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Strategies for Reducing Microfinance Loan Default in Low-Income Markets

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This is to certify that the doctoral study by

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has been found to be complete and satisfactory in all respects,
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Abstract

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Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

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Abstract

Poor loan repayment causes the decline and failure of some microfinance institutions. The purpose of this qualitative multiple case study was to explore strategies that microfinance (MFI) leaders use to reduce loan default in the base of the pyramid market. The study population included 6 MFI leaders, 12 borrower community-based groups, and 4 staff members of the Adventist Development and Relief Agency (ADRA Rwanda) who reduced MFI loan default in Rwanda. Data were collected through semistructured interviews with 3 MFI leaders, 3 ADRA Rwanda staff members, and 3 members of borrower groups. Data were also collected through focus groups with 3 borrower community-based groups comprising 6 to 8 members. Additional data were collected through the analysis of MFI and ADRA Rwanda organizational documents. The Varian group lending model was the conceptual framework for the study. Data analysis involved methodological triangulation and the Gadamerian hermeneutics framework of interpretation. Four major themes emerged: intrapreneurship and environmental business opportunities, favorable loan repayment conditions, strategies for choosing borrower groups, and loan use monitoring. A sustainable microfinance institution can produce social change by providing microfinance loans that clients can use to start and grow microenterprises that can become the source of income for improving the lives of clients and their family members. Findings may also be used to create economic growth through the participation of more people in economic activities in the base of the pyramid market.

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Dedication

This study is dedicated to God the almighty, creator of heaven and earth and all their inhabitants. His compassion and mercy have led me this far for a purpose. Lord, here I am, though still imperfect, but you can use me because I can do all things with your help.

Acknowledgments

I stumbled and fell along the way, and I almost gave up more than once. The encouragement of family, friends, and faculty kept me focused. I am appreciative to my committee chair, Dr. Richard Snyder; my second committee member, Dr. Janet Booker; and my university research reviewer, Dr. Denise Land. Your patience, support, and guidance during my doctoral journey played a critical role to help me attain my goal.

I am profoundly indebted to my lovely wife, Grace, for allowing me to use our scarce family resources to achieve this doctorate. Your patience has paid off. This doctorate is yours as well; we can now serve humanity better. My son, Luc, I am proud of you. I concentrated on my studies because you kept the home safe while I was away working and studying. Felistus, my lovely daughter, you are a blessing. Having you around when I worked and studied in a foreign land gave me the reason to work hard so I could give you a better tomorrow, and also that I could give you an example that active learning never ceases. Georgina, my daughter, I am aware of your ever-present desire for higher education. I hope I have shown you the way. With God, everything is possible.

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Section 1: Foundation of the Study

Leaders of microfinance institutions (MFIs) strive to generate profits from the business (Zangoueinezhad & Azar, 2014). Loans are the primary products of MFIs (Rangelova, 2014). Unlike leaders of commercial banks who prefer to do business in profitable markets, MFI leaders establish their businesses in the base of the pyramid (BOP) markets (Jebarajakirthy & Lobo, 2014). A BOP market is an aggregate of customers with low income levels (Agnihotri, 2013; Prahalad, 2014). The poor economic conditions prevailing in the BOP markets are not favorable for the growth of MFI enterprises because many clients default on loan repayment, the primary income-generating product of MFIs.

International development agencies and governments sponsored the establishment of the initial MFIs in developing countries to replace foreign aid involving grants. The development partners realized that grants and subsidies did not reduce poverty among the world’s poor (Armendáriz, D'Espallier, Hudon, & Szafarz, 2013; Dary & Haruna, 2013). The development partners concluded that replacing grants with access to financial services would stimulate entrepreneurial growth among the world’s poor (Armendáriz et al., 2013). These partners spearheaded the establishment of the first MFIs to accelerate the achievement of the poverty reduction mission and to generate profit to sustain the MFIs after their initial sponsored creation (Wijesiri, Viganò, & Meoli, 2015). However, some MFIs failed to generate the profits required to sustain MFI operations mainly because of high loan default (Guha & Chowdhury, 2013).

Background of the Problem

In 1997, the establishment of MFIs to accelerate poverty reduction interventions in many developing countries began. Between 1997 and 2005, MFIs increased from 618 to 3133 worldwide (Guha & Chowdhury, 2013). In 2013, the global MFI industry served approximately 155 million people (Kent & Dacin, 2013). Between 2008 and 2014 in Rwanda, MFIs increased from 125 to 493, and the population accessing MFI services doubled from 21% to 42% (Alliance for Financial Inclusion, 2014). Eighty-seven percent of the 493 MFIs were in the BOP market (National Bank of Rwanda, 2014).

Poor loan repayment is the primary challenge to the survival and growth of MFIs worldwide (Guha & Chowdhury, 2013). Initially, MFIs would experience growth because of direct donor funding or national governments' subsidy (Alliance for Financial Inclusion, 2014). Eventually, decline crept in when the external funding stopped. In Rwanda, MFIs declined because borrowers did not repay their loans and loan officers lacked skills to identify and isolate potential loan defaulters from good borrowers (National Bank of Rwanda, 2014).

Problem Statement

Loan default is one of the leading causes of MFI failures in many countries including Rwanda (Tumwine, Mbabazi, & Shukla, 2015). In 2014, the microfinance loan default rate in Rwanda was 7% (National Bank of Rwanda, 2014), 40% higher than the maximum default-rate margin needed to sustain MFI operations (Tumwine et al., 2015). The general business problem was that some MFI leaders failed to achieve MFI sustainability because the loan default rate exceeded the sustainability thresholds. The specific business problem was that some MFI leaders lacked strategies to reduce loan default in the BOP market.

Purpose Statement

The purpose of this qualitative case study was to explore strategies MFI leaders used to reduce loan default in the BOP market. The primary study population was MFI leaders who reduced loan default in the BOP market in Muhanga district in Rwanda. Borrower community-based groups (CBGs) and the staff members of the Adventist Development and Relief Agency (ADRA) in Rwanda were the secondary population of the study. The borrower CBGs paid back their loans because MFI leaders used strategies to reduce loan default in the BOP market. ADRA Rwanda partnered with the MFIs to provide business and loan management training to the CBG members, one of the principal factors that contributed to the reduction of loan default in the BOP market.

Findings of this study may contribute to positive social change because reduced loan default may generate profits that MFI owners may reinvest to improve MFI products and services. The improved products and services could lead to the creation of employment for more people in the MFIs. More jobs may lead to an improved quality of life among the employees and their families because employees would earn salaries to use for their needs.

Nature of the Study

I used a qualitative method for this study. The qualitative method enables researchers to use interpretive perspectives to reconstruct reality (Merriam & Tisdell, 2015). The qualitative method was appropriate for this study to allow for in-depth questions to discover and understand the meanings and experiences of the participants in the study. Quantitative researchers use numeric data and focus on measurable factors to control, predict, confirm, and test hypotheses (Chung et al., 2014; Fetters, Curry, & Creswell, 2013; Merriam & Tisdell, 2015). The quantitative method was not appropriate for this study because the participants who played different roles to create the phenomenon experienced different realities. Mixed-methods researchers integrate quantitative and qualitative methods to provide a better understanding of the phenomenon than either of the methods could achieve (Morse & Cheek, 2014). The mixed methods approach was not appropriate for this study because the qualitative method was sufficient to answer the research question.

A case study design is most suitable when a phenomenon meets three conditions (Yin, 2014). The conditions are (a) when the research question is best answered by how, why, or what research questions; (b) when the researcher has no control over the events under study; and (c) when the event is a contemporary phenomenon (Yin, 2014). All three conditions applied to this study. Phenomenological researchers focus on establishing a universal experience from a phenomenon experienced by a limited number of people (Tuohy, Cooney, Dowling, Murphy, & Sixsmith, 2013). Cruz and Higginbottom (2013) observed that the ethnographic design is appropriate for research questions addressing the culture of the research participants. In narrative research, the objective of researchers is to explain stories of individuals or single events (Robinson, 2014). Phenomenological, ethnographic, and narrative research designs were not appropriate for this study because the study addressed strategies MFI leaders used to reduce loan default, not a universal experience, cultural issues, or stories of individuals or single events.

Research Question

A research question is an answerable query into a particular concern or issue (Berger, 2015). The focus of this study was to find a solution to the loan default problem in MFI businesses in the BOP market. The central research question was “What strategies did MFI leaders use to reduce loan default in the BOP market?”

Interview Questions

When the participants in an event are from different professions and backgrounds, the researcher must attempt to interview all categories (Travers, 2001). Participant categories for this study were MFI leaders, ADRA Rwanda staff members, and borrowers from the community-based groups. Understanding different perspectives of the roles the various participants played when some MFI leaders used strategies to reduce loan default in the BOP market involved using in-depth, open-ended interview questions (see Appendix A) for each participant category. Open-ended interview questions consisted of *how* and *what* questions that helped to elicit information on the topic from the participants. Gaining a deeper understanding and clarity of the participants’ responses concerning strategies that MFI leaders used to reduce loan default in the BOP market involved asking follow-up questions.

In-Depth Interview Questions for MFI Leaders

1. What strategies or factors contributed to reduced loan default among the group borrowers?

2. What strategies did you use when borrower-group members defaulted on loan repayment?
3. What strategies were used to select members of the borrower community-based groups?
4. What monitoring strategies did the stakeholders use to ensure the borrower group members used the MFI loans as indicated in their approved loan application forms?
5. What strategies did MFI staff members or other stakeholders use to encourage borrowers to pay back their loans?
6. What additional methods or strategies did the stakeholders use to reduce loan default?

In-Depth Interview Questions for Borrower Community-Based Group Members

1. What strategies or factors contributed to reduced MFI loan default among the group borrowers?
2. What strategies did you use when some group members defaulted on the MFI loan repayment?
3. What strategies were used to select members of the borrower community-based groups?
4. What monitoring strategies did the stakeholders use to ensure the borrower group members used the loans as indicated in their approved loan application forms?

5. What strategies did MFI staff members or other stakeholders use to encourage borrowers to pay back their loans?
6. What additional methods or strategies did the stakeholders use to reduce MFI loan default?

In-Depth Interview Questions for the ADRA Rwanda Staff Members

1. What strategies or factors contributed to the reduced MFI loan default involving the ADRA Rwanda group borrowers?
2. What strategies did you use when some group members defaulted on the MFI loan repayment?
3. What strategies were used to select members of the borrower community-based groups?
4. What monitoring strategies did the stakeholders use to ensure the borrower group members used the loans as indicated in their approved loan application forms?
5. What strategies did MFI staff members or other stakeholders use to encourage borrowers to pay back their loans?
6. What additional methods or strategies did the stakeholders use to reduce MFI loan default?

Focus Group Questions (for Borrower Community-Based Groups)

1. What strategies or factors contributed to the reduced MFI loan default involving the ADRA Rwanda group borrowers?

2. What did you do when some group members defaulted on the MFI loan repayment?
3. What strategies were used to select members of the borrower community-based groups?
4. What monitoring strategies were used to ensure the borrower group members used the loans as indicated in their approved loan application forms?
5. How did the MFI staff members, or other stakeholders, encourage you to pay back your loans?
6. What additional methods did the MFI staff members, ADRA Rwanda or your group use to reduce MFI loan default?

Conceptual Framework

I used the Varian (1989) group lending conceptual framework to explain reduced loan default in microfinance. The Varian group lending conceptual framework was appropriate for this study to explore strategies that MFI leaders used to reduce loan default in the BOP market. Varian developed the conceptual framework in 1989 to demonstrate that group lending reduced loan default.

According to Varian (1989), the group lending framework has three tenets that help lenders in group lending to reduce loan default. The first tenet is the joint liability. Joint liability occurs when the lender makes the borrower-group members liable for both own loans and the loans of other group members (Varian, 1989). The second tenet is collective punishment. Collective punishment happens when the lender denies all the group members future loans because one or more group members failed to repay a previous loan (Varian, 1989). The third tenet is freedom to form a borrower group. Through this tenet, prospective borrowers freely select members to form borrower groups (Varian, 1989).

The group lending concept was relevant to this qualitative case study because the 12 groups that received MFI loans repaid the loans in full, thereby reducing the loan default on the total MFI loan portfolio. Ibtissem and Bouri (2013) observed that in group lending, peer-selection into groups and peer monitoring of the borrowers contribute to reduced loan default rates. In this qualitative case study, I explored how the study participants used the Varian group lending concept to reduce loan default.

Operational Definitions

In this qualitative case study, the focus was on MFI leaders who reduced loan default in the BOP market. Investigation of the reduced loan default phenomenon occurred through the lens of the group lending conceptual framework. In this section, key terms are defined to help readers understand their use in the study.

Adverse selection: Adverse selection arises when there is a lack of symmetric information between a loan applicant and a loan provider leading to a risky lending situation (Chisasa, 2014).

Base of the pyramid market: The base of the pyramid market refers to a less-developed business environment of poor populations characterized by challenges of poor infrastructure, high illiteracy rate, lack of professional education, high level of bureaucracy, and, sometimes, corruption (Hahn & Gold, 2014).

Dynamic lending: Dynamic lending is a system of giving money to borrowers using both the group lending and the individual lending systems (Ahlin & Waters, 2016).

Ex-ante moral hazard: Ex-ante moral hazard refers to a risky borrower who defaults on loan repayment because the lender failed to verify the creditworthiness of the borrower at the loan application stage (de Quidt, Fetzer, & Ghatak, 2016).

Ex-post moral hazard: Ex-post moral hazard happens when a borrower can repay the loan but feels no pressure to repay (Randøy, Strøm, & Mersland, 2015).

Group lending: Group lending is a method of disbursing loans to applicants who apply for loans as a team (Baklouti, 2013).

Joint liability: Joint liability is a clause in a group lending contract that binds all members of the group to be guarantors of each other’s loans (Giné & Karlan, 2014).

Information asymmetry: Information asymmetry happens when a loan officer does not have sufficient information about the creditworthiness of a loan applicant because the loan officer does not belong to the community of the loan applicant (Hassan, 2014).

Microfinance institutions: Microfinance institutions are money-lending establishments set up to provide small loans to poor clients (Kent & Dacin, 2013).

Progressive lending: Progressive lending occurs when the lender gives the borrower a smaller loan with the first loan application and keeps increasing the loan amount with each repeat loan, after every successful repayment of the previous loan (Mukherjee, 2014).

Assumptions, Limitations, and Delimitations

The assumptions, limitations, and delimitations section of a study provide elements that may affect or restrict the researcher's methods, data analysis, and study results (Iskander, Pettaway, Waller, & Waller, 2016). Researchers outline these elements to acknowledge the possibility that a change of one or more of them might lead to different study results (Barnwell & Stone, 2016). The identification of strategies that MFI leaders used to reduce loan default in the BOP market involved the provision of assumptions, limitations, and delimitations as boundaries for understanding the study.

Assumptions

Assumptions are important facts the researcher holds to be true about the study but cannot verify (Vergne & Wry, 2014). Assumptions support a distinct, coherent rationale for an investigation (Kerasidou, 2014). The primary assumption of this study was that members from the three participant categories would be interested in the study and would be truthful and honest in their responses. Another assumption was that the study participants would be knowledgeable and would find the interview questions appropriate and unambiguous to provide appropriate responses.

Limitations

Limitations are restrictions of the study due to theoretical or methodological factors that influence findings of the study but are beyond the control of the researcher (Okyere–Dankwa & Rao, 2015). The primary limitation of this study was that findings may not be generalizable. According to Yin (2014), findings from qualitative case studies are unique to their natural setting. Power and Gendron (2015) stated that generalizability of qualitative case study results is difficult because qualitative researchers use natural settings where replication of findings is complicated. Another limitation was methodological. Methodological limitations may happen when the researcher uses a weak design, a poor data collection procedure, or a sample that may be unrepresentative (Mahy, Rycx, & Vermeylen, 2015). The methodological limitation in this study may have been the selection of study categories that may have left out other more informative categories.

Delimitations

Delimitations are boundaries set to control the range of a study, and they result from particular conscious exclusionary and inclusionary choices of the researcher (Hughes & Foulkes, 2015). According to Hughes and Foulkes (2015), the boundaries include the selections of the paradigm, the conceptual framework, the problem statement, the purpose of the study, the research questions, and the choice of participants. This qualitative case study focused on six MFI leaders, 12 community-based groups, and the staff members of ADRA Rwanda in the Muhanga district in Rwanda. The MFI leaders worked in partnership with the two participant categories to reduce loan default in the BOP market.

Significance of the Study

The findings of this study may be of value to businesses because MFI owners may increase their profits because of reduced loan default. The MFIs in Rwanda increased from 125 in 2008 to 493 in 2014, and the number of clients increased from 21% in 2008 to 42% in 2014 as a result of the Rwanda government's Savings and Credit Cooperatives

(SACCO) policy (Alliance for Financial Inclusion, 2014). The Alliance for Financial Inclusion (2014) noted that MFI leaders established 87% of the MFIs in the rural areas where 85% of Rwandans lived, 49% of whom were poor (National Institute of Statistics of Rwanda, 2015). Poor people are those who live on less than $5 a day (Prahalad, 2014).

With 87% of the MFIs in Rwanda established in the BOP market, loan default became the major challenge to their profitability. Tumwine et al. (2015) observed that in Rwanda, MFI leaders could sustain their business operations if the loan default rate remains within 5% of the entire MFI loans portfolio. In 2014, the MFI loan default rate reached 7% (National Bank of Rwanda, 2014), 40% higher than the maximum default rate required to sustain a microfinance business. The purpose of this qualitative case study was to explore strategies that some microfinance leaders used to reduce loan default in the BOP market. Findings and recommendations of this study may help MFI leaders in the BOP market reduce loan default and improve profits and chances of the survival and growth of MFIs.

The findings of this study may also contribute to social change. The microfinance industry was created to provide sustainable financial services to populations that were not able to access financial services from the mainstream commercial banks (Kent & Dacin, 2013). Donors supported the creation of MFIs to replace exclusive aid after proof that foreign aid approaches failed to reduce poverty among the world's poor (Armendáriz et al., 2013). The foreign aid stakeholders reasoned that the provision of financial services to poor people in the form of small loans instead of charity would be a sustainable method to stimulate entrepreneurial growth in the world's poorest regions (Dary &

Haruna, 2013). Following the entrepreneurial efforts of Yunus (2007) in the 1970s as a model, MFIs became a major industry serving more than 150 million clients worldwide in 2010 (Armendáriz & Morduch, 2010).

The success of the establishment of MFIs in every sector in Rwanda depends on whether the intended beneficiaries, the BOP clients, can use the loans for successful enterprises and be able to repay their loans on schedule. Reduced loan default can make MFI operations profitable to enable some MFI owners to invest in more affordable products to attract more clients. More affordable MFI products may reach more customers in the BOP market, enabling them to meet their daily needs. Also, when MFI enterprises become more profitable, some MFI owners may employ more staff members to serve additional customers in the added MFI portfolios, thereby reducing unemployment among community members. The new MFI clients and the newly employed staff members may be able to use their disposable income to enhance the value of life in their families by, among other ways, educating their children, constructing better houses, becoming food secure, and solving various household and community problems that require funds to resolve.

A Review of the Professional and Academic Literature

Researchers with different professional backgrounds have shown interest in microfinance business. Microfinance businesses help finance of small-scale enterprises and alleviates poverty in the BOP markets (Nawai & Shariff, 2013; Siaw, Ntiamoah, Oteng, & Opoku, 2014). The primary objective of MFI leaders is to make microfinance operations profitable and sustainable (Baland, Somanathan, & Wahhaj, 2013; Gan, Hernandez, & Liu, 2013).

Loan default is the single biggest threat to microfinance profitability and sustainability globally (Ibtissem & Bouri, 2013; Kodongo & Kendi, 2013; Sama & Casselman, 2013). Ibtissem and Bouri (2013) showed that loan default in microfinance operations was a significant problem because it affected negatively the dual objectives for the establishment of MFIs. Stakeholders aim to achieve both the social mission of alleviating poverty among the poor and the financial purpose of making MFIs profitable (Ibtissem & Bouri, 2013). Profitability occurs when MFI borrowers make timely loan repayments (Dodson, 2014). Reducing loan default achieves both the business and the social missions of establishing MFIs.

MFI leaders attain sustainability for their businesses if they use proper strategies to reduce loan default (Wongnaa & Awunyo-Vitor, 2013). Sustainability in microfinance refers to the point at which an MFI has sufficient funds to cover all its costs and makes profits for the services offered (Ibtissem & Bouri, 2013). In some cases, the MFI leadership chooses to apply higher than normal market interest rates to make MFIs sustainable (Gan et al., 2013). The application of above-normal market interest rates conflicts with the social goal of establishing MFIs. Turvey (2013) suggested mitigating this conflict by increasing the efficiency of MFI risk portfolio management and applying specific pricing policies to achieve a better equilibrium between sustainability and outreach. Improving the efficiency of MFIs would require MFI leadership to be innovative in creating an environment that enhances the viability of the MFI industry through reducing loan default rates while achieving the poverty alleviation goal.

Interest rates are a cause for loan default in the MFI business (Xiang, Jia, & Huang, 2014). Kodongo and Kendi (2013) observed that the MFI leadership solved the problem of loan default after developing a graduated scale for charging interest rates. Kodongo and Kendi explained that when a group of safe borrowers repays their loans consistently, the group members increase their group size with the inclusion of other safe borrowers. The rise in the group size reduces the total group and transaction costs, allowing the older members of the group to pay lower interest rates than the new members (Thuo & Juma, 2014). An increase in group size of safe borrowers and variation of interest rates produces two benefits. The reduced loan default rate enhances the profitability of MFIs, and the new group members are motivated to follow the example of old members to repay loans regularly so they can start paying low-interest rates. These effects serve both the financial and the social goals of the establishment of MFIs.

Other researchers suggested that partnerships lead to reduced MFI loan default. Sama and Casselman (2013) argued that a partnership of markets, government, and NGOs helps to reduce loan default. The association of markets, government, and NGOs enhances operations of MFIs to address the interests of each partner while responding to the inherent ethical dilemmas of doing business in the BOP market (Sama & Casselman, 2013). Leaders of MFIs could improve the products and services of MFIs to be more responsive to the diverse needs of the borrower communities (Amwayi, Omete, & Asakania, 2014). Business leaders could achieve profitability and growth if they become responsive to the needs of their clients (Giné & Karlan, 2014). The MFI leadership promotes the welfare and economic empowerment of the clients when the leaders respond to the needs of the clients (Kodongo & Kendi, 2013). Sama and Casselman observed that MFI owners need to extend the reach of MFI operations beyond the mere provision of loans to the creation of capital and social networks necessary to lift the welfare of the borrower community. Partnership with the government, the MFIs, and the civil society increases the likelihood of stakeholders conducting their business in an ethical manner to achieve both the poverty alleviation and the business goals of MFIs.

Factors that help achieve full loan repayment, improve loan repayment, or reduce loan default are of interest to researchers because of the significant role loan repayment plays in the growth and sustainability of MFIs. This review of the literature section includes some of the literature about factors that affect MFI loan repayment negatively or positively. A detailed search of the literature involved using the Walden University business and management databases and Google Scholar. The Walden University databases included Science Direct, Emerald Management Journals, Academic Search Premier, ABI/INFORM Complete, and Business Source Premier. Search terms were *microfinance institutions*, *microlending*, *microcredit*, *group lending*, *dynamic lending*, *individual lending*, *group lending theory*, *normative social influence theory*, and *loan default.*

This literature review included scholarly journals and seminal books on the foundation of microfinance, the base of the pyramid markets, loan repayment theories, and roles of governments, donors, and nongovernmental organizations in MFI operations.

The organization of this literature review is in five main parts. The first part consists of types, causes, and sources of loan default. The second part is about the Varian group lending conceptual framework and its associated rules of joint liability, collective sanctions, and self-forming groups. The third part is a review of the literature of frameworks supporting the Varian group-lending conceptual framework. The fourth part involves a review of the literature of contrasting lending models to the Varian group lending conceptual framework. The fifth part is a review of the literature on critical success factors in the microfinance industry.

The review of the literature on the types, kinds, and sources of loan default is necessary because strategies to reduce loan default need to be specific to a type or types of loan default prevalent among the borrowers. Reviewing the literature about the Varian group lending concept, the supporting concepts, the contrasting concepts, and some of the critical success factors in MFI lending is significant. The significance is that MFI leaders need to have a holistic understanding of lending concepts in the MFI industry to make an informed choice about the appropriate strategies to use to reduce loan default in the BOP market.

This study involved the use of 340 references. Ninety-two of these references were used in the literature review. Of the 92 sources examined in the literature review, 91 or 99% of the references were peer reviewed. Eighty-four of the sources, representing 91%, were published between 2013 and 2017, or within 5 years of the completion date of this study (see Table 1). Table 1 includes a detailed description of the sources by publication dates.

Table 1

Sources Used in Study

Source	Before 2013	2013	2014	2015	2016	2017	Total
Peer-reviewed articles	8	35	25	15	8		91
Government publications				1			1
Totals	8	35	25	16	8		92

Types, Causes, and Sources of Loan Default

Types of microfinance loan default. Microfinance leaders need to familiarize themselves with the various types of loan default in the business to be able to reduce loan default (Mookherjee & Motta, 2016). In microfinance, loan default occurs when a borrower fails to make a loan repayment installment according to the agreed loan repayment schedule (Thuo & Juma, 2014). Lenders agree to an installment repayment plan with the borrowers, ranging from weekly to monthly repayments, depending on the type of enterprise and the loan amount (Becchettia & Conzo, 2013).

In an experiment about appropriate loan repayment enforcement measures in microfinance lending in India, Czura (2015) identified three types of loan default. One type involved borrowers who were willing to repay the loan but could not because their enterprises were not profitable to enable them to repay the loan (Czura, 2015). The second category involved borrowers whose enterprises yielded enough profit to afford loan repayment, but they willingly decided to default. The third type was of borrowers who had profitable enterprises to afford the loan repayment; they were willing to make the repayment, but they lacked the motivation to go through the loan repayment process (Czura, 2015). MFI leaders need to know about default types to manage clients appropriately (Kim, 2014). For instance, an informed MFI leader would not confiscate property from a defaulter of the third category, because third-type defaulters need a simple oral reminder to make a loan repayment. However, lenders would need to exert some pressure on the second-type defaulters because these defaulters opt to default in the absence of any pressure (Oduro-Ofori, Anokye, & Edetor, 2014). Lenders need to identify and avoid first-type defaulters because these borrowers engage in unproductive enterprises (Oduro-Ofori et al., 2014). Knowledge of the types of loan defaulters helps the MFI leader know how to recover loans efficiently and improve the MFI's loans portfolio.

Lenders often subject loan applications to some form of scrutiny to certify the creditworthiness of individual applicants and to determine proper mechanisms to discourage loan default (Kiros, 2014; Kodongo & Kendi, 2013; Presbitero & Rabellotti, 2014). Kodongo and Kendi (2013) found that under group lending, the role of loan officers on credit-worthy applicants was to provide structure, training on loan processes, and administrative support to mitigate for ex-ante moral hazard. Peers in the group monitor each other to avoid joint liability, and peer monitoring helps to prevent loan diversion for other purposes not included in the loan contract (Kodongo & Kendi, 2013).

Kiros (2014) and Presbitero and Rabellotti (2014) found evidence that there are efficient methods to form borrower groups. Kiros established that members of a self-selecting group repay their loans better than members of groups created by external agents. This result corroborated the work of Presbitero and Rabellotti who found that self-selecting groups mitigated for adverse selection. Members of self-selecting groups repaid loans better than members of a group formed by an external agent because the former had access to all information about each other, hence, they were able to mitigate for information asymmetry and ex-post moral hazard (Presbitero & Rabellotti, 2014). To discourage loan default, a lender with knowledge about loan default types would more likely choose group lending instead of individual lending and self-selecting groups instead of groups formed by external agents.

In a study on the role of information asymmetry in Columbia, Presbitero and Rabellotti (2014) found that MFI owners were able to limit the adverse effects of ex-ante and ex-post moral hazards through group assortative matching or peer monitoring in group lending. De Quidt et al. (2016) corroborated the Presbitero and Rabellotti findings that in individual lending, loan officers were not as efficient in obtaining information about the creditworthiness of loan applicants, as group members were in a joint liability arrangement. Chowdhury, Chowdhury, and Sengupta (2014) studied the role of ex-post moral hazard in strategic loan default in group lending and showed that sequential lending resolved problems of coordinated default, thereby improving project efficiency in group lending. Ex-post moral hazard is the leading cause for client-based loan default. MFI leaders can minimize the effects of an ex-post moral hazard if they understand the types of loan default and how to develop and implement appropriate strategies to minimize loan default among the borrowers.

Causes of loan default. Causes of loan default can be institutional or client based or both. Hossein (2016), Siaw et al. (2014), and van den Berg, Lensink, and Servin (2015) showed that poor loan management strategies cause institutional-based loan default. Bylander (2015), Presbitero and Rabellotti (2014), and Chowdhury et al. (2014) explained that in addition to ex-ante moral hazard reasons caused by MFIs, client-based loan default was caused by ex-post moral hazard reasons.

In a study in Ondo State in Nigeria, Siaw et al. (2014) found that MFI leaders reduced loan default when they adopted and applied strategies to improve MFI operations. In a study in Mexico, van den Berg et al. (2015) found that MFI loan officers were responsible for guaranteeing the collection of payments through frequent visits to the borrower groups to discourage loan default. The loan officers also negotiated conflicts when members defaulted and provided training on topics such as basic business and financial management (van den Berg et al., 2015). In a study in Jamaica, Hossein (2016) found that political meddling in the work of MFIs led to loan default. Hossein recounted that when MFIs allowed politicians to recommend constituents for microloans, many borrowers defaulted on the loan repayment because such borrowers regarded the loans as gifts from the politicians.

The institutional-based causes of loan default also included the nature of the loans, time of disbursement, profitability of customers' enterprises, terms of the loan, interest rates, and other causes (Siaw et al., 2014). The institutional-based loan default causes became loan-repayment causes when MFI leaders adopted and implemented mitigating control measures of the loan-default causes (Bastiaensen, Marchetti, Mendoza, & Pérez, 2013). The microfinance leadership can minimize the impact of both the institutional and client-based loan default causes if they can understand the characteristics of each of the loan default causes and be able to develop appropriate strategies to reduce loan default.

Reasons for loan default. Different reasons prevent borrowers from repaying loans. Randøy et al. (2015), de Quidt et al. (2016), Sun and Im (2015), and van den Berg et al. (2015) demonstrated that ex-ante and ex-post moral hazards were the two primary reasons for loan default. Randøy et al. observed that insufficient collateral for a loan causes the ex-ante moral hazard loan default. In a study of ex-ante moral hazard, van den Berg et al. (2015) showed that information asymmetry is the reason for loan default because insufficient information about the creditworthiness of loan applicants leads to lenders giving loans to borrowers with poor credit ratings.

In ex-post moral hazard situations, diversion of the loan to non-essential consumption leads to lack of return on loan and consequently causes loan default (Sun & Im, 2015). De Quidt et al. (2016) found that in joint liability, sometimes group members can choose to default on loan repayment if paying for defaulting group members becomes more expensive for the other group members. Other reasons for MFI loan default are financial instability, death, family calamity, or other reasons beyond the lenders' control (van den Berg et al., 2015). Some literature on MFI loan repayment showed that MFI leaders have the bigger responsibility to mitigate for adverse selection, ex-ante moral hazards, and ex-post moral hazards than borrowers do (Ahlin & Waters, 2016; Giné & Karlan, 2014; Thuo & Juma, 2014). Understanding types, causes, and sources of loan default is critical for MFI leaders to be able to develop appropriate strategies to reduce loan default.

Group Lending Approach

The group lending approach is the main strategy some MFI leaders use to reduce loan default (Bourlès & Cozarenco, 2014; Hadi & Kamaluddin, 2015; Mukherjee, 2014). The approach has different variations. Bourlès and Cozarenco (2014) found that group lending was more prevalent in countries with weaker economies where borrowers lacked collateral. Hadi and Kamaluddin (2015) elaborated that social collateral used in the group lending approach provided some assurance that the loan recipients would repay the loans. Hadi and Kamaluddin identified four constructs of trust, network, group pressure, and training as foundations of the social collateral model. Mukherjee (2014) identified the self-help group (SHG) model and the joint liability group (JLG) model as two types of group lending models. In the SHG model, the group interacts with the MFI staff members, and in the JLG model, the individual group members interact with the MFI staff members. MFI leaders need to have a clear understanding of these differences and variations in group lending to be able to develop appropriate strategies suitable for the different borrowers to reduce loan default.

The common characteristic of group lending is giving loans to group members without collateral (Magali, 2013; Nasir, 2013; Siaw et al., 2014; Weber & Musshoff, 2013). Collateral is a secondary protection a lender requires from a prospective borrower to guarantee the performance of the borrower on a loan obligation before receiving the loan (Magali, 2013). The borrowers sign a contract agreeing that if they fail to repay the loan, the lender would possess the collateral stipulated in the loan agreement (Magali, 2013). Grameen Bank was the first bank in the world to use group lending without the traditional collateral among poor populations in Bangladesh (Siaw et al., 2014). The bank used low transaction costs, no collateral, small and short loan repayment intervals, quick loan approvals with little or no paperwork, and no formalities (Nasir, 2013). An appreciation of lending without collateral as the backbone of group lending in poor markets may help MFI leaders to formulate appropriate strategies to reduce loan default while maintaining lending without collateral.

Varian Group Lending Conceptual Framework

The Varian group lending model was the conceptual framework for this study. Varian (1989) developed the group lending model to explain the success of group lending following the success of the group lending strategy of the Grameen Bank. The Varian model uses three principles to reduce loan default. The principles include joint liability, collective punishment, and self-forming groups. These principles provide specific guidelines on how to manage group lending to reduce loan default.

Principle of joint liability. Through joint liability, each group member is accountable for his or her loan and the loans of other group members (Varian, 1989). Some researchers have demonstrated that the joint liability principle plays a significant role in reducing loan default in group lending (Baklouti, 2013; Becchettia & Conzo, 2013; Mookherjee & Motta, 2016; Presbitero & Rabellotti, 2014). Presbitero and Rabellotti (2014) found that microcredit was a potent tool to foster the build-up of trust and to reduce informational asymmetries between lenders and borrowers. These researchers explained that through the joint liability principle, the agency costs of the lender are reduced or completely removed because of peer screening, forming own groups, monitoring loan use, and enforcing loan repayment by the group members. In another study, Baklouti (2013) found that MFI operators achieved good repayment records from low-income borrowers without requiring collateral because the joint liability principle reduced information asymmetries and fostered trust among the borrowers.

In another study to investigate the impact of joint liability in a group without family ties, Becchettia and Conzo (2013) found that the group lending mechanism induced assortative matching with the consequence that, for group-mate neighbors, they demonstrated trust through accepting a joint liability. The principle of the assortative matching model is that in the marriage market, individuals become couples if they positively complement each other (Becker, 1973). Becchettia and Conzo concluded that reduced loan default was a result of the joint liability principle because group borrowers select each other based on positive complementarity. In a related study in Bangladesh, Mookherjee and Motta (2016) showed that using the information symmetry criteria to serve the requirement of joint liability, MFI leaders always succeeded in attracting safe borrowers, a conclusion Sun and Im (2015) arrived at earlier.

Some researchers linked the joint liability principle of the Varian group lending concept with the practices of peer monitoring and peer pressure (Allen, 2016; Bruton, Khavul, Siegel, & Wright, 2015; Carpenter & Williams, 2014; Czura, 2015; Gan et al., 2013). Group members monitor the loan use of each other to prevent ex-ante moral hazards and ex-post moral hazards that may make group members liable for the unpaid loans of others within the group (Czura, 2015). According to Allen (2016), the responsibility of group members is to monitor each other to ensure that each member uses the loan as agreed to avoid joint liability for any losses that may lead to loan non-repayment by a member. In that sense, the group members use peer pressure to force any member who may wish to use the loan differently, not to do so (Bruton et al., 2015; Carpenter & Williams, 2014).

Studies have shown that the joint liability principle of the Varian group lending conceptual framework contributes positively to reduced loan default (Baklouti, 2013; Becchettia & Conzo, 2013; Mookherjee & Motta, 2016; Presbitero & Rabellotti, 2014). Peer monitoring and peer pressure are the main tools that borrower group members use to pressurize other members to use the loan according to agreed enterprises and to make the anticipated profits to repay the loan to avoid joint liability (Allen, 2016; Bruton et al., 2015; Carpenter & Williams, 2014; Czura, 2015; Gan et al., 2013). Based on this evidence from the literature, MFI leaders need to understand the contribution of joint liability, peer monitoring, and peer pressure in reduced loan default and be able to develop strategies to allow for the practice of joint liability, peer monitoring, and peer pressure.

Principle of collective sanctions. The second principle of the Varian group lending conceptual framework is that if one or more members of a group fail to repay their loans, all group members get punished, commonly in the form of a ban from accessing more loans (Varian, 1989). Varian (1989) also referred to this rule as the rule of collective punishment. Some researchers have clarified how lender sanctions contribute to reduced loan default (Becchettia & Conzo, 2013; Chowdhury et al., 2014; de Quidt et al., 2016; Ibtissem, & Bouri, 2013; Zeija, 2013).

Ibtissem and Bouri (2013) found that the application of the collective punishment principle was more useful when used to reduce loan default than to simply punish group members because some of the members defaulted on loan repayment. Chowdhury et al. (2014) corroborated the Ibtissem and Bouri finding and added that some lenders used the collective sanctions principle strategically by rewarding the groups that made timely loan repayments with reduced interest rates and increased interest rates for those groups that did not make timely repayments. Ibtissem and Bouri argued that by varying the interest rates for the good and the bad performing groups, the lender motivates the bad performing groups to reduce loan default, without expressly denying further loans to poor performing groups.

Zeija (2013) studied the impact of collective punishment to loan defaulting groups in Uganda and found that government regulations concerning microfinance activities did not encourage loan repayment. Zeija observed that laws that seemed more protective of lenders than borrowers have an adverse impact on loan repayment because borrowers tend to collude with each other to default on loan repayment. Moving away from the application of sanctions to defaulting groups, Becchettia and Conzo (2013) and de Quidt et al. (2016) showed that borrower-group members also applied the sanctions principle amongst themselves to discourage loan default. While de Quidt et al. demonstrated that social sanctions within groups discouraged loan default, Becchettia and Conzo gave a deeper explanation that beyond the monetary incentive-based rationales, the loss of social recognition and self-esteem that may result from loan nonrepayment may be enough reason to discourage loan default.

Other researchers showed that lenders were sometimes responsible for poor loan repayment (Allen, 2016; Khavul, Chavez, & Bruton, 2013; Roberts, 2013). Allen (2016) demonstrated that some lenders turn responsible borrowers into unreliable borrowers when the borrowers experience an involuntary default. Allen found that when the lenders increase the penalty for loan default in a joint liability contract, safe borrowers were willing to repay the loans of their colleagues. However, when the penalty became too high, the borrowers defaulted strategically instead of repaying the loan with a penalty (Allen, 2016). Earlier, Roberts (2013) found that the objective of microfinance lenders needs to include recognition that they serve the poor and aim to improve their livelihood, instead of focusing on profits at any cost. Roberts advised that sanctions need to be differentiated for voluntary and involuntary strategic defaulters to avoid turning safe borrowers into strategic defaulters. In another study on the role of lenders in loan default, Khavul et al. (2013) found that lenders can avoid giving loans to unreliable groups if the lenders use proper strategies to obtain the creditworthiness of the loan applicants when appraising the loan applications.

The reviewed literature shows that lenders and borrowers apply collective sanctions in two ways. The first way is to encourage loan repayment. To achieve the objective, the lenders refrain from simply punishing but instead, they motivate borrowers to make timely loan repayments to benefit from low-interest rates. The second way is the need for group members to appreciate that application of social sanctions for non-paying members in a group aims to encourage loan repayment and not to make group members lose respect in the society.

Principle of self-forming groups. The third principle of the Varian group lending concept is that prospective borrowers form own groups (Varian, 1989). Varian (1989) found that when group members selected each other to belong to a borrowing group voluntarily, they considered their common characteristics including having a good loan repayment record. Various researchers studied the role of self-selection of borrower groups in loan repayment (de Quidt et al., 2016; Lønborg & Rasmussen, 2013; Rajbanshi, Huang, & Wydick, 2015; Wydick, 2016).

In a study on the role of self-selection in the effectiveness of loan repayment among borrower-groups in Northern Malawi, Lønborg and Rasmussen (2013) found that the principle had both positive and adverse effects. The positive effect was that when the self-selection process grouped good members, the group made good loan repayment (Lønborg & Rasmussen, 2013). The adverse effect, however, was that the principle also brought together *bad* members who, normally, perform poorly in loan repayment because they tend to collude to default strategically (Lønborg & Rasmussen, 2013). In similar studies, de Quidt et al. (2016) and Wydick (2016) found that self-selection attracted members with similar characteristics. De Quidt et al. explained that although self-selection also brought together poor performing groups, such groups did not survive longer because lenders became aware of such groups and removed them from further loans through disqualification or hard borrowing conditions such as high interest rates. Wydick observed that a proper self-selection process enhances peer monitoring and reduces loan default.

Peer screening and the subsequent peer selection processes are necessary steps in self-forming groups (Aggarwal, Goodell, & Selleck, 2015; de Quidt et al., 2016; Gan et al., 2013; Jafree & Ahmad, 2013). In peer screening and peer selection, prospective group members choose each other voluntarily based on the knowledge of each other for an agreed purpose (Gan et al., 2013). Individuals outside the group may not know all the information about a particular person in the group because of information asymmetry conditions that prevent members of one group from knowing everything about members of another group. Members of a group have the privilege of knowing everything about other members in the group (Aggarwal et al., 2015; Nwachukwu, 2013). Gan et al. (2013) found that when people know each other (peers), they can choose only those members they know would be trustworthy for loan repayment. In that regard, peer selection prevents adverse selection (Gan et al., 2013). Jafree and Ahmad (2013) also found that group lending with joint liability led to the formation of relatively homogenous groups with either safe or risky borrowers. The logic behind the tendency to form relatively homogenous groups with either safe or risky borrowers was that each category attracted like-minded members. The trend occurs because reliable partners prefer to work with fellow reliable partners while unreliable partners tend to form a group of unreliable partners through the assortative matching process (Gan et al., 2013). In group lending, members monitor each other against diversification to ensure easy monitoring of each other’s businesses to reduce chances of joint liability (Jafree & Ahmad, 2013; Getu, 2015). Peer selection leads to peer monitoring and plays a decisive role in reduced loan default among the borrowers.

Peer selection, though valuable to the success of group lending, has some inherent problems that lenders need to consider and control (Gan et al., 2013; Giné & Karlan, 2014). One problem originates from the process of assortative matching where reliable partners tend to form their groups and unreliable partners also form their groups (Gan et al., 2013). When the group of unreliable partners obtains a loan, a higher likelihood exists to collude to make a strategic default, consistent with their unpredictable behavior (Czura, 2015). In a study about strategic default, Czura (2015) found that one challenge lenders encounter in a loan default situation is that often, the lenders cannot distinguish between involuntary and strategic default. Consequently, lenders punish both types of default, in the same way, a situation MFI leaders need to strive to avoid (Czura, 2015).

The principle of self-selection of the Varian group lending concept reduces loan default because group members choose each other voluntarily based on homogenous knowledge of each other. The process isolates good groups from the bad ones. Although bad groups can present themselves as good groups during the first loan cycle, the bad groups isolate themselves through loan default. Microfinance leaders need to make the best use of the self-selection rule by, among other strategies; developing approaches that provide incremental benefits to good borrower groups according to loan cycles. That way, the bad groups would exclude themselves from receiving bigger loans while increasing chances of reduced loan default from good borrower groups.

Other theories that support the rules of the Varian group lending concept exist. Such supporting theories include the conformity social influence model (Asch, 1956) and the assortative matching model, also called the marriage theory (Becker, 1973, 1974).

These theories provide explanations why the Varian group lending concept succeeds in reducing loan default. The supportive theories support specific principles of the Varian group lending concept.

Assortative Matching/Marriage Model

Becker developed the assortative matching/marriage model in 1973 with two governing principles. The first principle is that as marriage is essentially always voluntary, either by the persons marrying or their parents, the concerned persons apply the preference theory because they assume that by marrying, their efficacy levels would become higher than if they remained single (Becker, 1973, 1974). The second governing principle is that a marriage market exists where men and women compete to find the best mates from the available males and females (Becker, 1973, 1974). These principles are supportive of the self-selection principle of the Varian group lending concept. In the assortative matching model, marrying persons choose the mates who would give the most advantages voluntarily (Becker, 1973, 1974). The principle of self-selection of the Varian group lending concept makes prospective members choose each other to benefit from the group microfinance loan (Bauchet & Morduch, 2013; Becchettia & Conzo, 2013; Li, Sun, Wang, & Yu, 2016).

Bauchet and Morduch (2013) found that positive assortative matching occurs in self-selection because it leads to the segregation of skills in the labor market. Bauchet and Morduch observed that small and medium enterprise owners who tend to attain better education and become more highly skilled than the typical microcredit borrower; seek to maximize productivity by choosing workers with skill levels similar to their own.

Becchettia and Conzo (2013) found that assortative matching explains the paradox of reduced default rate in group lending without collateral.

Li et al. (2016) added a dimension where the assortative matching practice brings together high-risk borrowers. Li et al. found that when potential individual members prefer less risk within a partnership; they search for a solid match that minimizes the social cost of risk. However, where available free agents are mostly risky individuals, the searcher fails to find a compatible group and either remains without a group or joins a group of risky borrowers (Li et al., 2016).

Conformity Social Influence Model

The conformity social influence model comprises the informative and the normative social influence models developed by Solomon Asch in 1955 (Asch, 1955, 1956). The principle of the models is that a fundamental human need to belong to social groups exists (Asch, 1955, 1956). In the social groups, the members agree on values; they have common beliefs, attitudes, and behaviors that reduce in-group threats from destroying the group (Asch, 1955, 1956). When the members comply with the group norms, they receive a social reward in the form of praise or inclusion (Asch, 1955, 1956). A unique characteristic of the social influence models is that to conform to the group demand, sometimes individuals within the group agree to do something they would not do on their own (Asch, 1955, 1956). Informative conformity occurs when individual group members agree with the group decision because they think that the group is right or that the group knows something that the individual members do not (Asch, 1955, 1956). Normative conformity happens when people know the rest of the group is wrong but they still go along because they want to be loved or because they do not want to be ostracized (Asch, 1955, 1956).

Some researchers have elaborated how the conformity social influence models support the Varian group lending conceptual framework (Abrahamse & Steg, 2013; Kuan, Zhong, & Chau, 2014; Li, 2013). Kuan et al. (2014) examined two types of information commonly used by group-buying sites to induce purchasing. In the study, Kuan et al. (2014) found that positive or negative information about a product influences attitude and intention to make a purchase. This finding built on the results of Li (2013) who found that by integrating social influence theory and giving persuasive messages to prospective customers increases the chances of positive affective and cognitive responses. Abrahamse and Steg (2013) summed the impact of conformity social influence theory with the finding that social influence methods were effective when used with a control group in a study. Conformity social influence was also effective when compared to a different intervention (Abrahamse & Steg, 2013).

Implications for microfinance leaders regarding the conformity social influence and the assortative matching models in reducing microfinance loan default are two-fold. Informative and normative social influence models are necessary to apply during the mobilization of community members to form borrower groups. Microfinance leaders could maximize the role of these models by identifying some members in the target communities to become lead group borrowers. The lead group borrowers would become a positive influence to many other groups within the community. The assortative matching model is useful to help the MFI leaders become aware that positive matching does, sometimes, produce borrower groups that may default on loan repayment. Microfinance leaders need to develop appropriate strategies that sieve away such groups.

Other microfinance leaders use contrasting microfinance lending models to the Varian group lending model to reduce loan default. Some of the contrasting models are group lending with individual liability, individual lending, and dynamic lending (Ahlin & Waters, 2016; de Quidt et al., 2016; El-Komi & Croson, 2013; Presbitero & Rabellotti, 2014). Each of these contrasting lending models has unique elements that help reduce loan default.

Group Lending with Individual Liability Model

In the group lending with individual liability model, the lender gives loans to individuals in groups, but each group member is liable for his or her loan (Allen et al., 2014; de Quidt et al., 2016; Giné & Karlan, 2014). In this model, the main condition to access the loan is to belong to voluntary-formed groups and to remain in the groups during the loan period (de Quidt et al., 2016). De Quidt et al. (2016) found that individually liable borrowers had sufficient social capital to continue to guarantee one another's repayments through implicit joint liability. In an earlier study, Allen et al. (2014) found that group lending with individual liability replicated or improved on the reduced loan default performance of explicit joint liability practiced in the Varian group lending model.

In another study to find whether group lending with individual liability was more productive than the Varian group lending model, Giné and Karlan (2014) found that for the pre-existing groups, there was no change in repayment. The change, however, led to larger lending groups, hence increased outreach (Giné & Karlan, 2014). The average loan sizes were, however, smaller, resulting in no change in total disbursement and ultimate profitability (Giné & Karlan, 2014). Allen et al. (2014) reported different findings from those of Giné and Karlan. Allen et al. showed that both the group lending with joint liability and the group lending with individual liability were optimal but for different borrowers. Joint liability offered poorer borrowers greater convenience and larger loans with less monitoring effort while individual liability offered the wealthier among the needy borrowers greater convenience and larger loans, even without monitoring (Allen et al., 2014). The implication for the microfinance leader is to understand that group lending with individual liability has less or no peer monitoring. The lender may need to organize regular monitoring visits to these groups when they hold their regular meetings to keep track of the progress of the borrowers and reduce loan default.

Individual Lending Model

The individual lending model is on the rise despite the popularity of group lending with joint liability (Ahlin & Waters, 2016). Individual lending involves giving loans to individual applicants with some form of collateral to guarantee the loan repayment (Chowdhury et al., 2014). Some researchers claimed that certain MFI leaders adopted the individual lending model because the model had less loan default results than the group lending model (Ahlin & Waters, 2016; Gan et al., 2013; Ibtissem & Bouri, 2013; Kodongo & Kendi, 2013).

Ibtissem and Bouri (2013) found that individual lending had a less loan default rate when the lender used non-refinancing threats, regular repayment schedules, collateral substitutes, and provided nonfinancial services. Kodongo and Kendi (2013) showed that when individual lending included the use of a guarantor condition, the loan default reduced because the guarantor exerted sufficient social pressure on the borrowers to repay the loan. Kodongo and Kendi also established that some borrowers preferred individual lending because the method did not require the borrowers to be attending the group meetings as is the case with group lending.

Ahlin and Waters (2016) and Gan et al. (2013) found a different reason for the popularity of individual lending. Ahlin and Waters and Gan et al. found that when borrowers wanted to expand their businesses, the individual lending model was a better option than the group lending model. Borrowers in the individual lending model were able to venture into risky but more profitable businesses due to the absence of peer monitoring and peer pressure associated with group lending (Ahlin & Waters, 2016; Gan et al., 2013). Members in group lending discourage others from venturing into what they would consider risky investments through peer monitoring and peer pressure, (Gan et al., 2013).

Lenders use the individual lending method with a mixture of strategies to reduce loan default. The strategies include the use of collateral, use of collateral substitutes, and interest rates (Cheng & Ahmed, 2014; Ibtissem & Bouri, 2013; Weber & Musshoff, 2013). Microfinance leaders use these strategies in different ways in different environments.

Collateral requirements. Banks and up-market lending institutions deny loans to potential clients in the BOP market because of lack of collateral (Turvey, 2013).

Collateral is a form of secondary protection such as property or other assets that a lender demands to guarantee the borrower's performance on a debt obligation of a borrower (Magali, 2013). In individual lending, lenders use collateral as a mechanism to reduce both the screening and the enforcement problems (Ibtissem & Bouri, 2013). Collateral becomes the compensation when the borrower defaults on loan repayment (Weber & Ahmad, 2014). In the BOP market, lenders experience challenges with personal loans because borrowers are typically low-net-worth individuals with little that MFIs can acquire in the event of loan default (Kodongo & Kendi, 2013).

Siaw et al. (2014) supported the view that collateral is a problem among the poor. When MFI loan officers appraise the collateral offer of borrowers improperly, borrowers default strategically; however, when the collateral is more valuable than the loan, the borrowers are more likely to repay (Siaw et al., 2014; Vanroose & D’Espallier, 2013). In another study, Ayele (2015) demonstrated that lenders reduced the loan default when they offered microcredit collateralized by compulsory savings. Ahlin and Waters (2016) observed that although formal collateral is not common among the poor, some lenders use the land of the borrowers as collateral. The strategy reduced the loan default because most borrowers are so attached to their land that they would not allow having their land taken away because of failure to repay a loan (Ahlin & Waters, 2016).

Research findings on the use of collateral require the lender to consider some issues before implementing the use of collateral. The first issue is to ensure that the collateral value is higher than the loan amount as borrowers would be motivated to repay their loans for fear of risking losing their more valuable collateralized asset. Second, lenders may need to consider introducing a system where borrowers would be making deposits into their savings with the lender to act as collateral. The strategy of deposits would discourage borrowers from defaulting on the loan repayment for fear of losing their savings. Third, if the first and the second strategies do not apply, the lender may consider using the land of the borrowers as collateral. The applicability of each of the options would depend on the evaluation of the possible choices in the MFI environment.

Collateral substitutes. Some lenders that use individual lending accept collateral substitutes from the borrowers because of the scarcity of acceptable assets for collateral (Sun & Im, 2015). These lenders use collateral substitutes because, in some parts of the world such as China, the law bars borrowers from using land or houses as collateral (Cheng & Ahmed, 2014).

Different microfinance leaders use different items for collateral substitutes. Using the model of the Grameen Bank, some MFIs initially required borrowers to pay 0.5% of every unit they borrowed (Ibtissem & Bouri, 2013). The MFIs put the payment into an emergency fund to serve as an insurance against loan default, death or disability (Ibtissem & Bouri, 2013). The borrowers paid an additional 5% of the loan they took as group tax (Ibtissem & Bouri, 2013). Ibtissem and Bouri (2013) emphasized that lenders commonly recover these payments from the loans of the members or form part of regular contributions forced on the borrowers. Dower and Potamites (2014) introduced a different type of collateral substitutes such as the borrower's driving license, a degree certificate, a marriage certificate, or other valuable documents. In Indonesia, a leading microfinance institution, Bank Rakyat Indonesia, used the collateral substitution technique effectively with the use of these valuables (Dower & Potamites, 2014). Sun and Im (2015) showed that lenders in Russia accepted household items as collateral if the items had sufficient personal value for the borrowers. In rural Albania, lenders accepted physical assets such as livestock, as collateral (Sun & Im, 2015).

Chisasa (2014) showed that sometimes lenders require guarantors to guarantee the borrowers' loans. In a similar study earlier, Roberts (2013) cautioned that the role of a guarantor needs to be a significant factor in permitting the loan and not as a secondary repayment source. The presentation of a guarantor reduces adverse selection risks for the lender if the demand for a guarantor requires costly efforts for individuals with a bad loan repayment record (Giné & Karlan, 2014).

Implications for microfinance leaders are to understand that if borrowers are not able to present formal collateral for loans, the lenders may consider accepting collateral substitutes. Collateral substitutes must, however, be valuable enough in the culture of the borrowers, and allowable by the law. The lender also needs to understand that if a borrower has used a guarantor, the main role of the guarantor is to provide the necessary confidence that the borrower is creditworthy, and not to be the alternative payer of the loan although the lender can make the guarantor pay as a last resort.

Dynamic Lending Model

The dynamic lending approach is another lending model that MFI leaders use to disburse loans using group lending with joint liability, group lending with individual liability, and individual lending using varying interest rates depending on the loan cycle of the borrowers (Ahlin & Waters, 2016). In a study on the efficiency and structure of optimal dynamic lending, Ahlin and Waters (2016) found that varying interest rates according to loan cycles achieved lower default rates than one-time loans. In repeat borrowing, lenders had an opportunity to gather more information about borrowers and the lenders priced for risk more accurately, reducing the cross-subsidy from safe to risky borrowers (Epstein & Yuthas, 2013). In another study in India, Rozzania, Rahman, Mohameda, and Yusufa (2015) found that varying interest rates according to loan cycles encouraged borrowers to repay their loans to benefit from the lower interest rates on subsequent loans. Ahlin and Waters noted that borrowers took smaller loans at the beginning because rates for first-time borrowers were high, and repeat borrowers got better terms each time they borrowed. Such lending practice led to borrowers forgoing profit on the first loan in anticipation of a better repeat loan (Ahlin & Waters, 2016). The repeat borrowing method is similar to the relationship lending method that allows for better borrowing conditions over time (Weber & Ahmad, 2014).

According to Weber and Ahmad (2014), information symmetry was at its best in relationship lending because lenders and borrowers were in constant contact through loan officers over repeat loans. Ibtissem and Bouri (2013) observed that information technology complements the concept of relationship lending and that the concept is the most appropriate lending system when lending to young firms and micro and small entrepreneurs. The primary feature of relationship lending is the high interest rates on the first cycle of borrowing and the lower interest rates on each subsequent borrowing (Ahlin & Waters, 2016; Rozzania et al., 2015).

The combination of dynamic lending and varying interest rates according to lending cycles seemed to reduce the loan default because of two reasons. First, with dynamic lending, borrowers were at liberty to decide without the influence of the lender whether they wanted to borrow as individuals or as groups depending on the method with most advantages. Second, repeat borrowing reduced loan default because borrowers always wanted to borrow and repay to borrow again at a lower interest rate.

Some factors are critical for the success of MFIs. Microfinance success factors are elements that contribute to the sustainability and growth of a microfinance business (Boateng & Agyei, 2013). Lenders use these crosscutting critical success lending factors strategically to reduce loan default. Interest rates, loan size, and educational levels are some of the most important variables in the microfinance business (Bauchet & Morduch, 2013; Kamath & Ramanathan, 2015; Kodongo & Kendi, 2013).

Interest Rates

Interest rates are used in most lending transactions because they are the largest source of income for lenders (Kamath & Ramanathan, 2015). An interest rate is a percentage of the loan per one year that a borrower promises to pay the lender for the use of the loan (National Bank of Rwanda, 2015). Expected inflation and default risk premium are the common factors lenders consider when determining interest rates (Weber & Musshoff, 2013). Interest rates are higher in the individual lending system than in the group lending system because the default risk is higher in the individual lending system than in the group lending system (Tchuigoua, 2014).

Researchers also investigated the role of loan subsidy in determining the interest rate. A misconception exists among some development advocates that borrowers are poor and need subsidized loans. Ugbajah and Ugwumba (2013) argued that providing rural farmers with interest-free credit facilities reduced poverty and propelled the advancement of small-scale businesses. Sun and Im (2015), however, disproved the misconception that rural people were unable to pay market interest rates. In a study of rural financial markets in Bangladesh, Sivachithappa (2013) found that the demand for loans by small farmers remained relatively inelastic up to an interest rate of about 30%. The Sivachithappa finding contrasted the Guha and Chowdhury (2013) and the Ugbajah and Ugwumba findings that poor borrowers were sensitive to interest rates.

In a similar study in Rwanda, Mujawamariya, D’Haese, and Speelman (2013) found that the price of loans is a relatively insignificant factor in lending to poor people. Mujawamariya et al. found that convenient amenities and simple request and disbursement procedures were the main attractions for loans. Wanambisi and Bwisa (2013) corroborated the Mujawamaria et al. finding and added that the rapid growth in demand for MFI loans at full cost-covering interest rates confirmed that most poor people value sustained and reliable access to credits more than interest rate subsidies on scarce short-term loans.

Other researchers argued for subsidized loans as a measure to prevent MFIs from drifting from their original mission of establishment. Armendáriz et al. (2013) claimed that MFIs needed to provide subsidized loans to the poor to reduce the incidence of MFIs deviating from the objective of poverty alleviation. Armendáriz et al. contended that smart subsidies addressed the issues of transparency, rule-keeping, and most importantly, time limit. Amwayi et al. (2014) and Bourlès and Cozarenco (2014) however, argued against open-ended subsidies. International donors and NGOs supporting microfinance projects need to focus on subsidized start-up expenses, institutional capacity building, and product development while having a clear exit strategy within a particular time-frame (Amwayi et al., 2014; Bourlès & Cozarenco, 2014).

Some researchers argued for subsidized loans to remain within the microfinance mission, but other researchers claimed that subsidized loans were not the best method to control MFI mission drift. Magali (2013) insisted that subsidized loans encourage indiscipline among MFI institutions and borrowers. Some researchers found that market interest rates contributed to reduced loan default (Adams & Vogel, 2014; Kodongo & Kendi, 2013; Simmons & Tantisantiwong, 2014).

Magali (2013), Nawai and Shariff (2013), and Sivachithappa (2013) provided evidence that subsidized loans had a higher default rate than unsubsidized loans. Loan default occurred because most MFI leaders gave subsidized loans casually because the institution did not rely on reduced loan default to exist (Nawai & Shariff, 2013). Borrowers considered subsidized loans as gifts from some philanthropist through the MFI, and not a loan that they would have to repay (Magali, 2013; Sivachithappa, 2013).

Microfinance operations increased worldwide because interest rates charged were neither high enough to reduce demand for borrowing nor small enough to make loans seem like gifts (Guha & Chowdhury, 2013). Microfinance is a success for pro-marketers because lenders can maintain high loan volumes at interest rates high enough to cover costs (Tawney, 2014). Microfinance leaders need to charge interest rates that do not scare away borrowers, but also that gives the business a fair profit to help achieve both financial and social ends of the microfinance objectives (Kodongo & Kendi, 2013). When lenders apply varying interest rates innovatively, the interest rates facilitate the reduction of loan default and help the lenders to achieve both the business and the social objectives of the establishment of MFIs.

Loan Size

Loan size is one of the important factors that lenders use to reduce loan default in both the individual and the group lending systems. Loan size is the amount stated in the loan contract that the borrower agrees to pay back (Kjenstad, Su, & Zhang, 2015). Kodongo and Kendi (2013) investigated the role of loan size in loan repayment and found that loan size was inversely related to loan default. Kodongo and Kendi attributed this finding to the practice that MFIs typically extended smaller amounts to individual and younger borrowers, while group borrowers usually received bigger loans. Kiros (2014) corroborated Kodongo and Kendi findings that the larger the loan, the less likely the borrower would default. Loan default reduced among Nigerian farmers when the farmers received bigger loans on time (Ezihe, Oboh, & Hyande, 2014). The timeliness improved the effectiveness of the use of the credit to guarantee better proceeds that in turn enabled the farmers to have access to cash for loan repayment (Ezihe et al., 2014).

Simmons and Tantisantiwong (2014) provided technical explanations why bigger loans registered lower default rates than smaller loans. Simmons and Tantisantiwong observed that the loans evolved into increasing size to individual borrowers and that the size of individual loans tended to be larger than of group loans because an increase in loan size reduced the cost of the loan. Loan sizes are larger in individual loans because the method does not have peer pressure (Ojiako & Ogbukwa, 2012). In group lending, consideration of joint liability makes members avoid large loans that the group insurance would find difficult to cover in case of a member’s default if the member had a big loan to repay (Kumar, 2012). The freedom that individual borrowers have to receive any loan size without the peer pressure experienced in the group lending makes individual lending superior in loan sizes and subsequent repayment (Kumar, 2012).

Loan size is a significant determinant of loan repayment performance among farmer clients. In a study to identify loan repayment constraints in Ogun State, Nigeria, Ojiako, Idowu, and Ogbukwa (2014) found that increasing loan size enhanced loan repayment behavior. Larger loan sizes increased the borrower farmer’s access to essential inputs and improved farm management opportunities that led to higher productivity and higher income (Ojiako et al., 2014). Ezihe et al. (2014), in agreement, established that smaller loans facilitated default because farmers failed to realize higher yield to give them enough profit. Ezihe et al. recommended that lenders should avail credit of larger loans to enable borrowers to satisfy the basic farming practices. In agreement with this finding, Chisasa (2014) observed that implementing full agricultural practices such as the purchase of improved input, the hiring of labor, and the expansion of farm production gave better productivity results to enable loan repayment. Rajbanshi et al. (2015) also found that the tendency of giving small loans to farmers was responsible for the lack of progress in agriculture. The implication of these findings for the microfinance leader is to understand the nature of investment that borrowers will engage in to determine the appropriateness of the loan sizes that would facilitate loan repayment.

Education Levels

Education levels are a critical factor in the success of MFI enterprises. Some researchers focused on how education levels contributed to reduced loan default (Bauchet & Morduch, 2013; Dary & Haruna, 2013; Muhongayire, Hitayezu, Mbatia, & Mukoya-Wangia, 2013). The impact of education levels applies to both the lenders and the borrowers.

Bauchet and Morduch (2013) conducted a study in Jordan to assess how education, as a measure of productivity, reduced loan default. The researchers grouped each respondent into one of six categories: whether the member could read, had elementary schooling, completed preliminary education, finished high school, attended a 2-year, or a 4-year college. Bauchet and Morduch found that groups with higher education levels had more days of late repayment compared to those with lower education levels. The reason was that more educated groups tended to have more outside credit options than the less educated and that they did not care much if they lost one opportunity due to loan default (Bauchet & Morduch, 2013). In a similar finding, Rehman, Moazzam, and Ansari (2015) found that despite the findings, education has not helped to resolve social class differentiation because economic and social constraints that prevail in society reinforce gender inequality in the family, the labor market, and in the society. Siwale (2016) found a similar result among MFI workers in Zambia where MFI leaders preferred to hire staff members with a maximum of two or three years' college education because university graduates were too qualified for MFI work.

By contrast, some researchers found that education was necessary to determine credit access and repayment (Dary & Haruna, 2013; Muhongayire et al., 2013; Wongnaa & Awunyo-Vitor, 2013). Muhongayire et al. (2013) provided some evidence to demonstrate that some level of education was necessary to reduce loan default in the microfinance business. As members of a household got more educated, the family had more access to financing, used it in a productive venture, and paid back the loan (Muhongayire et al., 2013). Muhongayire et al. gave another scenario that in Kenya the majority of farmers could not obtain credit because they did not know how to access or manage credit because of lack of education. Muhongayire et al. showed that in China, Pakistan, Uganda, and Zanzibar, participation in credit markets increased with the level of education of the farmers.

In a study of yam farmers in the Sene district of Ghana, Wongnaa and Awunyo-Vitor (2013) found that education levels had a negative effect on loan default. The results of the study indicated that 42% of yam farmers in the Sene district were illiterate, and, coincidentally, 41% of the farmers were not able to repay their loans (Wongnaa & Awunyo-Vitor, 2013). Results from multiple regression analysis revealed that some level of education, among other factors, was the major contributor to reduced loan default (Wongnaa & Awunyo-Vitor, 2013). Based on the results of their study, Wongnaa and Awunyo-Vitor recommended that yam farmers in the Sene district obtain some literacy levels to have the capacity to manage their yam farming activities profitably to repay their loans.

Dary and Haruna (2013) investigated the role of education levels among MFI staff members to be able to introduce innovations to improve MFI operations. Innovations in MFI operations included processes and products that encouraged borrowers to repay their loans (Rehman et al., 2015). Dary and Haruna found a significant relationship between MFI innovations and educational profiles of the MFI staff members, among other innovation indicators. Adams and Vogel (2014) corroborated these findings adding that one finds more MFI innovations in an environment with more highly educated MFI staff members than in an atmosphere with less educated staff members.

A review of the literature regarding education levels provides more supporting evidence that higher education influences both loan repayment and MFI innovations. Implications for the MFI leaders are to consider hiring staff members with higher education levels and lending to individuals or groups that have tertiary education. In the case that high illiteracy levels characterize the BOP market, the MFI leaders could use the developmental objective of their institutions to facilitate adult literacy classes and basic business management training as their social responsibility to the communities they serve.

The focus of the literature review was to understand the Varian group lending conceptual framework and how the application of the rules of the three tenets of the framework reduces loan default. The reviewed supporting and contrasting concepts and the critical success factors in microfinance showed specific areas of similarity and contrast with the Varian group lending conceptual framework. A synthesis of the literature on the causes and types of loan default, the Varian group lending conceptual framework, the contrasting and the supporting concepts, and the critical success factors in microfinancing leads to a conclusion that MFI leaders need to have a diverse understanding of microfinancing to reduce loan default. The choice of the research question, the research design, the method, and the purpose of this study were to provide the required understanding for MFI leaders to develop such a diverse understanding of microfinancing to formulate appropriate strategies to improve loan repayment. Reducing the loan default in microfinancing ought to be the main preoccupation of MFI leaders because loan default is the leading cause of MFI failure globally.

Transition

Section 1 was an introduction to the identification of the research method and design of the study as a qualitative case study. The section also included the identification of the research population as the staff members of ADRA Rwanda and members of 12 CBGs and leaders of six MFIs who use strategies to reduce loan default in Muhanga district in Rwanda. The conceptual framework was the Varian group lending model. The purpose of this study was to explore strategies that some MFI leaders use to reduce loan default in the BOP market. The literature review comprised the types, the causes, and the sources of MFI loan default, the Varian group lending conceptual framework, the contrasting and the supporting MFI business concepts, and some of the critical success factors in the MFI business.

Section 2 includes a more detailed description of the research method and design, the sampling methods, the data collection techniques, and the organization. The section also includes the means of enhancing the reliability and the validity of the study. Section 3 includes an overview of the research and detailed findings and concludes with an application to business and professional practice.

Section 2: The Project

In this qualitative case study, the focus was to explore strategies that MFI leaders use to reduce loan default in the BOP market. This section includes detailed information regarding the research method and design, the population, and details about data collection procedures and data analysis methods. The section also includes a discussion of the means for enhancing the study's validity and reliability and approaches for maintaining confidentiality.

Purpose Statement

The purpose of this qualitative case study was to explore strategies that MFI leaders use to reduce loan default in the BOP market. I sought this information from three participant categories of the target population, all based in Muhanga district in Rwanda. The first target population was the leaders of six MFIs that gave loans to 12 CBGs that repaid their loans. The second target population was the 12 CBGs that repaid their loans. The third target population was the staff members of ADRA Rwanda. The NGO trained the borrower groups in business and loan management before obtaining the loans.

The findings of this study may contribute to business practice by providing strategies that MFI leaders may use to reduce loan-default rates, resulting in high profits. The results of this study may also contribute to a positive social change through the full MFI loan recovery that may help increase and improve MFI products and services. The improved MFI products and services may lead to more MFI clients accessing more loans to sustain successful businesses, resulting in more people finding jobs leading to improved quality of life for the BOP clients and their family members.

Role of the Researcher

Researchers use the qualitative method to achieve understanding, meaning, deconstruction, or critical awareness, as they become research instruments (Lincoln & Guba, 2009). I was the primary tool to collect, organize, and analyze data in this study. Collins and Cooper (2014) observed that the primary role of the researcher in qualitative studies involves the collection, organization, and analysis of data results. According to Rowley (2012), humans make qualitative methods flexible, responsive, and sensitive because their knowledge, sensitivity, and skills are critical to the quality of knowledge produced.

Researcher's Relationship with the Topic

I was a member of the ADRA Rwanda leadership team working to improve the economic status of disadvantaged populations in the areas where ADRA Rwanda implemented economic development projects in Rwanda. My involvement in working in the poverty alleviation programs in developing countries started in the year 2000 and gave me an opportunity to understand that financial aid or material handouts never eradicated poverty. I learned that the poor communities needed to become active planners and implementers of their development and economic prosperity to achieve better results in a development intervention. Involvement in projects planning required the inclusion of projects that provided opportunities to needy individuals or communities to develop entrepreneurial skills so the members of the community could generate income. My participation in poverty alleviation projects included helping to establish linkages between poor community groups and MFIs in some ADRA Rwanda operation areas.

Reduced loan default served both the financial objective of the MFIs and the poverty alleviation objective of governments, NGOs, and international development partners.

Being an inside researcher has several advantages. According to Unluer (2012), being aware of the participants' culture; being considered one of the community members where participants are selected, and a degree of intimacy, are the three benefits of being an insider. Being entrenched in a community's daily activities helps to minimize alteration of the flow of social interaction when collecting the research data (Unluer, 2012). Green (2014) and Jones, Glenna, and Weltzien (2014) observed that being an insider researcher provides an opportunity for easier access to the research participants. With a firm intimacy as an insider, the researcher determines and asserts the truth better than an outsider researcher would do (Unluer, 2012). My status as an insider may have resulted in a deeper understanding of the existing processes in the relations between MFIs and their clients and more profound insights into the operations of MFI clients in the BOP market.

Researcher's Role Related to Ethics

Researchers need to maintain ethical standards to preserve the objectives of the study (Akhavan, Ramezan, & Moghaddam, 2013; Harriss & Atkinson, 2013). I adhered to the protocols of the Belmont Report to maintain ethical standards throughout the research process. Adherence to the Belmont Report's ethical principles involves respect for persons, beneficence, and justice (Department of Health, 2014). The Belmont Report showed that researchers must protect humans and distinguish between research and practice using the three basic ethical principles (Department of Health, 2014). In this study, protection of research participants involved adherence to the three basic ethics of research that included (a) respect for persons, (b) beneficence, and (c) justice. Adherence to these principles of research involved preparing an information pack. The pack included specific aims of the study, an explanation of why the potential participant was requested to participate in the study, potential benefits of the study, a disclosure that participation was voluntary and did not include monetary payment, and other detailed information.

Bias Mitigation

The data collection process included the use of methodological triangulation to mitigate personal bias. Methodological triangulation is the use of different sources to obtain and confirm the validity of data (Bekhet & Zauszniewski, 2012; Fusch & Ness, 2015). Interaction and collaboration with participants occurred through semistructured face-to-face interviews, focus groups, and collection of secondary data on loan repayment from company and community documents. Researchers construct a model for comparison and pairing of the data obtained from different methods to establish validity (Wilson, 2014). I built a model for an exploratory case study and established the methodological triangulation of data by pairing data from documents with the primary data from semistructured interviews and focus groups.

A researcher engages epoché to bracket judgments about the study phenomenon (Moustakas, 1994). According to Moustakas (1994), achieving epoché requires a plan to avoid predeterminations and rely solely on the study data provided. Epoché is the bracketing of the lived experiences of the researcher by suspending assumptions and concentrating on the actual phenomenon in the study (Clancy, 2013; Sorsa, Kiikkala, &

Åstedt-Kurki, 2015). I engaged epoché to refrain from using my knowledge and experience about MFI loan default and concentrated on the experiences of the participants.

Bias mitigation also involved member checking. The member checking process helps the researcher align his or her interpretations and observations with the experiences of the participants (Houghton, Casey, Shaw, & Murphy, 2013). With member checking, a researcher uses participants’ reviews to confirm the meaning the researcher ascribed to the interview responses of the participants (Harper & Cole, 2012). Quality research data relies on the interest of a researcher to minimize prejudice and validate the correct interpretation of the phenomenon (Unluer, 2012). During member checking, participants adjust any interpretation of the researcher the participants may deem incorrect (Isaacs, 2014), and add any new information related to the interview questions (Wang, Li, Pang, Liang, & Su, 2016). The process of member checking involved allowing the participants to make corrections in line with the original content, and the participants were also free to add any other information they remembered to enrich their earlier responses.

Rationale for Face-to-Face Interviews and Focus Group Protocols

For data collection, I used an interview protocol as the basis for semistructured face-to-face interviews (see Appendix A) and a focus group protocol as the basis for semistructured focus groups (see Appendix B). Qualitative researchers use interview and focus group protocols to achieve cohesion and to enhance consistency and reliability (Darawsheh, 2014; Foley & O’Connor, 2013; Gould et al., 2015). An interview and focus group protocol includes (a) a list of interview questions, (b) a script of what the researcher will say before the interview and at the conclusion of the interview, and (c) prompts the researcher will use to obtain informed consent (Jacob & Furgerson, 2012).

Rationale for Semistructured Interviews

I used semistructured interviews to collect data through face-to-face interviews and focus groups. Semistructured interviews are the most effective strategy for the researcher to gain a thorough understanding of an individual's experience and adequately address the research question (Cridland, Jones, Caputi, & Magee, 2015; Ennis & Chen, 2012). In semistructured interviews, researchers ask the same questions to all participants without necessarily following the same order or using the same wording in each interview (Mezger, 2014). The interview strategy involved a careful plan of asking questions while changing the topic and sequence of questions depending on the particular role of the participant and his or her access to information.

Participants

Eligibility Criteria

In this study, I used three criteria for eligibility. The primary eligibility criteria was leaders of MFIs who used strategies to reduce loan default in the BOP market. The second eligibility criterion was members of MFI borrower groups who repaid their loans. The third eligibility criterion was staff members of an economic empowerment project in ADRA Rwanda, an NGO whose staff members trained the borrower groups in business management to facilitate loan acquisition and reduce loan default in Muhanga district in Rwanda.

Qualitative researchers select study participants according to the experiences they have regarding the phenomenon under study (Moustakas, 1994). Gößwald, Lange, Kamtsiuris, and Kurth (2012) and Von Elm et al. (2014) observed that study participants should be those affected by the phenomenon and accessible for a follow-up to provide a representative sample of each new wave of data collection. I used purposeful sampling to ensure that participants satisfied the stated eligibility criteria.

Gaining Access

Having methodological insights to aid in gaining access to the eligible population to collect data helps the researcher avoid ethical problems and potential bias (Green, 2014). Vasileiou, Hartley, and Rowley (2012) observed that the researcher obtains sound data when participants agree to participate in a study without any outside pressure. Jones et al. (2014) noted that the researcher improves the trustworthiness of the data gathered if the process of gaining access to the eligible study population is less stressful to both the researcher and the eligible study population. In this study, I gained access to all three population categories by visiting them in person to explain the study and request their participation. I asked for a signed consent from every participant and written authorization letters from the MFIs and ADRA Rwanda.

Working Relationship

A good working relationship between a researcher and the participants is vital for the collection of reliable data. Elmesky (2005) submitted that a researcher can establish a good working relationship with participants by maintaining dignity, respect, and compassion. Winter (2017) highlighted that obtaining free and informed consent from the participants throughout the research process promotes ethical studies. Larson (2013) argued that researchers need to spend time in the participants' communities to familiarize themselves with the lifestyles of the research participants and allow the participants to know and get used to the researchers. Case study researchers need to gain the necessary trust so that the participants can experience a sense of security and dignity when interacting with the researchers (Erickson, 2012; Slade & Prinsloo, 2013).

The process of gaining the trust of participants included providing information that answers to the interview questions would be study-related and that the participants' identities would remain confidential. Some level of trust between the participants and me already existed because of my interaction with them in my regular professional work. Additional confidentiality measures involved keeping the data on a password-protected flash drive and destroying the flash drive and any research-related documents 5 years after my graduation. Use of the interview and focus group protocols enhanced my consistency in being respectful and truthful to the participants, and improved my working relationship with the participants.

Research Method and Design

Qualitative, quantitative, and mixed methods are the main research methods (Venkatesh, Brown, & Bala, 2013). Four designs of the qualitative method are phenomenology, ethnography, narrative, and case study (Marshall, Cardon, Poddar, & Fontenot, 2013). The main types of a qualitative case study designs are descriptive, explanatory, and exploratory (Yin, 2014).

Researchers choose the method and design for conducting a study based on an analysis of the strengths and weaknesses of each method and design in answering the research question (Palinkas et al., 2015; Yilmaz, 2013). An analysis of the research methods and designs led to the selection of the qualitative method and the explorative single case study design. A detailed explanation of why the qualitative research method and the exploratory case design were best suited to achieve the purpose of this study follows.

Research Method

This study focused on exploring strategies that MFI leaders use to reduce loan default in the BOP market. The qualitative research method was the most suitable method for this study because of the flexibility in allowing using in-depth open-ended questions to capture the depth and breadth of the participants' experiences. The qualitative research method allows researchers to conduct exploratory investigations to gain an understanding of underlying reasons, opinions, and motivations of research participants (Kaczynski, Salmona, & Smith, 2014).

Qualitative researchers gather complex non-numerical data and try to make a deep analysis of phenomena to uncover trends in thoughts and opinions and to understand the problem (Gioia, Corley, & Hamilton, 2013; Gorard, 2015). The qualitative method helps researchers to get insights into a problem because the method allows participants to express their feelings, thoughts, and actions (Humphrey, 2014). The qualitative method was most suited for this study because the method allowed for the use of in-depth, open-ended questions and probes to understand the experiences of the participants during the different events leading to some MFI leaders using strategies to reduce loan default in the BOP market.

A quantitative method was not suitable because the method could not best answer the research question of this study. The quantitative research method involves measuring the problem through a generation of numerical data (Yilmaz, 2013). Choy (2014) observed that in quantitative research, researchers formulate facts using structured data collection methods such as experiments, surveys, structured interviews, online polls, and systematic observations. According to Mataix-Cols et al. (2014), researchers using a quantitative method quantify attitudes, opinions, behaviors, and other defined variables to test hypotheses and generalize the results from a larger sample population (Bölte, 2014; Chung et al., 2014). Analysis of this type of data involves statistical analysis of scores collected through questionnaires or checklists to answer the research question or to test hypotheses (Bölte, 2014). The quantitative method was not appropriate for this study because I did not require any hypotheses or statistical data to test to answer the research question.

The mixed methods research was also not suitable for this study. Mixed methods research is a methodology that involves collecting, analyzing and integrating both the quantitative and the qualitative research methods (Morse & Cheek, 2014; Zohrabi, 2013). Researchers use the mixed methods research when the integration provides a better understanding of the research problem than either method alone (Morse & Cheek, 2014). By mixing both quantitative and qualitative research methods, the researcher counteracts the weaknesses inherent in using either method by itself (van den Heede et al., 2013;

Zohrabi, 2013). To achieve maximum benefits of the mixed methods, a researcher needs to possess extensive research experience to use the two methods appropriately (Morse & Cheek, 2014). Further, the mixed methods researcher requires additional time for data collection and data processing (Venkatesh et al., 2013). The mixed methods was not appropriate for this study because the time frame required would not fit in the planned timeframe to complete this study. Also, I could not use this method because the quantitative method that forms part of the mixed methods was not suitable to answer the research question for this study.

Research Design

A research design is a strategy to explore research questions, to draw conclusions for an investigation, and to prepare an account or report (Ioannidis et al., 2014). Phenomenology, ethnography, narrative, and case study are the primary research designs of the qualitative method (Marshall et al., 2013). The case study design best suited this study because the design enabled me to respond to the research question most appropriately.

Phenomenological research design. Phenomenology research design was not suitable for this study. This design focuses on finding the truth in the lived experiences of participants (Kafle, 2013). Moustakas (1994) described phenomenology as a research design where the researcher is interested in the individual experiences of people involved in the phenomenon. Phenomenology involves lengthy, in-depth interviews with participants, and sometimes researchers need to interview the participants several times to understand the participants’ experience with the phenomenon (Stienstra, 2015).

Phenomenology suits the holistic questions of meaning springing from the experience of research participants (Küpers, Mantere, & Statler, 2013).

Phenomenological study design could facilitate the development of an understanding of the experiences of the participants in the reduced loan default phenomenon because the design offers a rich and detailed view of the human experience emerging from the data. The design was, however, not suitable for this study because it would require a significant number of participants to achieve data saturation and would typically be limited to interview data. The scope of this study required an analysis of the documents containing the loan-related data from the three participant sources and not just the different reflections of participants who facilitated some MFI leaders to use strategies that reduced loan default in the BOP market.

Ethnographic research design. An ethnography design was not suitable for this qualitative study. An ethnography design focuses on exploring and examining the cultures and social norms valuable to the experience of research participants (Cruz & Higginbottom, 2013). In ethnography, the researcher is an interested observer who collects data and gains insight through first-hand involvement with research subjects (Blomberg & Karasti, 2013). Ethnographers believe that studying research participants in action is the only plausible way to understand social and cultural phenomena (Toye et al., 2013). Ethnographers focus on working with a group within a cultural setting collecting data through observations and interviews (Tummons, Fournier, Kits, & MacLeod, 2016). An ethnography design can be particularly useful in exploring human behavior in specific contexts of groups but was not suitable for this study because time, logistics, and scope of this study did not make observational design practical.

Narrative research design. A narrative research design was inappropriate for this study. Researchers use the narrative research design to explain the experiences of an individual or a single event (Berger, 2015). Narrative researchers aim to understand an individual's history or experience to account for the impact of the individual's present or future experiences (Dowling, Garrett, Lisahunter, & Wrench, 2015). Dowling et al. (2015) observed that a narrative researcher uses a theoretical lens to focus on a single event or episode that affects a participant's life to guide the choice of ideology for advocating for groups or individuals in a written report. Researchers collect data using semistructured face-to-face interviews, informal observations, conversations, journals, letters, or memory boxes (Milat, Bauman, & Redman, 2015). A narrative research design could be useful in this study for collecting data using semistructured interviews and using other data sources. Also, the design would have been relevant for using a theoretical lens to focus on a phenomenon. The design was, however, not suitable because a narrative researcher aims to understand an experience of an individual or a single event. The scope of this study was to understand experiences of different people and how those different experiences facilitated some MFI leaders to use strategies to reduce loan default in the BOP market.

Case study design. A case study design was most suited for this study. According to Yin (2014), qualitative researchers use the case study design when four conditions exist. The first condition is whether the focus of the study is to answer how, why, or what questions (Yin, 2014). The second condition is whether the researcher cannot manipulate the behavior of those involved in the study (Yin, 2014). Third, if the focus of the study is to cover background conditions of a phenomenon if the researcher believes they are relevant to the phenomenon under study (Yin, 2014). Fourth, when the boundaries between the phenomenon and the context are not clear (Yin, 2014). The focus of a case study researcher is to understand the complex relationship between phenomena, context, and people using in-depth questions, semistructured interviews, observations, and document analysis (Brodie, Ilic, Juric, & Hollebeek, 2013; Wohlin & Aurum, 2015; Yin, 2014). In this case study, I used semistructured face-to-face interviews, focus groups, and document analysis.

The case study design allows the researcher to explore, investigate, and describe a phenomenon within a particular contemporary context (Tsang, 2013; Yin, 2014). I used the case study design to gain an understanding of how some MFI leaders used strategies to reduce loan default in the BOP market where clients live in poor economic conditions. The analysis involved understanding the contributions and experiences of participants from three different categories that partnered to make some MFI leaders use strategies to reduce loan default in the BOP market.

Three types of case studies exist. The types include descriptive, explanatory, and exploratory case studies (Yin, 2014). An exploratory case study was the most suitable design to answer the research question of this study.

A descriptive case study design was not appropriate for this study. This case study design is focused and detailed (Yin, 2014). Tobin and Tippett (2014) observed that the descriptive design focuses on scrutinizing and articulating the phenomenon propositions and questions at the outset based on a descriptive theory. According to Yin (2014), descriptive researchers aim to describe an intervention or a phenomenon and the real-life context in which it occurred. In descriptive research, the primary data collection method is observation and taking detailed notes about the behavior of specific target individuals or groups without influencing their behavior (Sharma, Lau, Doherty, & Harbutt, 2015).

The descriptive case study design would be valuable to this research because it involves a detailed description of the experiences of participants. Descriptive case design researchers, however, obtain the bulk of study data from observations that did not fit into the design of this study. Observations require a longer timeframe that could not fit in the timeframe of this study. Face-to-face semistructured interview questions were best suited to answer the research question in this study.

An explanatory case study design was also not suitable for this study. Explanatory case design researchers seek to explain the presumed causal links of complex real-life interventions (Yin, 2013). An explanatory case design researcher looks at how things came together and interacted (Villarreal & Calvo, 2015). According to Yin (2013), an explanatory case design researcher embarks on a study when there is enough understanding to explain with accuracy the correct sequence of events and aims to develop a theory, document, and interpret a set of outcomes and try to explain how those outcomes happened. Purgato, Barbui, Stroup, and Adams (2015) emphasized that explanatory case design research never actually ends because new ideas, techniques, and information are always increasing, and the researcher can even split the study into exploratory case design with a new, or a unique finding.

An explanatory case study design would have been useful to this study in investigating causality and linking an event to its effects. Explanatory case study design, however, includes theory development that I did not intend to do. According to Yin (2013), explanatory case study design researchers embark on research projects when they know enough about the phenomena to explain the sequence of events. In this study, few people knew about the sequence of events that led to some MFI leaders using strategies to reduce loan default in the BOP market. The scope of this study was to understand and explain experiences of different participants and the roles they played to have some MFI leaders use strategies to reduce loan default in the BOP market.

An exploratory case study design focuses on investigating distinct phenomena characterized by a lack of detailed preliminary research (Garousi et al., 2015). Exploratory case study design enables a researcher to develop an inquiry and create processes for holistic exploration in environments where researchers have little control over events (Wang, Zhu, Zheng, & Mayson, 2014). Researchers of exploratory case study designs have a high degree of flexibility and independence concerning data collection (Tuurnas, 2015). The exploratory case study design was the most suited for this study because the design is flexible to provide an in-depth investigation concerning how research participants created the reduced loan default phenomenon in an environment with perpetual loan defaulters.

Exploratory case study designs can either be single or multiple designs (Yin, 2013). The single exploratory case study design was the most suitable for this study. A multiple exploratory case design is advantageous if the researcher believes the evidence from multiple cases is more enlightening than evidence from a single case study (Yin, 2014). De Massis and Kotlar (2014), Evangelista (2014), and Yin (2014), however, cautioned that conducting a multiple exploratory case study design may require more resources and time because the design focuses on following a replication logic that involves conducting multiple surveys. The multiple exploratory case design was not appropriate for this study because the design needs more resources and time to follow a replication logic that leads to conducting various investigations that were beyond the scope of this study.

Researchers use a single exploratory case approach when the research question requires documenting the precise nature of phenomena and when the aim is to grasp the conditions of the context (Yin, 2014). A qualitative case researcher uses the single exploratory case approach when the research question requires more depth into a single case than a few cases (De Massis & Kotlar, 2014; Eckstein, 2009). I used a single exploratory case study design to gain a thorough understanding of the reduced loan default phenomenon in the BOP market. A single exploratory case study approach is either holistic or embedded. An embedded single case study was the most suited for his study.

I used an embedded single exploratory case study design because the study involved six MFIs and 12 borrower-community groups that operated at different locations within the same BOP market. An embedded single exploratory case study design allows a researcher to include subunits of the study to aid in focusing on the initial research question (Cronin, 2014; Yin, 2014). An embedded single case study focuses on conducting a within-case analysis, a between-case analysis, or a cross-case analysis to illuminate the case (Ke, 2014). The objective of this study was to explore strategies that MFI leaders use to reduce loan default in the BOP market. The embedded single case design allowed me to examine data within, between, or across all of the subunits to understand and explain the reduced loan default phenomenon in the BOP market.

A holistic single case exploratory study design was not suitable for this study. This design occurs when the researcher's analysis includes outcomes from individual projects within the case (Yazan, 2015; Yin, 2014). A holistic approach is advantageous when the researcher cannot identify any logical subunit and when the theoretical framework is of a comprehensive nature (Yin, 2014). Neuhofer, Buhalis, and Ladkin (2015) highlighted the challenge with the holistic single case study that if the entire character of the case shifted during an investigation, the researcher would have to address new, different questions, away from the initial orientation and issues. I did not use a single holistic exploratory case design because the design focuses on the role of more than one project in the creation of a phenomenon. The focus of this study was on one project with many subunits.

Data Saturation

Data saturation occurs when additional research participants do not bring new information (Marshall et al., 2013). According to Miles and Huberman (1994), approximating suitable sample size relates directly with data saturation. While Guest, Bunce, and Johnson (2006) observed that a researcher may attain data saturation with six interviews, Fusch and Ness (2015) argued that rich and thick data are more important than the number of interviews. I selected an initial pool of three MFIs, three MFI leaders, three borrower-group members, and three borrower groups for data collection through document analysis, interviews, and focus group discussions. Redundant data and lack of new information may signify attainment of data saturation (Marshall et al., 2013). I achieved data saturation with the initially planned sample size. Transcription and coding of captured data using the NVivo 11 Pro computer software revealed data codes and themes that I kept adding until when the data became redundant, indicating attainment of data saturation.

Population and Sampling

Population and sampling are essential components of any research. Marshall et al. (2013) and Robinson (2014) observed that most researchers agree on the criteria for a study population but differ on the criteria for sample sizes. Marshall et al. suggested that adequate sample size in qualitative research should directly relate to the concept of data saturation. Palinkas et al. (2015) contended that sampling is a major component of the qualitative investigation despite methodologists and journal authors not giving the component a deserving centrality. Robinson recommended using a four-point framework to guide researchers in theoretical and practical sampling. The four-point framework includes defining the study population, deciding on a sample size, devising a sampling strategy, and sourcing the sample (Robinson, 2014). This qualitative case study involved the application of the four-point framework to choose the population and the sample size.

Study Population

The study population is the number of people from which researchers may legitimately choose participants for a study (Robinson, 2014). Defining a study population involves specifying a set of inclusion and exclusion criteria (Brinjikji, Murad, Lanzino, Cloft, & Kallmes, 2013). The requirements of the inclusion criteria include specifying attributes participants need to possess to participate in the study (Robinson, 2014; Stern, Jordan, & McArthur, 2014). The exclusion criteria are the absence of the attributes defined for inclusion in study that disqualifies a case from participating in a study (Robinson, 2014; Stern et al., 2014).

This qualitative case study involved three categories of participants who contributed towards strategies that some MFI leaders used to achieve the reduced loan default in the BOP market. The participants were three MFI leaders, three members of different borrower groups, three focus groups of between six and eight borrower group members, and three staff members of ADRA Rwanda. The criterion for choosing the participants was that they played a role when some MFI leaders used strategies to reduce loan default in the BOP market.

MFIs. The government of Rwanda established at least one MFI in each of the country’s 416 administrative sectors through a national savings mobilization strategy (Alliance for Financial Inclusion, 2014). With the establishment of these 416 MFIs, 90% of Rwandans lived within five kilometers of an MFI (Alliance for Financial Inclusion, 2014). As 85% of Rwandans live in rural areas, 87% of the 416 MFIs were in the countryside (National Bank of Rwanda, 2014). The Alliance for Financial Inclusion

(2014) showed that one of the primary keys to the national savings mobilization strategy was for the government to support the MFIs with subsidies until the MFIs broke even. By December 2013, 355 MFIs broke even, and they became independent of the government subsidy (National Bank of Rwanda, 2014).

Within a short period, the viability of some of the government-subsidy independent MFIs started to deteriorate because of loan default. According to the National Bank of Rwanda (2014), in 2013, the overall MFI loan default rate was 7%, 40% higher than the maximum default rate margin needed to sustain MFI operations. In the year 2015, six MFIs in Muhanga district partnered with ADRA Rwanda for the NGO to recommend some CBGs for loans (ADRA Rwanda, 2017a). The ADRA Rwanda staff members recommended 12 CBGs for loans, two for each MFI (ADRA Rwanda, 2016). Within a year, each of the 12 CBGs paid their loans to the MFIs in full. Three of the six MFI leaders that were involved in the partnership with ADRA Rwanda participated in this current case study.

The NGO. ADRA is an international NGO that started operating in Rwanda in 1978 (ADRA Rwanda, 2017a). The mission of ADRA Rwanda is to implement rural development and relief projects with funds from different donors within and outside the country. Between the years 1990 and 2010, ADRA Rwanda received funding from various donors to implement seven revolving microfinance projects among the BOP beneficiaries (ADRA Rwanda, 2017b). All the projects failed to become sustainable because the loan default was so high that there were not enough funds to continue revolving to new loan applicants (ADRA Rwanda, 2016). In 2013, ADRA Rwanda secured new funding from the government of Denmark for a development project that would include microfinancing (ADRA Rwanda, 2016). With microfinancing lessons learned from previous similar projects, ADRA Rwanda planned to implement the new project through a partnership with the MFIs so the latter could handle the microfinancing component of the project.

During the implementation period of the project, ADRA Rwanda staff members concentrated on implementing other project activities. The ADRA Rwanda activities included choosing the CBGs to participate in business and loan management training, and recommending successful CBGs in training for MFI loans. All 12 CBGs that the ADRA Rwanda staff members recommended for MFI loans repaid the loans in full. Six ADRA Rwanda staff members participated in the project, and three of them participated in this current case study.

Borrower CBGs. Community members in Rwanda belong to various groups in their communities. The members join the groups voluntarily to fulfill a communal or individual desire to serve the community. Some of such community groups are religious, community health, education, business, or political groups. The government of Rwanda uses CBGs as an entry point for establishing and strengthening cooperatives for an economic development objective. For that reason, the government established the Rwanda Cooperative Agency to facilitate the promotion and registration of cooperatives in the country (Republic of Rwanda, 2008). The majority of the groups that became cooperatives started as CBGs, and they became cooperatives after satisfying the legal requirements as outlined in the law.

When the CBGs are registered, they attain legal personalities that qualify them, among other privileges, to apply for bank or MFI loans. Despite the boost of becoming cooperatives, few groups have approached the MFIs and obtained loans from them, and even fewer have managed to pay back their loans. The three community-based group leaders and the three community-based group members that participated in this case study belonged to cooperatives that took MFI loans for the first time, and they repaid their loans in full.

Sample Size

The sample of a study is the subjects included in the study, and a sample size is the number of subjects a researcher can include in a study to arrive at conclusions representative of the population (Palinkas et al., 2015). In qualitative research, theoretical and practical considerations influence the choice of the sample size (Liu, White, & Newell, 2013). Researchers determine the sample size at the research design stage to assist in determining the duration and resources needed to complete the study (Robinson, 2014). Robinson recommended that the provisional sample size should be a range with a minimum and a maximum to encourage flexibility. Patton (2002) emphasized that the qualitative researcher needs to justify the choice of the minimum and the maximum sample size range and that sample size adequacy is subject to peer review, consensual validation, and judgment.

Miles and Huberman (1994) observed that estimating acceptable sample size links directly with the idea of data saturation. Data saturation occurs when bringing new participants into the study does not bring new data (Marshall et al., 2013). Researchers do not have the same minimum sample measure for attaining data saturation. Guest et al. (2006) suggested that the researcher may attain data saturation with six interviews. Marshall et al. (2013) contended that a researcher could achieve data saturation with two interviews only depending on the size of the population. Fusch and Ness (2015) introduced the concept of rich and thick data as a more important concept than the concept of sample size. Fusch and Ness explained that rich data refers to many-layered, complex, and comprehensive data, while thick data is the wealth of data.

In this qualitative case study, the administration of semistructured interviews involved three categories of research participants. These interviews included the ADRA Rwanda staff members, leaders of MFIs, and members of the borrower community-based groups. The minimum sample size for the semistructured interviews was three MFI leaders; three members of borrower community-based groups; and three ADRA Rwanda staff members. Three was also the sample size for the focus groups with the borrower community-based groups. The data collection process involved focusing on achieving both data saturation and collecting rich and thick data. In all categories, the data collection process stopped when no new information emerged with additional interviews.

After defining the population and the sample size, the researcher selects participants to form the required minimum sample from the population (Robinson, 2014). Random sampling, convenience sampling, and purposive sampling are some of the strategic options for selecting participants from a population (Robinson, 2014). In random sampling, the researcher chooses participants from a list of all potential participants within the population using an arbitrary selection method (Bachmann, Helluy, Jung, Mathis, & Müller, 2013). Researchers usually use the random sampling procedure in opinion polls and social research surveys by use of random number tables or computer-assisted programs to collect numbers from a phone book or of addresses from the electoral roll (Robinson, 2014).

Random sampling was not suitable for this study because the research question was about strategies that MFI leaders use to reduce loan default. Specific individuals played different roles to create the phenomenon within the BOP market. Random sampling method involves choosing samples arbitrarily. Use of random sampling in this study might have excluded some participants with critical information for this study although the method might have been useful for choosing participants from a group that met the criteria.

Convenience sampling involves selecting a sample from potential participants suitable in their closeness to the phenomenon and readiness to participate in a study (Bachmann et al., 2013). The researcher locates all available potential participants within the population and interviews those who respond on a first-come-first-served basis until achieving data saturation (Bachmann et al., 2013). Convenience sampling would have been useful for this study for identifying participants who might have more to share about the phenomenon than others because of their closeness to the phenomenon. The method was, however, not suitable because it involved conducting interviews on a first-come-first-served basis. The first-come-first-served basis might not have served this study well because some participants who might have come forward to participate in the study might not necessarily have had the best in-depth information.

Purposive sampling is a targeted sampling method used to ensure that the researcher includes all distinct participants with unique perspectives on the phenomenon in the sample (Robinson, 2014). Anku-Tsede, (2014) observed that researchers use purposive sampling to present facts or conditions about the nature of a group of persons or objects and may include the procedure of induction, analysis, classification, or enumeration. Frels and Onwuegbuzie (2013) highlighted that researchers use purposive sampling when there is a small number of individuals and locations to collect data. Purposive sampling was suitable for this study because the strategy allows for the use of in-depth interviews with specially-chosen participants with unique perspectives on the processes that led to the reduced loan default phenomenon.

Establishing a proper setting for conducting interviews is important because an interview setting determines the richness of the data the researcher can obtain from a research participant (Hazzan & Nutov, 2014; Mellor, Ingram, Abrahams, & Beedell, 2014; Noble & Smith, 2015). According to Mellor et al. (2014), researchers need to create unintimidating atmospheres such as interviewing at neutral venues instead of the researcher’s office where the research participant may feel uncomfortable if there is a social class difference between the researcher and the research participant. Hazzan and Nutov (2014) highlighted that a researcher could reduce an intimidating atmosphere for the research participants by arranging a sitting plan that is not intimidating such as not sitting in an executive chair while the participant sits on a stool. The researcher must not create a boundary with the participants using room furniture (Hazzan & Nutov, 2014). Noble and Smith (2015) contributed that the researcher can obtain quality data if the research participant is comfortable with the venue of the interview and has enough time to spend with the researcher. Interview setting in this qualitative study included creating a friendly atmosphere with the research participants by allowing them to choose the place and time to conduct the interview. By giving the research participants the opportunity to choose time and location, there was a high likelihood they chose the time they were most free, and the place they felt mostly comfortable.

Ethical Research

Data collection commenced after receiving approval from the Walden University Institutional Review Board (IRB) to conduct the research. The IRB approval number for this study is 02-23-17-0269638. The approval signified that the research proposal met the minimum requirements for proper protection guidelines of the research participants. The certificate issued by the National Institute of Health (see Appendix C) certified that I was trained to conduct ethical research involving human participants. Adherence to ethical principles requires observance of the protocols of the Belmont Report that include respect for persons, beneficence, and justice throughout the study (Department of Health, 2014; General Assembly of the World Medical Association, 2014; Vayena & Tasioulas, 2013). The IRB approval was an indication that the study was ethical.

Recruitment of research participants happened after obtaining the IRB approval. Killawi et al. (2014), Robinson (2014), and Salman et al. (2014 observed that when recruiting research participants, the researcher informs all potential interviewees of the aims of the study, what participation entails, and of the voluntary nature of participation. Participants were free to withdraw from the study at any time by communicating that desire to me by any means. The researcher provides all the information to help participants reach an informed and consensual decision to participate in the study (Robinson, 2014). The information included a description of participants' rights to terminate their participation at any time before or during the scheduled interviews by informing me or the University liaison. The information also included an explanation that there would be no adverse effects if they declined to participate. None withdrew from the study.

The participant recruitment process involved identifying all potential participants, visiting them, and inviting them to participate in the study. I provided the prospective participants with information about the aims of the study, the role they would play as participants, and that they could choose to participate or not to participate. Information about the invitation to participate was in the invitation email that I sent to each prospective participant to read and have a clear understanding of the study and the expected role of the research participant (see Appendix D). Understanding of the study and willingness to participate in the research involved the research participants responding to the email indicating that they consented. The participant recruitment process also included informing all participants of the confidentiality commitment which included the signing of the confidentiality agreement (see Appendix E). Recruitment of participants from the MFIs and the NGO commenced after obtaining a written site agreement from the leadership of the organizations authorizing the recruitment of the study participants from their organizations.

The researcher maintains the confidentiality of the participants throughout all the processes of the study including during data collection, data transcription, data analysis and data interpretation (Arias & Karlawish, 2014; Morgentaler, 2013). Ngo, Bigelow, and Lee (2014) argued that ethical considerations may cause serious challenges if a researcher is unwilling to adjust interpretations if a participant objects to any meanings used to characterize the research participant in the research documents. Ngo et al. clarified that issues of confidentiality could become compromised if, for example, the researcher's descriptions were so vivid and detailed that others would recognize the participant the researcher described. The data analysis process included the use of member checking to ensure adherence to the ethical requirements of the study. Member checking involves a researcher's use of participants' reviews to confirm the meaning the researcher ascribed to the interview responses of the participants (Harper & Cole, 2012). The process also included continued use of assigned unique codes to represent the participants throughout the study so that only I know the real identities of the research participants. Stuckey (2015) emphasized that coding helps the researcher to create a system to organize data that the researcher alone recognizes.

The Declaration of Helsinki on research on human participants requires adherence to six ethical values of f*undamental principles, ethical review, research protocol, free to consent, conduct,* and *governance* (General Assembly of the World Medical Association, 2014; Harriss & Atkinson, 2013). The *fundamental principles* value requires researchers to respect the rights and welfare of the participants and to ensure that the participants take precedence over other interests (Harriss & Atkinson, 2013; Kaye et al., 2015). Adherence to the value of the *fundamental principles* of the Declaration of Helsinki involved providing all the information about the study and signing a confidentiality agreement.

The *ethical review* value of the Declaration of Helsinki requires researchers to ensure that an appropriate ethics committee reviews and approves the proposed study before embarking on any research and making any amendments to the research document (Harriss & Atkinson, 2013; Kaye et al., 2015; Salman et al., 2014). Adherence to this value involved applying for approval to conduct the study to the Walden University IRB.

The value of *research protocol* of the Helsinki Declaration entails that researchers outline any details of incentives or compensation for the participants (General Assembly of the World Medical Association, 2014; Harriss & Atkinson, 2013). Denny, Silaigwana, Wassenaar, Bull, and Parker (2015) advised that if researchers plan to give compensation, they must inform participants of the amounts, methods, and timing of the compensation within the consent forms for the participants to consider the information when deciding whether to participate. In this study, participants did not receive any compensation, and this information was included in the invitation letter to participate.

The *free to consent* value of the Helsinki Declaration requires that each participant provide informed consent freely, preferably in writing, unless obtaining a written consent is neither possible nor appropriate (Harriss & Atkinson, 2013; Kaye et al., 2015). McKinney et al. (2015) observed that if a participant cannot provide written consent, the participant should provide oral consent. In this study, adherence to the free to consent value involved asking each potential participant to sign a consent form indicating their free acceptance to participate in the study.

The *conduct* value of the Helsinki Declaration requires researchers to research while adhering to appropriate risk management practices (Bowser, Wiggins, Shanley, Preece, & Henderson, 2014; Harriss & Atkinson, 2013). The *conduct* value of the Helsinki Declaration requires researchers to protect the privacy and confidentiality of the participants and respect the laws of the country or countries where they are conducting the research (Afolabi et al., 2014). In this study, adherence to the conduct value involved protecting the privacy and confidentiality of the participants by signing the confidentiality agreement.

The *governance* value of the Helsinki Declaration requires the researcher to report any serious adverse events that may occur during the study to the ethics committee that reviewed and approved the research (Harriss & Atkinson, 2013; Kaye et al., 2015). Morimoto et al. (2015) argued that the researcher needs to report any unexpected or adverse consequences of the research to allow the ethics committee make a new evaluation of the ethics adherence of the study. Adherence to the governance requirement involved readiness to inform the IRB of any changes in the focus of the data collection tools, or of any adverse effects that might have resulted from the study.

Researchers need to have an information pack with a list of the information required to impart to the research participants and a list of the tools needed to conduct an ethical research (Marrin et al., 2014; Maubach, Hoek, & Mather, 2014; McIlfatrick et al., 2014). In this study, adherence to the ethical requirements involved preparing an information pack. The pack included (a) specific aims of the study, (b) an explanation why the research requested the potential participant to participate in the study, (c) potential benefits of the study, and (d) disclosure that participation was voluntary without any monetary payment.

Further information contained in the pack showed that data collection included taking notes and audio recording. The information included an assurance that these written and recorded materials were for the study only, and that I am the only person with access to the materials. The information pack also had information that confidentiality involved keeping materials of the study in a password-protected hard disk and destroying the documents 5 years after completion of the study.

The information pack also include a consent form for the participant to sign, signifying that they read, understood, and agreed to participate in the study. The information pack showed an outline for the option to opt out of participation anytime, even after giving the consent. With an IRB approval from Walden University and the signed consent forms from potential participants, the data collection process commenced.

Data Collection Instruments

In qualitative research, the researcher is the primary data collection instrument (Chan, Fung, & Chien, 2013). The primary data collection instrument possesses knowledge, beliefs, values, and experiences essential to the quality of the knowledge produced (Grant et al., 2014; Cox, 2013). In this qualitative single embedded case study, I was the primary data collection instrument. A case study researcher focuses on understanding the complex relationship between phenomena, context, and people using in-depth questions, semistructured interviews, observations, and document analysis

(Wohlin & Aurum, 2015; Yin, 2014). In this case study, I used semistructured face-to-face interviews, focus groups, and document analysis to collect data.

The role of a primary research instrument of a study has some inherent problems. Researcher bias is one problem (Doody & Noonan, 2013). Researcher bias occurs when the researcher's views and body language influence the participant's responses (Roulston & Shelton, 2015). The process to reduce researcher bias involved the use of an interview protocol for semistructured face-to-face interviews (see Appendix A) and a focus group protocol for focus groups (see Appendix B). An interview protocol and a focus group protocol are procedures and methods guide used to ensure that the interview and a focus group discussion flow in a uniform manner for all participants and that the researcher does not forget any important questions (Hershkowitz, Lamb, Katz, & Malloy, 2013).

The interview and focus group protocols help the researcher to follow a logical flow of the discussion, to probe other responses, to ask follow-up questions based on what the interviewee says, and to prompt on what the interviewee might not have said (Hershkowitz et al., 2013). An interview and focus group protocols include a list of interview/focus group questions, an introduction, and closing remarks (Kelly-Jackson & Delacruz, 2014). The interview and focus group protocols include prompts for the researcher to collect informed consent and other relevant information from the research participants (Bressers, Smethers, & Mwangi, 2015). In this study, use of the interview protocol throughout the interviews, and a focus group protocol throughout the focus group discussions with all participants enhanced reliability, dependability, and validity of the data collection process.

Member checking is another process that qualitative researchers use to enhance reliability and validity of the data collection process. Member checking occurs when the researcher lets research participants review and confirm that the interpretations of the researcher match the data the participants provided (Harper & Cole, 2012). Bloor (2001) and Isaacs (2014) argued that member checking reduces researcher bias because the process is a follow-up data collection tool that provides an opportunity to extend and elaborate the investigator's analysis. During member checking, participants adjust any interpretation of the researcher the participants may deem incorrect (Isaacs, 2014), and add any new information related to the interview questions (Wang et al., 2016). In this qualitative case study, member checking involved meeting the research participants for the second time to accord them an opportunity to make corrections to the original content. The research participants were also free to add any other information they remembered related to their earlier responses.

Data Collection Technique

I used semistructured interviews and focus groups to collect primary data and document analysis to collect secondary data. According to Yin (2013), qualitative case study researchers need to use at least two of the six common sources of data. The common sources of data include documents, archival records, interviews, firsthand observation, participant observation, and physical artifacts (Cleary, Horsfall, & Hayter, 2014; Rhodes et al., 2014). Data collection for this study involved the use of interviews, focus groups, and document analysis.

Researchers use multiple methods to collect data for a study (De Massis & Kotlar, 2014; Heale & Forbes, 2013; Walsh, 2013). In this qualitative case study, the semistructured interviews included the use of open-ended, in-depth interview questions to collect data from MFI leaders and ADRA Rwanda staff members. Data collection from borrower CBGs involved the use of open-ended, in-depth interview questions and focus groups. Data collection through document analysis involved analyzing documents related to a partnership between MFIs and ADRA Rwanda, and ADRA Rwanda training documents for members of the borrower-groups.

Interviews

Semistructured qualitative interviews were the primary data collection instrument for MFI leaders, borrower-group members, and ADRA Rwanda staff members. According to Guba and Lincoln (1994), when humans are the principal research instruments in a qualitative study, they give the study essential scientific qualities of responsiveness, flexibility, and sensitivity. These conditions allow the researcher to use in-depth semistructured interviews to obtain rich and personalized insight into the lived perceptions about the phenomenon (Kafle, 2013). As an active participant in the research process, the researcher's facilitative interaction creates a conversational space that makes participants believe they are safe to share real life experiences (Marais & Van Wyk, 2014).

Semistructured interviews have inherent advantages that enable the researcher to ask in-depth questions to answer the research question. The use of semistructured interviews allows the researcher to be flexible to spontaneously explore issues that may arise (Doody & Noonan, 2013). Semistructured interviews enable the researcher to vary the order and wording of the questions to ask supplementary questions in pursuit of emerging issues that provide a deeper meaning to the phenomenon (Marais & Van Wyk, 2014). The researcher can also instinctively formulate questions that focus on the research question (Marshall & Rossman, 2015).

Semistructured interviews enable the researcher to divert and bring-up new ideas from what the participant says and are the most effective strategy for the researcher to gain a thorough understanding of an individual's experience (Beyers, Braun, Marshall, & De Bruycker, 2014). In qualitative research, the researcher uses probing questions to obtain the most appropriate, accurate, and in-depth information from the research participants (Birken, Lee, Weiner, Chin, & Schaefer, 2013). To maximize the advantage of semistructured interviews, I rephrased and asked probing questions to stimulate additional, relevant responses whenever a participant did not respond to any question adequately.

Semistructured interviews have some inherent problems that a researcher needs to plan to minimize the adverse effect on the study. One problem is that researchers sometimes do not know when to probe or to ask prompt questions (Doody & Noonan, 2013). Doody and Noonan (2013) observed that when the researcher fails to probe or to ask prompt questions at opportune times, the researcher may lose some relevant data. Bressers et al. (2015) suggested that the strategy to know when to probe or to ask prompt questions is to use an interview protocol. An interview protocol helps the researcher to remember the pertinent information to collect during a semistructured interview process

(Bressers et al., 2015). Bressers et al. indicated that the use of an interview protocol enhances the reliability, dependability, and validity of the data collection process because the researcher uses probes and prompt questions in the same manner for all the participants.

Researcher bias is another problem associated with semistructured interviews. The experiences of the researcher as the main research instrument sometimes affect the way the researcher presents open-ended questions which may influence the outcome of the data collection and analysis processes (Chan et al., 2013). Through the process of bracketing, researchers consciously put aside their knowledge, beliefs, values, and experiences to capture and describe participants' life experiences from the view of the study participants (Chan et al., 2013). According to Moustakas (1994), researchers use epoché to avoid predeterminations and rely on the study data provided. Epoché is suspending the researcher's assumptions and concentrating on the data presented in the study (Clancy, 2013). I used epoché to focus on the experiences of the participants regarding how some MFI leaders use strategies to reduce loan default in the BOP market.

Researchers use member checking to reduce researcher bias (Isaacs, 2014). Member checking takes place when the researcher allows research participants to review and confirm that the interpretations of the researcher are from the data that the participants provided (Harper & Cole, 2012). Researchers conduct member checking as a form of follow-up data collection tool and creating an occasion for extending and elaborating the investigator's analysis (Bloor, 2001). I used member checking to mitigate for researcher bias and to improve reliability, validity, and dependability of the data collection tools of the study.

If the conclusions from each of the data collection methods are the same (Wilson, 2014), and if responses to similar questions asked of different participants provide matching information (Bekhet & Zauszniewski, 2012), then the researcher achieved validity, and reliability (Guba & Lincoln, 1994). I used in-depth semistructured interviews, focus groups, and document analysis to achieve methodological triangulation, and ask similar in-depth questions to participants of different categories of the study to achieve methodological triangulation. Methodological triangulation processes mitigated for any possible participant bias and enhanced validity and reliability of the collected data.

Focus Groups

Focus groups are a tool for gathering data. Qualitative researchers use focus groups to collect in-depth information about attitudes, beliefs, and opinions of individuals about a particular topic using a discussion within a group (Then, Rankin, & Ali, 2014). Focus groups are a suitable data collection technique when the nature of the phenomenon under study is a social experience (Then et al., 2014). Focus groups comprise between six and ten homogenous members (Connelly, 2015). Chatrakul Na Ayudhya, Smithson, and Lewis (2014) recommended that focus groups should enable all the members to talk, react to each other’s comments, ask questions of each other, help to explain, add to what others have said, and avoid domination of few members. I used three focus groups comprising between eight members to collect data from the borrower community-based group members. I ensured that the members were familiar and free with each other to contribute freely.

According to Krueger and Casey (2015), a focus group allows researchers to examine how the group members interact with each other and how the interaction affects the perceptions and responses of the participants. Researchers use focus groups to generate data the researcher may not obtain using other techniques (Connelly, 2015; Ryan, Gandha, Culbertson, & Carlson, 2014). I used focus groups to collect data from borrower CBGs because as groups, they owed the MFIs the loans and interviewing them as groups enhanced my understanding of their collective and individual experiences.

Focus group techniques have advantages and disadvantages. One advantage is that the researcher can use focus group research as a stand-alone method, or within other qualitative data collection methods (Doody & Noonan, 2013). Another advantage is that the focus group technique facilitates improved confidentiality of the participants (Then et al., 2014). Improved confidentiality helps individuals to disclose more freely, providing a rich and full data (Ryan et al., 2014). Doody and Noonan (2013) observed that the focus group technique may decrease participant bias because participants are aware that somebody within the group knows the truth about their story (Doody & Noonan, 2013). Some participants may be quiet and uninterested while others may be dynamic and involved enabling the researcher to collect the necessary in-depth data (Then et al., 2014).

Some participants may not be very active in the focus group. This passivity may happen because some participants find difficulty discussing a stressful issue such as a death of a loved one, or can be reluctant to express their opinions if they do not trust others in the group (Then et al., 2014). Another problem that researchers need to plan for is the dominance or aggressiveness of some individuals who may tend to influence the group dynamics and even spark debates unrelated to the study (Krueger & Casey, 2015). According to Krueger and Casey (2015), when the researcher lacks full control of the group, the discussion may veer into irrelevant issues and waste valuable time.

According to Then et al. (2014), data from the focus group technique are harder to analyze than individual interviews. Focus group technique requires the researcher to interpret comments from the group within the environmental and social context in which the comments occur and within the framework of the group dynamics (Then et al., 2014). I involved every member of the focus group in a manner that I encouraged those who might have been *shy* to express themselves that their opinions mattered to the study, and also to ensure that those with dominant tendencies did not dominate the discussions.

I used member checking, methodological triangulation, and bracketing to minimize researcher bias and enhance the validity and reliability of the collected data. Member checking involved allowing the focus group members to check and certify whether my interpretations of the focus group aligned with the data they provided. I used bracketing and engaged in epoché to mitigate for potential researcher bias. Achieving epoché involved consciously putting aside my knowledge and beliefs about the study to depend solely on the study data from research participants.

Document Analysis

Document analysis is a systematic procedure to review or evaluate printed or electronic documents (Eagleman, 2015). Researchers examine and interpret data from documents to elicit meaning and gain an in-depth understanding of the phenomena (Corbin & Strauss, 2008). Researchers often use document analysis to seek convergence and corroboration with data obtained from other data collection sources (Denzin, 1970). Researchers validate data by comparing data collected from different sources (Railien, 2014). I analyzed the loans partnership agreement between the MFIs and ADRA Rwanda, and the training documents for borrower-groups to gain an insight of the strategies MFI leaders used to reduce loan default in the BOP market, to validate the data collected from one-on-one interviews and the focus groups.

Document analysis in qualitative research has advantages and limitations. Some of the benefits include efficiency, availability, cost-effectiveness, lack of obtrusiveness and reactivity, stability, exactness, and broad coverage (Glenn, 2013). According to Bornmann (2014), some of the challenges of document analysis include insufficient detail, low retrievability, and biased selectivity. Insufficient detail occurs because organizations and individuals produce documents for another purpose other than for research. Consequently, documents produced by a typical daily work environment do not provide sufficient detail to answer a research question (Yin, 2013). Low retrievability occurs because, sometimes, required documents are not retrievable or accessible (Glenn, 2013). Biased selectivity happens when an incomplete collection of documents exists. Yin (2013) noted that in an organizational context, the available documents likely show alignment with corporate policies and procedures and with the agenda of the organization’s principles.

Document analysis was beneficial to this study because I identified some useful information to answer the research question of this study. Document analysis helps to generate new interview questions interactively (Cao et al., 2014; Paul, Graham, & Olson., 2013; Roberts et al., 2014). Identification of areas of insufficient detail, low retrievability, and biased selectivity assisted in the development of follow-up questions to uncover meaning, develop understanding, and to discover insights relevant to strategies that MFI leaders used to reduce loan default in the BOP market.

I used methodological triangulation to enhance the validity of the interpretations of the document analysis process. Methodological triangulation involves a researcher using different sources to obtain and compare data (Bekhet & Zauszniewski, 2012; Fusch & Ness, 2015). According to Wilson (2014), researchers compare and pair data to establish the validity of the collected data. Methodological triangulation of the document analysis process involved identifying similarities of the data obtained from other sources to confirm their validity and to use any contradictory information as a basis for follow-up interviews with research participants to attempt to establish the truth.

Data Organization Techniques

Data organization is an essential element in data analysis and interpretation (Salman et al., 2014; Townsend & Urbanic, 2014). In qualitative case studies, the researcher organizes, examines, and interprets data on an ongoing basis (Townsend & Urbanic, 2014). During these ongoing processes, a risk exists that the researcher may lose track of the number of interviews or focus groups they conducted (Townsend & Urbanic, 2014). According to Rowley (2012), the researcher needs to decide the length and number of interviews to avoid extreme data saturation, because the researcher must analyze every piece of data collected.

Other risks are that scattered data may be among several unprotected locations. Data left out in the open may compromise confidentiality, and file names may create confusion such that the researcher may fail to identify a complete file (Salman et al., 2014). Salman et al. (2014) added that poor data organization could affect transcription or translation causing incomplete or incorrect records. Poor data organization may lead to the researcher failing to locate consent forms for some or all their data (Salman et al., 2014). I organized my data using sound qualitative research data management procedures to prevent risking or compromising the credibility and validity of the research processes.

Quality data management procedures included creating a file-naming system, creating a data tracking system, creating an audio recording process, establishing transcription procedures, developing quality control procedures, and establishing a realistic timeline (DeLyser & Sui, 2013; Lennartsson et al., 2014; Parsons & Fox, 2013). Setting up and adhering to these steps included the ability to achieve high-quality data analysis and interpretation. Quality data management enhanced reliability and in-depth understanding of strategies that some MFI leaders used to reduce loan default in the BOP market.

File Naming System

According to Parsons and Fox (2013), appropriate file naming is essential to good data organization. Good file naming system includes a participant identification number to enhance fast data retrieval when needed (Lennartsson et al., 2014; Parsons & Fox, 2013). According to Lennartsson et al. (2014), participant identification number in a file naming system helps the researcher to locate every research participant if a need arises for any follow-up questions, clarifications, or for member checking. Sutter, Wainscott, Boetsch, Palmer, and Rugg (2015) observed that including a data collection instrument in a file naming system helps the researcher group similar instruments and compare with data from different data collection instruments for methodological triangulation.

Meldolesi et al. (2014) recommended that a file-naming system should include unique elements such as location name and date to facilitate easier data identification. Other researchers provided details on how a file-naming system needs to look like (Benamar, Singh, Benamar, El Ouadghiri, & Bonnin, 2014; Carpenter, de Lannoy, & Wiesner, 2015). Elements of the file naming system included a data collection instrument used (for example, semistructured interview), participant identification number (for example, Participant 01), site of data collection (for example, Muhanga district, Kayenzi Sector), and date of data collection (for example, February 28, 2017).

Data Tracking System

A data tracking system enables the researcher to track the progress level of each file of data (DeLyser & Sui, 2013). Qualitative researchers need to create a system capable of monitoring the main stages of data level (Balasubramanian et al., 2015). Balasubramanian et al. (2015) identified data level as data type (audio, document, transcript, notes), availability of a complete consent form, and availability of an appropriate file name. The data tracking system in this study included showing whether the data were complete, or some gaps existed requiring more data, and the intended follow-up action; availability of a complete consent form; and ensuring that all data had appropriate file names.

Audio Recording Procedures

Good quality audio is easier to transcribe than poor quality audio (Chew-Graham et al., 2013). McDermott, Orrell, and Ridder (2014) advised researchers to play back parts of the recordings especially at the beginning, in the middle, and towards the end to verify the quality of captured audio before parting with the research participants. Murad, Chatterley, and Guirguis (2014) emphasized the importance of thorough prior preparations to audio recording sessions. A high-quality recorder, full battery power, and sufficient storage space are some of the essential preparations a researcher needs to make (McDermott et al., 2014). Murad et al. observed that a researcher's familiarity with the recording equipment makes the difference between good and bad quality recordings. Researchers can obtain bad-quality recordings with high-quality audio recorders if the recording settings are wrong (Murad et al., 2014). Strategy to record good quality audio involved the use of a professional Roland-9HR audio recorder to ensure the clarity of all recordings. I used the professional Roland-9HR audio recorder because I am familiar with the recorder as I use it in my daily professional work. I carried a spare recording set of the same type for backup from my organization's store. Before leaving for the interview appointment, the procedure included putting a new set of batteries; carrying a spare set of batteries; putting a formatted 16-gigabyte data card into the recorder; and bringing an additional recording set comprising a recorder, an extra blank data card, and a set of batteries. The final procedure involved testing the equipment to ensure the two recording sets were in good working conditions.

Transcription Procedures

The primary requirement for the establishment of transcription procedures is to maintain consistency in all transcriptions (Gale, Heath, Cameron, Rashid, & Redwood, 2013; von Wagner et al., 2014). According to Patiung, Tolla, Anshari, and Dolla (2015), researchers need to maintain consistency in handling data to minimize chances of losing the data. The process to maintain consistency involved downloading the recording files to a personal computer's hard drive. I used the Adobe Audition software for transcription because I own the program, and I have experience using it in my daily professional work.

Von Wagner et al. (2014) advised that maintaining consistency needs to include choosing, and using a page layout and spacing format throughout the study. Gale et al. (2013) and Dinh, Do, Yang, Kim, and Lee (2016) noted that researchers need to determine and be consistent with the use of lexicon symbols throughout the study. I maintained consistency by choosing lexicon symbols to denote the beginning and the end of a question, response, silence, transcriber's comments, and when the voice was not audible or not interpretable.

Quality Control Routine

Qualitative researchers establish some quality control routines with transcribed data to achieve data quality management throughout the study (Cresswell & Sheikh, 2013). Greenstein (2014) and Ramírez, Dündar, Diehl, Grüning, and Manke (2014) observed that a researcher establishes a quality control routine with transcribed data by creating a manual to guide the transcription process. Takashima et al. (2014) posited that continuous comparison between the recordings and the transcriptions, and making corrections enhances quality data. In this study, quality control routine after every transcription involved monitoring the quality of transcription by comparing the transcribed interviews against the original recording and correcting where necessary.

Realistic Timeline

Planning enough time to collect and transcribe data helps the researcher to avoid panicking or rushing some activities that may lead to data chaos (Mazza, Chapman, & Michie, 2013). Gale et al. (2013) recommended establishing a realistic timeline to accommodate all the planned activities. The process of allocating adequate time for each planned interview involved setting time for (a) traveling to the site and locating participant(s), (b) obtaining consent, (c) conducting the interview, and (d) performing transcription, interpretation, member checking, and coding. According to Yin (2014), researchers need to allocate sufficient time to conduct follow-up interviews following the emergence of any new themes. I allocated adequate time to perform quality control, make corrections, or do any follow-up interviews that I found necessary to conduct to fill any emerging gaps.

Thorough adherence to the established procedures enhanced quality data organization for this study. These procedures enable me to know the number of interviews, focus groups, and documents solicited. Quality data organization also involved keeping all data on a computer only accessed using a private password, and maintaining the data with a back-up in two, separate, lockable locations. Backing up the data involved synchronizing data on a computer and the two backup hard drives every working day. Walden University (2016) required student-doctoral researchers to keep all raw data securely for 5 years after the graduation of the researcher and securely delete after the 5 years. As per the Walden University requirement, I will keep all raw data for the complete study in a locked cash chest for 5 years after my graduation date, securely delete the electronic data, and shred hard copy data after the 5 years.

Data Analysis

Data analysis is an important process in qualitative research. Whatever the data are, the researcher's analysis forms the outcome of the study (Vaismoradi, Turunen, & Bondas, 2013). Qualitative data analysis is the organization and interpretation of words, videos, or pictures, to generate meaning (Flick, 2014). The researcher applies qualitative data analysis approaches to discover and describe issues in routines and practices with the aim to describe a phenomenon in more detail (Vaismoradi et al., 2013).

Transcription

Transcription means a translation or transformation of sound to text (O'Dell & Willim, 2013). Transcription is a selective process because the researcher transcribes certain phenomena or features of spoken words that respond to the research question (Houghton et al., 2013). According to Cassady et al. (2014), verbatim transcription in qualitative research is better than selective transcription because verbatim transcription limits researcher bias. In this qualitative study, transcription involved transcribing the audio data verbatim into Microsoft Word.

Researchers conduct member checking to validate transcribed data (Marshall & Rossman, 2015). Member checking enables the researcher to ensure that any corrections participants make align with the original content (Isaacs, 2014; Wang et al., 2016). In this qualitative study, I transcribed the data into Microsoft Word and used member checking to validate the interpretations ascribed to the collected data. During the member checking process, the research participants had an opportunity to confirm the correctness and credibility of the interpretations from the semistructured interviews and the focus groups.

Methodological Triangulation

Triangulation is a technique that researchers use to enhance validity, reliability, and dependability of data. Triangulation is exploring different levels and perspectives of the same phenomenon (Denzin & Lincoln, 2011). According to Denzin and Lincoln (2011), four types of triangulation exist. The triangulation types are data, investigator, theory, and methodological triangulation (Bekhet & Zauszniewski, 2012; Denzin & Lincoln, 2011). Researchers use data triangulation to compare data from different people, different times, and different places (Denzin & Lincoln, 2011). Investigator triangulation is for comparing findings from various researchers in a study (Denzin & Lincoln, 2011). Theory triangulation occurs to compare different theoretical strategies, while researchers use methodological triangulation to compare data from different data collection methods on the same phenomenon (Denzin & Lincoln, 2011; Walsh, 2013). I used methodological triangulation to compare data obtained through in-depth semistructured interviews, focus groups, and document analysis from the same participants in the study to enhance validity, reliability, and dependability of the collected data.

Methodological triangulation is the validation of study data by comparing data gathered from multiple data collection methods (Walsh, 2013). According to Gorissen, van Bruggen, and Jochems, (2013), the different methods of data collection on the same participants allows the researcher to achieve convergent evidence about the facts of the case under study. Benefits of methodological triangulation include more insight into the topic due to additional sources and minimized-data inadequacies because of the use of multiple sources to confirm the same data (Kaczynski et al., 2014).

Morse (2015) confirmed that methodological triangulation is helpful to the researcher because the method enhances verification and validity of data while complementing similar data, and makes the data analysis to draw conclusions and outcomes easier through information from multiple sources. Inconsistencies in data sets are more easily recognized (Bekhet & Zauszniewski, 2012; Houghton et al., 2013; Morse, 2015). In this study, methodological triangulation involved validating the data by cross verifying the information obtained on a similar question or thematic area, from the data collection methods of in-depth interviews, focus groups, and documents analysis. Methodological triangulation helped in the identification of strategies that MFI leaders use to reduce loan default in the BOP market.

Gadamer Hermeneutic Framework

According to Sotiriadou, Brouwers, and Le (2014), researchers choose qualitative data analysis tools depending on the information the tool provides for understanding phenomena. Boell and Cecez-Kecmanovic (2014) observed that the Gadamer hermeneutic approach for the understanding of both the text and the context helps qualitative researchers to revise and co-produce an understanding of text and context continually and mutually. Di Iorio and Di Nuoscio (2014) defined the Gadamer hermeneutic framework as an approach that provides a researcher with an extended dialogical encounter. The dialogical encounter concerns the fusion of preunderstanding, preconceptions, tradition, and biases involved towards the enriching and broadening of horizons about the research question (Stolorow, 2014). I analyzed the texts in the forms of interviews, focus groups, and organization documents based on the Gadamerian hermeneutics framework of interpretation of collected data for a broadened and enriched understanding of strategies that MFI leaders use to reduce loan default in the BOP market.

Coding

Pierre and Jackson (2014) described coding as *analysis* because the process facilitates organization and sorting of data into labels. The coding process allows the researcher to summarize and synthesize the picture the data presents (Pierre & Jackson, 2014). Farrell et al. (2014) showed that in linking data collection and interpreting the data, coding becomes the basis for developing the analysis. The researcher develops a storyline based on the purpose of the study, the research question, the conceptual framework, and the interview questions to form a basis for the first type of codes, the *a priori* codes (Farrell et al., 2014). Halverson, Graham, Spring, Drysdale, and Henrie (2014) added that in creating these codes, the researcher needs to also create a *code book* with a list of the codes and what the codes represent.

The second type of codes emerges from reading and analyzing the data in the form of ideas, concepts, actions, relationships, meanings, and other forms that emerge from the data and are different from the *a priori* codes (Halverson et al., 2014). While coding, the researcher refines the coding scheme by adding, collapsing, expanding and revising the coding categories, especially of the *a priori* codes (Halverson et al., 2014). Halverson et al. (2014) hinted that refining the coding is necessary because, often, what the researcher may have expected to find in the data may not be there, or new information may start to emerge requiring the need for new codes. Alternatively, sometimes codes may produce more than the expected data requiring the need to break down the code into sub-codes to organize the data better (Halverson et al., 2014). Martin, Chen, Graham, and Quan (2014) observed that the best practice to expand or collapse the codes is to make the codes fit the data, instead of trying to make the data fit the codes.

The final process of coding is to list notes of reactions and ideas that emerge because these ideas are essential to the analytic process as they may suggest new interpretations or links with other data (Halverson et al., 2014; Martin et al., 2014). When the researcher is aware of what is emerging from the data, the notes usually point toward issues and questions for the researcher to look into when coding and collecting more data (Halverson et al., 2014). In this qualitative study, I developed *a priori* codes based on the purpose of the study, the research question, the interview questions, and the Varian group lending conceptual framework. Based on the information from data analysis, I developed another list of emergent codes to help with expanding and collapsing of the *a priori* codes. I developed a code book with all the codes and their meanings and made notes on the codes that seemed to raise more questions and issues concerning strategies that MFI leaders use to reduce loan default in the BOP market, requiring more follow-up.

NVivo Qualitative Data Analysis Software

NVivo is a qualitative data analysis computer software designed to analyze qualitative data (Ward, Furber, Tierney, & Swallow, 2013). NVivo enables users to organize, sort and arrange information; examine relationships in the data; and to combine analysis with linking, developing themes, searching and modeling (Sanchez-Algarra & Anguera, 2013). Brodie et al. (2013) highlighted that the NVivo computer software package also enables the researcher to test conceptual frameworks, to identify trends, and to cross-examine information in a multitude of ways using its search engine and query functions. The observations that researchers make from the NVivo software analysis build a body of evidence to support findings of the research question of a study (Brodie et al., 2013). I uploaded my scripts into the software and used the query tools and visual displays to facilitate the within and cross-case comparisons to provide an overview and potential analytic directions of the study. Identification of familiar patterns and key themes signifying correlation between MFI leadership environments, strategies, tactics, or communications, and reduced loan default in the BOP market followed. The plan also involved an investigation of key themes, as the study data revealed, to synthesize results with newly published studies and conceptual frameworks.

Reliability and Validity

Rigor in research involves ensuring that the researcher demonstrates adherence to the proper application of research method controlling parameters (Gutiérrez & Penuel, 2014). Qualitative researchers strive for validity and reliability to attain rigor in research (Gioia et al., 2013). Achieving reliability and validity in qualitative research requires following qualitative research procedures in detail (Noble & Smith, 2015).

Reliability

Corbin and Strauss (2008) suggested that judgment of qualitative work should include a redefinition of the usual standards of good research to fit in the reality of qualitative research. Researchers in qualitative studies use a naturalistic approach to understanding phenomena in context-specific settings that researchers do not attempt to manipulate (Yin, 2014). In this configuration, the role of the qualitative researcher is to identify the phenomenon of interest and try to unveil the truth surrounding the event (Arjoon, Xu, & Lewis, 2013).

Qualitative researchers typically study topics in their natural settings, endeavoring to make sense of or interpret phenomena regarding the meanings people bring to the phenomena (Yin, 2014). Guba and Lincoln (1994) suggested that qualitative researchers strive to achieve dependability in research. Dependability is the characteristic of consistency (Urban, Hargraves, & Trochim, 2014). Trochim (2006) argued that qualitative researchers use the concept of dependability to highlight the need for the researcher to explain the ever-changing environment in which research happens. The researcher is responsible for describing the changes that occur in the research setting and how these changes affect the way the researcher approaches the study.

Urban et al. (2014) justified the use of a different terminology in qualitative research to deal with repeatability issues. Repeatability involves measuring the same item twice and obtaining the same results (Urban et al., 2014). Urban et al. argued that the concept of repeatability is not achievable because the environment is always in a state of change and that measuring the same item at two different periods gives two different results (Urban et al., 2014). Achieving dependability requires providing a description of the changes that occur in the setting under investigation, and how these changes affect the research process (Zachariadis, Scott, & Barrett, 2013). Zachariadis et al. (2013) added that qualitative researchers enhance the dependability of the data through the use of triangulation and member checking to certify the quality of raw data, data analysis, and process notes.

In this study, data collection involved the use of the methodological triangulation to ensure the consistency and dependability of raw data. Qualitative researchers use methodological triangulation to confirm the uniformity and dependability of raw data (Bekhet & Zauszniewski, 2012). Methodological triangulation of data collection included face-to-face, semistructured interviews, focus groups, and document analysis. According to Houghton et al. (2013), the coherence of the data from different sources enhances dependability. In this study, I used methodological triangulation to compare the consistency of the data from the three sources to establish dependability.

Researchers use member checking to determine data uniformity and dependability (Houghton et al., 2013). Member checking allows research participants to review the interpretations the researcher ascribed to the interview responses of the participants (Harper & Cole, 2012). Researchers produce quality research data when they minimize prejudice and validate the correct interpretation of the phenomenon (Unluer, 2012).

Member checking enhances consistency and dependability of the data analysis because, during the process, the researcher makes corrections of any wrong interpretations, and makes notes of any emerging content (Isaacs, 2014). I used member checking with all the participants of the study to certify the quality of data analysis in this qualitative case study. The member checking process involved letting the research participants review and confirm that the provided interpretations matched the data the participants provided through the semistructured interviews and focus groups.

Validity

In qualitative research, validity represents appropriateness of the tools, the processes, and the data used by the researcher (Leung, 2015). Validity involves checking and establishing the suitability of the research question for the desired outcome, and the appropriateness of the research method for the research question (Leung, 2015). Validity includes examining and determining the relevance of the method, sampling, data analysis, results, and conclusions of a study (Noble & Smith, 2015). Guba and Lincoln advocated for the use of *credibility* or *trustworthiness*, *transferability*, and *confirmability* instead of objectivity.

Credibility. Qualitative researchers use credibility or trustworthiness to demonstrate that the researcher has the responsibility to establish the plausibility of research results from the perspective of the participants and that the participants are credible or trustworthy (Guba & Lincoln, 1994). The researcher enhances credibility when research participants judge the integrity of the results through member checking (Isaacs, 2014). Member checking occurs when research participants review the researcher interpretations of the interview responses of the participants (Harper & Cole, 2012). The process of member checking enhances consistency and dependability of the data analysis because researchers correct any wrong interpretations research participants reveal (Isaacs, 2014). Quality research data relies on the interest of the researcher to minimize prejudice and validate the right interpretation of the phenomenon from the perspective of the participants (Unluer, 2012). I used member checking to enhance the credibility and trustworthiness of this study. The member checking process helped to certify the quality of the data analysis process.

Bracketing is used to strengthen the credibility or trustworthiness of research through mitigation of conscious or unconscious researcher bias (Sorsa et al., 2015). As a primary data collection instrument, experiences of the researcher may influence the manner the researcher presents open-ended questions which may affect the outcome of the data collection and the data analysis processes (Chan et al., 2013). Moustakas (1994) suggested that the researcher uses bracketing and engages in epoché to mitigate for potential researcher bias. According to Moustakas, achieving epoché involves consciously putting aside the researcher's knowledge and beliefs to depend solely on the study data from research participants. In this study, the processes of epoché and bracketing included acknowledgment of researcher biases, and consciously disregarding the researcher's knowledge, beliefs, values, and experiences for the life experiences of the research participants.

Use of the interview protocol (see Appendix A) enhances cohesion and adds consistency and reliability to the study (Foley & O'Connor, 2013). An interview protocol comprises a list of interview questions, a script of what the researcher plans to say before and after the interview, and prompts the researcher to collect informed consent (Jacob & Furgerson, 2012). Semistructured interviews are the most effective strategy for the researcher to gain an in-depth understanding of the individuals' experiences and adequately address the research question (Ennis & Chen, 2012). The interview protocol helps the researcher to ask the same questions and to provide the same information to all the participants in the study. In this study, the use of the interview protocol facilitated achieving bracketing through epoché and was an important step to achieving credibility and trustworthiness of the study.

Transferability. In qualitative approaches, the assumption is that individual attributes and perspectives of the researcher influence the outcome of the study (Cruz & Higginbottom, 2013). Qualitative researchers aim to provide a consistent description and illuminating perspective on a situation to allow transferability (Morse, 2015). Transferability is the degree to which another researcher can transfer the results of a study to other contexts or settings (Kingdon, Givens, O'Donnell, & Turner, 2015). Transferability is principally the responsibility of the reader wishing to make the transfer to decide on the wisdom of making such a transfer based on the descriptions provided by the researcher (Cruz & Higginbottom, 2013; Kingdon et al., 2015). Enhancement of the transferability of this study included providing thick and thorough descriptions of the research context, the research question, the conceptual framework, and the literature review central to the study. The thick and thorough descriptions will enable any researcher considering transferring the results of this study to determine the appropriateness of the decision.

Confirmability. Confirmability is the degree to which other researchers can corroborate the results of a study (Cope, 2014). Urban et al. (2014) observed that the process of enhancing confirmability in qualitative research involves repeated checking of the data throughout the study. The process of enabling another researcher to review the study and verify the correctness of documented procedures requires a detailed documentation of all research procedures including reasons for all decisions taken (Ridder, Hoon, & McCandless Baluch, 2014). Urban et al. elaborated that when other researchers conduct data audits, the researchers actively check and describe the negative instances that contradict observations in the studies. A data audit involves examination and documentation of the data collection and analysis procedures, and the judgment about the potential for bias or distortion (Urban et al., 2014). In this study, confirmability involved the provision of a detailed documentation of all the processes to enable any interested researcher to follow and judge the results of the study.

Researchers use content validity to assess whether the data collection tools used in a study are producing relevant information to answer the research question (Rothman, Gnanaskathy, Wicks, & Papadopoulos, 2015). Content validity in this study included the use of the data saturation concept. Data saturation involved replication in categories, verifying and ensuring comprehension and completeness (Marshall et al., 2013). Roy, Zvonkovic, Goldberg, Sharp, and LaRossa (2015) extended the definition of data saturation as when the researcher continues collecting data until the identified categories stop producing new information.

Marshall et al. (2013) observed that some research methodologists do not discuss the concept of data saturation because of the lack of consistency or transferability among study methods. Reaching data saturation levels varies from one study design to another (Guest et al., 2006). Guest et al. (2006) cautioned that despite the importance of understanding the concept of data saturation, not enough practical guidelines exist to show how to achieve data saturation.

Guest et al. (2006) recommended using a minimum sample size of six to attain data saturation. Marshall et al. (2013), however, suggested a minimum sample size of two, depending on the size of the population. Fusch and Ness (2015) recommended the production of rich and thick data to compensate for the uncertainty regarding the appropriate standard minimum sample size.

Rich and thick data are the quality and the quantity of data respectively (Fusch & Ness, 2015). Fusch and Ness (2015) explained that thick and rich data represented many-layered and comprehensive data sets and elaborated that possibilities exist to have thick but not rich data and rich but not thick data. According to Fusch and Ness, researchers should strive to attain both rich and thick data.

I used both the sampling method and the collection of rich and thick data to enhance content validity. I used the sample size of three for each of the three participant categories and conducted semistructured interviews and attained data saturation through the collection of rich and thick data. If no data saturation happened after completing the minimum sample size, data collection would have continued until additional data stopped producing new information.

Transition and Summary

The purpose of this qualitative single embedded case study was to identify strategies that MFI leaders use to reduce loan default in the BOP market. I was the primary tool to collect, organize, and analyze data for the study. The advantage of being the primary data collection tool is that generally, humans make qualitative methods flexible, responsive, and sensitive because their knowledge, sensitivity, and skills are critical to the quality of produced knowledge. I had a relationship with the topic because I worked with an NGO that designed and implemented development projects in the BOP market. Financial inclusion of BOP clients is crucial for their development, but the lack of sustainable MFI businesses in the BOP market made such inclusion difficult. MFI enterprises did not become sustainable because of loan default that, effectively, made the MFI businesses operate at a loss and, eventually, to shut down. The eligibility criteria for participation in the study were MFI leaders who used strategies to reduce loan default in the BOP market. Three participant groups that met the eligibility requirements included some MFI leaders, some community-borrower groups and some staff members of ADRA Rwanda.

I accessed the participants by visiting them and talking to them face-to-face about the purpose of the study and requesting them to participate in the study in confidence. I sent them via email information about the study that required them to respond to the email with the words *I consent* if they accepted to participate. I assured the participants that even with the consent to participate; they would still be free to opt out if they changed their mind at any point throughout the study. The study population for this study involved three categories of participants who contributed towards strategies that some MFI leaders used to reduce loan default in the BOP market. The purposeful sampling involved three MFI leaders, three members of different borrower groups, three focus groups of between six and eight borrower groups, and three staff members of ADRA Rwanda NGO. The criterion for choosing the participants was their contribution towards strategies that some MFI leaders used to reduce loan default in the BOP market.

Among other steps, the study attained ethical standards by keeping the identities of the participants confidential through the use of code names instead of real names. Security of all research documents involved keeping the documents in a safe place only I have access to, and that I will securely destroy all materials related to the study 5 years after my graduation. Using the interview and the focus group protocols, the in-depth semistructured interviews, and company documents, I collected data from the study participants. I used the methodological triangulation and member checking to enhance the reliability and validity of the data collection process. The data collection technique involved the audio recording of the face-to-face semistructured interviews, and I took notes. I prepared a data tracking system to enable me to keep track of the individual research the participants, the location, the time of the interview, and the most important points raised.

Data analysis involved the use of transcription, methodological triangulation, use of the Gadamer hermeneutic framework for text analysis, coding use of the NVivo 11 Pro qualitative computer data analysis software to identify key themes and correlate with new studies and the conceptual framework. Ensuring reliability of the data involved member checking of the data interpretation to enhance dependability. Validity enhancement of the data included member checking to enhance credibility, thick descriptions of all the research steps to enhance transferability, provision of a detailed documentation of all the processes to enable any interested researcher to follow and judge the results of the study to enhance confirmability. I collected the data from the participants until I achieved data saturation.

Section 2 included a detailed description of the study design by restating the focus of the study and related details of the study plan. The section also has detailed information about the research method, the study design, the population sample, the data collection techniques, and strategies for ensuring study reliability and validity. Section 3 includes the interview data, the focus group findings, and the loan repayment-related data from MFIs and ADRA Rwanda with my interpretations, analysis, and presentation of important themes. I related my findings to the conceptual framework and the current literature to provide the study conclusions, the application to professional practice, the implications for social change, and the personal recommendations.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this qualitative case study was to explore strategies that MFI leaders use to reduce loan default in the BOP market. The participants were MFI leaders, NGO staff members, and members of borrower groups who fully repaid their loans in the BOP market. I used the NVivo 11 Pro computer software for the initial coding and identification of themes and subthemes. I then presented the findings on the themes and the subthemes with supporting quotations from the study participants.

Initial proliferation of MFIs in developing countries started in the 1990s (Wijesiri et al., 2015). The MFI stakeholders planned that the established MFIs would become profitable to sustain their operations and grow. However, the problem of loan default caused the decline of some MFIs in the BOP market (Guha & Chowdhury, 2013). I conducted this case study to explore strategies MFI leaders use to reduce loan default in the BOP market. The results showed that MFI leaders used different strategies to reduce loan default such as partnerships, training, loan-use monitoring, and group lending.

The following narrative provides a detailed discussion of the study findings concerning the overarching research question, the conceptual framework, and the existing literature on MFI loan default. I also explain the application of the findings to professional practice, the implications of the study to social change, and recommendations for action and further research. The section concludes with personal reflections and a conclusion.

Presentation of the Findings

The overarching research question was as follows: “What strategies do MFI leaders use to reduce loan default in the BOP market?” An increasing number of MFIs started to be established in many developing countries beginning in 1997 to accelerate interventions aimed at reducing poverty (Guha & Chowdhury, 2013). Local governments and international development agencies established these institutions with the goal that they would evolve into viable businesses capable of sustaining and expanding their operations (Alliance for Financial Inclusion, 2014). However, most MFIs started declining when international development agencies and local governments stopped providing funding, mainly because of loan default (Guha & Chowdhury, 2013).

I conducted this study to explore strategies MFI leaders use to reduce loan default in the BOP market. A reduced MFI loan default rate in the BOP market may enhance the sustainability and expansion of MFI services and possibly accelerate poverty reduction in some developing countries. Responses to semistructured interviews, focus groups, and information from organization documents showed that the reduced loan default was associated with the provision of training in business development and loan management to borrowers, giving loans to borrowers in established groups, and giving loans to groups with business proposals that had profitability potential. My initial analysis of interview transcripts and organizational documents resulted in the development of themes. Table 2 shows the names of the codes, the number of sources, and references for each code.

Table 2

Initial Codes and Number of Associations Based on Interview Questions

Name	Sources	References
MFI training and monitoring	11	23
Seeking a long-term relationship	11	17
Group commitment	6	14
Profitable project	7	12
ADRA's on-going monitoring of the groups	8	11
Group vision	7	10
ADRA training in business management	6	10
Training in loan utilization	5	9
Group savings	6	8
Established groups	8	8
Voluntary membership	7	7
ADRA monetary collateral	4	5
MFI-ADRA partnership	3	4
Group loan	4	4
Individual benefit expected through the group	2	3
Avoided loan diversion	2	3
Alternative income sources	3	3
The confidentiality of the ADRA collateral	2	2
To maintain a good partnership	1	1
Sector agronomist training	1	1
Local leadership monitoring and support	1	1
ADRA-borrower group partnership	1	1

After assembling the initial codes as shown in Table 2, I split the codes into major themes and subthemes consistent with the overarching research question and the three tenets of the Varian (1989) group-lending conceptual framework. I was able to group the codes according to the overarching research question and the conceptual framework tenets because I based the interview questions on the research question and the tenets of the conceptual framework used in the study. Table 3 shows a list of major themes, categories, subthemes, the number and the percentage of participants who offered the specific perceptions.

Table 3

Major Themes & Subthemes Based on the Data

Primary theme	Category	Subtheme	# of participants who offered this perception	% of participants who offered this perception
Intrapreneurship and the environmental business opportunities	Intrapreneurship	Training in business	12	100
		NGO-MFI partnership	3	25
	Environmental business opportunities	Strength of groups	7	58
		Availability of markets	7	58
Favorable loan repayment conditions	Internal conditions	Desire for a long-term relationship	11	92
	External conditions	Availability of established groups	6	50
Strategies for choosing borrower groups	Group mission	To find solutions for community issues	6	50
	Nature of membership	Voluntary membership	6	50
Loan use monitoring	MFI	Loan officers	9	75
	Partners	ADRA Rwanda staff members	8	67
		Government technical staff members	2	17

Discussion of Themes and Subthemes

I used similar interview questions for all the study participants. The interview questions originated from the research question and the conceptual framework of the study. The similarity of the interview questions and their alignment with the research question and the conceptual framework enhanced the process of classifying the participant responses into themes and subthemes. A total of nine interviewees and three focus groups were involved in the study. The study participants were from three different backgrounds including ADRA Rwanda, MFIs, and community groups. The following subsection contains a discussion of the major themes and subthemes.

Theme 1: Intrapreneurship and Environmental Business Opportunities

Intrapreneurship is the innovative practice of organization staff members improving the way of doing business to gain value for the organization (Baruah & Ward, 2015). Skarmeas, Lisboa, and Saridakis (2016) defined intrapreneurs as entrepreneurs in an organization who seize opportunities in their business environment to help their organizations rejuvenate their businesses, innovate, adjust to fluctuations in internal and external environments, and improve organizational performance.

Analysis of data in the current study showed that intrapreneurship in the MFIs and ADRA Rwanda staff members existed, and the intrapreneurs used the identified opportunities in the business environment to create value for the organizations they represented. Training in loan and business management and partnership between MFIs and ADRA Rwanda occurred because of the intrapreneurial efforts of the participating MFI leaders and the ADRA Rwanda staff members. The initiatives included an innovation on the part of the two organizations because ordinarily, MFIs and ADRA Rwanda conduct their businesses independent of each other. The strength of the borrower groups and the profitability of the proposed business enterprises were the business opportunity category subthemes that benefited the intrapreneurial efforts to reduce loan default in the BOP market.

Interview Questions 1 and 6 provided responses that formed Theme 1 and the four subthemes. The theme of intrapreneurship and environmental business opportunities emerged as the dominant theme. Table 4 shows a list of the study participants, the frequency (f) of times they mentioned intrapreneurship and the opportunities in the business environment that reduced loan default. The percentage (%) represents the number of the specific response divided by the total number of responses the participant provided to all interview questions in the study.

Table 4

Theme 1: Intrapreneurship and Environmental Business Opportunities

Participant code	Intrapreneurship factors				Environmental business opportunities			
	Subthemes							
	Training		Partnerships		Strength of the borrower groups		Availability of markets	
	f	%	f	%	f	%	f	%
Participant A1	4	20	2	16	4	17		
Participant A2	2	6	1	3	2	13		
Participant A3	3	28	1	8				
Participant B1	3	27	2	15				
Participant B2	2	27						
Participant B3	2	26	1	5				
Participant C1					2	16	2	21
Participant C2	1	8			1	4		
Participant C3	3	27			1	7	1	13
Participant D1	4	25			2	9		
Participant D2	1	4			1	4	2	8
Participant D3	1	5			1	7	2	8

Subtheme 1.1: Training. Nawai and Shariff (2013) observed that when individuals or groups apply for MFI loans in the BOP markets, the applicants are usually new entrepreneurs with little experience in doing business. The MFI leadership needs to understand that such applicants are also seeking business training such as how to promote their product, prepare a financial statement, or identify and present their product on the market (Nawai & Shariff, 2013). During the organizational document analysis process for

Organization A, one of the requirements in the terms of reference document sent to prospective bidders listed the following objective:

> The aim of this training is to equip the grass-root [CBGs] of Muhanga district with technical skills in business planning, and general business skills to enable them to deal with livelihood challenges and issues related to their livelihood environment and to advocate for a better change in their business and community.

Ninety-two percent of the study participants attributed the reduced loan default to the training in business management that the borrowers received from both ADRA Rwanda and the MFI staff members before receiving the loans. In an interview, Participant A3 emphasized that business training given to the borrower groups was the main reason for the reduced loan default: “Another strategy was the training the groups received in business management which enabled them to make a profit to manage to repay their loans.” In another interview, Participant B3 added that money is not the most valuable asset in loan management: “We trained the groups to have sufficient competencies to manage loans. We were not in a hurry to give them loans. The most important asset prospective borrowers need to have is knowledge of how they can use the loans profitably.”

The study participants mentioned specific topics of business and loans that prospective borrowers needed to cover to enhance their capacity to reduce loan defaults. The memorandum of understanding document between the MFIs and ADRA Rwanda (ADRA Rwanda, 2012) showed that ADRA Rwanda would be responsible for sensitizing prospective loan borrowers on the availability of MFI loans and the business skills needed to become a beneficiary of such loans. Article 1.3 read, "[ADRA Rwanda] will be responsible for creating awareness on savings and credit among the youth groups by mobilizing and sensitizing them to develop fundable micro projects and present them to the MFI for funding."

The data on the subtheme of training in business management strongly suggested that the MFI leadership reduced loan default, in part because the borrowers had skills in business and loan management acquired from training. Also, evidence from the data relating to this subtheme showed that MFI leaders reduced loan default because they collaborated with the local government and the NGO staff members to provide skills in loan and business management to prospective loan recipients. Based on the data related to the training in business and loan management subtheme, the MFI leaders reduced loan default because the partnership agreement they had with the NGO had an explicit clause showing that training was the sole responsibility of the NGO.

Subtheme 1.2: The ADRA-MFI partnership. Moyo (2013) found that when MFI leaders partnered with other stakeholders such as farmer groups, not-for-profits, and for-profit organizations, the partnerships benefited all parties synergistically. According to Moyo, when stakeholders partner with each other in the BOP market, MFIs have the opportunity to expand their customer base, and farmer groups gain channels for the supply of inputs, diffusion of technologies, and linkages to markets. Not-for-profit and for-profit organizations achieve their objectives by helping instill business ideas in farmers, create business clusters, reinforce the position of farmers along the value chain, support the farmers to increase profitability, and advocate for the interests of the farmers

(Moyo, 2013).

Hall (2014) showed that partnerships in the BOP market are necessary for the MFIs to become sustainable and to grow. In these partnerships, stakeholders share responsibilities such as providing training, collateral, or strengthening the groups, allowing the MFIs to focus on the provision of financial services (Hall, 2014). Hall suggested that partnerships foster mutual value creation within the BOP market through enhanced network of partners and customers. In the current case study, the MFIs and ADRA Rwanda partnered to increase the number of BOP clients accessing MFI loans for their businesses or start-up enterprises. Data from study participants provided evidence that the partnership helped reduce loan default. In an interview, Participant A1 from ADRA Rwanda detailed how the partners agreed to use the collateral that ADRA Rwanda provided for the group borrowers:

> ADRA Rwanda deposited cash collateral into the MFI account to cover for any loan default the MFI might encounter from the borrower groups. We agreed to be secretive about the collateral deposit to prevent some groups from taking advantage of the arrangement. In the end, all the groups repaid their loans in full, and the MFIs refunded us the collateral deposit.

The memorandum of understanding between the MFIs and ADRA Rwanda showed how the collateral deposit worked. Article 1.2 read, "ADRA Rwanda shall deposit a refundable cash of five hundred thousand Rwandan francs (500.000 Rwf) for each group as guarantee funds in case of loan default by the borrower groups."

Participant B3, a leader of one of the MFIs, shared in an interview that the MFI staff members did not attempt to re-verify the groups that ADRA Rwanda recommended. The participant said the MFI team trusted that ADRA Rwanda staff members prepared the prospective borrowers sufficiently to manage the loans: “We gave the groups the loans they requested because ADRA Rwanda recommended them for loans. We trusted ADRA Rwanda because the groups they sent to us were very trustworthy and fruitful.”

In addition to providing business training, ADRA Rwanda produced and broadcasted several radio programs on the local radio station to motivate groups to access MFI loans. Articles 1.3 and 1.4 of the partnership agreement read: “Creating awareness on savings and credit among youth groups by sensitizing and mobilizing them to develop fundable micro projects and present them to the MFI for funding and creating awareness about existing loan schemes through radio programs.”

In an interview, one of the MFI leaders, Participant C1, confirmed that because of the partnership agreement with ADRA Rwanda, the MFI staff members did not have to do some of the tasks they should have done if they did not partner with ADRA Rwanda:

> [The MFI] staff members did not have to do some tasks because ADRA Rwanda mobilized and introduced the groups to us. ADRA Rwanda gave the group members the significant business and loan management training. So, when the groups came to us, we simply gave them the loans.

Data from this case study showed that the partnership between ADRA Rwanda and the MFIs contributed to the reduced loan default in the BOP market. Through the partnership, borrower groups obtained loans without collateral because ADRA Rwanda provided the financial collateral. The MFIs gained new clients skillful in business and loan management trained by the partner, ADRA Rwanda. Data from this case study provided evidence that MFI leaders reduced loan default from the group borrowers that ADRA Rwanda recommended for loans in the BOP market.

Subtheme 1.3: Strength of borrower groups. The first principle of the Varian (1989) group lending conceptual framework is that *group lending yields better results than individual lending*. Kiros (2014) observed that MFIs preferred group lending to individual lending to reduce loan default because, in group lending, each member is responsible for the repayment of the loans of other group members. Some participants in this present case study mentioned that the reduced loan default occurred because the borrowers worked in groups. Participant C2, a borrower-group member, explained in an interview that in their group they had the vision to use the loan in a profitable business to be able to repay the loan:

> We prepared ourselves to engage in a profitable enterprise. So, we chose a goat rearing project because goat meat is in high demand. When we got the loan, we shared responsibilities amongst ourselves to care for the goats. We made a profit, and we eventually paid back the loan.

In another interview, Participant A1, an ADRA Rwanda staff member, said that groups that formed and existed for a different social cause performed better in business and loan management training than groups that set up to obtain a loan:

> We found that established groups that existed for a social cause were easy to train in business and loan skills. The group members appeared to trust each other more and seemed more interested in learning about business and loan management than

> in receiving the actual MFI loans. The new groups that formed with the sole aim of obtaining group loans seemed to lack seriousness. The members started to ask when they would receive the loans in the first hour of the first training topic.

Participant C1, a borrower-group member, corroborated in an interview,

> When the issue of starting an income generation activity came up in our group, it was never our priority because we were already involved in a different social cause for our community. Although we welcomed the suggestion of the business project, we did not allow the issue of the loans to overshadow the initial objective of our group.

The Varian (1989) group lending concept provides for group punishment if any group member fails to repay the loan. In this present study, available data showed that the study participants never talked about the negative aspects of not repaying the loan, but instead, they spoke of the rewards they would receive, collectively or individually, if they made a good loan repayment. The response of Participant D1 emphasizes this fact in a focus group:

> They [MFI and ADRA Rwanda staff members] encouraged us to pay back the group loan to have the opportunity to obtain additional loans to address our personal needs. So indeed, after the two loans, we took another loan for buying land, and some members of the group even applied and obtained individual loans that we have already repaid.

Study data concerning the subtheme on the strength of borrower groups to manage loan repayment showed that some group characteristics were conducive to reduced loan default. One such characteristic was that the groups that were established and formed for a community cause, engaged in loans and businesses as a secondary activity. Such groups performed much better in training than groups that formed with the primary aim of obtaining loans. The data also showed that group members were motivated to repay the loans to develop a good relationship with the MFIs for future individual or group loans. The data also strongly suggested that using positive language emphasizing on rewards for good loan repayment instead of using negative language emphasizing on penalties for loan default contributed to reducing loan default.

Subtheme 1.4: Profitable projects. Profitability of a business enterprise contributes to loan repayment (Kodongo & Kendi, 2013; Weber & Musshoff, 2013). In an interview, the response of Participant C3, a borrower-group member, was consistent with this finding:

> In training, we learned that the secret of preparing for the next loan is to repay the current loan. So, when we took a loan for beekeeping and vegetable-growing activities, we made sure that these activities generated profits to enable us to repay the loan, to expand our business, and to allow us to achieve our vision that in future, we should not rely on loans anymore.

Another borrower-group member, Participant C1, argued in another interview that the group would still repay the loan if the MFI staff members, ADRA Rwanda staff members, or the local government staff members did not monitor the manner the groups used the loan. The participant argued that the group managed to repay the loan because they had a profitable business and not because the stakeholders monitored the loan use:

> We succeeded in repaying the loan because our goat-rearing project was very lucrative. Each time the goats gave births, we sold the young ones to generate income for loan repayment. When we finished paying the loan, we took another loan for a vegetable-growing enterprise. The vegetable growing project was also very profitable, and we had no problem repaying the loan. So, even if the MFI loan officers or ADRA Rwanda staff members did not monitor our loan use, we would still have repaid the loan. On the other hand, if we did not engage in profitable businesses, we would have defaulted in loan repayment despite the loan-use monitoring of the stakeholders

In another interview, Participant A1, an ADRA Rwanda staff member, confirmed that they recommended for MFI loans only the groups that had business plans with demonstrable profitability based on the market demand for the proposed business product:

> We did not recommend all the groups for the MFI loans because some groups did not identify promising projects. Sometimes, even when we were ready to recommend a group, the group members themselves would ask us to wait a bit because they were not very confident of the potential profitability of their prospective business.

Data from the responses of the study participants showed that among the contributing factors to reduced loan default was the profitability of the enterprises the borrower groups proposed to do. The data also revealed that from the perspective of the borrowers, having adequate skills in business management and identifying a profitable business were the contributing factors to the reduced loan default and not the loan-use monitoring. The availability of these vital factors notwithstanding, study data showed that the staff members of the MFIs, ADRA Rwanda, and the local government monitored the borrower groups to influence good loan repayment and to prevent ex-post moral hazard effects. An ex-post moral hazard occurs when a borrower can repay the loan but feels no pressure to repay (Randøy et al., 2015).

Study data revealed that 100% of the MFI and ADRA Rwanda participants did not attribute the reduced loan default to the subthemes of the strength of the borrower groups and the availability of markets. Similarly, study data also showed that 100% of CBG participants and CBG focus groups did not attribute the reduced loan default to the partnership between the MFIs and ADRA Rwanda. This finding strongly suggested that different participants in the study had knowledge and were familiar with the experiences that involved them directly. Subthemes of the strength of borrower groups and the availability of markets directly affected CBG participants and members of CBG focus groups, and that seems to be the reason that only these participants mentioned these subthemes. Similarly, the subtheme of partnerships directly affected the MFI and the ADRA Rwanda participants whose organizations were in a partnership. This direct involvement in the partnership seems to be the reason the MFI and the ADRA Rwanda participants mentioned partnerships as one of the causes of the reduced loan default.

In this component, the discussion centered on how four subthemes contributed to the central theme concerning intrapreneurship and environmental business opportunities. Strategies for reduced loan default was the research question for this study and data from the study participants for each of the subthemes have provided evidence that the subthemes contributed towards the reduced loan default. The next component is a discussion of the findings concerning Theme 2: Favorable loan repayment conditions.

Theme 2: Favorable Loan Repayment Conditions

Conditions for loan repayment contribute towards the success or failure of loan repayment. Baland, Gangadharan, Maitra, and Somanathan (2017) showed that internal innovations such as an emphasis on a long-term lending relationship during promotions of MFI loans may discourage loan default. Banerjee and Jackson (2017) observed that favorable conditions in the market such as lending to established and organized groups also reduce the chances of loan default. In this case study, data showed that both internal and external favorable loan repayment conditions existed.

Interview question 2 was aimed to solicit responses around the joint liability tenet of the Varian (1989) group lending conceptual framework. According to Varian, through the joint liability tenet, each member of the borrowing group is accountable for his or her loan and the loans of other group members. Some researchers found evidence that emphasis on joint liability in group lending discouraged loan default and improved loan repayment (Baklouti, 2013; Becchettia & Conzo, 2013; Mookherjee & Motta, 2016; Presbitero & Rabellotti, 2014). Conditions that encouraged loan repayment in this case study included innovative loan repayment methods created within the MFIs and favorable external conditions that existed in the market. Table 5 shows a list of the study participants, the frequency that they mentioned the favorable conditions that promoted the loan repayment, and the percentage of the responses on this theme to their total responses in the study. Two subthemes emerged from the theme of favorable loan repayment conditions. The subtheme for the innovative internal condition was the desire to have a long-term relationship with the borrowers, and the subtheme for the favorable external condition was the existence of established groups.

Table 5

Theme 2: Favorable Loan Repayment Conditions

Participant code	Internal conditions		External conditions	
	Subthemes			
	Desire for a long-term relationship		Availability of established groups	
	f	%	f	%
Participant A1	3	10	1	6
Participant B1	1	14	1	5
Participant B2	1	9	1	7
Participant B3	2	10		
Participant C1	1	9	1	5
Participant C2	3	25	1	2
Participant C3	3	18	1	7
Participant D1	2	13		
Participant D2	2	9	3	10
Participant D3	3	21	4	13

Subtheme 2.1: Desire for a long-term relationship. In a study about critical success factors in relational lending, Brewer, Wilson, Featherstone, and Langemeier (2014) found that when both borrowers and lenders seek to have a good rapport, borrowers work harder to repay their loans to keep the lender interested in the

relationship. The lenders, on their part, become more personal and interested in the activities of the borrowers and they tell the borrowers about the benefits of good loan repayment (Cadsby, Du, Song, & Yao, 2015). In this present study, data showed that MFI leaders and ADRA Rwanda staff members encouraged the borrowers to repay their loans to secure a long-term relationship of bigger loans with the MFIs. Participant A3, an ADRA Rwanda staff member, responded in an interview that emphasis on the need for a long-term relationship between the borrowing groups and the MFIs encouraged the borrowers to repay the loans:

> The primary strategy was communication and sensitization. The MFI staff members organized several meetings with the group members. The staff members informed the group members that the MFI was interested in a long-term relationship. In a long-term relationship, group members would receive bigger loans with better conditions. Future bigger loans would enable the group members to engage in bigger projects that would transform their lives and the lives of other community members.

In another interview, Participant A1, another ADRA Rwanda staff member, affirmed this position by mentioning that the group made a good loan repayment because the members valued the relationship they had with the NGO through business and loan management training and recommendation for a loan to the MFI. So the group members did not want to tarnish the good relationship because of loan default:

> We constantly encouraged the borrower groups to work hard in loan repayment to have an opportunity to get another bigger loan for larger enterprises. One of the

> reasons they made sure they repaid the loan was because they did not want to have a bad relationship with us.

An MFI leader, Participant B1, observed in another interview that MFI loan officers emphasize on good loan repayment as a building block for strong relationships with MFIs that lead to bigger loans to the borrower groups:

> Sometimes we organized field days to show the group members how other borrowers were repaying their loans. These were learning sessions for all borrowers to learn from each other. The main message was that if they repaid their loans, they would have an opportunity to take more loans.

Based on such encouragement, borrower groups were motivated to repay their loans to secure a future relationship. Participant C2, a borrower, shared the group motivation in an interview, “We needed to maintain a healthy relationship with the MFI to be able to go back to them in future for more loans.”

The emphasis of the tenet of joint liability is on punishing all group members if any member defaults on loan repayment (Varian, 1989). Chowdhury et al. (2014) explained that under joint liability, the entire group receives punishment in the case of loan default by a single member. Fear of punishment in joint liability makes borrowers repay the loan. In this current study, there were no data to support the idea of using punishment to discourage loan default. The available data show that promises for a better future for the borrower group members and their families discouraged loan default.

Subtheme 2.2: Availability of established group borrowers. The Varian (1989) group lending conceptual framework revolves around giving loans to groups instead of individuals to reduce loan default. In this current study, I asked the research participants to name some factors that contributed to the reduced loan default. Some respondents indicated that the combination of the availability of established groups and the group loan system led to the reduced loan default. An ADRA Rwanda staff member, Participant A1, explained in an interview that working as a group helped the individual members of borrower groups to open personal accounts with the MFI so no individual member would have wanted to ruin the reputation of the group as doing so would also destroy their private enterprises:

> They [borrower-group members] encourage each other within the groups to repay the loan. Most of the group members also opened individual accounts for personal businesses with the MFIs which their groups signed for as witnesses. So, every member knew that if they stopped supporting the group loan repayment, the action would lead to them [individual group members] losing their privileged status with the MFI on their loans and they would also lose the respect of the fellow group members.

A member of the borrower group, Participant C1, explained in an interview that being in a group made the loan repayment easy. Participant C1 said the members used the loan on a group project instead of on individual projects within the group, “We worked as a group, so there was no incident of any individual member failing to make a loan repayment.” In another interview, Participant C3 explained that if any member were unable to repay the loan, the group would pay for them: “If anybody failed to make their monthly repayments, the group would use the group savings to pay for them, and the concerned members would refund the group later.”

The data in this study confirmed that group lending led to reduced loan default because there was no opportunity to default. According to the data, group lending prevented loan default because if the borrowers did a collective activity, strategic default would be highly unlikely in a group. A strategic default occurs when a borrower or members of a borrower group agree to default on loan repayment because they cannot repay, or because they do not want to repay (de Quidt et al., 2016). The study data have also shown that if an individual member failed to meet his or her loan repayment commitment, the group members would repay for the affected member.

Theme 3: Strategies for Choosing Borrower Groups

MFI leaders need to select group borrowers carefully to prevent strategic default. Freedman and Jin (2017) advised that MFI leaders need to concentrate on giving loans to group applicants who formed their groups for a different mission instead of to get loans. Gan et al. (2013) observed that voluntary-forming groups prevented ex-ante moral hazard in loan repayment because the members come together based on trust of each other and wishing to work together. The theme of strategies for choosing borrower groups includes the manner the members came together and the purpose of which the members formed the group.

The basis for this theme is the second tenet of the Varian (1989) group lending concept. The principle of the tenet is that group members evaluate and choose each other through peer screening and peer selection. Peer selection helps to reduce loan default because the process involves individuals choosing each other voluntarily to form a group to accomplish an agreed purpose (Gan et al., 2013). Information asymmetry conditions prevent outsiders from knowing the necessary information about other individuals to make an informed decision about their application to belong to a group (Aggarwal et al., 2015; Nwachukwu, 2013). Gan et al. (2013) argued that peer screening and peer selection of borrower-group members reduce loan default. Interview Question 3 focused on soliciting information about the formation of the borrower groups. Table 6 has a list of the study participants, the frequency they mentioned the manner the groups formed, and the percentage of their responses to this theme as a proportion of their total responses in this study. Two subthemes emerged from this theme: (a) existing groups dedicated to resolving community issues and (b) groups that formed voluntarily.

Table 6

Theme 3: Strategies for Choosing Borrower Groups

Participant code	Group mission		Manner of group formation	
	Subthemes			
	To solve community problems		Voluntary groups	
	f	%	f	%
Participant C1	1	4	1	6
Participant C2	2	18	2	19
Participant C3	1	9	2	20
Participant D1	1	6	1	4
Participant D2	1	5	1	7
Participant D3	2	22	1	10

Subtheme 3.1: Existing groups with a mission to resolve community issues. Data from some participants' responses show that members formed their groups with the purpose of solving some community issues such as HIV/AIDS and other social and livelihood issues. Participant D1 answered in a focus group that their group began when individuals came together as a cultural troupe to spread HIV/AIDS awareness messages to their community to reduce the impact of HIV/AIDS: "We started as a dancing and singing group for the HIV and AIDS awareness messages. All the members were volunteers."

In an interview, Participant C1 shared a similar story: "Originally, we came together as an anti-AIDS group spreading messages through dances, songs, and plays on how to prevent new HIV infections and, if one was already infected, how to live positively with the virus." In another focus group, Participant D2 responded that their group started as a church choir: "Before we became a cooperative, we were a choir for the local church." The familiar story about the borrower groups in this study is that they all grouped around a common social or livelihood cause and they attracted volunteers to join.

The original objective of group members was to serve their communities. The group members did not abandon their original purpose when they agreed to engage in loans and businesses. Participant D3 confirmed in a focus group, "We are still involved in spreading HIV/AIDS awareness messages through a dance troupe. Besides, we grow vegetables as a business, and we take loans to improve our vegetable-growing business."

During the literature review process for this current study, no literature with group members that took loans and were formed in the same manner as groups in this study existed. In the Varian group lending conceptual framework, Varian (1989) and other researchers (Gan et al., 2013; Nawai & Shariff, 2013) focused on the occurrence of peer screening and peer selection at the group formation stage with the purpose of accessing MFI loans. In this current study, evidence from the data showed that the MFI leaders gave loans to group members who were already in groups for a different objective.

Subtheme 3.2: Voluntary membership. According to Varian (1989), principles of the peer screening and peer selection tenets are two-fold. The first principle is that prospective group members choose to join a group freely and the second is for group members to assess whether the prospective members are suitable candidates for the group. In this study, data from the responses of the study participants showed that both principles applied.

The response of Participant D3 in a focus group revealed that prospective members were either invited or had applied to join the group: “One person brought the idea of starting a cooperative. He invited two individuals to join him in starting the cooperative. Eventually, other individuals requested to join the group, and we accepted them.” In an interview, Participant C3 said that the practice of applying to join a group and having the group assess the applicant’s eligibility is an ongoing process: “Whoever wants to join the group applies to join, and the group members decide whether to accept or reject the application based on the information they have about the applicant. Also, whoever wants to leave the group just resigns.”

Data relating to the subtheme of voluntary membership provided evidence that peer screening and peer selection of the members of the participant borrower groups helped reduce loan default in the BOP market. This finding confirmed the Kiros (2014) and the Presbitero and Rabellotti (2014) findings in the literature review that members of a self-selecting group tend to repay their loans. The reason for the good loan repayment is that self-selecting group members mitigate for adverse selection (Presbitero & Rabellotti, 2014). Gan et al. (2013) argued that individuals who peer-screen and peer-select each other form safe groups for loan repayment due to information symmetry factors. In this current case study, the data showed that peer screening and peer selection are continuous processes during the lifetime of voluntary groups.

Theme 4: Loan Use Monitoring Strategies

Regular monitoring of loan use contributes to reduced loan default. Agbeko, Blok, Omta, and Van der Velde (2017) argued that MFIs need to have organizational structures to monitor the business performance of their debtors continuously to reduce loan default. Njuguna, Gakure, Waititu, and Katuse (2017) observed that the task of monitoring loan use in the BOP market may be too costly for MFIs which may lead to a high cost of the loans. Njuguna et al. suggested that if MFI leaders partner with other stakeholders, the cost of monitoring may reduce due to the responsibility-sharing factor that exists in partnerships. In this present study, the data showed that the participating MFIs, the NGO, and the government technical staff members monitored the loan use among the borrower groups.

This theme emerges from the third tenet of the Varian (1989) group lending conceptual framework. The tenet addresses monitoring loan use through peers within the borrower groups (Varian, 1989). According to some researchers (de Quidt et al., 2016; Gan et al., 2013; Ibtissem & Bouri, 2013), peer monitoring helps to reduce loan default because group members exert pressure on potential loan defaulters to repay their loans. The focus of Interview Question 5 was to seek information concerning the manner the stakeholders used monitoring strategies to reduce loan default.

Table 7 includes a list of the study participants, the frequency of which they mentioned the monitoring strategy used, and the percentage of their monitoring plan responses against their complete responses in the study. Three subthemes emerged from this theme in two categories of an internal task and partners. The internal function category included one subtheme of monitoring by the MFI staff members. The partners' category had two subthemes of monitoring by NGO and government staff members.

Table 7

Theme 4: Loan Use Monitoring

Participant code	Internal function		Partners			
	Subthemes					
	MFI loan officers		NGO staff members		Government staff members	
	f	%	f	%	f	%
Participant A1	1	1	1	2		
Participant A2	1	8	5	30		
Participant B1			2	26		
Participant B2	1	10				
Participant B3	1	15				
Participant C1	1	6	2	12	1	8
Participant C2	1	15				
Participant C3	1	4	1	4		
Participant D1	1	7	1	7		
Participant D2	1	8	1	4		
Participant D3			2	11	1	6

In a study about the importance of loan-use monitoring in Malaysia, Nawai and Shariff (2013) found that monitoring is statistically significant in the relationship between delinquent and good borrowers. According to the third tenet of the Varian (1989) group lending conceptual framework, loan default occurs less in group lending than in individual lending because group members monitor and pressurize each other to repay the loan. In this study, no respondent mentioned peer monitoring or peer pressure. They, however, mentioned that outside stakeholders monitored the groups' loan use. A possible explanation for this deviation from the conceptual framework tenet may be because the borrowers used the loans for group activities. In that sense, the group could not monitor itself. In the cases where peer monitoring and peer pressure have occurred, lenders gave loans to individuals for individual activities through the groups.

Subtheme 4.1: MFI loan officers. The data in this study showed that MFI staff members regularly monitored how the borrower groups used the loans. In an interview, Participant A1 said that the MFI staff members monitored whether borrower groups used the loans as indicated in the approved loan agreement: "The MFI loan officers always monitored the loan use to ensure the borrowers used the loan according to the loan agreement." Participant A2 added in another interview that even the ADRA Rwanda staff members monitored the loan use among the borrower groups to prevent loan default because the occurrence of loan default would signal a failure of the ADRA Rwanda loan recommendation process:

> When the groups received their loans, we as ADRA Rwanda staff members helped the MFI credit officers to monitor loan use by getting closer to the groups to ensure their enterprises were generating enough profit to enable the groups to pay back the loan. We felt we needed to help because if any of the groups failed to repay the loan, it would put to question the effectiveness of our recommendation process for loans of the potential borrower groups.

The borrower group member participants said that the MFI credit officers monitored the groups at different periods for three different reasons. First, the credit officers monitored the groups after the groups submitted their applications for loans. The purpose was to verify whether what they had declared in their loan application was true.

Second, the loan officers monitored the groups after the groups received the loans to verify that the groups used the loans for the intended purpose. Third, the loan officers monitored the groups during the loan servicing period to reduce the chances of strategic default. Participant D1 explained in a focus group, “MFI credit officers came to the field to see if we were ready to carry out the activities we indicated in the loan application forms. When they were satisfied, they gave us the loan.” Participant C2 corroborated in an interview and added, “After giving us the loan, the loan officers used to visit until when we finished the loan repayment.”

The MFI leaders participating in the study emphasized that MFI operations require monitoring of borrowers as a standard practice. Participant B2 stated in an interview, “Credit officers routinely monitored the borrowers to certify that they were using the loan in the way they promised to use it.” In another interview, Participant B3 added,

> Before giving out the loan, we visited the prospective borrowers to be sure that what they proposed in the loan documents is what was showing on the ground. For example, if the proposal was to rear cows for milk, we wanted to see that there was a suitable place for keeping the cows.

Evidence from the study data showed that the loan officers actively monitored loan use. The evidence confirmed the van den Berg et al. (2015) finding that loan use monitoring reduces loan default. Van den Berg et al. showed that MFI loan officers conducted intensive monitoring of loan use among borrower group members to reduce loan default. Kiros (2014) observed that borrowers feel demotivated to divert the loan funds when MFI loan officers make regular loan monitoring visits. Amwayi et al. (2014) demonstrated that lack of strategies to devise various institutional mechanisms, such as loan monitoring, increases the risk of loan default. Wongnaa and Awunyo-Vitor (2013) emphasized that in the MFI loan management, monitoring loan use helps to put borrowers in check, so they use the loan profitably. However, despite that the ADRA Rwanda staff members recommended some groups for MFIs loans, and provided financial collateral guaranteeing the group the loans, the MFI credit officers still monitored the groups' loan use for repayment compliance.

Subtheme 4.2: NGO staff members. All the study participants mentioned that ADRA Rwanda staff members monitored the loan use of the borrower groups. Participant A1, an ADRA Rwanda staff member, explained that they monitored the borrower groups to encourage them to remain active in pursuing profitability: "We made visits to the borrower groups to encourage them to work hard in their enterprises to ensure their businesses remained profitable." In an interview, Another ADRA Rwanda staff member, Participant A2, said that they monitored the groups on behalf of the MFIs:

> Before the groups received the loans, MFI leaders relied on our recommendations for loans for some prospective borrower-groups. So, as ADRA Rwanda staff member, we had to be very sure that we recommended for loans prospective borrower groups that demonstrated some skills in loan and business management. We were monitoring the groups when they were servicing the loans to encourage and advise them to keep depositing some money into their MFI group account to ensure they had enough reserves for loan repayment.

Participant A2, an ADRA Rwanda staff member, clarified in an interview that unlike the loan-use monitoring by the loan officers from the MFIs; NGO monitoring was intended to ensure that borrower groups used their loans in potentially profitable businesses:

> We were not too strict on whether the borrowers used every penny for the approved loan purpose. We just wanted to be sure that whatever they used the funds for; they would be able to make a profit to manage the loan repayment.

Participant D1, a borrower-group member, corroborated Participant A2 in a focus group and added, "ADRA Rwanda staff members kept coming after we already started using the loan in business to encourage us to work harder and to remember to make the scheduled loan repayments."

In the partnership agreement between the NGO and the MFIs, the NGO was responsible for monitoring both the issuance of the loans by the MFIs and the loan repayment of the borrower groups. Article 1.5 of the partnership agreement provided the guidelines, "ADRA Rwanda shall monitor the issuance and repayment of loans by the Umurenge MFI and the borrower groups, respectively."

The ADRA Rwanda staff members monitored the borrower groups at different levels for different reasons. At the first level, the staff members monitored the groups to verify that the business proposals they presented with their MFI loan applications reflected the competencies and capacities of the prospective borrower groups. The NGO staff members also monitored the groups after the groups received the loans to ensure the groups reserved part of their profits for loan repayment. Finally, ADRA Rwanda staff members monitored the borrower groups in keeping with the partnership agreement with the MFIs.

Subtheme 4.3: Government staff members. The government of Rwanda has a decentralized governance system. The lowest administrative structure level is the sector serving between 15,000 and 20,000 citizens. Data from the borrower-group participants showed that the government technical staff members monitored the manner the borrower groups used the loans. In a focus group, Participant D3 said that both the ADRA Rwanda staff members and the government agronomist used to visit their group regularly: “The sector agronomist used to visit us regularly to advise us in good methods of growing vegetables. So, the ADRA team and the agronomist made sure that we used the loan for the intended purpose.” Participant C1 stated in an interview that the local government officials were active in monitoring loan use, “The local leaders monitored and encouraged us to ensure we followed best practices of doing business to manage to repay the loan.”

Nawai and Shariff (2013) showed that monitoring borrower groups through various stakeholders such as government authorities, entrepreneur’s club, or mentor-mentee programs helps improve the chances for borrowers to enhance their businesses, to generate a profit, and to be able to repay their loans. In this current case study, data from the borrower-group participants showed that after receiving the loans, the government agronomist visited them frequently. During the visits, the agronomist honed the skills of the group members in their activities to help the group members become more productive so they could manage to repay their loans. Overall, the peer monitoring tenet of the

Varian (1989) group lending conceptual framework did not apply in its entirety because the groups received the loans and used them in a slightly different set up from the set up illustrated in the conceptual framework.

The conceptual framework addresses borrower group members who take individual loans in a group (Varian, 1989). In this case study, group members obtained loans for group enterprises that the group members implemented collectively. Three stakeholders including MFI credit officers, ADRA Rwanda staff members, and the government agronomist monitored the groups which might have helped the MFIs to achieve reduced loan default.

Loan Process

This qualitative case study was an investigation of strategies that MFI leaders use to achieve reduced loan default in the BOP market. Evidence from the study data showed how the stakeholders in the loan process contributed to reduced loan default. In Figure 1, I provide a summary of the process.

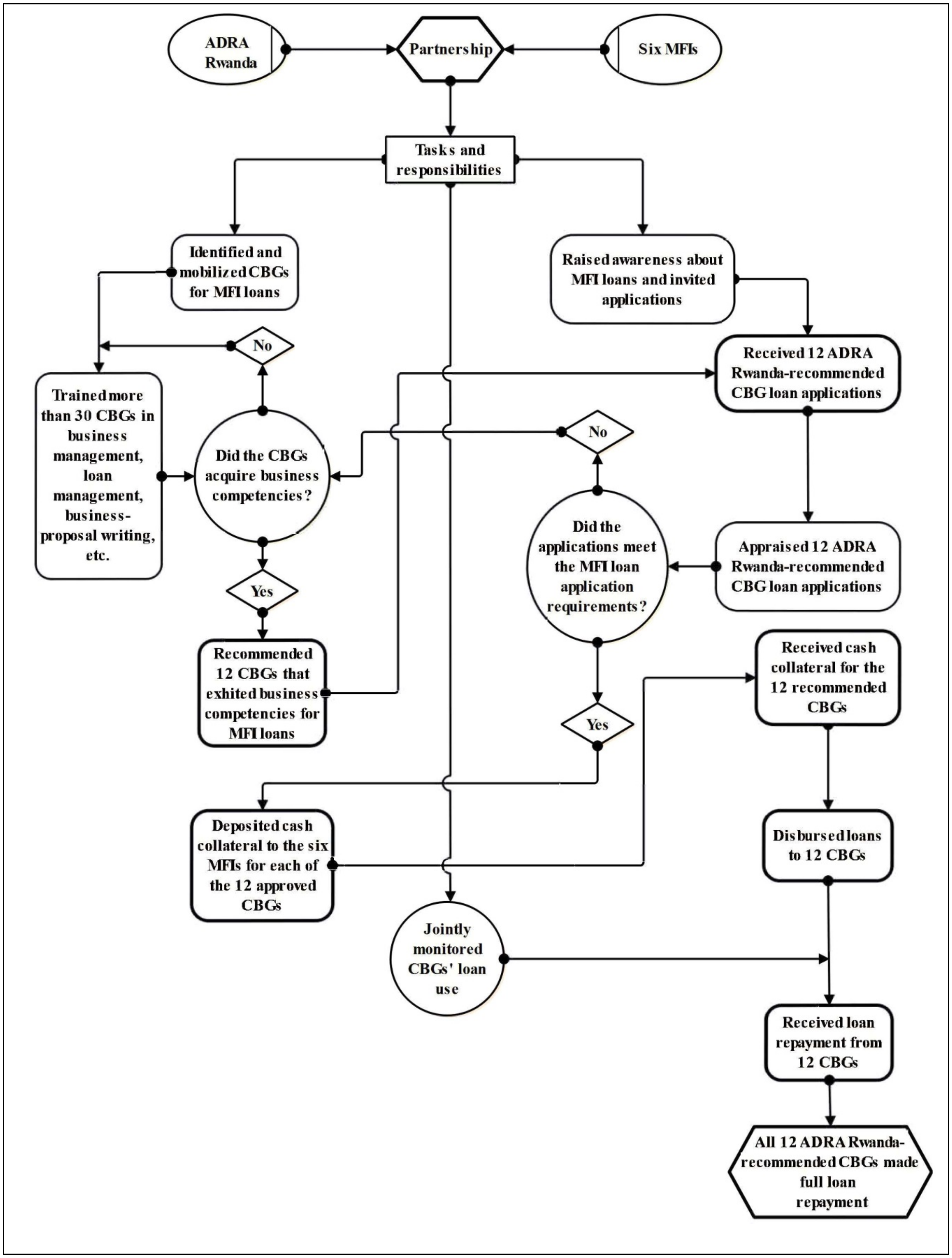

Figure 1. The loan process.

As shown in Figure 1, ADRA Rwanda partnered with six MFIs to help CBG members become creditworthy MFI loan users. Through this partnership, each partner committed to performing specific activities with the prospective and approved CBG borrowers. ADRA Rwanda provided training in business management, loan management, and how to write business plans that MFIs would fund through loans. Throughout the project period, ADRA Rwanda staff members assessed the business competence levels of the CBG members and recommended for MFI loans those groups that passed the assessment processes.

The groups that did not qualify were put back into the ADRA Rwanda training program until when they would pass the loan qualification assessment, within the project period that lasted for 18 months between May 2012 and October 2013. A total of 12 CBGs qualified for loans during this period, and they all repaid the loans in full. When the project closed, the MFIs refunded all the collateral deposit to ADRA Rwanda as none of the recommended CBGs defaulted on loan repayment.

Summary of the Findings

Table 8 is a summary of the study findings based on the data. The column of the primary theme has a list of themes that emerged from the administration of interview questions to the research participants. The interview questions focused on the main research question and the conceptual framework. The column of category has classifications of subthemes conceived from the reviewed literature. The subtheme column is a list of subthemes under each main theme. The column of outcomes shows the impact of the implementation of the subthemes. According to the evidence from the study data, the sum of the outcomes as listed contributed to reduced loan default that occurred in this study.

Table 8

Summary of the Findings

Primary theme	Category	Subtheme	Outcomes
Intrapreneurship and environmental business opportunities	Intrapreneurship factors	Training in business	Competence in: loan and financial management; identification of potential products and markets; promotion of products; writing business plans and business proposals; doing business as a cooperative; identification of potential partners.
		NGO-MFI partnership	Provided access to new markets; provided the collateral on behalf of the borrowers; provided training to borrowers.
	Environmental business opportunities	Strength of groups	Group mission more important than obtaining the loan; consider MFI loans as a means to achieve their mission and not an end in itself; peer selection; peer monitoring; peer pressure.
		Availability of markets	Businesses were profitable because there was a very high demand for vegetables and honey that most groups produced.
Favorable loan repayment conditions	Internal conditions	Desire for a long-term relationship	Long-term relational clients; repayment schedules responsive to the needs of the clients; preferential loans to groups that make good loan repayment.
	External conditions	Availability of established groups	Stable group members (less risk of strategic default); members have a group mission to fulfill using the loan; less need to use MFI loan officers for monitoring.
Strategies for choosing borrower groups	Group mission	To find solutions for community issues	Groups are committed to a cause; less likely to default strategically; members support each other to avoid loan default.
	Nature of membership	Voluntary membership	Peer selection; information symmetry; trust among the members; prevents other group members from defaulting to avoid social rejection.
Loan use monitoring	MFI	Loan officers	Regular monitoring visits reminded the borrowers to honor repayment schedules.
	Partners	ADRA Rwanda staff members	Regular monitoring visits ensured timely advice to the groups whenever they needed help; borrowers were motivated to keep a good relationship with the NGO.
		Government technical staff members	Regular monitoring visits motivated borrowers to repay, sometimes for fear of losing future government benefits.

Applications to Professional Practice

The purpose of this qualitative case study was to explore strategies that MFI leaders use to reduce loan default in the BOP market. Responses from the participants, a review of the organizational documents of this case study, and a review of the literature on the microfinance businesses worldwide provided the basis for understanding the challenges of MFI loan default in the BOP market. The themes that emerged from the data of this study reinforce the conclusions in the literature review. Conclusions in the literature review include one that MFI leaders may reduce loan default if they manage their businesses within the provisions of the principles of the Varian (1989) group lending conceptual framework. The data in this study showed that although the Varian group lending concept was the best framework for explaining reduced loan default, some innovations to the application of the processes of the principles of the framework reduced loan default. Figure 2 provides a comparison between the application of the principles of the Varian ground lending concept that lead to reduced loan default, and the innovative application of the principles by the case study participants to reduce loan default.

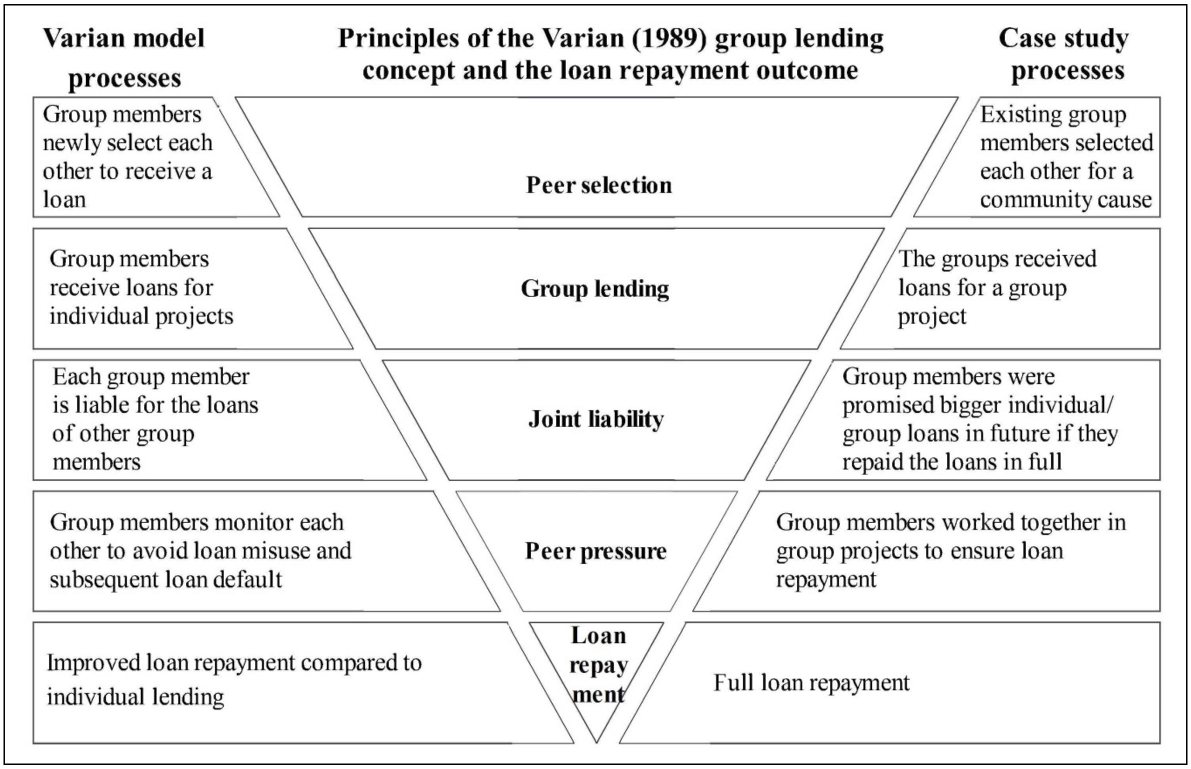

Figure 2. Varian model versus case study processes

The findings from this study as illustrated in Figure 2 may help MFI leaders to reduce loan default in the BOP market. Adoption of the Varian model processes may reduce loan default compared to other types of lending. The adoption and application of the processes used in this case study may enhance the reduction of loan default in the BOP market that may also help to attract other investors into the MFI business. Investors such as local governments and international development agencies may commit to working with MFIs that reduce loan default to speed the process of poverty reduction, the social objective for MFIs (Dodson, 2014). Similarly, the findings of this study may also help the high-level policy makers to formulate financial inclusion policies to promote symbiotic partnerships among the financial inclusion stakeholders. London, Anupindi, and Sheth (2010) observed that partnerships in the BOP market help alleviate constraints and create value for the local populations and the partners themselves.

The study findings showed that forging partnerships with other stakeholders in the operation areas may improve chances of success at a lower cost. International development agencies and local governments are interested in the acceleration of poverty reduction in low-income markets, and they set aside some funds for this purpose. However, as Kiros (2014) found, borrowers strategically default on loans from NGOs, international development agencies, and their local governments because the loan recipients consider such loans as donations because normally, there are no punitive measures against the loan defaulters. Banks and MFIs punish loan defaulters through high interest rates or possession of the loan collateral (Kiros, 2014). Data from the current study show that ADRA Rwanda refrained from directly getting involved in loan disbursement despite having the funds for that purpose, but chose to use the funds to provide cash collateral for the CBGs the NGO recommended for MFI loans. ADRA Rwanda concentrated on building the capacity of CBG members in business and loan management, the NGO’s specialty. The MFIs provided the loans, the MFIs’ normal business. By working together, each of the partners achieved their objectives in a less constrained manner. The MFIs made a profit through reduced loan default while ADRA Rwanda achieved development sustainability of the CBG members trained in business and loan management. The business and loan management skills would enable the CBG members to start and grow their businesses and reduce poverty in their households and communities.

The study findings strongly suggested the importance of the need for prospective borrowers to acquire proper life skills and to change their mindset. Study data showed that all the study participants responded that training in business and loan management was the main critical factor that helped the borrowers to repay their loans. Ibtissem and Bouri (2013) explained that one of the challenges in the loans business was that lenders sometimes release the loans before the prospective borrowers gain sufficient skills to manage the loans. Kodongo and Kendi (2013) found that the problem in the financial inclusion interventions is not the shortage of loans, but the lack of business and loan management skills among the borrowers. In an interview, the response of Participant C3, a group member, is informative in this regard:

> They [MFI loan officers and the ADRA Rwanda staff members] encouraged us to repay the loan emphasizing that doing so would enable us to obtain more loans in the future. So, we made sure we repaid the loan because we wanted to be able to get more loans in the future. However, we have not taken another loan yet because we want the new members who joined our group recently to have training in business and loan management training before we consider approaching the MFI for a loan. We do not want to rush into taking another loan just for the sake of getting the loan. We would like to be confident that we will make a profit and be able to repay the loan.

The data from this current case study suggests that with appropriate business and loan management training, prospective borrowers can shift their priorities from obtaining the loans to acquiring the right business and loan management skills.

Implications for Social Change

Profitability of MFIs may produce social change. If MFIs become profitable, the MFI leaders may expand the services of their businesses in the BOP market to serve more clients who may lead to economic growth that may help reduce poverty (Armendáriz et al., 2013). In a recent study, Azad, Munisamy, Masum, and Wanke (2016) showed that reduced MFI loan default improves the MFI financial sustainability. Azad et al. argued that MFI financial sustainability corresponds to effecting social change through poverty alleviation because establishing a profitable institution ensures long-term operation and service to society. As MFIs operate under the double bottom line of social outreach and financial stability, a sustainable and efficient MFI serves the welfare purpose better than a bankrupt MFI (Azad et al., 2016). The findings of this study showed that reduced MFI loan default generated profit for MFIs, increasing the chances for the MFIs to contribute to the acceleration of poverty reduction, the social objective of MFIs (Wijesiri et al., 2015).

According to George, Corbishley, Khayesi, Haas, and Tihanyi (2016), social change occurs when the private sector generates employment, investment, and economic output. In a study conducted to find factors that contribute to positive social change and the development of African countries, among other factors, George et al. identified a sustainable private sector as one of the critical positive social change factors. Data from the current study suggests that reduced loan default in the BOP market improved the financial efficiency of MFIs, enabling them to effect positive social change in the society.

New entrepreneurial skills among some community members, especially the female CBG members would increase the involvement of women in entrepreneurial activities which may lead to the improved status of women, enhance family and community well-being, and the broad society. In a study to investigate how the membership of a collectively owned social enterprise politically empowers women, Haugh and Talwar (2016) found that although many consider entrepreneurship integral to development; however, cultural and social norms impact on the extent to which women engage with, and accrue the benefits of, entrepreneurial activities. Haugh and Tawal argued that when women or any disadvantaged groups acquire new business skills and opportunities for participation in representation activities for increasing economic, cultural and political empowerment, the concern groups increase their power and voice. In another study, Glänzel and Scheuerle (2016) found that when women and youths acquire business skills, the process is an innovation in itself that helps redefine societal logics to benefit the majority in society. In this current study, the borrower CBG members included women and youths who acquired business skills to manage microenterprises and helped reduce MFI loan default in the BOP market.

As a consequence of the acquisition of business skills, the MFIs generate profits because of the reduced loan default. Positive social changes occur in many areas including in increased household incomes because of doing profitable businesses. Improved income at household level would help families afford better clothing, better housing, and improved nutrition. Improved nutrition would reduce stunted growth and malnutrition among children and improve their health status. Families would manage to pay tuition for quality education of their children. The communities at large would benefit because when the community members start having more disposable income, they may introduce various development projects such as contributing for better community centers where the community members could access information or lessons on development activities. The government would also benefit because, with fewer poor people, the government would channel its funding toward other public services such as the construction of school blocks and health centers, instead of the essential services targeting the poor such as monthly subsistence allowances. Rechanneling of government funds to these vital public services would result in improved health care and education services for the general population, thereby raising the standard of living for the people.

Recommendations for Action

Identification of themes and subthemes about strategies MFI leaders used to reduce loan default in the BOP market occurred after an analysis of the responses of the study participants, and a review of the organizational documents. Recommendations from this qualitative case study may help some MFI leaders who are experiencing high loan default to adopt some strategies that may contribute to reducing loan default in the BOP market. Adopting the strategies suggested in this study may need a critical consideration of some factors in the MFI business environment such as the availability of potential partners, the nature of groups, the history of loans, and the mindset of the community members toward loans.

Strategy for choosing potential partners. Identifying and working with appropriate partners is critical to the success of an MFI. In a study to evaluate the impact of cross-sector partnerships, van Tulder, Seitanidi, Crane, and Brammer (2016) noted that cross-sector partnerships are one of the most exciting and dynamic areas of research and practice within business and society relations. Van Tulder et al. described cross-sector partnerships as the bridging of different sectors (public, private, and nonprofit). are thriving around the world. Van Tulder et al. concluded that cross-sector partnerships are attractive because when the partners manage their partnership well, the cross-sector partnership helps to deliver enriched and innovative results for economic, social, and environmental issues through the combination of the capabilities and assets of organizational actors across different sectors. In this case study, the partners were from all the three sectors of public, private, and nonprofit sectors working together to achieve economic and social development. Combining their capabilities, assets, and innovations, the partners managed to reduce MFI in the BOP market.

To create productive cross-sector partnerships, stakeholders need to analyze the stakeholders in the environment to identify potential partners. Soja (2015) defined stakeholder analysis as a technique to determine the key people and organizations that one has to win over to succeed in their planned activities. A stakeholder analysis leads to a stakeholder plan through which one designs specific plans to win over particular relevant stakeholders (Soja, 2015). The stakeholder analysis leads to the co-creation of what Dentoni, Bitzer, and Pascucci (2016) termed as dynamic capabilities for stakeholder orientation with four dimensions of (1) sensing, (2) interacting with, (3) learning from, and (4) changing based on stakeholders. Dentoni et al. argued that the co-creation of dynamic capabilities for stakeholder orientation is crucial for cross-sector partnerships to create a societal impact because stakeholder-oriented organizations are more suited to deal with large, messy, and complex problems. The MFI loan default problem is a large, messy, and complex problem because many MFIs fail to achieve sustainability because of the loan default problem.

Conducting a stakeholder analysis and developing a stakeholder plan would help MFI leaders to identify a common ground so that the various stakeholders could play their role to enhance the efforts of the MFI leaders to reduce loan default. As the data in this case study showed, ADRA Rwanda, an NGO, had an interest in alleviating the poverty of the youth groups in the community. By partnering with the NGO, the MFIs were able to gain from the business training that the NGO provided to the members of the potential borrower groups as the qualified members became experienced entrepreneurs and good loan payers.

On their part, the NGO staff members achieved their objective of alleviating poverty because those who took the loans and engaged in businesses made profits and became involved in more businesses beyond the first loans as they established a direct relationship with the MFIs. The government stakeholders also benefited because they were able to work with organized groups who already had a vision of what they wanted to achieve. The success of the groups in their agribusiness activities became the success of the government agronomists who were regularly monitoring the groups as well. So, conducting a stakeholder analysis and planning to go into a symbiotic partnership with some stakeholders would enhance the chances of MFIs reducing loan default in the BOP market.

Strategy for choosing borrower groups. The data in this case study showed that the MFI leaders disbursed loans to group members formed to tackle social issues in the community long before they considered engaging in loans. Therefore, a strategy to reduce loan default would be to work with community groups that existed before the introduction of the loans. In a study to explore the need for planned approaches to business partnerships, Lee, Hope, and Abdulghani (2016) found that brokers and designated staff play a very effective role in enhancing partnership links, and more benefits are perceived when a rationale exists. Lee et al. anticipated that their findings would support the development and success of cross-sector partnerships. According to the data in this study, when loan servicing is not the primary reason for the coming together of the group members, strategic default becomes a remote possibility. In such a case, the members may not want to risk losing the gains and the values of their group because of a loan default. Working through designated staff members to choose borrower groups would be ideal to ascertain that the chosen groups for prospective partnerships satisfy the criteria for inclusion. Kodongo and Kendi (2013) showed that group reputation is one of the principle incentives for reducing loan default. Finally, as most study participants indicated that business training needs to be a higher priority than the actual loan, established groups may exhibit more eagerness for learning than new groups formed for the sole purpose of obtaining loans.

Strategy to learn from the history of local loans. MFI leaders may also need to consider the history of loans and the mindset of the prospective loan borrowers towards loans. Dentoni et al. (2016) highlighted that one of the dimensions of stakeholder orientation when considering going into a partnership is the willingness to learn from each other and the history in the environment and plan or act accordingly. The data in this case study showed that the perception of the community members towards loans was that the loans were an inconvenience because if they failed to repay, the loan officers would confiscate their property. Stakeholders would obtain such information if they took the time to learn from the local environment. In an interview, Participant A3 emphasized this point:

> Sensitization is a slow process. Stakeholders need not be in a hurry to give out loans. Groups or individuals fear to take loans because other loans projects used to confiscate the property of the defaulters. So there is a need for full communication and discussions to explain how the loans work so that when the borrowers start coming forward, they should be aware of all the advantages and disadvantages. Convincing people takes time, and once they start learning about loans and businesses, they have an opportunity to become successful.

If the MFI leader becomes aware of the history of loans in the community, the leader could devise a strategy to overcome the historical hurdles that may prevent potential customers from patronizing the loans. A classic example in this case study was the avoidance of both the MFI loan officers and the NGO staff members to use terminologies such as *group liability*, *group punishment*, or *pressure*, as such terms would remind the potential borrowers of previous bad experiences with loans. Instead, words like *group support* and *long-term relationship* were frequently used to motivate the borrowers to obtain and repay their loans.

The findings from this study and the recommendations are important because economic and development stakeholders consider the concept of financial inclusion essential to reducing poverty inclusion in developing countries. Local governments and international development partners have invested heavily in financial inclusion programs including in the establishment of MFIs. The financial inclusion stakeholders, especially the international development partners and the local governments of developing countries have realized that to achieve sustainability and growth in the financial inclusion efforts, MFIs need to operate at a profit. To operate at a profit, MFI leaders need to have strategies to minimize loan default, which is the primary cause of the failure of some MFIs.

Adoption of some of the recommendations made in this study could help MFI leaders reduce loan default that may enhance the sustainability and growth of MFI activities, thereby accelerating the reduction of poverty in the BOP market. These recommendations may also be useful to governments and donors to realize that poverty alleviation occurs when the beneficiaries gain knowledge and skills on how to manage profitable enterprises before the granting of a loan, not when they receive the loan. Local governments and international development partners may, therefore, need to put more emphasis on financial education than on handing out loans.

To enhance the distribution of information from this study to MFI leaders, governments and donors, I will use various distribution channels. The publication of this study will be available in ResearchGate, the ProQuest/UMI database, and the Walden Scholar Works for accession and use by researchers and students. Each study participant will receive a summary of the findings and the recommendations of the study. As an international development practitioner, I will participate in various relevant fora to disseminate the results and the recommendations of this study. Also, I plan to publish an article about the study in a scholarly, peer-reviewed journal.

Recommendations for Further Research

In this study, I used a purposive sample of participants from MFIs, an NGO, members of borrower groups, and organization documents from Rwanda as the basis to understand strategies that MFI leaders used to reduce loan default in the BOP market. Through the analysis of the data from in-depth interviews with the participants and documents review, I identified strategies that MFI leaders used to reduce loan default in the BOP market. As the study focused on few selected study categories in one district in Rwanda, further research covering more study categories may provide additional insights into strategies for reducing loan default in the BOP market.

Some of the findings of this current study were that MFIs worked with established groups and that the groups used the loans for a group project. Future research could focus on strategies to reduce loan default from groups newly formed to receive loans. Understanding strategies to reduce loan default form newly-formed groups is an important area because the situation in the case may not exist in all environments. Also, in future research researchers could focus on how to reduce loan default when CBG members use loans in individual enterprises.

Further research could focus on the role of donors and local governments in reduced loan default. Zulfiqar (2017) expressed some concerns that some international development partners focus on the giving of loans instead of on the repayment of loans to reduce loan default. Findings from this study may provide more clarity on the need for a mindset change about loans in the BOP market for the loans to start producing the expected economic and social changes, or the best approach to manage an MFI business with a business purpose (Lebovics, Hermes, & Hudon, 2016). One reason for such a tendency is the historical explanation for the birth of microfinance as a conduit for funds for poverty alleviation activities and not business (Shahriar, Schwarz, & Newman, 2016).

Alongside a study on the role of international development agencies in loan repayment, a study on the role of national governments in loan repayments would also be enlightening. One area that needs exploration is to find whether resource allocation is significant for an MFI to attain its objective(s). Mia, Nasrin, and Cheng (2016) argued that MFIs that have more resources for innovations have a better chance to achieve sustainability because they introduce innovations that attract more customers. The experimentation and practices with democratic governance in developing countries seem to harm progress in the adoption of good practices in reducing MFI loan default. Muhongayire et al. (2013) provided evidence that during presidential and parliamentary elections some aspirants vie for votes by promising the electorate that if voted into power, every voter servicing a loan would no longer need to repay the loan. In other situations, however,

Reflections

As an international development practitioner, I conducted this study to enhance my skills and experience in doing research. The topic I explored was vital to my profession and the wider international development audience, including the governments of developing countries and their international development partners. The process of conducting in-depth interviews and focus group discussions with the participants enabled me to appreciate the significant role the participants played in being the real unsung heroes in international development. The insights the study participants provided helped me to open up to new ideas, pushing away any biases I had earlier about reducing MFI loan default in the BOP market.

I managed to minimize the influence of my biases in the study by engaging epoché to bracket judgments about the reduced MFI loan default in the BOP market. The process involved making a deliberate plan to avoid predeterminations and relied solely on the data the participants provided. I refrained from allowing my knowledge and experience about MFI loan and concentrated on the experiences of the participants.

I also used member checking to mitigate for bias. The member checking process facilitated the alignment of my interpretations and observations of the collected data with the experiences of the participants. Through the member checking process, I used the participants' reviews to confirm the meanings I ascribed to the interview responses of the participants.

Conclusion

Microfinance loan default is the leading cause of the collapse of MFIs worldwide (Sama & Casselman, 2013). The failure of microfinance businesses to become profitable has an adverse effect on the efforts to reduce poverty in developing countries (Ibtissem & Bouri, 2013). Financial inclusion and poverty reduction were the main reasons international development agencies and national governments invested in the establishment of MFIs (Dodson, 2014). As these investors could not keep investing in the MFIs indefinitely, like any other business, the investors wanted the MFIs to become profitable to sustain their operations while reducing poverty among the poor (Ibtissem & Bouri, 2013). To make MFIs viable businesses that also help to alleviate poverty, microfinance leaders need to use strategies that reduce loan default (Wongnaa & Awunyo-Vitor, 2013).

The purpose of this study was to explore strategies that MFI leaders use to reduce loan default in the BOP market. Findings of this study showed that the MFI leaders used various strategies including training in loans and business skills, partnerships, lending to established groups, and frequent monitoring to reduce loan default. Leaders of MFIs also need to put more emphasis on the use of positive language to the potential borrowers to show the benefits of loan repayment than emphasizing on using negative language that highlights punishments and penalties for loan default. The findings and recommendations from this study avail a list of strategies that MFI leaders in the low-income economies can use to reduce loan default, thereby achieving profitability and sustainability of the operations of their institutions. By extension, the success of the microfinance businesses would help accelerate the alleviation of poverty among the poor.

All participants in the study highlighted the need for emphasis on training the potential beneficiaries in various relevant business topics before giving them the loans. The training also needs to be focused on changing the mindset about loans to highlight that loan and business management skills and knowledge are more valuable than the actual money. In that sense, potential loan beneficiaries need to concentrate more on acquiring entrepreneurial knowledge than on getting the loans. In the same manner, the attitude of local governments and international development partners toward giving loans needs to promote learning instead of focusing on counting numbers of those who receive the loans. The first step toward poverty reduction is when the poor person starts generating his or her income, and not when he or she receives a loan.

As the MFI leaders need to focus on the profitability and sustainability of their businesses, they need a strategy to attract appropriate partners who would provide symbiotic benefits to the loan disbursement and repayment process. To achieve this, MFI leaders need to conduct a stakeholder analysis of their market environment. This process would help the leaders to map the stakeholders with whom they would form symbiotic partnerships. Findings in this study showed that symbiotic relationships helped the MFI leaders to reduce loan default in the BOP market.

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Appendix A: Interview Protocol

Interview Protocol	
What I will do	**What I will say**
I will introduce the interview and set the stage—often over a meal or coffee	**Script:** Interview questions and probes
• The participant will be given a hard copy print out of the informed consent letter for their records. • I will turn on the audio recorder and I will note the date, time, and location. • I will indicate the coded sequential representation of the participant's name, for example, Respondent 01, on the audio recording, documented on my copy of the consent form and the interview will begin.	1. Greetings. My name is Patrick Mphaka. I am a student at Walden University, United States, pursuing a Doctorate of Business Administration degree. I am currently collecting data for the study. The purpose of the study is to explore strategies that some MFI leaders use to reduce loan default in low-income markets. 2. I received back your signed consent form, agreeing to participate in the research. Thank you very much for your acceptance to participate in this research. 3. Your participation is voluntary and confidential and if, for any reason, you would like to pull out form this study, you are free to do so now or any time during the interview. You just have to say so and we will stop. There

• Each participant will be given the required time to fully answer each pre-determined interview question in detail (including any additional follow-up / probing questions). • I will ask probing questions whenever necessary if the participants do not mention certain elements on specific questions.	will be no consequences on your part, whatsoever. 4. After this interview, I will take few days to transcribe and interpret the data and I will meet you again for member checking procedures to assist with enhancing the reliability and validity of the data. ____________________________________ **In-depth interview questions for MFI leaders.** 1. What strategies or factors contributed to reduce loan default among the group borrowers?
Probe lead for question 1: If no mention of **joint liability,** ask the probing question.	**Probe:** In what way did joint liability for the loans of individual members in group lending contribute to the full MFI loan repayment? 2. What strategies did you use when borrower-group members defaulted on loan repayment? **Probe:** How did you punish borrower groups, or individuals in the borrower groups, when

Probe lead for question 2: If no mention of **group punishment**, ask the probing question:	they defaulted on loan repayment? 3. What strategies were used to select members of the borrower community-based groups? **Probe:** How did group members, or anybody from outside the group, get involved in the
Probe lead for question 3: If no mention of **self-selection or external agent involvement,** ask the probing question.	selection of the group members? 4. What monitoring strategies did the stakeholders use to ensure the borrower group members used the MFI loans as indicated in their approved loan application forms? **Probe:** If no mention of peer or MFI monitoring, probe with: What roles did the MFI
Probe lead for question 4: If no mention of **peer monitoring or MFI monitoring,** ask the probing question.	loan officers or the borrower-group members play to monitor the loan repayments? 5. What strategies did MFI staff members or other stakeholders use to encourage borrowers to pay back their loans? **Probe:** What pressure did the MFI staff members, ADRA Rwanda staff members or
Probe lead for question 5: If no	other stakeholders exert on the loan defaulters

mention of **peer pressure or any other pressure,** ask the probing question.	to repay the MFI loans? 6. What additional methods or strategies did the stakeholders use to attain full MFI loan repayment?
	In-depth interview questions for borrower community-based group members
Probe lead for question 1: If no mention of **joint liability,** ask the probing question.	1. What strategies or factors contributed to reduced loan default among the group borrowers? **Probe:** In what way did joint liability for the loans of individual members in group lending contribute to the full MFI loan repayment?
Probe lead for question 2: If no mention of **group punishment,** ask the probing question:	2. What strategies did you use when borrower-group members defaulted on loan repayment? **Probe:** How did you punish borrower groups, or individuals in the borrower groups, when they defaulted on loan repayment?
	3. What strategies were used to select members of the borrower community-based

	groups?
Probe lead for question 3: If no mention of **self-selection or external agent involvement**, ask the probing question.	**Probe:** How did group members, or anybody from outside the group, get involved in the selection of the group members?
	4. What monitoring strategies did the stakeholders use to ensure the borrower group-members used the loans as indicated in their approved loan application forms?
Probe lead for question 4: If no mention of **peer monitoring or MFI monitoring,** ask the probing question.	**Probe:** What roles did the MFI loan officers or the borrower group members play to monitor the loan repayment?
	5. What strategies did MFI staff members or other stakeholders use to encourage borrowers to pay back their loans?
Probe lead for question 5: If no mention of **peer pressure or any other pressure,** ask the probing question.	**Probe:** What pressure did the MFI staff members or other stakeholders exert to ensure that every borrower paid back their loan?
	6. What additional methods or strategies did the stakeholders use to attain full MFI loan repayment?

	In-depth interview questions for ADRA Rwanda staff members
Probe lead for question 1: If no mention of **joint liability,** ask the probing question.	1. What strategies or factors contributed to reduced loan default among the group borrowers? **Probe:** In what way did joint liability for the loans of individual members in group lending contribute to the full MFI loan repayment?
Probe lead for question 2: If no mention of **group punishment**, ask the probing question.	2. What strategies did you use when borrower-group members defaulted on loan repayment? **Probe:** How did you punish borrower groups, or individuals in the borrower groups, when they defaulted on loan repayment?
Probe lead for question 3: If no	3. What strategies were used to select members of the borrower community-based groups? **Probe:** How did group members, or anybody from outside the group, get involved in the selection of the group members?
	4. What monitoring strategies did the

mention of **self-selection or external agent involvement,** ask the probing question.	stakeholders use to ensure the borrower group-members used the loans as indicated in their approved loan application forms? **Probe:** What roles did the MFI loan officers or the borrower group members play to monitor the loan repayment?
Probe lead for question 4: If no mention of **peer monitoring or MFI monitoring,** ask the probing question.	5. What strategies did MFI staff members or other stakeholders use to encourage borrowers to pay back their loans? **Probe:** What pressure did the MFI staff members or other stakeholders exert to ensure that every borrower paid back their loan?
Probe lead for question 5: If no mention of **peer pressure or any other pressure,** ask the probing question.	6. What additional methods or strategies did the stakeholders use to attain full MFI loan repayment?

Wrap up interview thanking participant	**Script:** Thank you very much for your time and participation in the study. Feel free to contact me if you happen to remember any

	additional information to include in your responses to the interview we have just finished.
Schedule follow-up member checking interview	**Script:** As I said in my introductory remarks at the beginning of this interview, I will need to have another meeting with you in about two weeks for member checking. During that meeting, you will have an opportunity to validate my interpretation of your responses in the interview we had today.

Appendix B: Focus Group Protocol

Focus Group Protocol	
What I will do	**What I will say**
I will introduce the focus group and set the stage for the discussion	**Script:** Focus group questions and probes
• The focus group participants will each be given a hard copy print out of the informed consent letter for their records. • I will turn on the audio recorder and I will note the date, time, and location. • I will indicate the coded sequential representation of the participant's name, for example, Respondent 01, on the audio recording, documented on my copy of the consent form and the focus group discussion will begin.	1. Greetings. My name is Patrick Mphaka. I am a student at Walden University, United States, pursuing a Doctorate of Business Administration degree. I am currently collecting data for the study. The purpose of the study is to explore strategies that some MFI leaders use to reduce loan default in low-income markets. 2. I received back your signed consent forms, agreeing to participate in this focus group. Thank you very much for your acceptance to participate in this research. 3. The participation of each of you is voluntary and confidential and if, for any reason, you would like to pull out from this study, you are free to do so now or at any time during the interview. You just have to say so

• Each participant will be given the required time to fully answer each pre-determined interview question in detail (including any additional follow-up / probing questions). • I will ask probing questions whenever necessary if the participants do not mention certain elements on specific questions.	and we will stop. There will be no consequences on your part for withdrawing from this study. 4. After this focus group, I will take few days to transcribe and interpret the data and I will meet you again for member checking procedures to assist with enhancing the reliability and validity of the data. ____
	Focus group questions for borrower community-based group members.
Probe lead for question 1: If no mention of **joint liability,** ask the probing question.	1. What strategies or factors contributed to reduced loan default among the group borrowers? **Probe:** In what way did joint liability for the loans of individual members in group lending contribute to the full MFI loan repayment?
	2. What strategies did you use when borrower-group members defaulted on loan repayment? **Probe:** How did you punish borrower groups, or individuals in the borrower groups, when

	they defaulted on loan repayment?
Probe lead for question 2: If no mention of **group punishment**, ask the probing question:	3. What strategies were used to select members of the borrower community-based groups? **Probe:** How did group members, or anybody from outside the group, get involved in the selection of the group members?
Probe lead for question 3: If no mention of **self-selection or external agent involvement,** ask the probing question.	4. What monitoring strategies did the stakeholders use to ensure the borrower group members used the MFI loans as indicated in their approved loan application forms? **Probe:** What roles did the MFI loan officers or the borrower-group members play to monitor the loan repayments?
Probe lead for question 4: If no mention of **peer monitoring or MFI monitoring,** ask the probing question.	5. What strategies did MFI staff members or other stakeholders use to encourage borrowers to pay back their loans? **Probe:** What pressure did the MFI staff members, ADRA Rwanda staff members or other stakeholders exert on the loan defaulters to repay the MFI loans?
Probe lead for question 5: If no	

mention of **peer pressure or any other pressure,** ask the probing question.	6. What additional methods or strategies did the stakeholders use to attain full MFI loan repayment?
Wrap up interview thanking participant	**Script:** Thank you very much for your time and participation in the study. Feel free to contact me if you happen to remember any additional information to include in your responses to the interview we have just finished.
Schedule follow-up member checking interview	**Script:** As I said in my introductory remarks at the beginning of this interview, I will need to have another meeting with you in about two weeks for member checking. During that meeting, you will have an opportunity to validate my interpretation of your responses in the interview we had today.

Appendix C: Certificate of Ethical Compliance

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Patrick Mphaka** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 09/09/2017.

Certification Number: 2483339.

Appendix D: Email Invitation to Participate in the Study

Dear ______________________________

You are invited to take part in a leader interview for a business case study that I am conducting as part of my Doctorate of Business Administration research at your organization.

Interview Procedures:

If you agree to be part of this study, you will be invited to take part in audio-recorded interviews about the organization’s operations and problem-solving. Opportunities for clarifying statements will be available (via a process called member checking). Transcriptions of business leader interviews will be analyzed as part of the case study, along with any archival data, reports, and documents that the organization’s leadership deems fit to share. Copies of your interview recording and transcript are available from me upon request.

Voluntary Nature of the Study:

This study is voluntary. If you decide to join the study now, you can still change your mind later.

Risks and Benefits of Being in the Study:

Being in this study would not pose any risks beyond those of typical daily life. This case study’s aim is to provide data and insights that could be valuable to other leaders and organizations.

Privacy:

Interview recordings and full transcripts will be shared with each interviewee, upon request. Transcripts with identifiers redacted may be shared with my university faculty and my peer advisors. Any reports, presentations, or publications related to this study will share general patterns from the data, without sharing the identities of individual participants or partner organizations. The interview transcripts will be kept for at least 5 years, as required by my university.

Contacts and Questions:

If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. Walden University's ethics approval number for this study is 02-23-17-0269638.

Please share any questions or concerns you might have at this time. If you agree to be interviewed as described above, please reply to this email with the words, "I consent."

Sincerely,

Patrick Mphaka
Doctor of Business Administration Candidate

Appendix E: Confidentiality Agreement

Name of signer: XXX

During the course of my activity in collecting data for this research: "Exploring strategies for microfinance loan repayment in Rwanda" I will have access to information that is confidential and should not be disclosed. I acknowledge that the information must remain confidential, and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement, I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including family and friends.
2. I will not in any way disclose, copy, release, sell, loan, alter or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification or purging of confidential information.

I agree that my obligations under this agreement will continue after termination of the job that I will perform.

I understand that violations of this agreement will have legal implications.

I will only access or use systems or devices I am only authorized to access and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

Signing this document, I acknowledge that I have read the agreement and I agree to comply with all the terms and conditions stated above.

Signature: ______________________________ Date: ____________________