises have a bank loan ([World Bank, 2017](#)).

2.3 Semi-formal Microfinance Institutions

2.3.1 Savings and Credit Cooperatives (SACCOs)

SACCOs (also known as credit unions) are member-based financial institutions, also known as cooperative-based microfinance institutions designed to capture and intermediate the savings of local communities or organized groups who feel they are underserved by the more mainstream financial sector. SACCOs are owned by their members, which means that members have a vested interest in actively ensuring that the SACCO is run along with sound principles ([Beck and Maimbo, 2012](#)).

Historically SACCOs were developed to meet financial services, specifically savings and credits, to support the lower and middle class so that they become economically active. This can be referred from the founders of savings and credit societies in Germany, Friederich W. Raif-

feisen and Herman Scheultze–Delitsche in 1846. Currently, SACCOs are growing fast in Africa and Tanzania in particular ([Temu and Ishengoma, 2010](#); [Bee, 2007](#); [Lafourcade et al., 2005](#)).

In Tanzania, SACCOs originated as early as 1938 in several parts of the country; by 1964, there were 41 registered SACCOs ([Bee, 2007](#)). SACCOs in Tanzania are registered by the registrar of cooperatives and managed under cooperative policy and law. Therefore, the government through the Ministry of Agriculture, Food and Cooperatives indirectly controls these cooperatives through cooperative department. This is important as it ensures that cooperatives fulfil their objectives of improving the lives of poor people through proper reallocations of scarce resources. In 2013, the parliament approved the new cooperative bill in order to foster the advance operation of cooperative societies in Tanzania. The new law will enable cooperatives and SACCOs to become more independent and creative.

Characteristics of SACCOs in Tanzania

1. They are registered under the Cooperative Societies Act 2013 at the regional cooperative office. At the local government level, registration is supervised by a district cooperative officer (DCO). To be registered, SACCOs must have a minimum of 20 members and a minimum capital of TShs 5 million.
2. They are formed, owned and operated by members based on democratic principles. Clients tend to come from low and middle-income groups ([Marwa and Aziakpono, 2015](#); [Bwana and Mwakujonga, 2013](#)).
3. They are created based on a common bond like occupation, association, residential, and others.
4. They are two main types of SACCOs; community-based and employed based. Community-based SACCOs can be found in urban areas but are most frequently found in rural areas. A variety of loans are offered including business and emergency loans. Employee-based

SACCOs represent SACCOs where all the members are drawn from one employer, and these SACCOs are generally located in urban areas. In employee-based SACCOs, loans are often guaranteed by the employer ([Bwana and Mwakujonga, 2013](#)).

5. They are available in all parts of the country, especially in rural areas where formal financial institutions are not easily accessible. 56% of SACCOs in Tanzania are in rural areas, and 44% are in urban areas ([Ministry of Agriculture, 2019](#)). In urban areas, members are mostly salary and wage earners, while rural areas members are mainly farmers.
6. To be a member, a person needs to pay membership fees and contribute shares. The membership fees and number of shares differs from one SACCO to another but normally, all SACCOs members have to pay fees and buy shares as a way of showing readiness to cooperate.
7. SACCOs member needs to save first and borrow from his/her savings. Member can borrow up to three times of his/her total investment (through saving or/and shares), although some SACCOs limit borrowings to twice the member's total investment ([Marwa and Aziakpono, 2015](#)).
8. Apart from saving and loan services to members, SACCOs offer deposits to members and non-members. Those linked to formal MFIs offer automatic teller machine (ATM) services, money transfer, payments of salaries and pensions to members and non-members ([Ishengoma, 2012](#)).
9. They depend on internal sources of funds which are contributed by members in the form of shares, demand deposits (voluntary savings) and savings (compulsory savings). Apart from the internal sources of funds, SACCOs get funds from external sources mainly borrowing from formal financial institutions particularly commercial banks, government and donors ([Nyamsogoro, 2010](#); [Marwa and Aziakpono, 2015](#)).

Significance of SACCOs in Tanzania

1. SACCOs have solved the problem of capital inadequacy for the clients who were not served by commercial banks and other formal financial institutions because they offer small amount of loans without demanding the collateral.
2. SACCOs have reach clients in marginalized areas, especially in rural areas. Therefore, they remain to be the semi-formal financial institutions that provide small loans to many members in rural areas of Tanzania. About 5% of Tanzanians are served by SACCOs and credit only institutions ([Bank of Tanzania, 2012](#)).
3. They mobilize savings from low-income earners and poor people, especially in rural areas that could not have reached by formal financial institutions ([Bee, 2007](#); [Kessy and Urio, 2006](#); [Ellis et al., 2007](#)).
4. Savings mobilized by SACCOs is relevant in many ways. Their relevance includes the following; first, they are the means to identify potential members as they show willingness of a person to be a member. Second, they act as collateral to members. Third, savings is an important financial service required by poor people and source of cheap loans to the member, which is basically required by low-income people. On top of these, savings is important in building internal capacity for an individual and SACCOs as an institution ([Okumu, 2007](#)).
5. SACCOs are essential for the growth of the economy and small and medium enterprises. They contribute about 40% of the country's GDP ([Bwana and Mwakujonga, 2013](#); [Qin and Ndiege, 2013](#)).
6. Apart from business, agricultural loans, education, and development loans, emergency loans are among the priorities of SACCOs in Tanzania ([Ishengoma, 2012](#)).
7. The impacts of SACCOs are reflected in the ability of members to use their accumulated

savings to pay for school fees, acquire modern housing facilities and to spend on social emergencies such as sickness ([Ishengoma, 2012](#)).

8. SACCOs are used by the government and development partners to implement some economic and social development programs ([Ishengoma, 2012](#)).

Expansion and challenges of SACCOs in Tanzania

Generally, there has been progress in the development of SACCOs in the country, although there have been some challenges as well. As in Table 2.3 below, there was an abrupt and continuous growth of SACCOs in terms of number of the SACCOs, members, shares, savings, and loans disbursed from 2006 to 2009. This was mainly caused by deliberate efforts of the 4th phase government to promote the formation of SACCOs through providing them with funds. After 2009 there was a stagnation in the SACCOs growth, which was thereafter followed by decrease in the number of SACCOs as a result of deregistration to have sustainable SACCOs. A good example is the trend seen from the year 2009 to 2010 ([Ministry of Agriculture, 2011](#)).

This happened because some of the SACCOs were formed in a rush and without having proper roots, especially after the government announced to provide them with grant funds; therefore, they collapsed just a short period of time after they were established. Some SACCOs are still struggling to survive, while others have exited the market. According to TCDC report in 2018, 35% and 16% of the SACCOs and SACCOs members, respectively were not active.

SACCOs in Tanzania also face problems of financial constraints, poor loan recovery, governance problems, lack of common interests, weak leadership and institutional capacity, inadequate education and training, limited range of financial products and poor quality services, poor accounting and record keeping, misuse of funds and non-adherence to cooperative principles, competition, negative impacts of external financing, weak assistance from SACCOs supporting institutions, insufficient auditing and inspection, political interference and excessive donor dependency ([Anania](#)

and Gikuri, 2015; Bibi, 2006; Maghimbi et al., 2010; Triodosfacet, 2007; Marr and Tubaro, 2011a; Karumuna and Akyoo, 2011; Ishengoma, 2012).

The possible impacts of such challenges are; poor provision of financial services, loss members funds, poor participation and commitment of members, withdrawal of members and members using services of other financial institutions, failure to face competition, internal conflicts, loss of SACCOs autonomy and excessive external dependency as well as feeling of lacking ownership and control by SACCOs members (Anania and Gikuri, 2015).

Table 2.3: The growth of SACCOs in Tanzania from 1990-2012

Year	Number of SACCOs	Number of members	Shares (Mil.TShs)	Savings and deposits (Mil. TShs)	Loans issued (Mil. TShs)
1990	89	15,225	1,346	1,032	30
1991	156	19,884	1,527	1,424	48
1992	198	23,017	1,746	1,626	109
1993	289	45,889	1,926	1,987	112
1994	306	68,993	2,105	2,896	134
1995	306	73,218	2,564	3,001	1,586
1996	306	76,113	2,896	3,114	1,979
1997	514	79,645	3,119	3,569	2,064
1998	769	98,762	3,416	5,114	2,190
1999	825	125,880	5,569	8,336	13,211
2000	803	133,134	5,618	8,426	11,524
2001	927	137,305	6,610	8,599	12,362
2002	974	189,497	7,856	8,791	18,227
2003	982	245,633	8,956	9,996	28,966
2004	1104	781,162	12,590	19,046	36,922
2005	1875	255,938	13,170	31,394	54,140
2006	2028	291,344	13,116	39,535	34,341
2007	3469	590,163	18,240	59,715	115,107
2008	4524	758,828	24,218	114,022	220,272
2009	5332	820,670	33,530	148,145	383,564
2010	5251	919,411	32,871	204,000	539,279
2011	5314	1,552,242	81,601	447,665	741,050
2012	5424	1,059,213	54,968	354,977	703,286

Sources: Compiled from Tanzania SACCOs statistical reports; Mwakajumilo (2011) and Ndiege et al. (2016).

2.3.2 Non-Governmental Organizations (NGOs)

NGOs are nonprofit organizations that provide social and economic services, which may include health or education or microfinance, among other services. A significant number of NGOs provide microfinance services to low-income households in Tanzania. They mostly use group lending method in which group members guarantee loan repayment. They also have few individual-based lending where the collateral is needed. The NGO MFIs in Tanzania are not allowed to mobilize savings.

However, some NGO MFIs require their clients to have minimum savings as loan insurance funds. Most loans provided are for business purposes, but they provide loans for other purposes, such as education. Most of NGO MFIs have a graduation scheme in which clients can graduate from small loans to larger loans depending on repayment history on previous loans (Nyamsogoro, 2010). Some of the NGO MFIs in Tanzania include BRAC Tanzania, Association for Social Advancement (ASA), and Youth Self Employment Foundation (YOSEFO).

This study focuses on BRAC Tanzania as the case study; therefore, section 2.6 below provides background and profile of BRAC and its replication in other countries. In addition, BRAC Tanzania profile and microfinance program administrative structure is explained.

2.4 Informal Microfinance Institutions

There is various kind of informal MFIs in Tanzania which offer loans and savings services. These include; ROSCAs, ASCA, VSLAs, and VICOBAs. In ROSCAs, locally known as *upatu* or *mchezo*, members make weekly or regular savings of the same amount each week. In turn, one member of the group takes the total amount saved by the group. The group varies in the value of the payment, the number of the members, and the frequency of the meetings. In ASCAs, members make regular savings and borrow against an accumulating fund. After an agreed period, the fund and profit are distributed to members. VSLAs and VICOBAs are the improved versions of

ROSCAs and ASCAs, and they are close to credit cooperatives. Members buy shares, and they can borrow and save. At the end of each year, the books are closed, and funds are shared among members.

Most VSLAs divide both share capital and profit (from interest and penalties) to its members, while VICOBAAs divide only the profit. Due to the complexity in accounts, member information is recorded in passbooks or ledger, although it is difficult to prepare quarterly accounts and keep up to date ([Brown et al., 2015](#)). Some of VSLAs and VICOBAAs have been established by the government, NGOs, and the private sector. Care International has been instrumental in setting up many VSLAs, while 34% of the VICOBAAs have been established and supported by programs funded by development partners such as Plan International, World Vision, CARE International, Norwegian Church Aid and others and 66% have been established by members. There are more than 23,000 VICOBAAs with more than 700,000 members and approximately 32,000 and 750,000 VSLAs and VSLAs members, respectively ([URT, 2016](#); [Brown et al., 2015](#)).

2.5 Summary of Microfinance Institutions in Tanzania

Table [2.4](#) below summarizes the characteristics of three categories of MFIs in Tanzania. This study focuses on the semi-formal MFIs because semi-formal MFIs features suit most of Tanzanians especially the poor. These include; small loan size, no or minimum collateral requirements, existence in rural areas and reliability. They also charge relatively lower interest rates than those charged by informal MFIs.

2.6 BRAC

BRAC was founded in 1972 by Fazle Hasan Abed at Sulla in the Sylhet district. It began as an acronym, standing for Bangladesh Rehabilitation Assistance Committee. In the beginning, BRAC works in response to the humanitarian needs of thousands of refugees returning to their homes

Table 2.4: Characteristics of formal, semi-formal and informal MFIs in Tanzania

Characteristics	Formal MFI	Semi-Formal MFIs	Informal MFIS
Examples	Banks	SACCOs and NGOs	VICOBA and ROSCAs
Target clients	High income	Low and middle-income	Low-income
Geographical concentration	Urban areas	Rural areas	Rural areas
Collateral	Usually	Sometimes	No
Loan sizes	Large	Small and medium	Small
Loan term	All terms	Short and medium term	Short term
Loan processing procedures	Very complex	Complex	Simple
Interest rates	Varies	Varies	High
Reliability	Highly reliable	Reliable	Unreliable
Terms	Rigid	Less rigid	Flexible
Deposits	Yes	Sometimes	Sometimes

Notes:

1. The formal and semi-formal MFIs in Tanzania charge reasonable interest rates compared to the informal MFIs. Interest rates charged by formal and semi-formal MFIs tend to vary between 16 and 40% per year. Although some literature argues these rates are still high, however, there are below the rates charged by informal MFIs. For example, the interest rates charged by VSALs are 60% per year.
2. Reliability refers to the delivery of products and services at the promised time, in the promised amount, and at the promised price.

after Bangladesh's war of independence. By 1974, BRAC had begun providing microcredit. The program targeted individuals owning very little land and involved in rural nonfarm activities such as door to door sales and small-scale vending from homes or markets. While BRAC microcredit program has been widely replicated in other countries, none operate on Bangladesh's scale. Currently, BRAC works in most of the country's 80,000 villages through a system of 14 training centers and over 2,800 branch offices, with a budget of approximately half a billion USD. By some measures, BRAC is now the largest NGO in the world (Todaro and Smith, 2011).

2.6.1 BRAC beyond Bangladesh

BRAC is now exporting experience, expertise, and values to other countries to assist with poverty reduction efforts. In 2018, BRAC reached around 600,000 women in six countries in Africa and Asia through microfinance programs (BRAC, 2018). With its expansion to other countries, the name of the organization has been simplified to BRAC and ceased to be an acronym and became a motto instead, "building resources across communities." BRAC Afghanistan was the

first of BRAC's international initiatives that focused on relief and rehabilitation programs. In 2002, BRAC's assistance followed and now includes services in microfinance, health, education, income generation, and small enterprise development in 23 out of 34 provinces of Afghanistan. Today, BRAC is the largest NGO in Afghanistan, operating not just in the safe northern areas, but in the embattled provinces of the south (Smillie, 2009). In 2005 BRAC was invited to help Sri Lanka get back on its feet after the devastating tsunami tidal waves. The entry into Pakistan in late 2006 brings the total of south Asian countries to four.

In Africa, BRAC is working in Tanzania and Uganda and has expanded its effort to include Southern Sudan along with Sierra Leone and Liberia in order to help the citizens rebuild their lives after decades of destructive civil wars. In 2019, BRAC started microfinance program in Rwanda, making it the fifth country in the African continent. Today, BRAC Uganda, Sierra Leone, and Tanzania are one of the largest NGOs in the countries working in microfinance, education, health, and agriculture. As of 2018, BRAC microfinance programs had disbursed 221.6 million USD to 495,937 borrowers in four African countries (Tanzania, Uganda, Sierra Leone, and Liberia) (Table 2.5).

There were some challenges in adapting the BRAC model to Africa. BRAC's success in Bangladesh revolves around the homogeneity of Bangladesh society, culture, language, and religion. In Uganda alone, there are 26 different ethnic groups, which means there must be a great deal of adaptation. The common culture, religion, and language that helped replication in Bangladesh do not exist. Making the connections between borrowers, the key to BRAC success in Bangladesh would take time. However, the low cost of BRAC's activities in Africa is remarkable; Smillie (2009) described the case of Tanzania on how BRAC saves money while maintaining quality. He stressed that BRAC's staff costs are tiny in comparison to other international NGOs because all staff lives together in shared accommodation, and they do not bring their families with them. They get sizable premiums for working abroad and home leave every six months, but they are still paid

based on their Bangladesh salaries.

Table 2.5: BRAC microfinance programs in African countries

Country	Establishment year	Number of branches	Number of borrowers	Outstanding loans (Mil. USD)
Tanzania	2006	146	192,172	91.4
Uganda	2006	158	218,598	105.5
Liberia	2008	26	34,297	11.5
Sierra Leone	2008	33	45,870	13.2
Total		363	490,937	221.6

Source: [BRAC Tanzania \(2018\)](#)

2.6.2 BRAC Tanzania

In 2006, Gates Foundation provided a grant of USD 15 million, which took BRAC to Tanzania. In Tanzania, BRAC started with agriculture, followed by health and microfinance programs. The microfinance program started in Dar es Salaam and Arusha region, each with five branches focuses mainly on women. By May 2007, BRAC had organized 630 groups in seven regions with a total of 17,000 members. Eighteen months later, there were more than 80,000 members and 3,000 groups. BRAC Tanzania had opened 30 branch offices, and, by the beginning of 2009, it had disbursed USD 22.3 million in loans. Most of the lending was to women wanting to add to an existing enterprise of some sort, for example, more chickens, better shop, or a new sewing machine ([Smillie, 2009](#)).

As of 2018, through its two major credit programs, microfinance program (MF) and small enterprise program (SEP), BRAC Tanzania disbursed 73.1 and USD 10.2 million to 165,520 and 6,797 borrowers, respectively, of whom 96% are women.² BRAC Tanzania also provides credit to youth through Empowerment and Livelihood for Adolescents program (ELA), Adolescents Development Program (ADP), and to smallholder farmers through agricultural finance programs.

²Microfinance loans are for women and are delivered through groups, while enterprise loans are individual loans targeting both male and female small-scale entrepreneurs.

Through ELA and ADP programs, BRAC Tanzania disbursed USD 2.6 million to 6,816 borrowers. Agrifinance program disbursed USD 5.6 million to 17,968 borrowers ([BRAC Tanzania, 2018](#)).

BRAC Tanzania continues expanding in Tanzania and reach 26 of the country's 31 administrative regions. In 2018, it launched a new microfinance project geared at tackling unemployment and provide access to clean energy called WeSOLVE (Women Entrepreneurship through the Solar Value chain for Economic development in Tanzania). The project is funded by Danish international development agency (DANIDA) and Signify Foundation and implemented in partnership with Solar Sister (a non-profit organization that trains and supports women to deliver clean energy to rural African communities).

There are several reasons behind BRAC's growth and success in Tanzania. First, BRAC Tanzania faces little competition, particularly away from the main urban areas. Few other institutions are offering the relatively small loans that BRAC Tanzania is offering especially outside the big cities. Second, BRAC Tanzania products have been aimed at existing businesswomen who were excluded from financial services. All of the BRAC Tanzania clients are operating small businesses. Thirdly, BRAC clients are not the poorest Tanzanians. [Banks et al. \(2019\)](#) compared the wealth rankings of three villages where BRAC Tanzania was working and found that there were no poorest clients in BRAC's Tanzania groups. Lastly, loans offered suit client's needs. Loans from BRAC Tanzania are reported to have made a positive difference to borrower's lives. They allowed women to invest in a variety of businesses such as charcoal sales, chicken rearing, clothing sales, grocery stores, tea shops, tailoring, as well as agriculture ([Banks et al., 2019](#)).

Despite its growth and success in Tanzania, BRAC is facing several challenges. Not all branches have been able to perform well. Some are facing considerable difficulties, often make loss and losing members. There are also challenges with microfinance products. These include the small loan size; small increment of increase of subsequent loans; immediate repayment requirements (sometimes the day after taking a loan); difficulty of recovering the security deposit;

perceived excessive paperwork; inflexibility; not being able to transfer between branches easily; and lack of bonuses or benefits for good customers.³ Problems of staff ethics are also common in BRAC Tanzania. There are widespread complaints about the behavior of credit officers. The complaints include extracting money from clients in return for renewing loans (forbidden by BRAC Tanzania); not returning all the repayments collected; stealing money; taking loans out in clients' names and then running off; making it difficult for clients to take their security deposit; and finding numerous ways of extorting funds from clients (Brockington and Banks, 2014).

2.6.3 BRAC Tanzania microfinance program administration structure

BRAC Tanzania microfinance program (MF) has several administrative units. The lower administrative unit is the branch offices (BOs). BOs are managed by the branch managers (BMs), and community organizers (COs) oversee the group's activities and conducts weekly meetings to collect loan repayments.⁴ Each branch has approximately four to six COs depending on the total number of groups. As of October 2019, there were 151 BOs and 668 COs. Two to four branches (depending on the geographical locations) form another administrative unit called area office (AO). The AOs are supervised by area managers (AMs).

Recently, there was restructuring of areas offices where old AOs were divided, and new AOs were created, which lead to an increase of AOs from 38 to 57 AOs. Two to five AOs (depending on geographical location) form regional office (RO), and three ROs form another administrative unit called division office (DO).⁵ RO is supervised by a regional manager (RM) while DO is supervised by a senior regional manager (SRM). Country office (CO) serves as the headquarters of all BRAC activities in Tanzania and is in the Dar es Salaam region. BRAC Tanzania senior

³Some of these issues (such as small loan size and small increment in increasing loans) are likely to reflect the relative wealth of BRAC's client base. Also, some of these complaints may reflect appropriate caution required before lenders allow borrowers to take on more debt.

⁴All the credit officers and branch managers are Tanzanian women. They are few Tanzanian men who are employed as accountants, regional managers, and senior staff at high management level.

⁵BRAC pools branches across several Tanzania regions for its own administrative purposes. In the BRAC division, it has 13 regions; however, according to the country administrative division, BRAC Tanzania has reached a total of 26 regions as of October 2019.

staff including country representative (CR), country head of accounts, head of finance, head of audits, head of human resources, and program managers (PMs) for various programs, including microfinance work at the country office (Figure 2.1).⁶ These administrative units (i.e., ROs, AOs, and BOs) are restructured with time. For example, recently Dar es Salaam region was divided into two regions (Dar es Salaam 1 and Dar es Salaam 2), making BRAC regions 13 from formerly 12 regions. As BRAC in Tanzania expands, new ROs, BOs, and AOs are created. Also, old ROs and AOs are divided to facilitate easy management. As the expansion continues, changes in the BRAC Tanzania administrative units are expected.

⁶In every administrative unit there is an Accountant hence; Branch Accountant (BA) Area accountant (AA), Regional Accountant (RA), and Divisional Accounts Manager.

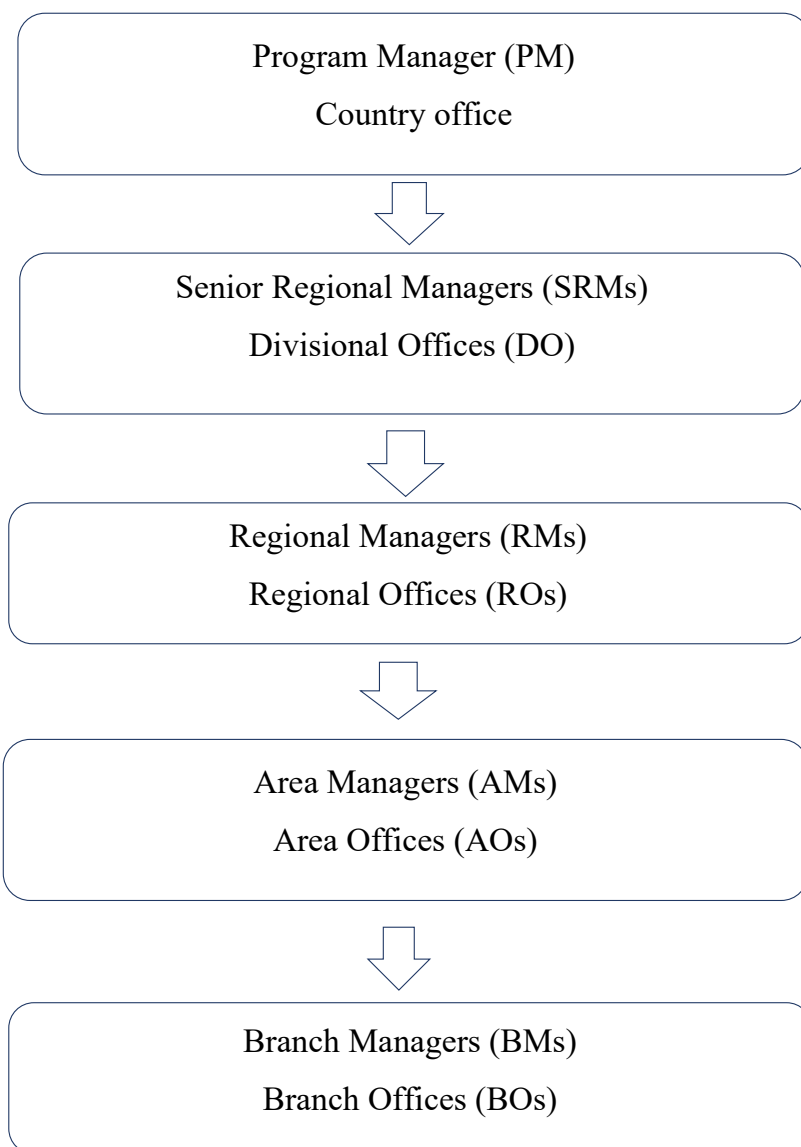


Figure 2.1: BRAC Tanzania microfinance program administrative structure
Source: BRAC Tanzania, 2019

Chapter 3.

Profile of the Study Area

3.1 Location

This study was conducted in the Arusha region. Arusha region is one of the 31 administrative regions located in the north-eastern part of the country. Its capital and largest city is the Arusha city. The region is bordered by Kenya to the north, Kilimanjaro region to the east, Manyara and Singida regions to the south and Mara and Simiyu regions to the west (Figure 3.1)



Figure 3.1: Location of Arusha region in Tanzania

Source: Author, 2019

3.2 Basic Information of Arusha Region

According to the 2012 census data, Arusha region had a population of 1.7 million people. The population of Arusha region is growing at a rate of 2.7% annually, representing an increase of about 32% over ten years period since 2002. This rate of increase is high even by Africa standards. Arusha population is predominantly rural, with 67% of the total population living in rural areas. Arusha region has a total of 376,336 households and average household size of 4.4 persons per household. One third of households in Arusha region are headed by females (NBS, 2016).

The economy of Arusha region predominately relies on farming (38%) and livestock keeping (16%). Agriculture continues to be the main economic activity for the majority of the households in Tanzania and Arusha region where 46% of all the households in the region are engaging in agricultural activities (NBS, 2016) (Table 3.1).

Table 3.1: Comparison of Arusha and Tanzania in terms of demographic characteristics

	Arusha region	Tanzania
Population		
Total population (Million TShs)	1.7	43.6
Population growth rate (percentage)	2.7	2.7
Percentage of rural population	67.0	70.9
Percentage of urban population	33.0	29.1
Household Characteristics		
Total number of households	376,336	9,026,785
Number of agriculture households	174,095	5,962,091
Average household size	4.4	4.7
Mean percentage of dependants	48.7	47.8
Percentage of female-headed households	36.7	33.5
Percentage of male headed households	62.3	66.5

Source: National Bureau of statistics reports compiled by author

Arusha region is economically important to the nation in terms of GDP per capita—TShs 2.8 million—and ranks sixth in Tanzania, after the Kilimanjaro, Dar es Salaam, Ruvuma, Iringa, and Mbeya regions. Its contribution to the country's national GDP in 2017 was 4.7%, making it the

sixth-largest contributor.

The proportion of Arusha region residents that lives below the national basic needs poverty line¹, set at TShs 49,329 per adult per month based on the 2018 Household Budget Survey (HBS) is 24.7%. Moreover, 7.6% of the Arusha region residents are extremely poor and cannot afford to buy food to meet the minimum nutritional requirement of 2,220 kilocalories per adult per day (URT, 2019). The HBS poverty estimates show Arusha region is below the national average of 26.4% and 8% of basic needs poverty and food poverty line, respectively. Even though, Arusha region poverty estimates are below the national average, estimates for districts level poverty reveal that Longido district in Arusha region is one of the districts with extreme poverty in Tanzania. (Table 3.2)

Table 3.2: Comparison of Arusha and Tanzania in terms of economic aspects

	Arusha region	Tanzania
Main economic activities		
Farmers	37.7	62.1
Livestock keepers	16.4	2.4
Service workers, shop and stall sales workers	11.4	5.8
GDP		
Regional GDP (Million TShs)	5.6	118.7
Regional per capital GDP (Million TShs)	2.8	2.3
Regional shares of GDP (Percentage)	4.7	100
Poverty		
Percentage of population below the food poverty line	7.6	8
Percentage of population below the basic needs poverty line	24.7	26.4

Source: National Bureau of statistics reports compiled by author

Other characteristics of Arusha region are presented in Table 3.3. The access to financial service in Arusha region measured by ownership of bank account is below the national average.

¹In Tanzania, poverty is measured by using Household Budget Survey (HBS) data. The poor are defined as those whose consumption is below the national basics needs poverty line, and the extreme poor are those who cannot afford enough food to meet the minimum nutritional requirements of 2,200 kilocalories per adult per day. The national basic needs poverty line for 2018 was TShs 49,320 per adult per month, and the food poverty line was TShs 33,748 per adult per month.

Overall, 10.1% of households in Arusha region have at least one person who operates a bank account, which is below the national average of 12.3% (URT, 2019). This implies that access to formal financial services in the region is limited.

Table 3.3: Comparison of Arusha and Tanzania in terms of socioeconomic characteristics

	Arusha region	Tanzania
Housing and Electricity		
Percentage of households with a modern roof	80.5	84.1
Percentage of households with modern walls	54.7	78.8
Percentage of household with modern floors	51.1	50.1
Percentage of household with electricity	33	29
Education and Health		
Primary school net enrolment ratio	80.1	76.6
Percentage of literate adults	80.3	77.9
Female life expectancy (years)	69.4	61.0
Male life expectancy years	65.9	53.9
Sex ratio (male/female)	94	95
Ownership of assets		
Percentage of household owning a radio	64.3	61.4
Percentage of household owning a television	22.3	15.1
Percentage of household owning a bicycle	18.7	39.8
Percentage of household owning a motorcycle	5.3	4.9
Percentage of household owning a mobile phone	75.2	63.4
Percentage of household ownng land	60.9	71.2
Ownership of bank account		
At least one household member has a bank account	10.1	12.3
No member with a bank account	89.9	87.7

Source: National Bureau of statistics reports compiled by author

3.3 Status of SACCOs in Arusha Region

SACCOs in the Arusha region are found in rural and urban areas. Community-based SACCOs constitute a significant share of the SACCOs in the Arusha region. About 90% of the SACCOs in Arusha region are community-based.

Between 2012 and 2018, the number of SACCOs and SACCO's members in Arusha region

grow by 6.8% and 2.8%, respectively. Financial activities also expanded. Member's shares doubled, savings amount and disbursed loans almost doubled between 2012 and 2018. (Table 3.4). Because of that growth, in 2018 Arusha region ranked second in the number of SACCOs, the amount of savings, and the amount of loan disbursed by SACCOs in Tanzania after the Dar es Salaam region. It also ranked fourth in the amount of shares and deposits.

Despite that growth, some challenges remain. Arusha region is not an exception for the existence of a large number of inactive SACCOs. According to the TCDC report, as of December 2018, approximately 28 percent of the SACCOs in the Arusha region were not active, and 8 percent could not be traced (Table 3.5). The reasons might be the same as in most SACCOs in Tanzania; the high loan delinquency and default rates (Ndiege et al., 2016; Ishengoma, 2012). This is due to the provision of government grant funds (Brown et al., 2015; Mwizarubi et al., 2016). Reliance on external sources of funds can also be one of the reasons, as claimed by one of the credit officers in the Arusha region during the interviews. This is due to the debt accumulation that resulted from high interest rates charged by external sources such as commercial banks.

Table 3.4: Growth of SACCOs financial activities in Arusha region

	2012	2018	Growth rate (%)
Shares (billion TShs)	2.3	4.7	109.1
Savings (billion TShs)	16.8	26.8	59.0
Deposits (billion TShs)	0.7	2.5	269.5
Loan disbursed (billion TShs)	88.0	162.6	84.8

Source: Author computation using data from [Ministry of Agriculture \(2019\)](#)

Table 3.5: The status of SACCOs in Arusha region in comparison with other regions

Region	Active SACCOs	Inactive SACCOs	Non-traceable SACCOs	Total	Shares (Bil. TShs)	Savings (Bil. TShs)	Deposits (Bil. TShs)	Loan disbursed (Bil. TShs)
Arusha	250	109	32	391	4.74	26.77	2.46	162.61
Dar es Salaam	364	295	176	835	36.15	340.04	9.44	454.52
Dodoma	142	100	52	294	0.65	2.04	0.03	4.42
Geita	184	189	1	374	0.95	1.87	1.01	14.02
Iringa	159	100	0	259	1.83	8.82	1.49	21.98
Kagera	135	148	0	283	1.84	10.94	0.97	37.84
Katavi	13	21	4	38	0.12	1.12	0.05	16.18
Kigoma	141	116	0	257	0.30	2.96	0.09	20.91
Kilimanjaro	210	77	54	341	0.63	1.23	0.66	9.25
Lindi	31	17	9	57	0.33	2.29	0.35	3.98
Manyara	75	92	10	177	1.02	3.34	0.10	93.80
Mara	51	59	73	183	1.11	3.56	0.17	11.76
Mbeya	129	36	100	265	8.06	26.33	7.69	63.00
Morogoro	72	132	100	304	2.86	13.05	1.74	76.88
Mwanza	83	75	195	353	1.09	3.49	0.17	11.53
Njombe	84	48	13	145	7.90	25.80	7.54	61.74
Pwani	62	26	123	211	1.07	26.75	0.30	19.37
Rukwa	57	66	11	134	0.41	1.30	0.02	2.82
Ruvuma	63	47	16	126	1.13	7.56	1.10	20.99
Shinyanga	44	53	8	105	0.62	3.92	0.36	6.41
Simiyu	29	83	12	124	0.19	1.97	0.01	2.06
Singida	38	78	8	124	0.48	3.06	0.05	15.15
Songwe	45	34	2	81	0.31	1.66	0.16	5.20
Tabora	41	42	132	215	0.25	2.49	0.08	17.57
Tanga	168	73	53	294	3.74	12.77	0.46	53.74
Total	2670	2116	1184	5970	77.76	535.14	36.50	1207.73

Source: Reports from Tanzania Cooperative Development Commission, [TCDC \(2019\)](#).

3.4 Status of BRAC Tanzania in Arusha region

Arusha region is one of the regions in which BRAC Tanzania started its microfinance program in Tanzania when it started in 2006. According to the BRAC Tanzania region division, it is one of the thirteen regions. It is under the Kilimanjaro division office and it has a total of six area offices and seventeen branch offices. The seventeen branches are divided in six area offices as follows: Arusha East area office has four branches (Ungalimited, Sekei, Olerian, and Kimandolu), Arusha West area office has four branches (Monduli, Ngaramtoni, Sakina, and Sombetini), Manyara area office has two branches (Babati, and Katesh), Magugu area office has two branches (Magugu and Karatu), Usa river area office has three branches (Tengeru, Usa river, and Mererani) and Kondoa area office has two branches (Kondoa and Galapo).

Branch characteristics such as number of groups, members, borrowers, and average loan sizes differ due to branch location. Rural branches, for example, Babati, Katesh, Kondoa, Magugu, and Karatu branches, have a larger number of members compares to urban branches (for example, Kimandou, Sakina, Sekei, and Olerian). This happens because the branch operations area in rural areas is big and branches are far from each other compared to urban areas where branches are close to each other hence, small operation areas.

The other difference is brought by the branch age. The average loan sizes for the new branches (Karatu and Mererani branches) are smaller compared to the averages for old branches such as Tengere, Usa river, Ungalimited, Olerian, and Sakina branches. This is because the loan sizes increase with time. Old branches have old members; hence, the average loan sizes are bigger compared to new branches (Table 3.6).

BRAC Tanzania has a system of ranking its regions monthly according to various performance indicators. In August 2019, the Arusha region ranked the eighth out of thirteen regions. The ranking is based on the score on the various indicators, including the number of borrowers, outstanding loans, current overdue loans, portfolio at risk (PAR), repayment rates, and the number

of borrowers per community organizers (COs). The highest score is thirteen, and the lowest is one. The overall ranking is obtained after summing up all the indicators scores. The higher the score, the better the performance. Arusha region score performance on the number of borrowers and the amount of outstanding loans is high (11 and 10 scores, respectively). However, the performance score on the other indicators, such as the current amount of overdue loans and PAR, is lower in comparison to other regions (5 and 3 scores, respectively). Since both are indicators of the repayment performance, it implies that the repayment performance is low in comparison to other regions (Table [3.7](#)).

Table 3.6: BRAC Tanzania microfinance program in Arusha region (branch-level status)

Branch name	Year established	Number of groups	Number of members	Number of borrowers	Amount of outstanding loans (Mil. TShs)	Average loan size (TShs)
Babati	2009	90	2,355	1,634	666.6	407,977
Galapo	2010	70	1,305	881	345.7	392,446
Katesh	2009	91	1,691	1,375	582.0	423,279
Kimandolu	2007	71	772	578	266.2	460,470
Kondoa	2009	78	1,644	1,031	436.1	423,033
Magugu	2009	88	2,431	1,846	857.8	464,667
Monduli	2010	45	581	424	215.3	507,804
Ngaramtoni	2009	45	1,137	789	351.6	445,652
Olerian	2006	62	892	646	320.5	496,125
Sakina	2007	58	887	612	328.4	536,600
Sekei	2006	50	792	614	283.8	462,222
Sombetini	2009	53	1,350	701	336.9	480,632
Tengeru	2006	61	1,271	942	535.1	568,053
Ungalimited	2006	91	1,059	813	402.1	494,644
Karatu	2016	78	2,236	1,717	599.1	348,943
Mererani	2018	45	829	738	236.8	320,824
Usa river	2006	78	1,142	935	480.5	513,938
Total		1154	22,374	16,276	7,244.7	445,115

Source: Compiled by author using [BRAC Tanzania \(2018\)](#) .

Table 3.7: BRAC Tanzania microfinance program regional ranking (Part 1)

Name of the region	Total CO	Borrowers	Score	Outstanding loans (Million TShs)	Score	Current overdue loans (Million TShs)	Score
Tanga	81	22,712	13	10,649	13	13.51	9
Mbeya	60	15,912	10	8,008	9	12.68	11
Njombe	40	10,853	6	4,847	6	2.92	13
Dodoma	51	13,986	8	8,515	11	20.35	6
Kagera	42	11,750	5	4,488	4	10.96	10
Mwanza	64	18,337	12	9,587	12	59.98	2
Morogoro	43	10,885	4	4,944	5	8.00	12
Arusha	70	15,976	11	8,241	10	27.07	5
Shinyanga	58	15,002	9	6,801	8	31.34	4
Kilimanjaro	56	12,239	7	6,457	7	15.5	8
Zanzibar	32	6,349	1	3,323	1	18.57	7
Dar es Salaam 1	34	6,717	2	4,117	2	42.07	3
Dar es Salaam 2	37	7,106	3	4,276	3	143.83	1
	668	167,824		84,253		406.78	

Source: Compiled by author using [BRAC Tanzania \(2018\)](#)

Table 3.8: BRAC Tanzania microfinance program regional ranking (Part 2)

Name of the region	PAR	Score	Repayment rate	Score	CO per borrowers	Score	Total score
Tanga	0.29	12	99.61	9	280	12	68
Mbeya	0.37	11	99.92	13	265	8	62
Njombe	0.21	13	99.88	12	271	9	59
Dodoma	0.48	10	99.59	8	274	10	53
Kagera	0.55	9	99.64	10	280	12	50
Mwanza	2.22	4	98.63	3	287	13	46
Morogoro	1.05	8	99.70	11	252	6	46
Arusha	2.50	3	99.46	6	228	5	40
Shinyanga	1.27	6	99.03	5	259	7	39
Kilimanjaro	1.55	5	99.58	7	219	4	38
Zanzibar	1.25	7	98.70	4	198	3	23
Dar es Salaam 1	7.07	1	98.25	2	197	2	12
Dar es Salaam 2	6.94	2	94.71	1	192	1	11

Source: Compiled by author using [BRAC Tanzania \(2018\)](#)

Chapter 4.

Outreach and Efficiency of Semi-Formal Microfinance Institutions in Tanzania

4.1 Introduction

This chapter aims to understand the financial services of the selected SACCOs and of BRAC Tanzania. It also aims to analyze the performance of the selected SACCOs and BRAC Tanzania focusing on outreach, as well as efficiency in terms of operating costs. Reaching the poor and providing them with credit may be very costly. Poor clients may live in rural areas, which makes it more costly to supply them with financial services due to higher transaction costs. Moreover, in many cases, they do not have collateral to pledge when obtaining a loan, which may increase the risks, and therefore the costs for the MFIs. Servicing poor clients may also be more costly because information about their repayment capacity is generally more opaque than for richer clients. This makes the process of screening and monitoring of clients more expensive.

Although MFIs have developed methods to reduce these costs (e.g., by offering group loans, making borrowers jointly responsible for the repayment of individual loans), lending to the poor on average is still more expensive and riskier than offering loans to wealthier clients who have a regular income. Thus, there may be a trade-off between efficiency and outreach, implying that the shifting focus toward increasing efficiency may reduce the scope for the traditional aim of many MFIs, which is lending to the poor.

4.2 Selection of SACCOs and BRAC Tanzania and their Financial Services

4.2.1 Sample selection

Three representative SACCOs were selected from the roster of SACCOs operating in the Arusha region. While selecting, the following criteria were used: (i) community-based, ¹; (ii) have a long-

¹Community-based SACCOs are more diverse than employee-based ones. A variety of members and loan types are observed.

standing operating experience (five years or more)², and (iii) hold a large amount of outstanding loans compared to other SACCOs in the region³. From the above criteria, three SACCOs were selected—Nanenane Women, Krokoni, and Umatama. For BRAC Tanzania, Arusha regional headquarters was selected due to the availability of reliable information. No branch interviews were conducted, as the BRAC Tanzania policy is uniformly implemented across the country.

4.2.2 Profile of the selected SACCOs

(i) Nanenane Women

Nanenane Women started as a group of twenty members who help each other on different occasions. Later the group members decided to start a SACCO that was registered in June 2004. The aims are to raise and strengthening members' economic and social status, encourage member's investment and regular savings, accepting member's shares and savings, and offering low-interest rate loans to members. For a person to become a member, she must meet the eligibility criteria. Some of the criteria include; a resident of the Arusha region, female, willing to follow all the rules of the SACCOs, pay a membership fee and buy a minimum number of shares. The membership fee is TShs 20,000 and a minimum of 10 shares, which value TShs 100,000. Additional to the membership fees and shares, to obtain a loan member must save first. Savings act as collateral for the loan.

(ii) Krokoni

Krokoni SACCO was registered in May 2008 after the decision from Krokoni market retailers. The aims of starting a SACCO were to encourage members to have a habit of investing and savings regularly, offer loans to members, and educate members on financial matters. Some of the criteria to be a member include; having a booth at Krokoni market, approved by other members, pay a

²In analyzing performance, time was considered an important factor. Hence, SACCOs with an operations history of five years and above were considered.

³The selection criterion on the amount of the outstanding loans was based on 2014 data.

membership fee, and buy membership shares. The membership fee is TShs 2,000 and a minimum of 10 shares, which value TShs 5,000 each.

(iii) Umatama

Umatama SACCO was found and registered in February 2006. Umatama SACCO started as a social group of the people from Rukwa region living in the Arusha region. Later 58 members decide to start SACCOs to help each other financially. The aims are to accept members' savings and offer loans with the minimum requirements to its members. Member must be a resident of the Arusha region and known by two old members. The membership fee is TShs 40,000 and a minimum of 3 shares, which value TShs 2,000 each.

4.2.3 Financial services of the selected SACCOs and BRAC Tanzania

The main financial service provided by the selected SACCOs, as well as BRAC Tanzania, is loan provision, as presented in Table 4.1. The SACCOs target only their members for loans, whereas BRAC Tanzania offers loans to all in the community. The members of the selected SACCOs are affiliated by occupation. For example, the members of Nanenane Women and Umatama are mostly salaried earners and business owners, while Krokoni members are clothing retailers. The types of loans provided include business, emergency, general purpose, microfinance,⁴ and small enterprise loans. General purpose loans offered by Krokoni and Umatama are intended for various uses, such as consumption, investment, and emergencies. BRAC Tanzania's microfinance loans are specially designed for poor women, assisting them in undertaking income-generating activities. The small enterprise loans target small and medium business owners, farmers, and small traders. Both men and women are eligible to apply. All the loans provided by these institutions are individual loans, with the exception of BRAC Tanzania's microfinance loans, which are offered to groups.

The minimum loan amounts appear to be almost the same for the selected SACCOs and BRAC

⁴The term microfinance, as used in this context, refers to a type of loan offered by MFI. Further descriptions are found in Table 4.1.

Tanzania, with the exception of BRAC Tanzania's small enterprise loans. The maximum amount of the loan varies among the selected SACCOs, according to the client type. The maximum loan amount offered by Umatama is eight times that offered by Krokoni. These loans are either short-term (less than one year) or mid-term (more than one year but less than two) loans. Repayment is on a monthly basis, with the exception of BRAC Tanzania's microfinance loans, which are repaid on a weekly basis with a minimum repayment requirement of 20 weeks.

In addition to the provision of loans, the selected SACCOs also intermediate savings from members. This is in contrast to BRAC Tanzania, which is barred from intermediating savings due to country's legal restrictions.⁵ There are two types of savings provided by the selected SACCOs: compulsory and voluntary. The former is the type of savings that members are required to pay on a regular basis, as per SACCOs regulations, while the latter allows members to deposit as much money as they want.

Table 4.1: Characteristics of loans provided by the selected SACCOs and BRAC Tanzania

	Nanenane Women	Krokoni	Umatama	BRAC Tanzania	
Types of loans	Business and emergency	General purpose	General purpose	MFL	SEL
Target group	Members	Members	Members	Women	Men and Women
Minimum amount (TShs)	100,000	100,000	NA	200,000	1.2 million
Maximum amount (TShs)	15 million	5 million	40 million	3 million	30 million
Annual interest rate	15%	18%	24%	25%	25%
Maximum loan duration	1 year	1 year	1.5 year	10 months	1 year

Source: Authors, 2017.

Notes:

1. USD 1 is about TShs 2,120 (as of June 2015).
2. MFL stands for microfinance loan while SEL stands for small enterprise loan.

⁵In most countries, unregulated financial institutions are not permitted to take deposits from the public. Thus, if an institution wants to offer saving facilities, some degree of formalization and prudential regulation is inevitable (Armendáriz and Morduch, 2010).

4.3 Outreach and Efficiency of the Selected SACCOs and BRAC Tanzania

4.3.1 Outreach of the selected SACCOs and BRAC Tanzania

Microfinance institutions (MFIs) focus on providing credit to the poor who have no access to commercial banks in order to reduce poverty and to help the poor with setting up their own income generating businesses. In the literature, this focus is generally described as outreach. According to [Yaron \(1991\)](#), outreach is the measure that assesses the extent to which an MFI has succeeded in reaching its target clients and the degree to which the MFI has met the demand of clients for financial services. Different studies use different measures for measuring the outreach, depending on the data available. According to [Lafourcade et al. \(2005\)](#), outreach can be measured in terms of breadth — number of clients served and volume of services (i.e., total savings on deposit and total outstanding portfolio) — or depth — the socioeconomic level of clients that MFIs reach.⁶ According to [Ndiege et al. \(2013\)](#), outreach in SACCOs is measured by increase in number of active members along with financial services.⁷

This study analyzes the outreach in terms of the expansion of credit. The number of members, outstanding loan amount, and average loan size are used as proxies for outreach. The changes in the growth and expansion of lending activities of the selected SACCOs and BRAC Tanzania are shown in Table 4.2 and Table 4.3, respectively. The selected SACCOs and BRAC Tanzania show significant growth in the number of members, outstanding loan amounts, and average loan size over the reference period, although they exhibit different rates of growth. This growth is an indicator of outreach success. The growth in the amount of outstanding loans for the selected SACCOs was higher than that of BRAC Tanzania, as the selected SACCOs were more focused on servicing businesses. In the case of two of the selected SACCOs (Nanenane Women and Krokoni), the rate of growth of the average loan size was higher than that of the members. The increase in

⁶Depth outreach is usually measured by average loan size, though this proxy is facing critics still no other reliable mean of measurement ([Nyamsogoro, 2010](#)).

⁷[Dulamragchaa and Izumida \(2011\)](#) used number of borrowers, amount of outstanding loans, and average loan size as the measure of the expansion of credit and level of the outreach of Khan Bank and Xac Bank in Mongolia.

the average loan size was associated with the expansion in members' economic activities, as well as an increase in deposits. In most cases, the SACCOs depend on deposits from their members to increase their capital. This also reflects their ability to provide loans. However, the Umatama SACCO was the exception, as it had always provided large loans from its inception.

Table 4.2: The growth lending activities of the selected SACCOs

	Baseline	Endline	Growth times	Annual growth rates (%)	Real growth rates (%)
<i>Nanenane Women</i>					
Baseline/ endline	2005	2013			
Number of members	50	221	4.4	20.4	
Amount of loans (million TShs)	5.5	301	54.75	64.9	55.2
Average loan size ('000 TShs)	109.6	1362.2	12.4	36.9	27.2
Inflation index	100	212.6	2.1	9.7	
<i>Krokoni</i>					
Baseline/ endline	2008	2013			
Number of members	81	108	1.3	5.4	
Amount of loans (million TShs)	3.4	90.3	26.6	92.7	81.8
Average loan size ('000 TShs)	41.7	836.1	20.1	82.1	70.9
Inflation index	100	167.7	1.7	11.2	
<i>Umatama</i>					
Baseline/endline year	2009	2014			
Number of members	72	118	1.6	9.8	
Amount of loans (million TShs)	38.8	153.2	3.9	31.6	21.7
Average loan size ('000 TShs)	538.7	1298.5	2.4	19.2	9.3
Inflation index	100	159	1.6	9.9	

Source: Authors, 2017 (Based on SACCOs annual reports).

Notes:

1. Baseline refers to the year in which the selected SACCOs started operation, and endline refers to the last year of the data used in the analysis.
2. Due to variations in baseline across SACCOs, the inflation index was computed on the baseline year of the three selected SACCOs.
3. In calculating changes in amount of loans and average loan size, the real growth rate was applied by using the inflation rate from the consumer price index (CPI).

Table 4.3: The growth of lending activities of BRAC Tanzania

	Baseline	Endline	Growth times	Annual growth rates (%)	Real growth rates (%)
Baseline/ endline	2008	2014			
Number of members	57,343	101,068	1.8	10.3	
Amount of loans(million TShs)	7,250	31,122	4.3	27.5	16.7
Average loan size ('000 TShs)	126	308	2.4	16.1	5.3
Inflation index	100	185	1.9	10.8	

Source: Authors, 2017 (Based on BRAC Tanzania annual reports).

Notes:

1. Baseline and endline respectively refers to the first and last year of the data used in the analysis.
2. In calculating changes in amount of loans and average loan size, the real growth rate was applied by using the inflation rate from the consumer price index (CPI).

4.3.2 The efficiency of the selected SACCOs and BRAC Tanzania

This section examines the efficiency of the selected SACCOs and BRAC Tanzania. Efficiency is a measure of how well an MFI controls its costs.⁸ Most studies on the measurement of the efficiency of MFIs focus on cost efficiency (Hermes et al., 2011). The main reason is that, according to many observers, microfinance's mission should be to reduce poverty. Thus, given the available financial resources, MFIs should aim at maximizing their contribution to this goal. Reducing the costs of providing services may maximize their contribution to poverty reduction.

Cost efficiency, that is, the extent to which MFIs are efficient in using resources and turning them into services, is closely linked to attaining their goal of making a long-term contribution to helping the poor. Several studies have assessed the efficiency of MFIs using different approaches. Qayyum and Ahmed (2006) measure the efficiency of nineteen MFIs in three South Asian countries for which they use data envelopment analysis (DEA). Desrochers and Lamberte (2003) measure efficiency for a sample of 50 cooperative rural banks, using different methodologies, such as stochastic frontier analysis (SFA) and the distribution free approach. They focus on aspects of corporate governance and show that more efficient rural banks are the ones that are better able to

⁸Costs here refer to operating costs, such as employees' salaries, rents, travel and building costs; it excludes the cost of funds, which is the interest paid on deposits.

control agency costs.

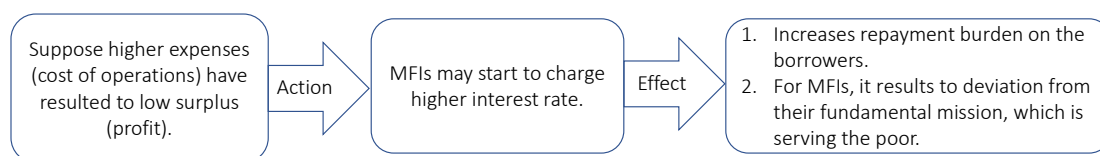
[Gutierrez-Nieto et al. \(2007\)](#), who also use DEA, investigate the efficiency of 30 Latin American MFIs and show that differences in efficiency levels are associated with the location of the MFIs (i.e., in which country they are) as well as with their institutional type. [Segun and Anjugam \(2013\)](#) used a panel dataset of 70 MFIs from 25 countries in SSA to analyze the efficiency of MFIs. Their results show that MFIs are inefficient in meeting the goal of either providing microfinance-related services to their clients or intermediating funds between borrowers and depositors. [Abdulai and Tewari \(2016\)](#), who investigated the cost efficiency of MFIs operating in 10 SSA countries between 2003 and 2013, obtained similar results. They found that MFIs are cost inefficient in their intermediation role. Other studies have also examined the underlying determinants of such efficiency. For example, [Paxton \(2007\)](#) measured the efficiency of popular Mexican savings and credit institutions, concluding that differences in efficiency are associated with differences in technology,⁹ average loan size, rural outreach, and the age of the lending institution.

Traditionally, MFI efficiency is normally studied by means of financial ratios ([Brownlow, 2007](#)). This study analyzes efficiency by using operating expenses over the average outstanding loan ratio.¹⁰ Previous studies that use a similar measure to analyze the efficiency include [Gonzalez \(2007\)](#) and [Kneiding et al. \(2009\)](#). The main reason for this choice is the link between expenses and interest rates. An increase in the MFI's expenses will lead to a rise in interest rates, which will then increase the borrower's repayment burdens. However, if the MFI is able to reduce its expenses, it can also reduce its lending rate or increase its surplus, which adds to its profit (Figure 4.1). Given the link between expenses, interest rates, and profits, the analysis includes two other financial ratios: interest revenue and the surplus to outstanding loans ratio.

⁹Investment in technology refers to the use of computers in institutional and managerial activities; this was measured by [Paxton \(2007\)](#) as the number of computers per employee.

¹⁰Other metrics to measure efficiency are the cost per borrower, cost per loan, number of borrowers, number of savers per employee, and the difference between the lending rate and the deposit rate (spread).

Case A:



Case B:

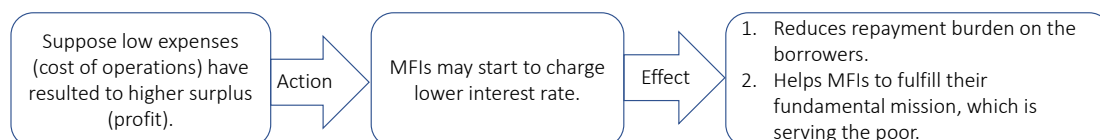


Figure 4.1: Depiction of theory regarding efficiency of MFIs

Source: Author, 2017

4.3.3 Results of the descriptive analysis of efficiency of the selected SACCOs and BRAC

Tanzania

In the descriptive analysis, a trend of the efficiency ratios can be observed. This trend shows whether or not there is an efficiency gain. As presented in Tables 4.4 and 4.5, the results from the indicators related to average interest rates, expenses, and surplus show an unclear trend for the selected SACCOs and BRAC Tanzania. However, the results do show notable differences between the selected SACCOs and BRAC Tanzania (Figure 4.2). First, the average interest rate charged by the selected SACCOs, expressed as the ratio of interest revenue to outstanding loans, was considerably lower than that charged by BRAC Tanzania. The annual lending interest rates of Nanenane Women and Krokoni averaged ¹¹ 23.4% and 21.8%, respectively, while the interest rate charged by BRAC Tanzania averaged 53.1%.

Second, the selected SACCOs' cost indicators were lower than those of BRAC Tanzania. The ratios of expenses, including interest payments, to outstanding loans for Nanenane Women and Krokoni were 11.7% and 6.5%, respectively; the ratio for BRAC Tanzania was 33.5% (after excluding the cost of funds). The observed gap is caused by the difference in the loan amounts offered by the selected SACCOs and BRAC Tanzania. BRAC Tanzania, on average, offers loans

¹¹The averages is computed as three years average (2011, 2012 and 2013).

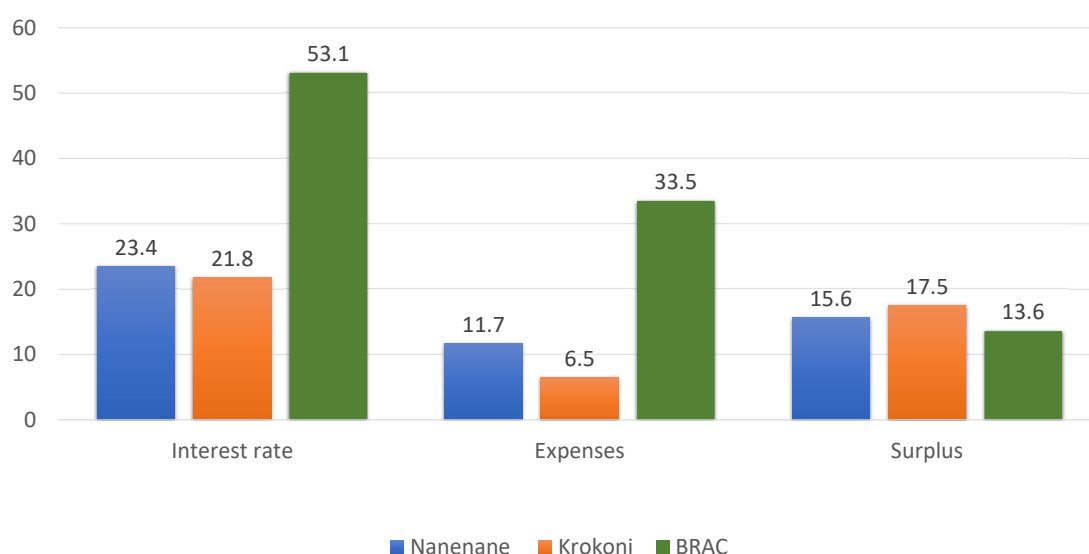


Figure 4.2: Comparison of financial ratios
Source: Author, 2017

of a size smaller than those offered by the selected SACCOs. Making very small-sized loans involves high transaction costs per loan in terms of screening, monitoring, and administration costs. Several authors have claimed that the unit transaction cost for small loans to the poor is high when compared to the unit transaction cost of larger loans ([Hulme and Mosley, 1996](#); [Conning, 1999](#); [Paxton and Cuevas, 2002](#); [Lapenu and Zeller, 2002](#)).

With respect to the surplus ratio, there are no significant differences between the selected SACCOs and BRAC Tanzania. The average ratios for Nanenane Women, Krokoni, and BRAC Tanzania are 15.6%, 17.5%, and 13.6%, respectively. During 2008 and 2009, BRAC Tanzania reported a negative surplus, but after 2009, a positive surplus was observed. This was probably due to the increase in its lending rate from 2010 onwards. Looking at the costs for the selected SACCOs and BRAC Tanzania, there was no clear trend, which may suggest that there was no efficiency gain over the reference period.

Table 4.4: Efficiency of the selected SACCOs (unit: %)

Indicators (ratios)	2006	2007	2008	2009	2010	2011	2012	2013
<i>Nanenane Women</i>								
Interest revenue to outstanding loan	15	19.9	25.8	25.7	26.2	23.3	23.9	23
Other revenue to outstanding loan	1.9	2.3	6.1	6.7	4.6	4.6	3.2	3.9
Total revenue to outstanding loan	16.9	22.2	31.9	32.4	30.8	27.9	27.1	26.9
Expense to outstanding loan	12.1	8.2	9.5	7.1	8.8	10.9	9.8	14.4
Surplus to outstanding loan	4.8	14	22.4	25.3	22	17	17.3	12.5
<i>Krokoni</i>								
Interest revenue to outstanding loan				30.9	28.6	25.2	20.3	19.9
Other revenue to outstanding loan				5.7	7.5	3.8	2	1.1
Total revenue to outstanding loan				36.6	36.1	29	22.3	21
Expense to outstanding loan				14.3	13.5	5.1	8.7	5.8
Surplus to outstanding loan				22.3	22.6	23.9	13.6	15.2

Source: Authors, 2017 (Using SACCOs annual reports)

Notes:

1. The expenses include interest paid to the depositors and other costs were not separated in the selected SACCOs financial statements. Also, due to data limitations analysis of Umatama SACCOs could not be done.
2. Other revenue mainly comes from membership fees.

Table 4.5: Efficiency of BRAC Tanzania (unit: %)

Indicators (ratios)	2008	2009	2010	2011	2012	2013
Interest revenue to outstanding loan	43.1	45.9	52.7	50.3	55.6	53.4
Other revenue to outstanding loan	5.8	41.5	12.2	3.9	0.3	1.2
Total revenue to outstanding loan	48.9	87.4	64.9	54.2	55.9	54.6
Interest expense to outstanding loan	10.6	12.7	14.8	8.7	7	7.5
Other expense to outstanding loan	47.7	76.5	49.3	32	30.9	37.7
Total expense to outstanding loan	58.3	89.2	64.1	40.7	37.9	45.2
Surplus to outstanding loan	-9.4	-1.8	0.8	13.5	18	9.4

Source: Authors, 2017 (Using BRAC Tanzania's annual reports)

Notes:

1. The expense for BRAC Tanzania is separated into interest expenses and other expenses.
2. Interest expenses is the expenses used to fund the term loans.
3. The other expenses include employees' salaries, rents, traveling costs, and building costs; it excludes the cost of funds, which is the interest paid on deposits.
4. Other revenue mainly comes from membership fees.

4.3.4 Empirical analysis on efficiency of the selected SACCOs and BRAC Tanzania

In assessing the efficiency of the selected SACCOs and BRAC Tanzania, the descriptive results show that efficiency did not improve over time. To confirm this, a regression analysis was con-

ducted. Here, cost per loan ratio was introduced as the main indicator to measure efficiency. It shows that the cost of providing loans depends on the number of loans made. This ratio is most useful for long term calculations and comparisons to determine if the costs are decreasing or increasing.

The first hypothesis was that time (X_3) plays a significant role in the efficiency of semi-formal MFIs in Tanzania. The basis of the hypothesis is derived from the results of [Caudill et al. \(2009\)](#), who indicate that the operating costs of MFIs become lower over time. The second hypothesis was that the average loan size (X_1) and the loan to asset ratio (X_2) have a negative relationship with cost per loan (Y). The loan to asset ratio measures the share of the MFI's assets allocated to its lending activities. Assuming economies of scale, economies of full capital utilization, and efficiency gain over time, negative signs were expected for all the parameters, that is, X_1 , X_2 , and X_3 . The results of the analysis are shown in Table 4.6. As expected, the cost per loan and loan size were negatively related and statistically significant. Furthermore, the cost per loan and loan to asset ratio were negatively related and statistically significant, which was also as expected. This implies that if capital is not fully utilized, the cost increases. Cost per loan and time were positively related but not statistically significant. This was contrary to the hypothesis and implies that time was not a significant factor contributing to efficiency in the analysis period.

4.3.5 Conclusion

This chapter examined outreach and efficiency performance of semi-formal MFIs in Tanzania, using the cases of the selected SACCOs and BRAC Tanzania as representative institutions. Several notable differences between BRAC Tanzania and the selected SACCOs were found: (i) BRAC Tanzania only offers credit services as NGO-MFIs in Tanzania are not allowed to accept savings, while the selected SACCOs offer both credit and saving services; (ii) BRAC Tanzania uses a group lending method, while the selected SACCOs lend directly to individuals; (iii) BRAC Tanzania

Table 4.6: Efficiency gain over time (Cross-Section Pooled Regression)

Dependent variable (Y) is Cost per Loan				
Independent variables	Coefficients	Standard Error	<i>t</i> statistics	<i>p</i> -value
Intercept	103.28	18.74	5.51	5.984×10^{-5} ***
Average loan size (X1)	-3.404×10^{-5}	1.70×10^{-5}	-1.96	0.069*
Loan to asset ratio (X2)	-0.935	0.24	-3.95	0.001***
Time (X3)	1.279	1.76	0.73	0.479
Number of observations	19			
Adjusted R-square	0.62			
Regression equation	$Y = 103.28 - 3.4 \times 10^{-5}X_1 - 0.935X_2 + 1.279X_3$			
	(5.511)	(-1.96)	(-3.95)	(0.726)

Source: Authors' estimations, 2017

Notes:

1. *** denotes significant at 1%, ** significant at 5%, and * significant at 10%.
2. In a regression equation, the numbers enclosed in parentheses are *t* statistics values.

offers smaller loan sizes than those offered by the selected SACCOs; and (iv) the interest rate charged by BRAC Tanzania is considerably higher than that charged by the selected SACCOs; (v) BRAC Tanzania has higher operating costs than that of the selected SACCOs.

Regarding the financial performance, the selected SACCOs and BRAC Tanzania were successful in improving outreach through growth and expansion of their lending activities. The descriptive and regression results show that there was no efficiency gain, implying that representative semi-formal microfinance institutions in Tanzania should adopt innovative methods to reduce the costs.

Chapter 5.

Repayment Performance in Group Lending: The Case of BRAC Tanzania

5.1 Introduction

The discovery of group lending opened up possibilities for microfinance. Today, group lending is just one element that makes microfinance different from conventional banking ([Armendáriz and Morduch, 2010](#)). Over the past three decades, the group lending model has been widely replicated and adopted in many countries. It has been replicated in Bolivia, Chile, China, Ethiopia, Honduras, India, Malaysia, Mali, the Philippines, Sri Lanka, Tanzania, Thailand, the United States, and Vietnam ([Morduch, 1999](#)). Generally, group lending refers to arrangements made by individuals without collateral, who get together and form groups to obtain loans from the lender ([Armendáriz and Morduch, 2010](#)). It is cited as an innovation to overcome imperfect information in financial markets by addressing four main problems: adverse selection, moral hazard, monitoring, and enforcement ([Besley and Coate, 1995](#); [Ghatak and Guinnane, 1999](#)).

5.2 Group Lending Model: Literature Review

5.2.1 The varieties and origins of group

There are many different types of microfinance group systems, which make different levels of demands on their members. The best-known method is that pioneered by the Grameen Bank in Bangladesh. Other institutions instead base their method on the “solidarity group” approach developed by Bolivia’s BancoSol or the “village bank” approach operated by microlenders in seventy countries throughout Africa, Latin America, and Asia. The unique feature of the classic Grameen Bank model is that the loans are made individually to group members. However, all group members face the consequences if any member runs into serious repayment difficulties.

In the original Grameen Bank case, the groups are made up of five people. In the BancoSol case, groups can be as small as three people, and in the village banking system, groups can range

from ten to about thirty women. The fundamental idea of “group responsibility” (sometimes called “joint liability”) coupled with regular group meetings is common across approaches. When the Grameen Bank first got started as an experiment bank in the village of Jobra, near Chittagong University, the first loans were made to individuals without a group responsibility clause. Instead, the economies of scale motivated the first use of groups ([Armendáriz and Morduch, 2010](#)).

At first, the groups were seen just as sources of solidarity, offering mutual assistance in times of need. For example, if a member of a group fails to attend a meeting, the group leader repays on her behalf. The original premise was that perhaps someone might experience a delay in getting a loan if there were a problem within their group, but there would not be further sanctions. Over time, formal sanctions become more common. In principle, if serious repayment problems emerge, all group members will be cut off from future borrowing. The original idea was not that group members would be forced to repay for others, rather it was that they would lose the privilege of borrowing ([Armendáriz and Morduch, 2010](#)).

In major departures, Grameen Bank has forsworn lending with joint liability, and BancoSol does very little of it now. The shift to individual liability is not merely the Grameen Bank and a few other large, well-known lenders, but many lenders around the world are following the lead of the large, well-known lenders ([Giné and Karlan, 2009](#)). [De Quidt et al. \(2018\)](#) use MFI-level panel data and show there has been a trend away from joint liability in recent years. It is important to mention that in 2016, BRAC Tanzania followed the lead of many microlenders, such as BancoSol and Grameen Bank, by converting to individual liability¹. However, interestingly, Grameen and other MFIs who have made this shift have chosen to retain the regular group meetings that traditionally went hand-in-hand with joint liability lending.

The weekly group meetings have some advantages for lenders and customers. For lenders, group meetings reduce the transaction costs of providing many small loans by concentrating clien-

¹ According to interviews with BRAC Tanzania officials, the reason for this change is to avoid the dropout of good clients.

tele in groups rather than dealing with individual borrowers at different times. For customers, group meetings offer convenience as a local ROSCA or money lender. For example, in the case of Grameen Bank, the bank goes to the villagers, and in case of any problems (a missing document, few takas short) can be resolved on the spot ([Armendáriz and Morduch, 2010](#)). Group meetings also facilitate education and training useful for clients with little experience to improve the financial performance of their businesses ([Armendáriz de Aghion and Morduch, 2000](#)).

5.2.2 Advantages and disadvantages of groups

Transacting through groups has some advantages and limitations. In particular, where the joint liability clause is used in contracts, it can mitigate the moral hazard, adverse selection, and enforcement problems that crippled previous attempts at lending to the poor. From the lenders' perspective, joint liability lending enables a transfer of default risks from the institution to the borrower. Groups are also useful resource through which staff can directly elicit information about errant borrowers and create pressure ([Dichter and Harper, 2007](#)).

For the group members, group lending creates an alternative to conventional loan collateral requirements (which poor people can rarely fulfil). They get financial services they would not otherwise have got, or at least that would not be available at relatively low-interest rates. Empowerment is also argued as one of the important social achievements of microfinance groups. This is particularly important for women, given their disadvantaged social and economic position in many places. Women say that groups give them a legitimate reason to be allowed to go out of their own homes. Once their routine absence from home has been accepted, they can also access services such as health care or literacy classes more easily ([Dichter and Harper, 2007](#)).

On the other side, group lending faces several criticisms and limitations. Firstly, group lending can create pressure that works against the poorest and most vulnerable members of the community. In attempting to keep repayment rates up, loan officers may put sharp pressure on borrowers

to repay, even when the borrowers faced difficulties beyond their control. [Montgomery \(1996\)](#) mentioned examples of ‘forced’ acquisition of household utensils, small livestock, or other assets of defaulting members in several of the BRAC VOs. The criticism is that punishments are too harsh.

Secondly, as groups mature, clients typically diverge in their demand for credit. Heterogeneity in loan sizes can result in tension within the group as clients with smaller loans are reluctant to serve as a guarantor for those with larger loans ([Gine and Karlan, 2008](#)). Excessive tension among members is not only responsible for voluntary dropouts but can also harm social capital among members, which is particularly important for the existence of safety nets ([Gine and Karlan, 2006](#)). Thirdly, groups with joint liability contracts cause serious free-riding problems, inducing strategic default and lowering repayment rates ([Che, 2002](#); [Kono, 2006](#); [Fischer, 2013](#); [Kono, 2013](#)). [Besley and Coate \(1995\)](#) argue that the whole group may default, even when some members would have repaid under individual liability. This happens when the number of defaulting clients in the group is so large that the remaining members cannot afford the repayment of defaulters, along with their repayment. In this situation, borrowers that could repay their loans have little incentive to do so because access to future loans will be denied. As a result, they will strategically decide to default.

Lastly, another important concern is the costs that are associated with group lending. Attending group meetings and monitoring group members can be costly, especially where houses are not close together. In two of the three Chinese programs, 8 percent of clients had to walk more than an hour to get to the meetings. Overall, attending meetings and travel time took just over one hundred minutes on average ([Park and Ren, 2001](#)). Monitoring is also not costless, even for individuals living in close proximity ([Armendáriz and Morduch, 2010](#)).

Despite the challenges and criticisms, groups have served a crucial purpose in the functioning of microfinance and have been a subject of extended academic debate. Results from different parts of the world reveal different results. In Tanzania, group lending has been little studied. For that

reason, this study aims to add to the existing literature by using the case of BRAC Tanzania, one of the largest group lending programs in the country. Specifically, this study aims to understand the characteristics of BRAC Tanzania group lending programs, group formation, and importantly to assess the repayment performance of groups.

In order to achieve the mentioned objectives, primary data were obtained through interviews with key informants of BRAC Tanzania and questionnaires were administered to 177 members of ten randomly selected groups from the Tengeru branch, one of the BRAC Tanzania branches in the Arusha region (Description of the sample is found in Table 8.1 in the Appendix).

5.3 BRAC Tanzania Group Lending Programs

At the time of the survey in 2018, five group lending programs were operating in BRAC Tanzania: Microfinance (MF), Empowerment and Livelihood for Adolescents (ELA), Adolescents Development Program (ADP), Agrifinance, and *Pembejeo*². Most programs target women in rural areas and have common features regarding the lack of need for collateral, interest rate setting, frequency of repayments, and the length of the loan. The three programs, namely, MF, ELA, and ADP, target women from two age groups. MF program targets women aged 18–65 while ELA and ADP target younger women aged 18–25. The remaining two programs target farmers. Agrifinance targets maize and poultry farmers, and *Pembejeo* targets maize farmers. Table 5.1 shows the characteristics of these group lending programs.

This study focuses on BRAC Tanzania’s MF program, the most important and oldest among the organization’s programs. As of August 2019, the MF program was operating in 26 regions across the country under Dar es Salaam head office with over 1000 staff, and approximately 95% of them are female staff. It had over 200,000 members through the network of 151 branches and

²Pembejeo is a Swahili word which means agriculture inputs. This is a pilot program that is planned to be implemented after it is successful.

Table 5.1: Characteristics of BRAC Tanzania group lending programs

	MF	ELA	ADP	Agrifinance	<i>Pembejeo</i>
Year started	2006	2012	2012	2014	2016
Collateral needed (yes/no)	no	no	no	no	no
Target clients	women	women	women	farmers	farmers
Repayment schedule	weekly	weekly	weekly	monthly	monthly
Number of branches	138	8	22	43	2
Total number of members	193,648	2,646	6,590	23,016	160
Rural Borrowers	130,207	1,190	4,193	15,944	113
Urban Borrowers	20,679	764	624	2,982	0
Total number of borrowers	150,886	1,954	4,817	18,926	113
Minimum loan size (TShs)	250,000	200,000	200,000	200,000	200,000
Maximum loan size (TShs)	5,000,000	2,500,000	2,500,000	2,500,000	2,500,000

Source: Field survey, 2018.

Notes.

1. USD 1 was equivalent to TShs 2240 at the time of the survey.
2. All the data on the number of branches, members, and borrowers are as of January 2018.

11,889 groups (Table 5.2). Table 8.2 in the appendix shows the BRAC Tanzania expansion in the Arusha region.

Table 5.2: Expansion of BRAC Tanzania's microfinance program in Tanzania

Year	Number of regions	Number of branches	Number of groups	Number of members
2006	2	10	N.A.	N.A.
2007	7	41	630	17,000
2008	14	68	3,000	80,000
2009	18	104	6,376	111,500
2010	18	112	7,748	144,294
2011	18	112	7,476	140,209
2012	18	112	7,619	126,851
2013	18	112	7,130	126,050
2014	18	120	7,557	139,000
2015	18	120	8,121	156,402
2016	21	127	8,982	168,345
2017	25	138	10,341	193,455
2018	25	146	11,321	214,046
2019	26	151	11,889	221,331

Source: BRAC Tanzania reports compiled by author, 2019.

Notes:

1. N.A. means data not available.
2. Data for the number of groups and members in the year 2007 is as of May.
3. Data for 2019 is as of August 2019.

The contents of MF program is very similar microloan program also known as *Dabi* of BRAC in Bangladesh. For example, both programs target rural women and provide small loans (under USD 120). They have weekly meetings, and weekly payments are made in groups. A significant difference between the two lending programs is that BRAC Bangladesh offers saving services, unlike BRAC Tanzania. This is because NGO MFIs in Tanzania are not allowed to accept saving deposits (See Table 8.3 in the appendix for comparison of BRAC Bangladesh and Tanzania).

5.3.1 Group formation and peer selection

Groups are formed after the research is conducted by community organizers in the targeted area. The research aims to identify eligible community members. Interested individuals are instructed to form groups according to geographical location (i.e., neighbors or people who live in the same community). The eligibility criteria are as follows: (i) the applicant must be female, (ii) in rural areas, the applicant has to remain a permanent resident whereas, in urban areas, she must have had residency in the area for at least three years, (iii) the applicant should run small business or trade, (iv) the applicant should live within the branch operating area, (v) all applicants of the same group should share a similar socio-economic background and know each other well, and willing to be abide by BRAC Tanzania's principles, such as attendance of weekly meetings, on-time repayment, and admission fees payment.

After the decision of the formation of the group, the declaration is made at the branch office. After group declaration, the admitted members must pay the admission fee of TShs 1500 (less than USD 1) ³. After becoming a member, a passbook is given where loan amount, interest rate, and the repayments are being noted. The first passbook will be given for free, and for subsequent passbooks, the member has to pay TShs 500.

Groups start with 15–30 members when they are formed.⁴ However, some grow in size when

³Every year members must renew membership with a fee of TShs 1000.

⁴BRAC Tanzania officially stipulates the group range of 15 to 30 members however; this appears to be relaxed in the field.

new members are admitted whereas others shrink due to dropouts. For example, the minimum and maximum for the surveyed groups were 8 and 38 members, respectively. Based on observations during the survey, there were several groups with over 40 members. Most members of the surveyed groups were absent during the initial group formation. The current members joined after the formation of the group, and most of the initial members left the program.

New members can join the group through a recommendation or introduction from a current member. The most important criterion for selecting new members is simply whether current members know the person well. If a woman lives in the same place, works in the same place, conducts the same business, or has a close relationship with current members, then there probably is no obstacle to her joining the group. Of course, there are some people wanting to join the group that gets rejected for various reasons such as they were not well-known by other members, did not conduct any business that could guarantee repayment, or had a record of not paying debts in the village.

5.3.2 Characteristics of the group members and loans based on field survey

This section presents the field survey results of 177 members of the ten randomly selected groups of Tengeru branch, one of BRAC Tanzania branches in Arusha region. According to the survey results, the member's average age was 40 years old and had completed primary education. Members reported an average household size of four, with two working household members. Business (68.9%) and agriculture (13.5%) were the main occupations. The businesses conducted by most members involved selling banana (plantain), fruits, and vegetables. Half of the respondents (50.8%) had multiple occupations (Table 5.3 and Table 5.4).

The process of obtaining BRAC Tanzania's loan is devolved to peer approval. The new members must wait for two weeks, which is regarded as orientation time before the loan application. During the loan application, the member has to fill the form. After the application form is com-

Table 5.3: Socioeconomic characteristics of the group members (Part 1)

	Mean	SD	Minimum	Maximum
Age	40.53	9.94	22	65
Member years of education	7.75	1.83	0	13
Household size	4.49	1.44	1	9
Working household members	2.22	0.81	1	6

Source: Field survey, 2018

Table 5.4: Socioeconomic characteristics of the group members (Part 2)

	Frequency	Percentage
Marital Status (n=177)		
Single	7	4
Married	149	84.2
Widowed	14	7.9
Divorced/Separated	7	4
Main Occupations (n=177)		
Business	122	68.9
Crop production only	8	4.5
Livestock keeping only	8	4.5
Crop production and livestock keeping	24	13.5
Employed	4	2.3
Others	11	6.2
Other occupations (n=90)		
Business	34	37.8
Crop production only	17	18.9
Livestock keeping only	5	5.6
Crop production and livestock keeping	32	35.6
Others	2	2.2

Source: Field survey, 2018

pleted, then the approval and disbursement follows. BRAC Tanzania's staff visit the proposed borrower's house and business to confirm the ability to repay and confirm the loan amount is reasonable.

The maximum loan amount obtained by the members of the surveyed groups was USD 982, with the average loan amount being USD 375. (See Table 5.5 for loan sizes of the surveyed group

members). The first loan is usually small (range from approximately USD 89 to 200).⁵ However, successful loan repayment gives access to another bigger loan. 10% of the loan is usually deducted during disbursement as a loan security deposit; however, this is refundable after the full repayment of the loan. Also, 1% of the loan is deducted as a loan appraisal fee and 0.25% for a credit life insurance contribution.⁶

Table 5.5: Loan sizes of the members of the surveyed groups

Group name	Mean	Minimum	Maximum
Sinai	914,754	300,000	2,200,000
Wema	1,160,714	700,000	1,500,000
Galilaya	910,000	200,000	2,200,000
Ushindi	833,333	400,000	1,350,000
Mkombozi	1,025,000	300,000	1,500,000
Sayuni	831,148	300,000	1,900,000
Tafuteni	812,195	250,000	1,700,000
Utukufu	879,032	300,000	2,000,000
Maendeleo	860,870	300,000	1,700,000
Rehema	691,964	300,000	1,250,000
Overall	840,758	200,000	2,200,000

Source: Field survey, 2018.

Note: USD 1 was equivalent to TShs 2240 at the time of the survey

BRAC Tanzania repayment schedules for all loan sizes are uniform: weekly repayments of a loan are started soon after disbursement and are divided into 20 or 40 equal installments including both principal and interest. As shown in Table 5.6, most members had 40-week loans (83.6%). The lending interest rates for 20- and 40-week loans are 13% and 25%, respectively. Members reported various uses of the loans, including the purchase of stocks for retail businesses (38.5%), education expenditure (20.6%), and construction (17.9%), among others.

⁵The loan sizes may be changed or adjusted occasionally by the management.

⁶The insurance pay in the event of death or permanent disability of the members and is valid during the loan term and covers the members immediately after loan disbursement.

Table 5.6: Loan term and uses by members of the surveyed groups

	Frequency	Percent
<i>Loan term</i>		
20 weeks	54	16.4
40 weeks	276	83.6
Total	330	100
<i>Loan uses</i>		
Purchasing stocks for retailing businesses	127	38.5
Purchasing livestock	16	4.9
Purchasing land	16	4.9
Purchasing motorcycle	4	1.2
Crop production	15	4.6
Construction	59	17.9
Education expenditure (school fees)	68	20.6
Others	25	7.6
Total	330	100

Source: Field survey, 2018.

Note: Group members were asked information about the two latest loans.

5.4 Repayment Performance of BRAC Tanzania's Microfinance Program

One of the issues extensively discussed in group lending programs is repayment performance (Sharma and Zeller, 1997; Wenner, 1995; Al-Azzam et al., 2012). Repayment of loans is an important measure for the success and sustainability of these programs. Some group lending programs, such as those of Grameen Bank and BancoSol, have shown great success, achieving high repayment rates. However, this does not imply that repayment rates are uniformly high for all institutions. Yang (2012) pointed out that in some areas of China, default rates of group loans have reached 50%.

Before discussing repayment performance, it is important to understand the loan classifications since the definitions differ from one institution to another. According to BRAC Tanzania, loans are classified as either current or overdue. Current loans are those paid on maturity due dates or not yet due. Loans are overdue when one or more installments (i.e., both the principal and interest) have not been paid on time. "On time" in this context refers to the exact date as stipulated in

the loan agreement given to the member at the time of disbursement. Overdue loans are classified as current payment missed, late loans, and non-interest-bearing loans (NIBL).

Late loans are further classified as “late one” and “late two.” Loans will be considered as late one after remaining unpaid for six months. After that, it will be considered as late two for the next period of six months. A penalty of 3% of the unpaid amount (principal and interest) is charged monthly for late loans. After late two, overdue loans are considered as NIBL, and no interest is charged on these loans. After being NIBL, the loan can be submitted for the write-off (Figure 5.1). Apart from that, any loan can be written-off due to death or any other disaster affecting the

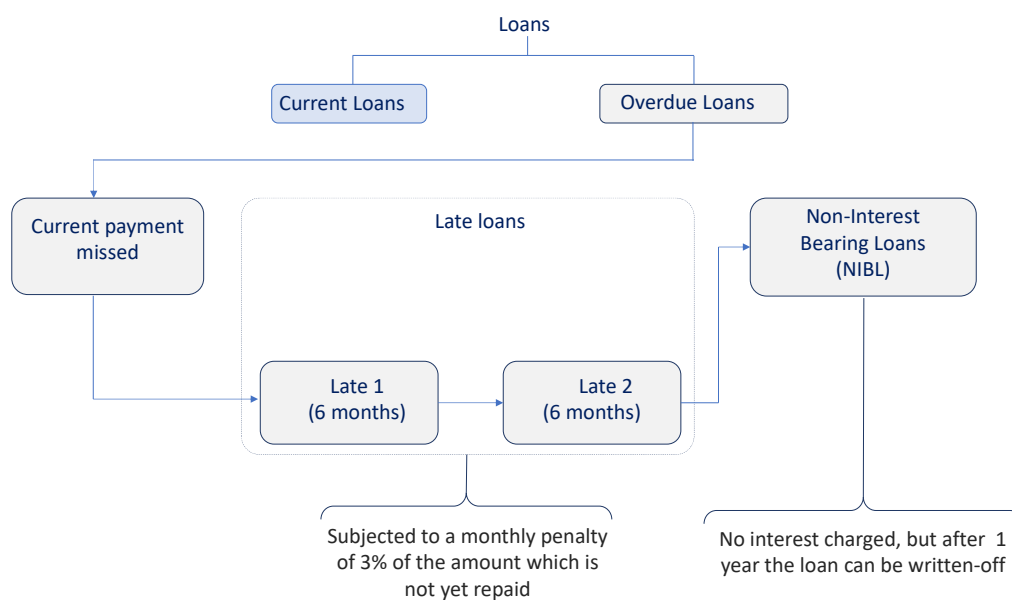


Figure 5.1: Classification of loans offered by BRAC Tanzania
Source: Author, 2017

Repayment performance is studied through a variety of measures, such as portfolios at risk, write-offs, and provision expenses (D’espallier et al., 2011). In this study, repayment performance is measured by three financial ratios: the proportion of the portfolio that is overdue (arrears), the proportion of the portfolio that is overdue by over 30 days (portfolio at risk), and the percentage of the loan portfolio that is written-off. For group members, repayment performance is measured as the percentage of members with and without repayment delays or defaults. The averages of all

three ratios used in the analysis of repayment performance, as shown in Table 5.7, were less than 5%, implying that approximately 96% of all loans are recovered. In the case of group members, there was a delay in only three loans, which represents 0.9% of the total loans; and there were no defaults.

Even though the average repayment performance of the Arusha region is lower compared to the national average, it is still regarded as good. According to Stauffenberg and Jansson (2003), any portfolio at risk (PAR30) figure exceeding 10% should be cause for concern. In the case of BRAC Tanzania, PAR30 is below 10%, implying high repayment performance.

Table 5.7: Repayment performance of BRAC Tanzania

	2010	2011	2012	2013	2014	2015	2016	2017
BRAC Tanzania (all regions)								
Arrear rate (%)	3.5	0.9	1.6	1.5	0.4	0.2	0.6	1.2
PAR30 (%)	3.3	1	1.9	1.4	0.4	0.2	0.7	1.2
Write-off ratio (%)	2	2	1.5	1.7	1.3	0.5	0.3	0.5
BRAC Tanzania (Arusha region)								
Arrear rate (%)	N.A.	3.7	4.7	9.1	5.3	0.6	0.3	2.8
PAR30 (%)	N.A.	4.8	4.9	9.6	4.9	0.5	0.4	3.2
Write-off ratio (%)	N.A.	1.5	2.2	0	4.3	0.3	0.2	0.4
Group members surveyed (177 members)								
	Frequency	Percentage						
Any delay in repayment	3	0.9						
No delay in repayment	327	99.1						
Default	0	0						
Total	330	100						

Source: Field survey, 2018.

Notes:

1. Arrear rate is the ratio of overdue loans to the total outstanding loans.
2. Portfolio at risk refers to outstanding balance of all loans that have an amount overdue in this case the amount overdue over 30 days is used.
3. Write off ratio represents the loans that the institution has removed from its books because of a substantial doubt that they will be recovered and is computed as the amount written off over outstanding loans.
4. N.A. means data were not available.

5.5 Institutional Factors that Determine Repayment Performance of BRAC Tanzania

Frequent client visit by BRAC Tanzania staff

BRAC Tanzania staff visit clients frequently to ensure on-time repayment. Also, by meeting weekly during group meetings, credit officers get to know their clients well. This information can provide loan officers with early warnings about emerging problems, which can be followed by immediate reactions in the case of arrears. In the study of group lending programs in Eritrea, [Hermes et al. \(2005\)](#) found that regular visits by the group leader reduced the probability of moral hazard. In [Hermes et al. \(2005\)](#) study the frequency of visits was tested for the group leader and not the microfinance staff but it still showed the role of frequent client visits. In contrast, [Wenner \(1995\)](#), in a study of FINCA's group credit program in Costa Rica, found that the number of FINCA extension visits was positively correlated with delinquency, indicating that FINCA may sense that a group is in trouble and attempt to visit more often.

Weekly repayment schedule implemented by BRAC Tanzania

The weekly repayment schedule implemented by BRAC Tanzania makes it easier for group members to repay in small installments. A weekly collection of repayment installments is one of the key features of microfinance that is believed to reduce default risk in the absence of collateral and make lending to the poor viable ([Field and Pande, 2008](#)). According to [Yunus \(2003\)](#), borrowers find frequent repayment process easier than having to accumulate money to pay a lump sum because their lives are always under strain.

When BRAC in Bangladesh experimented with moving from weekly repayments to biweekly repayments, delinquencies rose, and BRAC quickly retreated to its weekly scheme ([Armendáriz and Morduch, 2010](#)). In the interviews with BRAC Tanzania officials during the survey, the officials reported that BRAC Tanzania also implemented the biweekly repayment schedule in some

of its old branches. However, there was a drop-in repayment which made BRAC Tanzania retrieve to the weekly repayment schedule.

Strict loan approval and monitoring process by BRAC Tanzania staff

BRAC Tanzania staff approves new loans by visiting the business or home to confirm the presence of income-generating activities. The staff visit prior to loan approval ensures the borrower's creditworthiness. For example, one microlender in Russia relies heavily on staff visits to applicant homes and businesses, rather than just on business documents (Zeitinger, 1996). In addition, for BRAC Tanzania, larger loans, from USD 760 to USD 2,231, are approved by top management, such as regional managers and senior regional managers. (See Table 8.4 in the Appendix for BRAC Tanzania loan approval authority).

Also, to ensure on-time repayments and group discipline, the loan officer signs member pass-book with a red pen in case of any delay in repayment or absence from the group meetings. If repayment delays and absence from meetings repeat many times next loan amount is reduced, and in extreme cases, the loan can be denied. During the survey, one member loan application was denied because of repeated absences in the weekly meetings.

5.6 Conclusion

This chapter discussed the repayment performance of BRAC Tanzania group lending program, one of the largest group lending programs in the country. A variety of measures like arrears, portfolio at risk, and write-offs were used for the analysis. Results show a low level of arrears, low portfolio at risk, and fewer write-offs, implying high repayment performance. The members of the surveyed groups represent the best-performing groups in the study area with no defaults and very few delays.

Chapter 6.

Determinants of Repayment Performance in Group Lending: Empirical Evidence from BRAC Tanzania

6.1 Introduction

In chapter five, the repayment performance of BRAC Tanzania group lending is presented. The results show a low level of arrears, low portfolio at risk, and fewer write-offs, implying high repayment performance. The members of the surveyed groups represent the best-performing groups in the study area with no defaults and very few delays. However, due to small data and little variation in the data set empirical analysis could not be performed. Therefore, this chapter aims to empirically examine the determinants of repayment performance of BRAC Tanzania's group lending for a better understanding of the factors for repayment so that they could be manipulated accordingly to enhance repayment.

The question about repayment determinants is critical because of the strongest appeal of microfinance programs in achieving high repayment rates in making very small loans to a large number of poor. The high repayment rates of these programs have led observers to believe that lending to the poor might not be as risky as has been traditionally assumed and microcredit is a potentially viable business operation.

6.2 Determinants of the Repayment in Group Lending: A Literature Review

One of the measuring devices for the success of the group-based lending program is its rate of repayment. Successful programs like Grameen Bank and Bancosol show high repayment rates while reaching millions of poor borrowers. The high repayment performance of these programs is attributed to their ability to curb the problems arising from information asymmetry. As discussed in the theoretical literature, before loan disbursement most lenders face the problem of adverse

selection. In principle, group lending can mitigate this inefficiency by encouraging applicants to self-select the best partners. It is expected that borrowers from the same village have sufficient information about the incomes, repayment capacities, and creditworthiness of neighboring households, and that they will use this information to form homogeneous groups. However, after the loan disbursements, the MFIs may be confronted with moral hazards and enforcement problems. Under the threat of being excluded from future loans if one group member defaults, the group has the incentive to monitor their peers to use the loans in profitable ways and to exert pressure to make a potential defaulter reconsider his or her decision. Further, each member will support others if they face repayment difficulties (Figure 6.1).

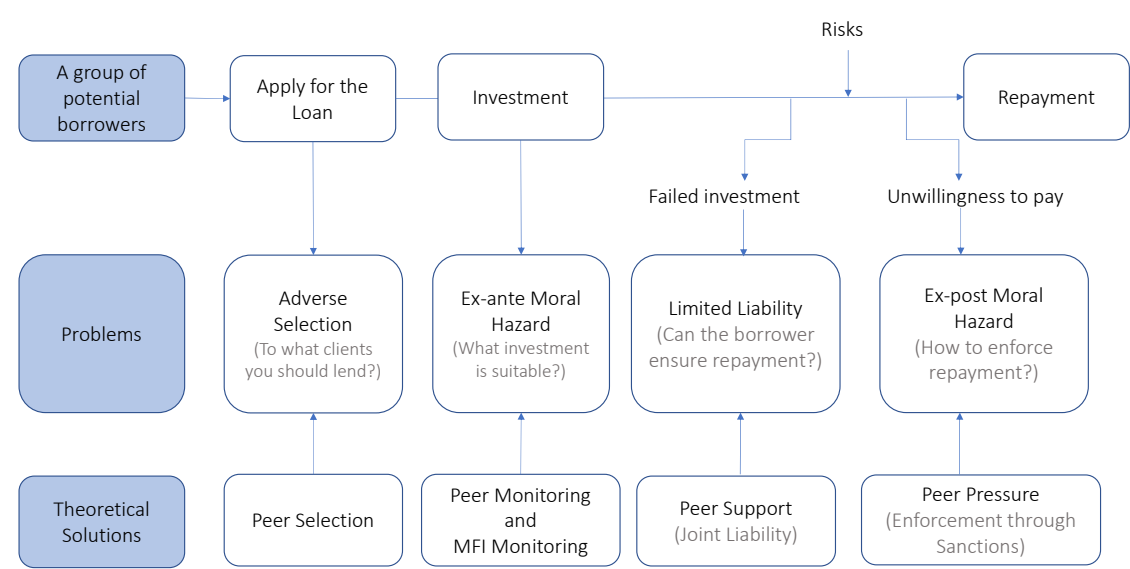


Figure 6.1: Group lending: A theoretical model
Source: (Simtowe et al., 2006)

Several empirical studies have tested the validity of this theory and highlight the importance of different measures, such as peer screening, peer monitoring, peer pressure, social ties, and other factors in examining repayment performance. Presented below are some of the empirical research on the determinants on repayment performance in group lending.

Wenner (1995) uses data of 25 groups from FINCA in Costa Rica. He categorizes his data into three types: groups with no loan delinquency, groups with internal loan delinquency only, and

groups with external delinquency. Internal delinquency means that one (or more) member(s) did not repay his (their) share, but the group did meet its obligation to the lender. External delinquency means that the group failed to repay to the lender (thus both internal and external delinquency has taken place). Consequently, [Wenner \(1995\)](#) has two dependent variables, namely, internal delinquency and external delinquency. Binomial probit, multinomial logit, and tobit models are used in the analysis. Independent variables measure group characteristics such as informal and formal screening, group savings, and other variables such as the group's organizational strength, infrastructure indexes, and visits by program officers to groups. [Wenner \(1995\)](#) finds internal delinquency to be related negatively with formal screening and positively with visits.

The first result suggests that groups that have written codes on how members have to behave (formal screening) experience less internal delinquency. The second result, visits by credit officer to groups, indicates that more visits generate more internal delinquency and seems to be an unexpected result. [Wenner \(1995\)](#) suggests that a higher number of visits might reflect extra attention given to a perceived 'problem' group. In case of external delinquency, he finds formal screening to be negatively related and significant, and informal screening and infrastructure indices to be positive and significant. These results indicate that groups with written code of group rules and regulations show less external delinquency. On the other hand, groups that are located in areas with good infrastructural facilities show higher external delinquency indicating that these groups have other alternative sources of credit. Informal screening is found to have an unexpected sign, i.e., informal screening instead of being a check against delinquency is positively correlated with delinquency.

[Matin \(1997\)](#) uses data of 246 borrowers from the Grameen Bank, Bangladesh. His dependent variable is a dummy variable, which equals one if the loan is not fully repaid at the date due. He uses independent variables indicating borrowers' level of education, housing loan, and area of land used, years of membership, alternative credit sources, and other personal characteristics.

Using a logit model, [Matin \(1997\)](#) finds that education and area of operated land were negatively significant, suggesting that groups that consist of members who have some schooling and have land in use below a certain threshold value have a lower probability of showing repayment problems. In contrast, [Matin \(1997\)](#) finds that having a housing loan, the length of membership, other credit sources and total land in use beyond the threshold level to be positively significant. These results imply that a member with housing loan might be burdened by this loan and show delays in his repayments. Similarly, the results indicate that members who have been clients of the lending program for many years might show slackness in their repayment. Likewise, members who have other credit sources and who have land use above the threshold level have a higher probability of showing repayment problems. This might be attributed to the fact that these borrowers have other credit opportunities or that they already have accumulated so much assets that they start to give less value to future access to loans from the program.

[Wydick \(1999\)](#) uses data of 137 groups from FUNDAP, a group-based lending program in Guatemala. The dependent variable is a dummy variable equaling one if a group has a good repayment record based on lender reports. The independent variables are classified into group social ties, group pressure, and group monitoring and control variables. Out of several independent variables, [Wydick \(1999\)](#) finds average distance and knowledge of weekly sales of other members to be the only significant variables. Both variables are peer monitoring proxies, which were negatively and positively significant, respectively. The results suggest that the longer the average distance in kilometers between group members' businesses, the weaker the monitoring ability and the lower repayment rate. In case of knowledge of weekly sales of other members, members are asked if they know sales of other group members and he found that the more group members know the weekly sales of each other, the better the enforcement ability and the higher repayment rate of the group.

[Kinyondo and Okurut \(2009\)](#) use data from 150 group clients from FINCA and PRIDE,

group-based lending programs in Tanzania. The dependent variable is equal to one if the loan was fully repaid within the specified period of a loan contract, otherwise zero. The independent variables include gender, experience (number of the years the group has participated in the credit program of a given MFI), training time (amount of time in weeks that MFI devoted to train group member on issues such as loan management), transaction costs, sanction index, group size, education level and homogeneity index which assess whether members of the group have similar socio-economic background. Using the logit model, [Kinyondo and Okurut \(2009\)](#) find experience, training time, and sanctions have positive and significant effects on loan repayment performance. On the other hand, transaction costs and group size have a negative and significant effect on repayment performance.

[Al-Azzam et al. \(2012\)](#) use data from a survey of 160 urban borrowing groups of the Microfund for Women in Jordan. [Al-Azzam et al. \(2012\)](#) investigate the effect of screening, peer monitoring, group pressure, and social ties on borrowing groups' repayment behavior. The dependent variable used captures the intensity of default measured by the total number of days of late repayment after each due date. The independent variables were categorized into five groups: control, screening, monitoring, group pressure and social ties variables. The results suggest that peer monitoring, group pressure, and social ties reduce delinquency. The results also uncover interesting evidence about the role of religion in improving repayment performance.

[Qinlan and Izumida \(2013\)](#) use data 245 farm households in Guizhou province, China. The dependent variable is dichotomous, with a value of one if the sample borrower completed repayment before the due date. The independent variables are categorized into four categories. The first category includes the number of family members, the number of household members in the labor force, age of the household head, sex of the borrower, and loan size. The second category of variables includes household's income and income related factors. The third category includes variables that measure borrower's expectation of future loans. The fourth category uses five vari-

ables on group member's homogeneity and the intensity of social ties. These variables include: percentage of group members who are relatives, percentage of group members who are from the same village, percentage of group members who have cooperative relationships with the respondent, farthest geographic distance from the respondent's house to a peer's house, and a dummy variable for whether any family member is a village official. Using the logit model, [Qinlan and Izumida \(2013\)](#) find a higher degree of acquaintanceship in a group, migrant income, and employment in government agencies positively improved the chances of repayment. However, factors such as threatening to withhold defaulters' future loans and higher household incomes did not improve repayment performance.

[Noglo and Androuais \(2015\)](#) use data of 36 groups from FUCEC and WAGES, group-based lending programs in Togo. The dependent variable is a binary dummy, which equals to one if a group had at least one late repayment and zero if the group paid all installments on time. The independent variables are categorized into five groups: control, selection, monitoring, social capital, and peer pressure variables. Using the logit model, [Noglo and Androuais \(2015\)](#) find all forms of pressure between jointly liable debtors, the selection, belonging to the same religion and the large size group are ineffective. However, mutual supervision (visits between members), external credit options and the homogeneity of the group in terms of gender, ethnic group and occupation contribute positively and significantly to excellent repayment performance.

In summary, the existing empirical studies highlight the importance of different measures such as peer screening, peer monitoring, peer pressure, and social ties among other factors. Some of the empirical results confirm the commonly held assumptions while others do not.

6.3 Data Collection and Sample Selection

The survey was conducted in twelve BRAC Tanzania branches in the Arusha region. Groups were randomly selected from the list which was obtained from the regional office. A total of 183

groups were surveyed. The survey was conducted during group meetings and was questions were administered to all group members who were present during the meeting.¹ The group members were asked several questions which include the group size, age of the group, if they ever rejected an applicant, if the group has overdue, measures used by the group to ensure on time repayment and group members' characteristics.

6.4 Methodology

6.4.1 Determinants of repayment: variables description

Dependent variable

The dependent variable is characterized by the measure of repayment represented by the overdue variable.² The latter is a dummy variable that equals one if a group had any member with overdue amounts and zero if the group has no member with overdue amounts (paid all installments on time) at the time of the survey.

Independent variables

The independent variables are grouped into six categories: peer screening, peer monitoring, peer pressure, social ties, joint liability, and control variables. See Table 8.5 in Appendices for a complete list of the variables used in the analysis and expected signs.

6.4.2 Explanation of key variables

Control variables

The analysis uses five control variables: percentage of members who are married, percentage of members with permanent residence, a dummy variable indicating whether the group is located in a rural area, age of the group, and a dummy variable indicating whether an outside guarantor

¹Group meetings attendance is compulsory and meetings are held every week except for the public holidays.

²Overdue is one of the repayment performance measure. According to BRAC Tanzania, loans are overdue when one or more installments (i.e., both the principal and interest) have not been paid on time. "On time" in this context refers to the exact date as stipulated in the loan agreement given to the member at the time of disbursement. The details of overdue classification are presented in chapter 5.

cooperates to ensure the loan's repayment. In the previous survey, members were asked if they have any problem related to repayment who did they ask for help and most of the members reported to ask help from their husbands. Therefore, the hypothesis is, the group with a high proportion of married members will have lower overdue hence, a negative sign is expected. Another hypothesis is the higher percentage of members with permanent residence in the group will lower overdue since it will be hard to run away from their repayment obligations due to residency status. The negative sign is also expected.

In terms of the group location, the hypothesis is that rural groups place the greater value on the credit services since other alternatives are less available hence; rural groups are expected to perform better than urban groups in order to avoid a loss of future access to credit. A negative sign is expected. The relationship between age of the group and repayment performance may go both ways. On the one hand, older group members use their ties more efficiently to enhance repayment performance ([Khandker, 2012](#)). On the other hand, in older groups there may be a so-called matching problem ([Paxton, 1996](#)). With time, the credit needs of the group members may vary, possibly leading to tensions within the group. Moreover, if group members have known each other for a long time, they may be reluctant to monitor and sanction each other. The expected sign on the age of the group would therefore be ambiguous.

One of the requirements to obtain BRAC Tanzania loans is to have a guarantor outside the group.³ BRAC Tanzania mainly prefers close family members such as husband, father and son to be a guarantor. However, relatives, landlords and neighbors can also be guarantors. In case the member fails to repay, guarantors are supposed to help in repaying or making follow up to ensure the amount is repaid. However, in some cases guarantors do not offer the cooperation or any help in ensuring the repayment is made. A dummy variable is used to capture whether guarantors cooperate to ensure the repayment. It is expected that the groups in which guarantors

³The outside guarantors can be one guarantor or two guarantors depending on the loan sizes. Loan sizes from TShs one million (approximately USD 450) require two guarantors.

cooperate to ensure repayment will have low overdue in comparison to groups which guarantors do not cooperate. The sign for the coefficient is expected to be negative.

Social ties variables

Several studies have shown that the success of group lending depends on its ability to harness social ties among borrowers (Karlan, 2007; Cassar et al., 2007). The social ties are measured by the percentage of relatives in the group. Since information flows are expected to be better among relatives, there would be less moral hazard associated with bailing out a relative who is unable to meet the repayment requirements. But in some cases it is difficult to impose sanctions on relatives and in this way dilute the enforcement process. Hence for the measure of relative, the sign is ambiguous.

Joint liability variables variables

As presented in chapter 5, joint liability is officially not used in BRAC Tanzania anymore, but some form of joint liability still exists. Members still have to contribute to other members repayments.⁴ Two variables are used to measure the influence of this form of joint liability. The first variable is captured by a dummy variable which is equal to one if the group has ever contributed to another member who had missed payment or repayment problems and zero otherwise. Additionally, a dummy variable that takes a value of one if contributing to other members is compulsory is used. Some members admitted they contributed to other members in the past, but they are no longer contributing.⁵ Since joint liability provisions are associated with higher repayment rates, negative signs are expected for both variables.

⁴In order to reduce the overdue amounts and ensure high repayment performance some of BRAC Tanzania's community organizers, also known as credit officers, continue to impose some form of joint liability. In addition some of the groups are still implementing joint liability as a means of group solidarity and mutual help.

⁵The reason mentioned by the member on the question why they are no longer contributing for other members however is not that because BRAC Tanzania has converted to individual liability but because currently they are no stubborn member or member with repayment problems in their groups.

Screening variables

In order to highlight the selection, the survey asked if the group has ever rejected the applicants. The variable used to capture is a dummy that equals to one if the group has ever rejected a person who wanted to join. This variable measures the ability to group members to exclude members from joining the group. We expect the groups that accept every applicant to have high overdue rates relative to the groups that reject applicants and conducts screening. The negative sign is expected.

Explanation of the variables

Peer monitoring can mitigate the moral hazard problems, however, in reality peer monitoring can be costly. Theoretical models by [Stiglitz \(1990\)](#); [Banerjee et al. \(1994\)](#); [Wyck \(2001\)](#) show monitoring between borrowers reduces moral hazard and increases group loan repayment. Many researchers have validated the success of peer monitoring in relation to better repayment performance ([Hossain, 1988](#); [Siamwalla et al., 1990](#); [Goetz and Gupta, 1996](#)). From the survey in this study, different proxy variables are used to measure whether peer monitoring takes place within group members.

The first proxy used is the distance between group members.⁶ Another variable used to measure the geographical proximity between group members is the number of hamlets (for rural groups) or streets (for urban groups) relative to the group size. The groups composed of members from a few hamlets or streets are likely to know each other better and monitor each other much easier than members coming from many hamlets or streets. If the distance between group members increases monitoring becomes more difficult and thus the probability of moral hazard increases. A positive sign is expected for both variables.

The third proxy is the percentage of group members who work at the same place. The hypoth-

⁶The distance between group members was measured by the difference in walking distance from the member who is living nearest to where the group meets and member living farthest from where the group meets. During the questionnaire pre-testing, members were asked distance in kilometers, but members could not estimate the distance in kilometers; hence it was changed to walking distance in minutes.

esis is that the higher the number of members who works at the same place, the lower the overdue. Members who work at the same place may facilitate monitoring due to the low cost of obtaining information which can lead to low overdue hence, a negative sign is expected. The fourth proxy is a dummy variable indicating whether the group has internal rules in oral or in written form.⁷ Because rules can increase transparency and therefore reduce intra-group friction and costs of coordination, groups that have internal rules are hypothesized to have lower overdue, hence a negative sign is expected. The final proxy of peer monitoring is group size. The group size indicated the number of active members in a group. The hypothesis is that the bigger the group, the more imperfect are flows of information likely to be between members. Hence, problems arising out of asymmetric information make monitoring and enforcing costly and less effective. The rates of default are therefore expected to increase with group size. The sign of the coefficient is hypothesized to be positive.

Peer pressure or sanction variables

As demonstrated theoretically by [Besley and Coate \(1995\)](#), social sanctions in group-based lending can lead to increased repayment rates. Given that sanctions are sufficiently strong moral hazard can be reduced. Sanctions also help in the enforcement of rules and regulations and smooth functioning of the group. Peer pressure or sanctions is measured by two variables. The first one is the percentage of group members who are excluded because of default or being stubborn. The fear of exclusion from the group compels the members to fulfill their obligations; negative sign is expected. The second one is a dummy variable which is equal to one if a group has ever seized fellow group member's physical properties. A negative sign is also expected for this variable.

⁷ All groups' internal rules where oral, no group had written rule.

6.5 Results and Discussion

6.5.1 Descriptive results

Table 6.2 descriptively compare groups with overdue to those with no overdue. Three types of results are presented: results based on the total sample, on urban groups only, and on rural groups only. A *t*-test comparison was conducted between the labelled columns to examine if there are any significant differences between groups with overdue to those with no overdue in the overall sample, on urban groups only, and on rural groups only.

In general, groups with overdue have less internal rules, a smaller share of married group members, older, and their guarantors were reported to be less cooperative in ensuring repayments. On average, 44 percent of groups with overdue reported having internal rules, which is 41 percent less in comparison to groups with no overdue. For groups with overdue, about 73 percent of the members are married, they were established about ten years ago, and only 23 percent of these groups reported that their guarantors are cooperative to ensure repayments. This is significantly different from groups with no overdue in which about 86 percent of their members are married, on average, they were established seven years ago, and 90 percent of them reported that their guarantors are cooperative to ensure repayments.

There are additional differences that appear to be significant in urban and rural groups. Groups with overdue in urban areas have few cases of rejecting applicants, members live far from one another and only a few of them work at the same place. These groups have more cases of excluding stubborn or default members and most of them do not consider contributing to another member as a compulsory principle. The above factors do not appear to be significant for groups with overdue in rural areas. Contrary to urban areas, groups with overdue in the rural area have more cases of contributing to member's repayments in comparison to those with no overdue in the same area. This variable is not significant in urban groups because even though it is not considered to be compulsory in most groups, more than 80 percent of urban groups reported having contributed to

the repayments of other members.

The descriptive analysis suggests that, generally, peer monitoring measures are more associated with overdue, but there are differences depending on where the groups are located. For urban groups, peer screening, peer monitoring, peer pressure, and joint liability measures are significantly associated with overdue whereas for rural groups, only peer monitoring and joint liability measures are associated with overdue. The results suggest the need to conduct an empirical analysis to examine what among the factors discussed above are determinants of overdue.

Table 6.1: Descriptive analysis results

VARIABLES	Total sample			Urban only			Rural only		
	Overdue=1	Overdue=0	Difference	Overdue=1	Overdue=0	Difference	Overdue=1	Overdue=0	Difference
	(1)	(2)	(1) - (2)	(3)	(4)	(3) - (4)	(5)	(6)	(5) - (6)
Peer screening									
Group has ever rejected applicants (dummy)	0.50	0.61	-0.11	0.49	0.71	-0.22**	0.53	0.50	0.03
Peer monitoring									
Distance differences (minutes)	38.39	37.17	1.22	38.77	30.75	8.02*	37.47	44.36	-6.89
Number of hamlets/streets relative to group size	0.21	0.18	0.03*	0.23	0.20	0.03	0.16	0.16	-0.00
Members who work at the same place (%)	15.66	25.17	-9.51***	13.51	23.67	-10.17***	21.00	26.85	-5.85
Group has the internal rules (dummy)	0.44	0.85	-0.41***	0.40	0.84	-0.44***	0.53	0.86	-0.33***
Group size	17.15	18.85	-1.70	16.28	16.61	-0.33	19.32	21.36	-2.04
Peer pressure and sanctions									
Excluded stubborn/default members (%)	41.00	22.64	18.35*	49.56	27.81	21.75*	19.82	16.86	2.96
Group has ever seized member's properties (dummy)	0.18	0.10	0.08	0.21	0.18	0.03	0.11	0.02	0.09
Social ties									
Members who are relatives (%)	7.60	6.29	1.31	4.95	2.59	2.36	14.16	10.43	3.73
Joint liability									
Group has contributed for another member's repayment (dummy)	0.86	0.76	0.10	0.85	0.88	-0.02	0.89	0.64	0.25**
Contributing for another member is compulsory (dummy)	0.30	0.59	-0.29***	0.32	0.73	-0.41***	0.26	0.44	-0.18
Control variables									
Members who are married (%)	73.07	86.14	-13.07***	68.25	83.65	-15.40***	85.00	88.92	-3.92*
Members with permanent residence (%)	66.35	76.07	-9.73***	57.65	64.32	-6.67	87.85	89.23	-1.38
Age of the group (years)	10.27	7.29	2.99***	10.70	8.49	2.22***	9.21	5.94	3.27***
Guarantor cooperates to ensure repayment (dummy)	0.23	0.90	-0.67***	0.17	0.82	-0.65***	0.37	0.98	-0.61***
Observations (Number of groups)	66	106		47	56		19	50	

Source: Author, 2019*** denotes significant at 1%, ** significant at 5%, and * significant at 10%.

Note: Only 172 groups could be used for the analysis because some of the groups had incomplete data

6.5.2 Econometric results

In this section, the empirical results on the relationship between overdue variable (a measure of the repayment performance) and its determinants are presented. A logit model is used to estimate the effects of independent variables in decreasing overdue and ensuring high repayment. Table 6.2 below shows the results of the logit regression.

The results show that peer screening decreases overdue rates in rural groups. This implies the higher the screening, the lower the likelihood of having overdue in rural groups. In total sample and urban groups, negative sign is observed as expected; however, it is non-significant. In the survey area, it was observed that in rural areas, members tend to know each well than in the urban areas. The results seem to provide some evidence that in contexts where people are well-acquainted with one another, peer selection is helpful to mitigating adverse selection issues and improving group lending repayment rates. These results are similar to [Wenner \(1995\)](#); [Ghatak \(1999\)](#); [Van Tassel \(1999\)](#); [Laffont and N'Guessan \(2000\)](#); [Sharma and Zeller \(1997\)](#), that groups that screen other member's exhibit relatively high repayment rates. This finding contradicts the findings of [Noglo and Androuais \(2015\)](#); [Verhelle and Berlage \(2003\)](#), which shows self-selection (screening) raises the probability of arrears.

Table 6.2: Determinants of overdue (Logit Model)

VARIABLES	(1) Overdue loans Tota sample		(2) Overdue loans Urban only		(3) Overdue loans Rural only	
Peer screening						
Group has ever rejected applicants (dummy)	-0.69	(0.516)	-0.25	(1.186)	-1.55**	(0.771)
Peer monitoring						
Distance difference (minutes)	-0.01	(0.006)	-0.01	(0.019)	-0.02	(0.016)
Number of hamlets/streets relative to group size	0.32	(2.716)	-0.52	(4.304)	3.29	(6.967)
Members who work at the same place (%)	-0.03*	(0.018)	-0.02	(0.018)	-0.05	(0.047)
Group has the internal rules (dummy)	-0.87	(0.577)	-1.67	(1.500)	-0.93	(1.145)
Group size	0.09**	(0.045)	0.15**	(0.071)	0.19*	(0.113)
Peer pressure or sanctions						
Excluded sturbborn/default members (%)	0.00	(0.004)	-0.00	(0.007)	-0.00	(0.011)
Group has ever seized member's properties (dummy)	-0.30	(0.830)	0.50	(0.881)	0.36	(1.474)
Social ties						
Members who are relatives (%)	-0.01	(0.027)	-0.09	(0.060)	0.03	(0.045)
Joint liability						
Group has contributed for member's repayment (dummy)	0.59	(0.780)	-0.85	(1.676)	1.54	(0.953)
Contributing for another member is compulsory (dummy)	-2.47***	(0.810)	-2.22***	(0.830)	-3.26	(2.522)
Control variables						
Members who are married (%)	-0.09***	(0.029)	-0.14**	(0.053)	-0.19***	(0.061)
Members with permanent residence (%)	-0.03	(0.026)	0.03*	(0.017)	-0.11**	(0.049)
Age of the group (years)	0.08	(0.069)	0.19	(0.131)	0.06	(0.114)
Guarantor cooperates to ensure repayment (dummy)	-4.06***	(0.760)	-4.91***	(1.652)	-5.81**	(2.673)
Group is located in rural area (dummy)	1.88	(1.353)				
Constant	11.02***	(3.229)	10.99*	(5.847)	27.95***	(6.653)
Observations	172		103		69	
Log likelihood	-46.37		-22.97		-16.09	
Chi-Square	51.98***		61.89***		40.62***	
Pseudo R-Square	0.595		0.677		0.604	

Source: Author, 2019*** denotes significant at 1%, ** significant at 5%, and * significant at 10%.

Note: Robust standard errors in parentheses

In the case of peer monitoring, five variables were used, but only two variables were significant; the percentage of members who work at the same place and group size. The signs of both these significant variables were as expected. However, the variable percentage of members who work at the same place was only significant in the total sample, whereas group size was significant in the total sample and the urban and rural groups' samples.

Members who work at the same place may easily monitor each other, leading to the reduction of overdue rates. As expected, as groups increase in size, monitoring and enforcing become more costly and less effective. This implies that the smaller the group size is, the lower is its likelihood of having overdue amounts. These findings are similar to that of [Kinyondo and Okurut \(2009\)](#); [Van Bastelaer and Leathers \(2006\)](#), that smaller groups are performing better. Contrary, [Zeller \(1998\)](#); [Feroze et al. \(2011\)](#); [Wydick \(1999\)](#), found that the larger group size improves the repayment performance suggesting the positive effect of group size on diversification of risks. However, [Zeller \(1996\)](#) provides a notion that when group size surpasses manageable levels will increase costs of coordination, moral hazard, and free-rider problems.

Both variables which are used to measure the peer pressure or sanctions are non-significant. The results suggest that the presence of actions such as the exclusion of stubborn members or defaulters and physical seizure of the assets are not significant factors in improving the repayment performance in the study area. These results are similar to that of [Van Bastelaer and Leathers \(2006\)](#) and are in contrast with studies that show peer pressure effect on the repayment performance of the groups. Field studies in Burkina Faso indicate that repayment rates are high because the threat of ex-post peer pressure is carried to extremes and has even resulted in the forced sales of household items in order to recover the loan amount ([World Bank, 1997](#)). Similar results have been found by [Ahlin and Townsend \(2007\)](#); [Bassem \(2008\)](#); [Wydick \(1999\)](#), which suggest that pressure exercised by group members on the defaulting member reduces the repayment problems considerably.

Joint liability is captured by two dummy variables: first one is indicating whether the group has ever contributed to another member who had missed payment or had repayment problems and the second one is indicating whether contributing to another member is compulsory. The first variable is not significant while the second variable had a negative sign as expected and significant in the total and urban groups sample and non-significant in rural groups sample. This might be due to the effect of effective screening in rural areas especially if there is existence of some form of joint liability.

Three out of five control variables are significant. The percentage of married members in the group seems to be one of the most important factors that determine the repayment performance. The sign of the coefficient is negative as expected and significant in total, urban and rural groups sample implying that the higher the percentage of married members in a group, the lower the likelihood of having overdue. In the previous survey, members were asked if they have any problem related to repayment who did they ask for help. Out of 135 members who seek help, 113 members (84%) report asking help from husbands or other family members. This suggests that group members rely heavily on the family to ensure repayment. This result also indicates that intra-house exchanges also play an important role in microcredit, as group members may at times rely on their partner's support for loan repayment. [Postelnicu et al. \(2015\)](#); [Ayogyam et al. \(2014\)](#) find the same results.

Another control variable that is significant is the percentage of members who have permanent residence. This variable is non-significant in the total sample but is significant in rural and urban groups. In the rural groups' sample, the sign is negative as expected, implying that, the higher the percentage of members with permanent residence, the lower the likelihood of having overdue amount. This is different in urban groups where positive sign is observed, implying that the higher the percentage of members with permanent residence, the higher the overdue. This can be explained by the fact having permanent residence can be one of the factors to obtain credit from

other lenders especially in urban areas where there are many alternative sources of credit. Most of the lenders, including BRAC Tanzania prefer members with permanent residence. Having other credit options or ability to borrow from different sources can lead to multiple borrowing which can increase the chances of having overdue amounts. Having multiple loans is forbidden by BRAC Tanzania. However, during the qualitative interviews with members and staff, it was reported that some members especially in the urban areas have repayment problems because they have other loans apart from that of BRAC Tanzania. This is in line with the results of [Wenner \(1995\)](#); [Matin \(1997\)](#), which show the existence of other credit sources may lead to repayment problems.

The cooperation of outside guarantor was measured by a dummy variable and the result is significant in total, urban and rural groups. The sign is negative as expected. The results imply that if the outside guarantor cooperates in case of a problem related to the borrower the overdue can be reduced and repayment can be improved. In the study area some outside guarantors cooperate with credit officers and group members in the making follow up in case there is problem related to the repayment. Generally, in some cases, the guarantor may pay the guaranteed debt.

6.6 Challenges of BRAC Tanzania's Group Lending

This section presents some of the challenges of BRAC Tanzania's microfinance program observed and reported during field survey in the Arusha region.

6.6.1 High dropout rates

According to the results from the surveyed groups, most members who were present during group formation had left the program.⁸ Based on the survey results, only 23 percent of the members who were present during group formation are still in the groups. When the young groups in which most members are still present are excluded, the percentage became even lower. Group members

⁸In dealing with dropouts there are cases where BRAC Tanzania merges the groups in order to minimize the costs of serving small groups. For example, the group in which only five members remained after dropouts can be merged with another group of fifteen members and form a group of twenty members.

were asked about the status of members who were not in the group during the survey.⁹ 25.4% of groups reported that there were excluded after defaults, 55% percent of the groups reported that they dropout voluntary, and 19.5% reports they are resting meaning that they are still members and there is a chance they will take a loan in the future. These results show that dropouts are not always associated with the exclusion due to defaults but there are other reasons.

Client dropouts over time even from the most successful organizations in the microfinance sector is portrayed as a negative phenomenon by many practitioners because both MFI and clients have much to gain from a long-term relationship. This study does not have the data to discuss the reasons for voluntary dropouts. However, according to the previous studies, the dropouts may be caused by several factors including a failure to meet borrowers' financial needs, borrowers' dissatisfaction with high transaction costs, loan type, loan size, term length, and repayment inflexibility (Cohen, 2002; CGAP, 2000; Hulme et al., 1999; Meyer et al., 2002; Pagura and Growth, 2004; Wright, 1997).

6.6.2 Costs incurred by members

Even though most BRAC Tanzania activities take place in the group meetings in the villages or towns where the member lives, some activities such as loan disbursements and obtaining the new passbooks take place in the branch offices which in some cases is located far from the villages where members live. This was mostly observed in Karatu and Magugu branches in the Arusha region.

The time spent in group meetings can be considered as another cost. The group meetings time in most cases depends on the repayment collection status. When there are no repayment related problems the meetings can take less than one hour to end but once there is any problem related to repayment, meetings can take up to three hours or more. Despite the fact that this study has not enough data to quantify these costs, they can be a burden to members.

⁹Nine new groups in which all members were still present were excluded.

6.6.3 Forced contribution for the defaulters by staff

In the event of defaults members can voluntarily contribute for the defaulter but in some cases, they are forced by BRAC Tanzania staff to contribute for the defaulters. This was observed from several groups during the survey. This results from the fact that staff are required to keep the very low levels of arrears. In some branches, staff are not allowed to return to the branch office on the collection day without fully paid installments. In addition, junior staff especially the community organizers face pressure from the senior staff for installment collection in order to keep up with the organization targets.

In addition to the pressure to meet the organization targets, BRAC Tanzania staff are strictly supervised. Each staff must go through evaluation twice a year based on the performance measurement system (PMS), which evaluates staff performance on different aspects including the loan recovery rate. [Hussain \(2015\)](#) argues that this kind of performance evaluation might be a reason why BRAC (here refers to as BRAC Bangladesh) has high loan recovery than the mainstream banking sector.

6.6.4 Staff fraud

Over the course of the field survey there were several reports of staff fraud issues. This includes disbursement of fake loans, not returning all the repayments collected, stealing money and taking loans in clients' name. [Brockington and Banks \(2014\)](#); [Banks et al. \(2019\)](#) observed the same cases in their study of BRAC Tanzania. [Banks et al. \(2019\)](#) added that this is used to be a major issue in BRAC's Bangladesh programs in the 1990s and 2000s. Out of 72 groups which reported that there is a member in the group with overdue, six groups (8.3%) reported that those overdue are related to staff fraud. The groups with no overdue reported similar cases that have happened in the past. In 2016 in Monduli branch, there was a case related to staff taking loans out in clients' names and disbursement of fake loans. This case leads to loss of trust by the members and many

members left the program. It also resulted to organization loss of about TShs 70 million Tanzania. (staff and member interviews, 2019).

6.7 Conclusion

This chapter analyzes the determinants of repayment performance of BRAC Tanzania and the functions of the groups. The logit regression was used in the estimation of the determinants of the repayment performance. The results confirm as well as contradict the views generally stated in the literature. The contrast between rural groups and urban groups in the estimation is noteworthy. In urban groups, joint liability appears to be a significant factor in reducing overdue amounts, whereas in rural groups, peer screening appears to be a significant factor in reducing the overdue amounts. The empirical results also reveal the functions of the group are peer screening and peer monitoring in rural groups while in urban groups the group function is limited to peer monitoring. The results failed to prove the significance of peer pressure and social ties in ensuring the repayment as discussed in the theory of group lending.

Chapter 7.

Conclusions and Policy Implications

7.1 Main Findings

Tanzania is classified as a low-income country, with a high proportion of its population below the poverty line. In Tanzania, as in most developing countries, access to financial services, especially those provided by formal MFIs, is very limited. This is mainly due to the lack of collateral among low-income borrowers. Informal MFIs are also confronted with several challenges such as unreliability and high interest rates, a common feature found in many developing countries.

Due to the reasons mentioned, semi-formal MFIs can be considered as a better option to provide services to low-income borrowers due to the fact that they have introduced collateral substitutes. NGO MFIs have introduced group lending in which members form groups and guarantee each other while cooperative-based MFIs (SACCOs) use savings as a collateral substitute where members can borrow against their savings.

It is important to examine the performance of semi-formal MFIs so that challenges can be identified and suggestions for future improvements can be offered. The good performance of semi-MFIs will enhance the supply of financial services to the majority of poor Tanzanians and help them in fighting against poverty.

This study focuses on various aspects of performance by using selected SACCOs and BRAC Tanzania as representative semi-formal MFIs. In discussing the performance, this study first examines the outreach of the selected SACCOs and BRAC Tanzania in terms of credit expansion. Second, the study analyzes the efficiency of the selected SACCOs and BRAC Tanzania in terms of operating costs. Third, it examines the repayment performance of BRAC Tanzania group loans, and finally, it empirically assesses the factors that determine loan repayment performance of BRAC Tanzania's group loans. In analyzing the performance of these semi-formal MFIs, primary

data collected from field surveys in the Arusha region were used. In addition, secondary data such as financial statements and reports were also used.

The study finds notable differences between the selected SACCOs and BRAC Tanzania in various aspects. First, the selected SACCOs offer both credits and savings services, whereas BRAC Tanzania offers only credit services; this is because NGO MFIs in Tanzania are not allowed to accept savings. Second, the selected SACCOs lend to individuals, while BRAC Tanzania uses group lending. Third, BRAC Tanzania offers loans of a smaller size than the selected SACCOs suggesting that BRAC Tanzania serves poorer borrowers than the selected SACCOs. Fourth, the interest rates charged by BRAC Tanzania are considerably higher than those charged by the selected SACCOs. Fifth, BRAC Tanzania has higher operating costs than that of the selected SACCOs.

Regarding performance, the study finds that the representative semi-formal MFIs are successful in increasing outreach through credit expansion. Although BRAC Tanzania is barred from accepting deposits by regulations, SACCOs members benefit from access not only to credit services but also to savings services. The difference in the level of outreach between BRAC Tanzania and the selected SACCOs reflects the difference in their target clients, business orientation, and mission. The selected SACCOs serve members who are united by a common bond, providing them with bigger loans whereas BRAC Tanzania mainly focuses on poor women. The selected SACCOs are also diversified in various aspects, such as their target clients, types of loan, and loan amounts and durations, which suggests that the selected SACCOs serve a wider variety of clients.

In discussing efficiency, descriptive and empirical analyses were used. Based on the descriptive analysis, the study did not find a clear trend in terms of efficiency for the analysis period. To confirm this, a regression analysis was conducted. The results show that operating costs did not decrease over time, implying that there was no efficiency gain, possibly due to a lack of cost reduction innovations. BRAC Tanzania had higher operating costs than the selected SACCOs. The observed difference is caused by the difference in the loan amounts offered by the selected

SACCOs and BRAC Tanzania. The latter, on average, offers small-sized loans compared to those offered by the selected SACCOs and managing very small-sized loans involves high transaction costs per loan in terms of screening, monitoring, and administration costs (Hulme and Mosley, 1996; Conning, 1999; Paxton and Cuevas, 2002; Lapenu and Zeller, 2002). Due to its higher operating costs, BRAC Tanzania charge higher interest rates than the selected SACCOs.

Using the case of BRAC Tanzania group lending, the study finds that BRAC Tanzania has achieved high repayment performance. This constitutes proof that even the poor can repay their loans on time when the appropriate mechanisms are in place. Institutional design such as frequent client visits, frequent repayment schedules, and strict loan approval processes also play an important role.

To examine the determinants of the repayment performance in the BRAC Tanzania group lending, a logit regression was used. The results confirm as well as contradict the views generally stated in the literature. Peer pressure and social ties in the groups show no significant effects on improving repayment performance. This is contrary to what the theory would predict. The implication of this result is that social ties and group pressure are not necessary for the loan repayment performance of groups in BRAC Tanzania's group lending program.

Groups located in different areas appear to enforce repayment within their membership in different ways. In urban areas, repayment rates are improved primarily by joint liability. For groups located in rural areas, where information can be obtained at low cost, peer screening is an important factor in improving the repayment rates. The functions of groups also differ according to the location. In rural areas, peer screening and peer monitoring show significant effects, whereas in urban areas, only peer monitoring exhibits a significant effect.

Considering all the results above, semi-formal MFIs still face several challenges. The two representative semi-formal MFIs in this study fail to gain efficiency, and BRAC Tanzania continues to charge higher interest rates than SACCOs due to the high operating costs of providing small

loans.

Given the results above, this study suggests that semi-formal MFIs need to be successful in extending loans to poor borrowers while at the same being able to develop cost-lending practices. It is extremely important for semi-formal MFIs to improve efficiency so that interest rates charged can be low. To do so, semi-formal MFIs have to show extreme willingness to learn by trial and error, leave behind what does not work, and searching for new innovations that will reduce the cost. They must be willing and be able to adjust and adapt to changing circumstances over time, as well as in response to the detailed demands of their clients. The greater expectation is placed on the potential of technology to enhance efficiency.

In the case of BRAC Tanzania group lending, this study recommends that it is necessary for BRAC Tanzania to differentiate between the urban and rural groups when formulating its policies. Some of the mechanisms that ensure success differ depending on the location. Also, BRAC Tanzania has to make important modifications to its group lending system. Those modifications should be geared toward minimizing the dropout rates and costs incurred by members. Forced contributions for defaulters and fraud which are implemented by staff should also be well examined and measures should be taken.

7.2 Policy Implications

Based on the findings, this study has the following policy implications: The representative semi-formal MFIs differ despite the fact that they fall under the same category. Their differences include their institutional structures, products, and target clients. This study, therefore, suggests diversification of the underlying regulations to address the differences in operations and services offered by semi-formal MFIs.

Furthermore, the representative semi-formal MFIs fail to achieve efficiency. Greater attention must be paid to reducing operating costs and enhancing efficiency so that a large proportion of

the poor can be served by semi-formal MFIs. It is important for the government to support and create an environment that encourages innovations in financial systems. Such support can include investment in infrastructure or in innovations that aims to achieve a cost-effective provision of financial services.

The results suggest that even poor borrowers can pay back the loans reliably and on time. For this reason, the government should encourage and promote broader participation of other MFIs, especially formal MFIs, to fill the huge unmet demands, especially among women and rural residents. Semi-formal MFIs have already tried and proved that they can work with the poor. Government support may motivate other providers such as commercial banks to offer microloans. Many potential lessons might be drawn from semi-formal MFIs. For example, a variety of collateral substitutes and repayment incentives can be used. Continued promotion and support of semi-formal MFIs is also important.

7.3 Limitation of the Study and Areas for Future Research

Due to the data limitations, the repayment performance of SACCOs could not be analyzed. For future studies, it is important to analyze the repayment performance of SACCOs. However, it will be difficult to analyze the repayment performance of SACCOs if the current trend of the record-keeping will continue. The current reports and audited financial statements of the SACCOs have not reported any information regarding the defaults or loan repayment. The member's information regarding the repayment performance also seems to be unreliable. This study suggests improvements in the data for future analysis. In addition, to further analyze the efficiency gain over time, long time series data is necessary.

The selected SACCOs, apart from loan provision they also provide savings services to its members. It is also important for future studies to analyze the performance of the savings services offered by SACCOs since members can benefit from savings services in SACCOs, and SACCOs

can obtain the loanable funds. Recent research shows that external sources funds (borrowing) are becoming a central part of the SACCOs loan portfolio as compared to internal sources of funds (member savings), which cause a threat to saving practices of SACCOs in Tanzania ([Ndiege et al., 2013](#)). In addition, microfinance literature in different parts of the world emphasizes the importance of savings, even for the poor. Household surveys indicate that the poor do have some surplus that they use for non-essential expenditures ([Banerjee and Duflo, 2007](#)). Similarly, detailed “diary” studies document complexity in poor households’ financial portfolios and highlight the demand for small irregular flows to be aggregated into lump sums for household or business investment ([Rutherford, 2000](#); [Collins et al., 2009](#)). More recently, field experiments are producing a growing body of evidence on impacts of savings ([Brune et al., 2011](#); [Dupas and Robinson, 2013a,b](#); [Prina, 2015](#)).

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Appendices

Appendix A: Field Photos

BRAC Tanzania Finance Limited
Microfinance Program
PASS BOOK
(Kitambulisho)

Checked by BAO 7/1/17

Name of Branch
(Jina la Tawi)

Name of the Group
(Jina la kikundi)

Group number
(Namba ya kikundi)

Small Group number
(Jina la kikundi kidogo)

Member's name
(Jina la mwanachama)

Member's age
(Umri wa mwanachama)

Father/Husband's Name
(Jina la baba au mume)

Membership number
(Namba ya uanachama)

Member enrollment date
(Tarehe ya kupata uanachama)

Pass book issue date
(Tarehe ya kutolewa kitambulisho)

National ID Card Number
(Namba ya Kitambulisho cha Taifa)

Specimen signature of the member
(Saini au dole gumba ya mwanachama)

Mobile No. of Member
(Namba ya simu ya mwanachama)

Figure 8.1: BRAC Tanzania: Member's passbook (cover page)

The passbook contains general information of the member and transactions are recorded inside. Each member must bring their passbooks during weekly group meeting. First passbook will be given without any charge and for subsequent passbook the member has to pay Tshs 500.

Photo taken by author in March 2018.

Pass Book
(Kitambulisho)

Page 9

Name of group:..... Group Number:

(Jina la kikundi)

Member's Name:..... Member Number:

(Jina la mwanachama)

Description (Maelezo)	Loan (Mkopo)	Remarks (Maelezi)
Loan s 1. No (Namba ya mkopo)	11	
Loan Sector (Aina ya Mkopo)	MF	
Loan Amount (Kiasi cha Mkopo)	11 50000	
Disbursement Date (Tarehe ya kupokea mkopo)	10/4/16	
Total Instalment Number (Jumla ya namba ya Marejesho)	140	
Single Instalment Amount (Kiasi cha rejeshe moja)	36000	
Realizable amount with interest (Faida inayotarajiwa)	1437500	
Week Number (Namba ya Wiki)	Date (Tarehe)	Loan Realization Amount (Mkopo unaotambuliwa)
Opening Balance		Signature of CO (Saini ya mwanibu)
15	26/7/16	36000
16	2/8/16	36000
17	9/8/16	36000
18	16/8/16	36000
19	23/8/16	36000
20	30/8/16	36000
21	6/9/16	36000
22	13/9/16	36000
23	20/9/16	36000
24	27/9/16	36000
25	4/10/16	36000
26	11/10/16	36000
27	18/10/16	36000
Total (Jumla)	28	25/11/16
Grand Total (Jumla Kamili)		

Verified & Correct:
(Imesahihishwa na kupitishwa)

Authorised Signature:
(Saini ya aliepitisha)

Figure 8.2: BRAC Tanzania: Members passbook (inner pages).

BRAC Tanzania maintain members records through passbooks where information on repayment and amount to be repaid is recorded weekly.

The passbook is also a means to ensure the group discipline. As seen in the picture member who is late for the group meeting or late in repayment is signed with a red pen. If member's passbook is signed with red pen many times, then the member can be denied a loan, or the amount can be reduced.

Photo taken by Author in March 2018.



Figure 8.3: Members of BRAC Tanzania gather for the weekly group meeting

At such group meeting, members signs their loans, submits repayments and approve new members. Usually, the officer from the respective BRAC branch must be present during such meetings. In this photo, members can be seen with their passbooks, while listening to the BRAC officer (center of this photo).

Photo taken by Author in March 2018.



Figure 8.4: BRAC Tanzania members gather for the weekly group meeting

Photo taken by Author in March 2018.



Figure 8.5: A member of BRAC Tanzania (center) at the local market. One of the eligibility criteria for a person to become BRAC Tanzania member, she must run a small business. Most members in the survey area were working in the markets selling mainly food products. As survey results show members utilize loans for purchasing stocks for their business.

Photo taken by Author in March 2018.

Appendix B: Contribution of Microfinance to Society

While microfinance institutions have a direct contribution to the lenders, it also has several contributions to society. Some of the contributions are directly or indirectly linked to society. The discussion on the social contribution of microfinance to the society will be discussed based on the studied two representative microfinance institutions in Tanzania. Listed below are some of the contributions of microfinance in society.

1. Women empowerment: For example, BRAC Tanzania loans specifically target women as clients. Loans offered enables women to engage in different economic activities and earning income. This enables women to become more confident, more assertive, and more likely to participate in family and community decisions. Also, participation of women in the group meetings implemented by MFIs such as BRAC Tanzania gives women a chance to be group leaders and speak out their ideas and prepare them to be future leaders in their society.
2. The gains from participation in microfinance programs lead to growing economies of the borrower's families and the society that surrounds the borrowers.
3. Various training provided by microfinance institutions can also be transferred to non-member and society.
4. Microfinance can also contribute to society through community services. For, example Nannenane SACCOs which is one of the surveyed SACCOs in this study, dedicate part of the profit to help the orphan center.
5. The loans provided by microfinance institutions such as those provided by BRAC Tanzania and SACCOs can be used for different purposes, such as payment of school fees.
6. Microfinance institutions have programs aiming at serving the community. For example, the BRAC Tanzania ELA program provides training through clubs made to support girls with various problems related to early pregnancy and marriage, HIV/AIDS, gender-based discrimination, reproductive health and services, child rights, violence, rape, and drug abuse. BRAC Tanzania also has an education program to support girls who had dropped out halfway through lower-secondary education.

Appendix C: Additional Tables

Table 8.1: General description of the sample

Group name	Year established	Number of founding members	Number of current members	Number of active members	Number of inactive members	Number of new members	Number of borrowers	Number of interviewed members
Sinai	2007	20	36	31	5	2	29	32
Wema	2006	30	8	7	1	0	6	7
Galilaya	2007	20	20	16	4	3	15	12
Ushindi	2006	20	8	8	0	1	8	6
Mkombozi	2006	20	10	10	0	0	7	6
Sayuni	2007	20	37	36	1	4	30	33
Tafuteni	2007	20	26	24	2	2	18	23
Utukufu	2006	20	16	15	1	0	13	16
Maendeleo	2006	20	21	17	4	2	13	13
Rehema	2007	30	38	32	6	2	31	29
Total		220	220	196	24	16	170	177

Source: Field survey, 2018

Table 8.2: Expansion of BRAC Tanzania's microfinance program in Arusha region

Year	Number of branches	Number of groups	Number of members
2011	14	885	17,625
2012	14	897	16,379
2013	14	813	15,861
2014	14	802	17,390
2015	14	868	19,308
2016	15	951	19,422
2017	15	990	19,131
2018	15	1018	19,942
2019	17	1154	22,374

Source: BRAC Tanzania reports compiled by author, 2019.

Note: Data for 2019 is as of May.

Table 8.3: Comparison of BRAC and BRAC Tanzania group lending programs

	BRAC	BRAC Tanzania
Target		
Target clients	Women	Women
Proportion of rural borrowers	86%	80%
Lending		
Model	Group lending without joint liability	Group lending without joint liability
Group size	30-40 members	15-35 members
Main loan product	Microloans (also known as Dabi)	Microloans (also known as Microfinance)
Loan sizes (microloans)	USD 50-700	USD 89-2232
Other loan products	Small enterprise loans (also known as Progoti) which target business	Small enterprise loans (SEP) targeting business owners
Repayment schedule (microloans)	Weekly	Weekly
Security fund	5% of the loan	10% of the loan
Principal loan users	Male	Female
Loan use	Various include home-stead businesses, fishery, milk cows rearing, buying rickshaws, etc.	Various include trading, construction, education, etc.
Loan recovery	High (98.8%)	High (98.6%)
Group meetings		
Frequency	Once a week	Once a week
Place of group meetings	Group leader's house	Group leader's house, member house or public places
To ensure group discipline	18 promises	15 promises
Others		
Other financial services	Insurance and savings	Insurance
Incentive for good members	Top up loans	Top up loans
Gender of the field staff	Male	Female

Source: Author's compilations.

Table 8.4: BRAC Tanzania's loan approval authority

Loan range (TShs)	Loan types	Approved by
250,000-900,000	Repeat loans	Branch Manager
250,000-500,000	New Loans	Area Manager
900,001-1,700,000	Repeat Loans	Area Manager
1,700,001-3,000,000	All loans	Regional Manager
3,000,001-5,000,000	All loans	Senior Regional Manager
Loan type	Increase amount (TShs)	
Repeat loan	Up to 50% increase of the previous loan	Branch Manager
Repeat loan	400000	Area Manager
Repeat loan	>40000	Regional Manager

Source: BRAC Tanzania reports. Note: USD 1 was equivalent to TShs 2240 at the time of the survey.

Appendix D: Variables used in the empirical analysis and expected signs.

The dependent variable is a dummy variable, which takes a value of one if a group had any member with overdue and zero if the group has no member with overdue (paid all installments on time) at the time of the survey.

All the dummy variables equal one if yes and zero otherwise.

Table 8.5: Variables and expected signs for logit analysis

Independent Variables	Expected Sign
Peer screening	
Group has ever rejected applicants (dummy)	Negative
Peer monitoring	
Distance difference (minutes)	Positive
Number of hamlets/streets relative to group size	Positive
Members who work at the same place (%)	Negative
Group has the internal rules (dummy)	Negative
Group size	Positive
Peer pressure or sanctions	
Excluded stubborn/ default members (%)	Negative
Group has ever seized member's properties (dummy)	Negative
Social ties	
Members who are relatives (%)	Ambiguous
Joint liability	
Group has ever contributed for another member's repayment (dummy)	Negative
Contributing for another member is compulsory (dummy)	Negative
Control variables	
Members who are married (%)	Negative
Members with permanent residence (%)	Negative
Group is located in rural area (dummy)	Negative
Age of the group (years)	Ambiguous
Guarantor cooperates to ensure repayment (dummy)	Negative