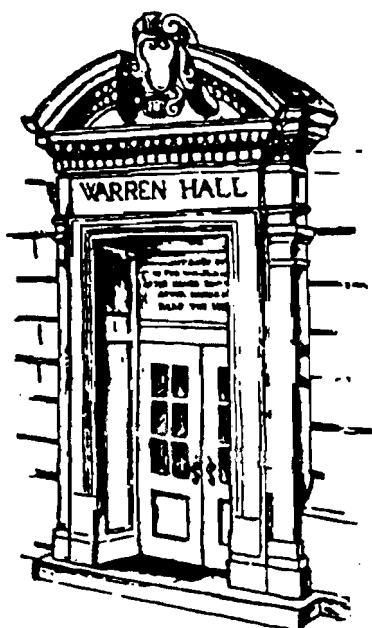


WP 99-16
July 1999



Working Paper

Department of Agricultural, Resource, and Managerial Economics
Cornell University, Ithaca, New York 14853-7801 USA

THE POTENTIAL ROLE OF MICROFINANCE INSTITUTIONS IN MOBILIZING SAVINGS: LESSONS FROM KENYA AND UGANDA

Stephen F. Gudz

Advisors: **Thomas T. Poleman**
 Eddy Ladue

It is the Policy of Cornell University actively to support equality of educational and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age or handicap. The University is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of opportunity.

ABSTRACT

This study focuses on the possible role of microfinance institutions to mobilize savings among the low-income entrepreneurs who already use these organizations as sources of credit. The evidence is drawn from a pilot project carried out in 1997 and 1998 in Kenya and Uganda. Possible constraints and organizational options are discussed.

© 1999 Stephen F. Gudz

Department of Agricultural, Resource,
and Managerial Economics

Warren Hall
Ithaca, NY 14853-7801
USA

Facsimile: 607 255-9984
Phone: 607 255-4463

Thomas T. Poleman

Professor of International
Food Economics

July 1999

The provision of financial services to microenterprises has become increasingly popular since the late 1980's. Large institutions, such as the Grameen Bank in Bangladesh and Bancosol in Bolivia, have highlighted the benefits of providing financial services to low-income entrepreneurs. Successful microfinance institutions have developed innovative and simplified techniques to provide financial services. Many of these techniques mimic informal services available from moneylenders or Financial Self-help Associations.

Historically, most of the attention within the microfinance industry has focused on the provision of credit. The objective of Mr. Gudz' paper is to probe the opportunity for microfinance institutions to offer savings services. The accumulation of savings is vital to the development of microenterprises. It provides the bulk of business start-up capital. As operations continue, savings remain the preferred source of working capital.

Microfinance institutions are well positioned to assist entrepreneurs and their households increase the amount, accessibility and security of accumulated savings. Evidence from Faulu Kenya and Faulu Uganda, microfinance institutions operating in East Africa, provides understanding of possible options and constraints. Both institutions require clients to make deposits into a mandatory savings account. Many clients deposit additional, voluntary savings. A trial was developed at Faulu Uganda to test the impact of increased access to the mandatory savings account. Clients responded favorably. There was some increase in the amount deposited. There was not a significant influx of additional withdrawals. Clients tend to use the account as a means for achieving long-term household objectives.

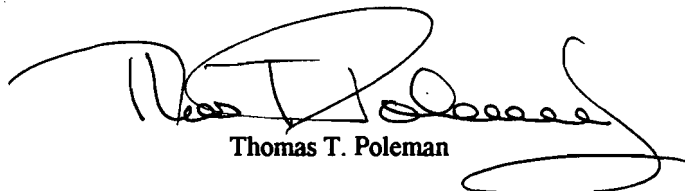
Becoming a full-pledged bank is not necessarily a prerequisite for microfinance institutions to collect savings. Some countries may allow non-bank institutions to mobilize savings. Alternatively, a partnership with a commercial bank could be formed. This would build on the strategic advantages of both institutions. The bank would offer savings accounts to clients and the microfinance institution would focus on providing credit.

We are thankful to the many people and institutions who assisted Mr. Gudz while conducting his field research in East Africa: Muli Musinga, from K-REP, Ted Vail (Faulu Africa), Bruce Lawson (Faulu Uganda), and Pete Ondeng (formerly of Faulu Kenya), Dr. Russ Mask, Dr. Mwadime, Rick Richter, Andrew Mwikamba and Mesfin Assaye. The staffs of Faulu Kenya and Faulu Uganda are also gratefully recognized: George Maina, Emily Mworio, Ann Githinji, Samuel Kareithi, Veronica Ngigi, Godwin Khuguru, Emma Babirukamu, and Sylvia Osinde. Larry and Margaret Ngala provided Mr. Gudz with a home away from home in Nairobi, as did the Babirukamu family while he worked in Kampala.

Financial assistance for the study was provided through summer study grants from the S.B. & J.G. Ashley - Challenge II Fund, the Aplin/Hamilton - Challenge II Fund, and the D.G. Sisler - Challenge II Fund. The Mario Einaudi Center, the Institute for African Development and the International Studies in Planning program at Cornell also provided generous support. Lillian Thomas prepared this version of the paper. Our thanks to all.

Comments and suggestions are welcome. Please send them to:

Mr. Stephen Gudz
P.O. Box WRC
Wheaton, IL 60189 USA
e-mail: sgudz@wr.org



Thomas T. Poleman

TABLE OF CONTENTS

	<u>Page</u>
CHAPTER 1: INTRODUCTION	1
CHAPTER 2: SAVINGS AND THE INFORMAL SECTOR	3
Characteristics of Microenterprises	3
Savings Defined	4
Reason for Savings	5
Risk Aversion	5
Improve Welfare	5
Forms of Savings	6
Human Capital	6
Cash	6
Property and Farm Assets	6
Business Assets	7
Entrustments to Family and Friends	8
Money Collectors	8
Financial Self-help Associations	9
Commercial Bank	11
CHAPTER 3: MOBILIZING SAVINGS - EVIDENCE FROM FAULU AFRICA	13
Faulu Africa and its Mandatory Savings Component	13
Evolution of the Institution	13
Status of the Mandatory Savings Component	16
Benefits of the Mandatory Savings Account	19
Leverage to Receive Credit	19
Alternative to Credit	19
Small, Frequent Deposits	20
Encouraging Clients to Set Goals	21
Fuel Business Growth and Stability	22
Weaknesses of the Mandatory Savings Account	23
Limited Withdrawal	23
Withdrawals Given as Checks	23
Cross-guarantee of Group Members	23
Withdrawal Linked to Performance of Group Members	24

Personal Balances Not Private	24
Trial to Improve Access to Mandatory Savings Account	24
Framework for Trial	24
Impact of Frequency	25
Conditions for Withdrawal	26
Check versus Cash	26
CHAPTER 4: FRAMEWORK FOR SAVINGS SERVICES	29
Constraints to Collecting Savings	29
Legal	29
Financial	30
Technical	31
Liquidity Management	32
Investment Risks	32
Designing the Savings Mechanism	32
Necessary Ingredients	33
Independent Offering of Savings Services by Microfinance Institution	35
Partnership between Microfinance Institution and Commercial Bank	38
Towards A Balanced Financial Services Approach	40
REFERENCES	43
APPENDIX A: CURRENCY CONVERSION	47
APPENDIX B: CLIENT CASE STUDY METHODOLOGY	48
APPENDIX C: FAULU AFRICA DATA	49

CHAPTER 1: INTRODUCTION

The informal business sector, comprised primarily of microenterprises, provides a vital source of employment and income in developing economies. These small businesses are characterized by few employees, few assets, and informal operations. This study focuses on the primary source of capital to fuel microenterprise operations—personal savings.

Entrepreneurs save using various forms—ranging from cash to informal savings and credit associations to property. These forms of savings, which will be discussed briefly in Chapter 2 reflect aversion to risks, such as inflation or seasonal income fluctuations, and the desire to improve household livelihood. Secure liquid savings options are often not available to low-income populations, especially those in rural areas. Banks in developing countries have concentrated on urban centers and the wealthier segments of society.

This study probes the opportunity for microfinance institutions to collect savings. Microfinance institutions are well positioned to provide savings services to low-income clients. Over the past two decades, these institutions have developed effective and efficient means for providing credit. Groups are used to reduce transaction costs and substitute for collateral. Application processes are simplified to accommodate clients with minimum education. Fewer resources, however, have been devoted to developing similar innovative and efficient savings services.

During the past few years, increased attention has turned to the importance of savings accumulation. While the microfinance industry has declared savings equally as important as credit, few institutions have developed the capacity to offer savings services. The focus of this study will be on developing products that microfinance institutions could employ to assist households increase the amount, accessibility and security of accumulated savings.

Information was gathered during a one-year field study in East Africa. During this time, research was conducted at Faulu Africa, which has started microfinance institutions in Kenya and Uganda. Faulu Kenya and Faulu Uganda are representative of many institutions in the microfinance industry. Their methodology uses solidarity groups, comprised of approximately 40 members, as the platform for financial services. Faulu Africa does not mobilize savings from the general public. But, clients are required to make deposits into a mandatory savings account to help secure their individual loan and the loans of group members. Deposits are made weekly and are based on the received or anticipated loan. Many clients, however, deposit excess funds (e.g., voluntary savings). Case studies of Faulu's clients are used to discuss the mandatory savings account and possible modifications.¹

While conducting research at Faulu, a trial was designed at Faulu Uganda to test the impact of increasing access to the mandatory savings account. The trial was conducted in 12 of the institution's 62 solidarity groups. The trial enabled groups varying degrees of access. It allowed two of the groups to withdraw via cash directly at the group meeting as compared to typical disbursement in the form of a check.

¹ Refer to *Appendix B* for additional description of the *Client Case Studies*.

Examination of Faulu provides understanding of potential options and constraints for microfinance institutions to collect savings. The need to minimize costs and a prohibitive legal environment are the most significant constraints. Two possible models for collecting savings are presented. If permitted by law, a microfinance institution could independently offer savings services. Alternatively, the institution could partner with a commercial bank. This would rely on the strategic advantages of both institutions. The bank would offer savings services to clients and the microfinance institution would focus on providing credit.

CHAPTER 2: SAVINGS AND THE INFORMAL SECTOR

To provide a basis for understanding how microfinance institutions could collect savings, it is useful to discuss the characteristics and financial requirements of microenterprises. Alternative forms of savings used by low-income entrepreneurs are analyzed. Examining the benefits and limitations of various forms of savings provides a foundation for discussing mechanisms microfinance institutions could employ to increase the amount, accessibility and security of accumulated savings.

Characteristics of Microenterprises

Microenterprises are engaged in activities spanning the retail, service and manufacturing sectors. Within these sectors, microenterprises may be agrarian or non-agrarian related. Approximately 40 percent of microenterprises in Kenya are related to agriculture (Parker and Torres 1994). Entrepreneurs may be involved in agricultural production or may serve as intermediaries between farmers and consumers. Most agrarian microenterprises are related to commerce

While the analysis in this study does not differentiate between service, retail and manufacturing microenterprises or agrarian and non-agrarian related microenterprises, there may be some difference in the financial needs of these different categories. Most agrarian related businesses are relatively more cyclical in nature, being most active during periods of planting and harvesting. Likewise, manufacturing microenterprises tend to experience uneven patterns of profitability. The importance of savings accumulation may be particularly important for entrepreneurs with cyclical or uneven income patterns.

The portion of the economy represented by microenterprises has been called the informal sector. This is because of the informality that characterizes these businesses during the process of initial start-up and throughout on-going operations. Time necessary to start an enterprise is limited.

Legal restrictions, if in existence, are rarely enforced. There is a chronic lack of standards in goods and services. Few operations, even those related to food preparation, are registered. While local councils may have a registration process, it is usually marred by bureaucracy and bribery.² Consequently, many entrepreneurs choose not to register. Even if an entrepreneur chooses to register, there is no guarantee that business operations will be free from harassment or even evictions by local government councils (Juma, Torori, and Kirima 1993). This presents an obstacle in encouraging long-term business development.

As the name implies, microenterprises have few workers. Most employ less than 10 people. One-person microenterprises comprise 58 percent of the Kenyan informal sector. The mean size is 1.8 workers per enterprise. Informal sector businesses with one or two employees comprise 83 percent of Kenyan microenterprises (Daniels, Mead, and Musinga 1995). This often reflects cooperation between nuclear or extended family members in running business operations.

Microenterprises require minimal start-up capital. A study conducted by Juma, Torori, and Kirima (1993) found that 55 percent of the informal sector artisans in Kenya started with less than Ksh5,000 (US\$96). Over 85 percent started with less than Ksh10,000 (US\$194). The study conducted by Daniels, Mead and Musinga (1995) yielded similar results. Over 80 percent of the respondents in this later study started with less than Ksh10,000 (US\$195).

² Refer to de Soto (1989) for a description of the difficulties of businesses within the informal sector to register.

Microenterprises require few machines to conduct operations. The labor-intensive nature of these businesses replaces capital-intensive techniques.

Over 75 percent of the respondents in a survey conducted by Daniels, Mead, and Musinga (1995) reported using self-funding, or some form of savings, as the primary source of capital. Family and friends provided the second most important source of funds. Borrowing from other sources, including credit received from formal financial institutions, employers, Financial Self-help Associations and other informal sources, were of minimal importance in providing start-up capital.

Studies of small enterprises in other countries provide similar results. In Nigeria, the proportion of start-up capital funded by savings was 96 percent for microenterprises and 52 percent for medium-sized businesses (Ekpenyong and Nyong 1992). Savings provided 97 percent of start-up capital for microenterprises in Sierra Leone (Chuta and Liedholm 1985).

While these enterprises require minimal start-up capital, a relatively large amount of capital is required to invest in on-going operations. For many businesses, the amount of recurrent investment may near the required start-up investment. Labor costs and rent must be paid. Some funds are required as a buffer against declines in profitability (e.g., periods of reduced sales or theft). Additional capital is necessary to facilitate growth.

Entrepreneurs may invest in improving the business premise (regardless of whether it is owned or rented). This may help to facilitate greater productivity (e.g., adding better lighting), increased sales (e.g. improving the display of goods), and better security (e.g. adding security bars to windows). A roadside stand with no covering, for example, may evolve to have a roof. Later, three walls constructed of timber may be added. Eventually, the timber may be replaced by concrete blocks.

The ability to finance working capital is vital. Parker and Torres (1994) found that a shortage of working capital was cited as the primary reason for 25 percent of the Kenyan microenterprises that terminated operations.

Savings remains the most important source of finance throughout the business cycle. The survey conducted by Daniels, Mead and Musinga (1995) found that almost 95 percent of the interviewed entrepreneurs used savings as the primary source of working capital.

Savings Defined

Savings is defined broadly in this study to encompass the residual capital remaining after an entrepreneur has paid household living expenses and business operating expenses. Because of the fungible nature of the household economic portfolio, savings can be easily shifted between the household and enterprise.³

While this chapter focuses on the importance of savings in fueling business development, the importance of savings stored and used by the family cannot be ignored. In many instances, savings from the business are transformed into household assets. These same assets may be transformed later to invest in the business. Alternatively, savings may be deposited into the business and withdrawn as needed by the household.

³ Refer to Chen and Dunn (1996) for additional discussion of the household economic portfolio.

Investment in the business usually reflects savings accumulation. If there is no injection of external capital, total investment must equal total savings. As previously discussed, receipt of external funding is not a major source of business and household finance.

Reason for Savings

Risk Aversion

“Saving is seen as necessary even when there is no surplus” (Blanchet 1986, 33). If low-income households did not save, they would have perished long ago. Peaks and valleys in income are inevitable. Savings provide a hedge against income variability. The accumulation of resources enables households to smooth consumption and provides food security. Precautionary savings are particularly important among poor households (Zeller *et al.* 1996). They are more vulnerable to income shocks.

Threats to the household economic portfolio include the risks of theft, natural disasters, inflation and illness. The type of perceived risk will influence the techniques used to accumulate savings. The threat of inflation, for example, may encourage households to invest in land and other nonliquid assets. Short-term cyclical risks, such as lean sales in the middle of the month, may encourage cash reserves.⁴

Improve Welfare

Deferred consumption can be used to improve the welfare and social standing of a household. Savings may be applied to socially important festivities, such as weddings or community fundraisers, which build social capital. Patronage is another form of entrustment that can be considered an abstract form of savings accumulation. “Withdrawal” occurs in the form of future favors. Savings in the household are often devoted to the welfare of children. Investment in the younger generation reflects the hope for a better future.

Savings accumulation furnishes an important tool to generate business growth. Direct reinvestment of profits is one option. Investing savings in an intermediate form is another option (e.g., as cash or in a bank account). There is evidence that entrepreneurs have a higher propensity to save than salaried workers (Huddle 1977). The marginal returns from reinvesting in enterprise development may be greater than the investment opportunities available to salaried laborers.⁵

Savings enable entrepreneurs to pursue investments that yield higher rates of return. Many of these options would not otherwise be pursued, because of the associated risks. Dercom found that the higher the level of household savings, the lower the allocation of household resources to the cultivation of low value crops in Tanzania (1996).

⁴ Salaried employees generally get paid at the end of the month. Consequently, demand for goods and services decline in the middle of the month.

⁵ A higher level of savings also may be needed as a cushion given the greater income variability of entrepreneurs.

Forms of Savings

Human Capital

Investing in human capital is the most difficult savings option to understand and quantify. Yet, it remains the most important. Investment in human capital maintains the welfare of the current working generation and provides hope and opportunity for the younger generation.

Savings in the form of human capital includes improved nutrition, increased number of children and expenditure on education (Zeller *et al.* 1996). Providing adequate healthcare and nutrition is important to maximizing the physical productivity of labor. Additional children will increase the available pool of family labor and provide more support for elderly parents.

Cash

The easiest way to store savings is to merely hold it as cash. Money can be deposited in a jar, hidden under the bed, or kept in any other seemingly secure location in the home. This enables easy access and reduces transaction costs. Quick access makes cash a preferred source of capital for times of emergency.

Storing cash may be costly and risky, however. Because cash is not invested, it does not increase in value. Consequently, the pool of mobilized funds may depreciate because of inflation. The accessibility of cash also presents the risk of theft.

Cash tends not to accumulate, because of accessibility. Besides extraction of cash savings for personal use, needs of the social network may limit the ability to grow the amount of cash savings. Hoarding it may appear greedy. Consequently, cash may be lent or given to friends and relatives.

Property and Farm Assets

Investment in property and farm assets is traditionally the most secure and socially important means of savings accumulation. Owning a title deed and some livestock is a high priority. All of the interviewed entrepreneurs expressed a desire to invest in land.

Land and livestock historically reflect "wealth" in rural areas (Colson 1965). A large piece of land, stocked with some animals (cattle in particular) increases social standing. Cattle commonly are used as a component of bribe price.

The bulk of entrepreneurs who have migrated to large towns and cities prefer to invest in their rural home areas. Some have left their spouses and families in their upcountry home and periodically send remittances. Investing in property may furnish a home for an entrepreneur's family and also provide a means to generate income. It also serves as an informal retirement fund.

Investment in land provides a hedge against inflation. This is particularly important in volatile economies. While the level of annual inflation in Uganda has been maintained under 10 percent by the Museveni regime, the economy was turbulent in the 1970's and early 1980's during the oppressive years of Presidents Milton Obote and Idi Amin.

Investment in land exhibits an illiquidity preference (Shipton 1990). Land and farm assets cannot be readily transformed into cash. Consequently, these forms of savings accumulation are useful in providing long-term security. Investing in fixed assets minimizes spending on unnecessary consumption.

The ability of land and farm assets to provide short-term stability and growth is limited. Fafchamps, Udry, and Czukas (1996) found that cattle and small stock played a minimal role in consumption smoothing during a 1980's drought in Burkina Faso. The study finds livestock less liquid than had been assumed. In periods of widespread income shocks, livestock prices are depressed. While animals could be eaten, the ability of livestock to be transformed into cash is limited.

Furthermore, the cultural value attached to property and livestock may limit the willingness of owners to transform these assets into cash. Such a move may be interpreted as "desperation and weakness" (Shipton 1995, 181).

Distance between upcountry assets and the entrepreneur's urban home may limit effective management of investments. This becomes more important if the entire family has migrated to the urban home and the distance between the locations is large. Building a home, for example, requires constant supervision. Monitoring the planting and harvesting of crops in rural areas by urban dwellers is very difficult.

Investing savings in assets, particularly livestock does have some risk. Livestock can die from diseases. Additionally, cattle rustling between ethnic groups remains common in some areas of Kenya and Uganda.

Opportunities to purchase land and farm assets may be limited, because of the lumpy nature of these investments. Purchasing land, and most types of larger livestock, requires a significant amount of capital. Consequently, an intermediate mechanism for savings accumulation is required to raise sufficient capital.

Business Assets

Like investing in property and farm assets, savings invested in the business is not easily accessible. This could limit inessential consumption and extensive social obligations. Investment of savings (possibly augmented by external capital) can yield significant growth in the household economic portfolio.

Profits are often invested directly back into business assets. Savings provide a vital source of working capital. Accumulating business assets can take two forms. Funds can be returned to an existing business. Savings can finance goods that are going to be resold, such as business stock. Alternatively, savings can be used to start a new business venture. The new microenterprise could operate concurrently with the existing enterprise. Or, the new enterprise could replace the existing enterprise.

Many microenterprises, particularly in retailing, have a maximum size capacity without the infusion of a significant amount of capital. The occasional reinvestment of savings back into the business may not suffice in bringing about business growth. Consequently, small profits may be used to start other ventures. A significant amount of capital, for example, would be required to transform a retail kiosk into a small supermarket. Buying goods directly from the manufacturer, which could yield significant cost savings, requires several thousand US Dollars. Because most entrepreneurs lack these funds, they are not able to expand their customer base. Investing capital into a new business may provide an easier alternative to increase income.

Operating several businesses simultaneously also allows an entrepreneur to diversify sources of income. Similar to the use of crop diversification to limit risk exposure in rural areas, operating multiple enterprises limits the impact of reduced profitability (or possible failure) of a particular enterprise. While potentially reducing the profitability of the household economic portfolio, it may help reduce income variability.

Capital from closing an existing enterprise, coupled with savings is sometimes used to start a new enterprise. This alternative allows an entrepreneur to focus on the profitability of one larger business.

While investing in business assets may yield a high rate of returns, it is often difficult to access these savings. Withdrawing invested capital from a business may be disruptive to on-going operations. Furthermore, it may be difficult to transform business assets into cash. This could result if a crisis affects an entire community, cash becomes scarce, and demand for crops declines.

Storing excessive capital in an enterprise is also risky. Assets are prone to theft, disasters (e.g., fire or floods), or devaluation (e.g., stock goes out of style).

Although starting multiple businesses may be useful in diversifying income sources, it also limits the ability to manage each enterprise. Consequently, the profitability of each enterprise may be reduced.

Continuous reinvestment in a business, however, may not be adequate to expand it. Like investment in land and farm assets, the lumpy nature of investment opportunities (e.g., buying direct from the manufacturer) often requires a considerable amount of capital. An intermediate form of savings, such as a savings account would be advantageous. Risky storing of excess stock, for example, would be reduced. This could assist entrepreneurs' focus on a core business.

Entrustments to Family and Friends

Savings may be lent to family and friends. "Savings deposits" may take the form of sharing. Food is often shared between close relatives (Shipton 1995). Entrustments of food serve to even out seasonal peaks and diminished supplies in low seasons. While the exact amount given might not be recorded, future reciprocity is expected in some form. Entrusting money to family and friends is useful in reinforcing the social network.

The usefulness of entrusting savings to family and friends is limited to maintaining stability of the household economic portfolio, however. Because most transactions between family and friends are not rooted in a profit-making motive, the terms of such arrangements are very loose. "Withdrawing" money may be difficult, especially if a person is perceived to be "doing well."

Money Collectors

Savings may be stored with a "professional" money collector in some countries. Aryeetey and Steel (1995) describe an informal savings collection scheme by *susu* collectors in Ghana. The savings collector, usually a man, goes throughout markets and collects daily savings deposits from market women. Collectors mobilize funds from an average of 300 women each day. The mobilized funds usually are deposited into a local bank. The *susu* collector returns the savings at the end of the month, less one day's deposit as a service fee. The cost of the service equals a daily rate of negative 0.2 percent (or negative 54.4 percent compounded per annum).

Rutherford (1998) describes a similar system in India. In this case, women are involved in collecting daily deposits. The client, usually a woman trader, stipulates how much will be saved during the specified period (e.g., daily, weekly, etc.). A client may calculate how much money needs to be raised to pay for school fees and a uniform in three months, for example. This amount, plus the service charge, will be broken down into equal payments. The service charge in this scenario is 9 percent of the total deposits.

The use of money collectors primarily serves short- to medium-term savings targets. The period for accumulating savings is usually limited to a few months.

The willingness of entrepreneurs to pay for a savings service reflects the lack of alternative savings mechanisms (e.g., from commercial banks, etc.). It also reflects the importance of transaction costs. Banks may be at a far distance. Making a deposit may require public transportation. Traveling to the bank may be inconvenient because of banking hours. Bankers may be unfriendly toward customers with minimal education, who have difficulty reading.

Frequent collection of deposits is important in minimizing unnecessary consumption. The entrepreneur may lose part of the savings in the form of a service charge. Still, the net amount saved with a savings collector may be greater than would be accumulated if forced to store the cash at home.

The use of money collectors exhibits the demand for savings mechanisms. The price paid for this type of financial intermediation is quite high. Besides the fee paid to the deposit collector, the cost of inflation must also be considered. During 1995, consumer prices increased by almost 60 percent in Ghana and 10 percent in India.

Financial Self-help Associations

Financial Self-help Associations are an evolved version of saving, borrowing, and "withdrawing" from friends and family. These groups provide useful lessons when investigating possible mechanisms which microfinance institutions could use to collect savings.

There are two basic forms of Financial Self-help Associations evident throughout the world. Rotating Savings and Credit Associations (ROSCA) involve a rigid cycle of deposits and withdrawals. Accumulating Savings and Credit Associations (ASCRA) are more flexible and complex (Bouman 1994).

ROSCAs are more common and simpler for participants to manage. Procedures require that each member deposit a specified amount during the periodic meetings (usually weekly or monthly). The sum of the deposits is distributed as a "withdrawal" to one or two of the members at the end of each meeting. Cycles usually take several months. The order of receipt may be determined by age, bidding, lottery, or host of the meeting. Another cycle, sometimes with increased contributions, usually starts immediately after the former cycle ends.

ROSCAs are common at all levels of society. These groups, however, are most prevalent where incomes are low (Ardener 1995). Over 16 percent of the respondents in the survey conducted by Daniels, Mead, and Musinga (1995) saved with ROSCAs. Shipton (1990) found that 17 percent of the rural women in the Gambia saved with ROSCAs.

The head office staff of Faulu Kenya operated a ROSCA among its 23 employees. Contributions were made out of an employee's monthly salary. A lottery before each cycle determines the two monthly recipients.

The mother of the home where the author resided while doing research in Kenya also belonged to a ROSCA. Membership was comprised of women, mostly entrepreneurs, who migrated from the coastal region of Kenya or married a man from the coast. The collected funds were given to the host of the monthly meeting. The women also jointly invested in land. They intended to construct a building and share the profits.

ROSCAs may evolve into ASCRAs, a more complex type of Financial Self-help Association. ASCRAs require a detailed system of record keeping. There is usually a provision to deposit excess savings. Unlike ROSCAs, which distribute the collected funds after each round, ASCRAs accumulate funds for a specified purpose. The group may extend credit to members, store funds for a specified event, and/or use the funds for collective investment.

Similar to the ROSCA, the period of operation for the ASCRA may be fixed. Members may save for a specific purpose, such as school fees or an annual festival, after which the group would be disbanded (Bouman 1994). The ASCRAs observed in Uganda and Kenya did not have a specified life span, however.

There are three main reasons for membership in ASCRAs and ROSCAs. Membership provides access to financial services and other economic opportunities. Participation supplies informal insurance. Regular meetings also reinforce the social network.

Economic benefits provide the greatest motivation for membership (Brundin and Sandstrom 1992). In ROSCAs, all members, except the last recipient(s) in the cycle, receive a positive nominal rate of return on deposits. Similar to the money collector, Financial Self-help Associations encourage (indeed require) periodic savings deposits. For incurring the transaction costs of attending meetings and maintaining records, members receive a positive nominal rate of return.

Unlike ROSCAs, which determine when members receive a fixed amount of capital, ASCRAs offer greater flexibility in accessing funds. While the ability to withdraw savings may be limited, savings are often used as a leverage to receive credit.

Membership usually provides access to some form of informal insurance services. In the visited groups, three types of insurance were observed. First, members can leverage savings to access emergency credit. Second, the group solicits donations from members. Third, funds from a group-managed fund may be tapped.

The social aspects of Financial Self-help Associations provide the foundation for financial and insurance services. Much trust is required between members to give loans. Aside from savings balances, a member's dignity and possible ostracism from family and friends provides the main "collateral." From discussions with members of ROSCAs⁶ and ASCRAs, defaults appear to be very rare.

Regular meetings reinforce social ties. Membership provides a sense of hope and solidarity. Meetings provide time for members to discuss personal and business issues. The meetings provide a source of mutual encouragement and opportunity to share business lessons.

While membership in Financial Self-help Associations offers many benefits, the structure of these groups presents some limitations. Group heterogeneity may limit cohesion and can lead to stratification of members. Potential sources of conflict include level of income, ethnic background and gender. Groups may become increasingly stratified with time. For example, when buying shares of land, some members may be able to purchase multiple shares and others only one (Nelson 1995). This could lead to a faction within the group controlling power.

A stable social climate is required to provide a conducive environment for Financial Self-help Associations. Unlike in Kenya--where Financial Self-help Associations are very common throughout society--these associations are less prevalent in Uganda. This may reflect the instability that plagued the nation from the mid-1960's until 1985, when Museveni's regime brought stability to the nation. Social instability generates inflation, limits long-term planning, and may reduce trust among members of society.

Groups benefit from self-management. This increases returns to investment, because all revenues are distributed to members. A breakdown of leadership and rift in group cohesion could easily devastate an association. While all of the associations visited were cohesive, most were less than 10 years old. Waiyaki

⁶ Default in an ROSCA would be considered not making a required contribution.

Self-help Group, at 14 years old, was the oldest. It had lost over 70 percent of its original membership. The ability of associations without a specified life span to remain cohesive and provide financial services may be limited.

Detailed records are required, particularly in ASCRAs. To reduce paperwork, offered services are simplified. Withdrawal of savings and posting of revenues are limited. The simplification of services may prove frustrating to members who desire increased access to savings and other more sophisticated services.

Commercial Bank

Accumulating savings in a commercial bank is usually the safest, most versatile form of savings. Unless a bank defaults on its obligations, which is becoming less common in African countries, deposits are secure.

Access to a liquid savings mechanism is important in providing household security. Liquid savings are better at smoothing household consumption than are other savings techniques (Zeller 1995). Savings can be withdrawn to cover healthcare and used in other times of emergency.

Use of savings accounts is an important source of growth of the household economic portfolio. A safe account for mobilizing liquid savings provides an intermediate means for mobilizing sufficient funds to use for larger, lumpy investments.

Ability to withdraw funds from a bank account reduces the need to use inconvenient savings techniques. Withdrawing money from a business is a common, but potentially disruptive means of funding household expenses and unforeseen business expenses. A savings account could improve the ability to plan and cover these expenses.

Over 60 percent of the Kenyan entrepreneurs in the survey conducted by Daniels, Mead, and Musinga (1995) reported having a bank account. Only 35 percent, however, made more than one deposit per month. Even in Kenya, with one of the most advanced financial network in Africa (Azam 1996), use of bank accounts by entrepreneurs is limited. The use of commercial banks by low-income people throughout Africa is minimal. This is part of the reason for the popularity of informal savings mechanisms.

Approximately 70 percent of the population in Africa lives in rural areas which have received limited penetration by commercial banks (Miracle, Miracle, and Cohen 1980). If an entrepreneur has to travel a long distance to a bank, transaction costs will increase dramatically.

Commercial banks also have been perceived as unfriendly by low-income savers. Most banks target middle- to upper-income customers, because of the perceived higher savings potential of this market. Marketing procedures correspondingly focus on this segment of the population. Bank account procedures may be deemed too complex for entrepreneurs with limited education. The deposits offered by low-income clients are deemed undesirable, as their savings potential has been underestimated.

Inflation presents another limitation to savings accounts. Rapid inflation can quickly erode the value of liquid savings. The perceived risk of inflation is equally as limiting to accumulating liquid savings.

Easy access to a bank account is in some aspects a limitation. Similar to storing cash, savings accounts may be prone to be used for unnecessary consumption. Interviewed entrepreneurs who had a savings account expressed difficulty in growing their account balance. Entrepreneurs, faced with other pressing needs or opportunities, may close their bank account. High opening balance requirements may prohibit reopening an account.

CHAPTER 3: MOBILIZING SAVINGS--EVIDENCE FROM FAULU AFRICA

Low-income entrepreneurs save, but they lack adequate liquid savings options. Microfinance institutions are uniquely positioned to target this market. These institutions have displayed a willingness to offer nonconventional services, often imitating the positive characteristics of informal financial services. The savings services offered by microfinance institutions could substitute for inefficient and risky mechanisms, such as cash, money collectors, and investing in unproductive business assets. Savings services could complement other forms of savings, such as investing in lumpy assets. This would assist depositors in mobilizing funds to achieve household goals. Accumulated funds could be used to purchase land or pay for education.

Few microfinance institutions have developed a mechanism to collect voluntary savings. Many, however, require members to deposit into a mandatory savings account. This provides a source of security in case of loan default. Some institutions allow clients to deposit excess savings into their mandatory savings account. The willingness of clients to deposit mandatory and voluntary savings reflects their ability and willingness to save with microfinance institutions. This is illustrated by the clients of Faulu Kenya and Faulu Uganda. Part of the Faulu Africa network, these institutions are representative of the growing number of microfinance institutions worldwide. The experience of Faulu Africa and its mandatory savings mechanism provides insight into the potential role of microfinance institutions to collect savings.

Faulu Africa and its Mandatory Savings Component

Evolution of the Institution

The roots of Faulu Africa date to 1991. It started as a pilot loan scheme in the Marthare Valley slums of Nairobi, Kenya. Much of Faulu Africa's methodology was patterned after the Grameen Bank. Faulu Africa is the offspring of Food for the Hungry International, a nongovernmental organization engaged in relief and development activities in Kenya, Uganda, and many other countries. Because of Faulu's focus on financial services and reaching sustainability, its parent organization has granted the institution much autonomy as it evolves.

The pilot loan scheme started with US\$8,000. Through the investment of North American and European donors, it has grown to become Faulu Kenya, encompassing three branches in Nairobi and another serving the Mount Kenya region. Faulu Uganda commenced in mid-1995 and has one large branch serving Kampala. The sister institutions employ nearly identical methodology. Consequently, they will be referred to as Faulu unless a distinction is necessary.

"Faulu" means success in Swahili, the desired result for microenterprises that procure services from the institution. Faulu has focused its resources on providing credit to individual members. Through the provision of loans, Faulu seeks to facilitate microenterprise development, raise incomes of entrepreneurs, increase employment opportunities, and stimulate community development.

The total value of Faulu's outstanding loan portfolio had grown to nearly US\$2 million by the end of August 1998. The number of clients served by Faulu Kenya exceeded 7,100. Faulu Uganda's membership grew to over 2,200.

Access to credit is the initial motivation for membership. Faulu extends credit to individuals who are members of solidarity groups.⁷ The use of groups provides a means of mutual support. It also provides a guarantee mechanism. Members must cross-guarantee each other's loan.

Clients may be members of pre-existing Financial Self-help Associations. Alternatively, a Faulu Loan Officer may assist in establishing a group. The process of group formation commences with a community information meeting. Interested entrepreneurs are then invited to return to a series of meetings. They must attend these meetings in self-organized subgroups of approximately five members. Subgroup members must be well acquainted with each other's business. These subgroups are combined by the Loan Officer to form a larger solidarity group.

The groups formed by Faulu tend to be more heterogeneous (in terms of gender, income level and ethnicity) than were the pre-existing groups.⁸ Most groups include both men and women. Women comprised 62 percent of Faulu membership as of June 1998. Group size ranges from 20 to 50 members, with an average of approximately 30 members. While members of the larger group may not be previously acquainted, members of subgroups are usually close friends.

The group mechanism reduces transaction costs for Faulu and its clients. Payments are aggregated at or prior to the weekly group meeting.⁹ This facilitates Faulu's ability to maintain records. Group members' knowledge of each other's business reduces the need for Faulu to gather information on clients. The proximity of group meetings to an entrepreneur's workplace limits travel costs.

Loans are given primarily for investment in working capital. Diversion of funds to other uses, such as education, social events, and housing construction, however, is common. Loans must be approved by the group leadership committee and Faulu. Most first loans are less than US\$300. Successful repayment allows clients to apply for larger loans. This is one incentive for repayment. Most loans are repaid over a period of 26 weeks (including a two-week grace period). Clients receiving third or subsequent loans are permitted to extend the repayment period to 39 or 52 weeks.

Clients pay a flat rate of interest of 24 percent at Faulu Kenya or 36 percent at Faulu Uganda. They must also pay a one percent loan set-up fee. Faulu also requires clients to pay one percent of their loan into a Catastrophic Insurance Fund (CIF) which covers loans in the event of death or disability of the borrower.¹⁰ Together, these costs represent a nominal declining balance rate of 49 percent or 74 percent, respectively. The real rate is about 37 percent at Faulu Kenya and 68 percent at Faulu Uganda. This is similar to what most microfinance institutions charge in the two countries. While these rates may appear high, the charges are much less than those paid to moneylenders or Financial Self-help Associations. Furthermore, the short repayment period limits the total debt service.

Throughout the loan cycle, each client deposits into her personal mandatory savings account, the Loan Security Fund (LSF). Faulu maintains records of each member's LSF balance. The account is

⁷ Faulu does make some loans to groups that then on-lend to individual members. This arrangement is limited to very cohesive groups.

⁸ Groups formed by Faulu tend to experience a higher rate of client exit. Pre-existing groups usually engage in activities independent from the services available from Faulu (e.g. joint investment in land). This encourages group cohesion.

⁹ A few groups meet biweekly or monthly. In these cases, the amount of loan repayment and LSF payment is increased accordingly.

¹⁰ The Catastrophic Insurance Fund is managed by an association of group leaders who meet periodically to approve use of the funds.

another mechanism used to ensure loan repayment. If a member defaults on her loan, Faulu will “tap” her LSF to apply to the outstanding balance of her loan.

Members cross-guarantee each other’s loan. Consequently, if a member has defaulted on his loan and lacks sufficient security funds to cover the balance, Faulu will extract security funds from other subgroup members. Policy states that Faulu will only extract up to 25 percent of a member’s outstanding or most recent loan to pay for another member’s defaulted loan. If subgroup members lack sufficient funds to cover the defaulted loan, Faulu will tap the LSF of members within the larger group.

Fear of losing savings to cover a group member’s defaulted loan augments social pressure. This encourages the group leadership committee to be more conservative when approving loan requests. Faulu’s security mechanisms have proved very effective. Faulu has a loan recovery rate of 99.8 percent.¹¹

The Loan Security Fund is a quasi-savings account. A minimum amount to be deposited at each meeting is specified by Faulu, based on an individual’s current or expected loan. Clients may choose to deposit voluntary savings, however.

The maximum available loan amounts and corresponding mandatory savings deposits during the first three loan cycles for Faulu Kenya are displayed in *Figure 1*. Faulu Uganda employs similar policies. The loan amounts are the maximum available from Faulu Kenya during each of the loan cycles. Clients often receive less.

The mandatory savings deposits for first and second loan clients are proportional to loan size. Clients requesting their first loan are required to deposit 1 percent of the anticipated loan during each week of the eight-week countdown period and while repaying the loan. Consequently, clients will accumulate at least 34 percent of their loan at the end of the first loan cycle.

Second loan recipients also are required to deposit 1 percent of the received loan during each week of repayment. Third and subsequent loan recipients must have 25 percent (Faulu Kenya) or 35 percent (Faulu Uganda) of the requested loan deposited in their LSF account prior to loan receipt. While repaying third and subsequent loans, clients must pay a minimum of approximately US\$2 during each weekly meeting. Clients are required to continue making LSF deposits while repaying each loan to accumulate adequate security funds to request a larger loan.

LSF deposits receive modest bonus payments, posted biannually. Faulu Kenya pays an annual percentage rate of 8.2 percent. Faulu Uganda pays an annual percentage rate of 5.1 percent. These rates are similar to those paid by local commercial banks on larger savings accounts. Loan repayments and LSF payments are collected either prior to the meeting or directly at the meeting. Group officials record transactions during the meeting. This increases the transparency of the process. After reconciling group records with collected cash, the money is deposited by a few members into a nearby bank. Responsibility for depositing funds rotates among members to limit transaction costs for any individual member and to increase security. Faulu maintains records of loan repayment and LSF payment using a computerized tracking system. Faulu’s records are reconciled with bank statements.

Duration of group meetings varies, usually corresponding to age and cohesiveness of the group. Older, well-established groups may conduct financial transactions in 20 minutes. Younger groups may require an hour or more to count and reconcile their transactions. After completing financial business, groups generally spend some time on other activities. Members may share experiences, which may help members improve business practices. Some groups collect savings from members, which are deposited into

¹¹ Rate of default to the group is higher, however.

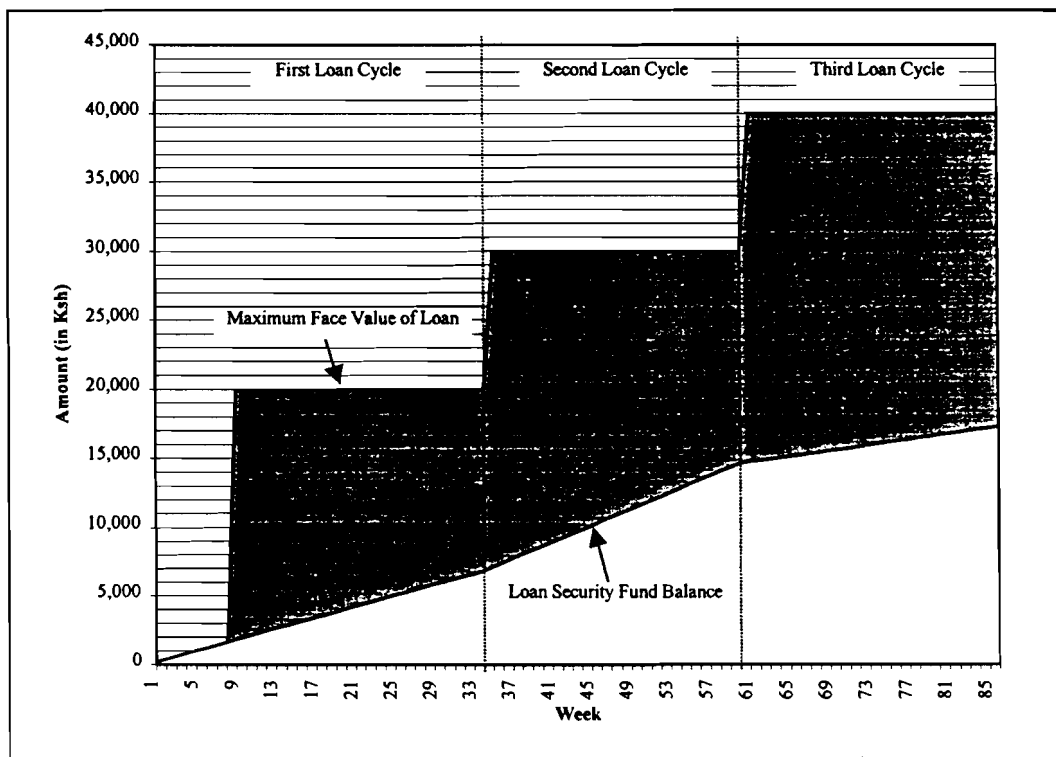


Figure 1. Faulu Kenya, Maximum Loan Size and Corresponding Loan Security Fund Balance

an independent group-controlled bank account. Funds from this account may be used for joint investment activities, such as buying land. Alternatively, these funds may be lent to members as loans.

Status of the Mandatory Savings Component

While maintaining a focus on credit, Faulu has collected a significant amount of mandatory and voluntary savings from clients. Many clients deposit more in their security fund account than required. Average LSF balances for Faulu Kenya and Faulu Uganda as of December 31, 1997 are displayed in *Figure 2*. The figure also includes the estimated GDP per capita for 1997 for Kenya and Uganda as calculated by the Economist Intelligence Unit (1998a and 1998b).

Considering that Faulu targets low-income entrepreneurs, the LSF balances are quite large compared to the GDP per capita estimates. On average, Faulu Kenya clients had accumulated over 43 percent of the estimated GDP per capita. Faulu Uganda clients had accumulated nearly 38 percent of the estimated GDP per capita. This reflects clients' capacity to save.

The trend in LSF per client is displayed in *Figure 3*. LSF balances increased an average of US\$3.41 each quarter from March 1996 to June 1998. The average LSF balances increased from US\$106 to US\$133 during this period, a 26-percent increase.

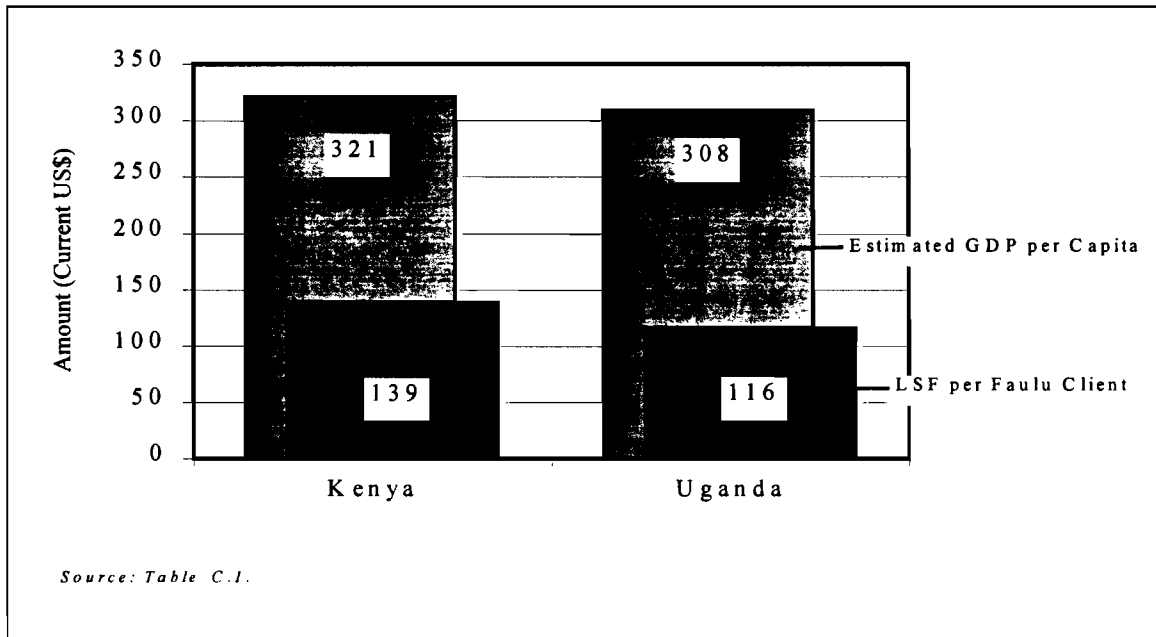


Figure 2. National GDP per Capita and Loan Security Fund per Client, Faulu Uganda and Faulu Kenya, 1997

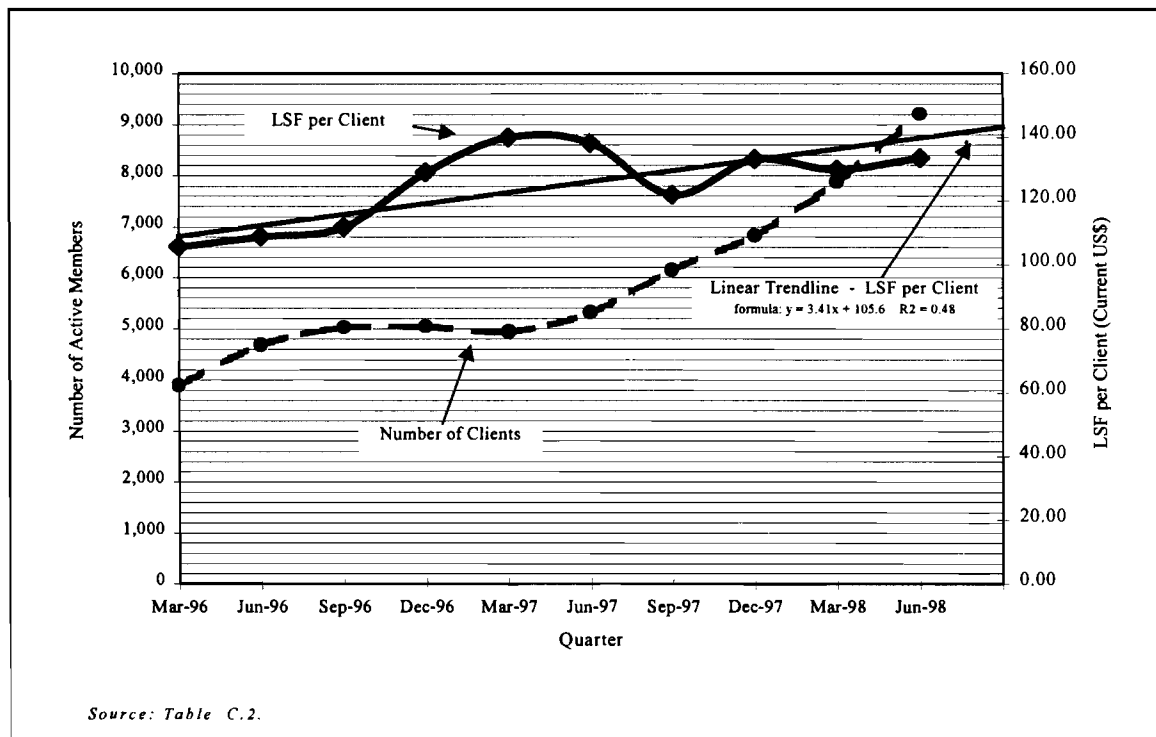


Figure 3. Faulu Africa Trend in Number of Clients and Loan Security Fund per Client, March 1996 to June 1998

The number of clients has grown from less than 3,900 to over 9,200. The growth in average LSF balance is particularly significant given the number of new clients. An influx of new clients, who have minimal LSF balances, reduces the average LSF balance per client. From September 1996 to March 1997, Faulu membership stagnated. During this period, the average security funds per member increased greatly. Conversely, rapid expansion of the client base starting March 1997 overshadowed some of the growth in average LSF balance per member.

The growth in average LSF balance per member partially reflects increased loan sizes. As clients remain in the program, they tend to receive larger loans. As loan amounts increase, the required LSF balance also increases.

The trend in face value of outstanding loans, outstanding loan balance, and LSF balance between March 1996 to June 1998 is displayed in *Figure 4*. During this period, the total funds accumulated by clients were close to the value of the outstanding loans. Faulu had mobilized almost as much in savings as the outstanding portfolio. Faulu does not lend any of the accumulated funds to clients. Historically, deposits have been invested in government treasury bills or certificate of deposits at well-established banks.

Part of the growth in security funds collected by Faulu, from March 1996 to June 1998, is related to the expanding loan portfolio and the accompanying increase in mandatory deposits. A significant portion of the deposits, however, reflects voluntary savings. Analyzing the ratio of LSF balance to face value of loan portfolio provides some evidence. The ratio averaged 0.48:1 from March 1996 to June 1998. This means that on average, clients had accumulated savings of US\$0.48 for every US\$1 distributed in loan capital. The ratio peaked in June 1997 at 0.59:1.

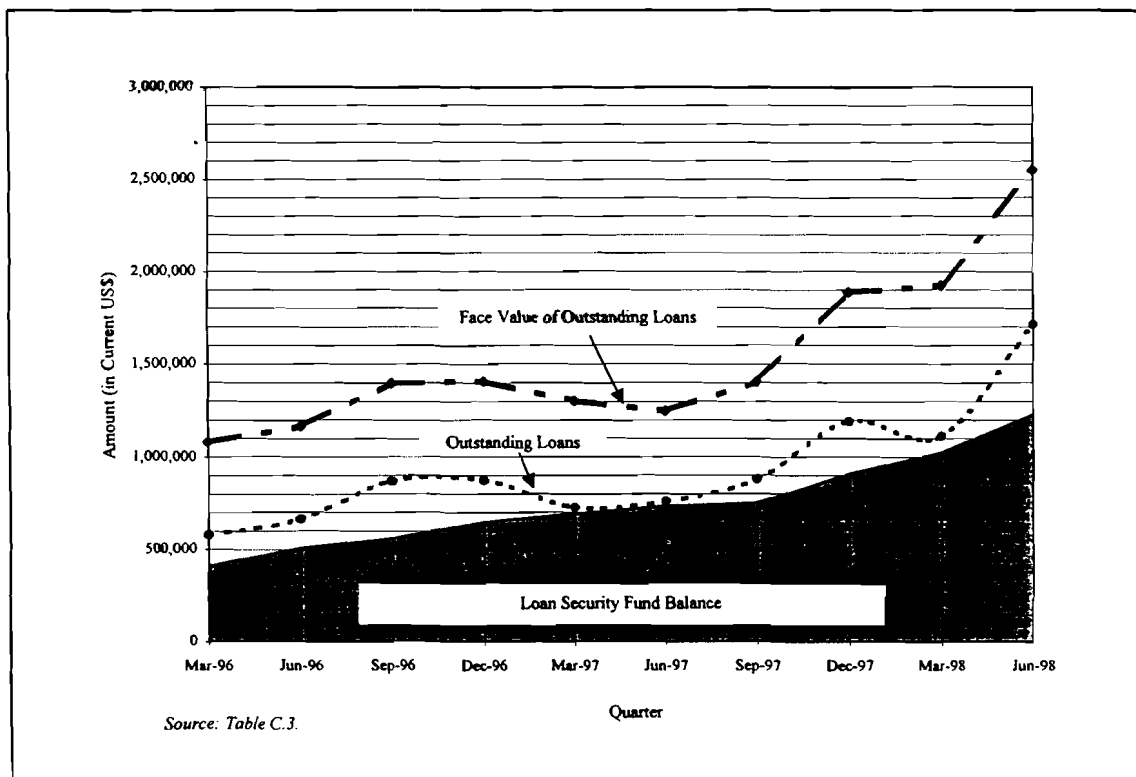


Figure 4. Faulu Africa Loan Security Fund and Value of Loan Portfolio, March 1996 to June 1998

The observed ratio can be compared to Faulu's mandatory savings policy. At the beginning of the first loan cycle, clients must have a minimum of 8 percent of the loan deposited in their LSF (accumulated during the 8 week countdown). At the end of the first loan cycle, clients must have at least 34 percent of the loan deposited in their LSF. For second loan recipients, funds in their account start at approximately 20 percent of the received loan and increase to 46 percent at the end of the cycle. The required ratio of LSF balance to loan face value for third and subsequent loan recipients starts at 0.35:1 for Faulu Uganda or 0.25:1 in Faulu Kenya. It increases to 0.45:1 in Faulu Uganda or 0.35:1 in Kenya at the end of the loan cycle.¹² The amount of funds deposited from March 1996 to June 1998 is significantly greater than the amount required by Faulu policy, reflecting the voluntary savings deposited by clients.

Benefits of the Mandatory Savings Account

The voluntary funds deposited into Faulu's mandatory savings account signify that the account offers benefits to clients. Identifying these benefits will help in developing savings mechanisms that microfinance institutions could offer to low-income entrepreneurs.

Leverage to Receive Credit

Deposits into the mandatory savings account provide a leverage to receive credit. For many clients, microfinance institutions provide a source of credit otherwise not available. For second and subsequent loan requests, Faulu Kenya clients can receive Ksh4 for every Ksh1 deposited into their LSF account. Faulu Uganda clients receive approximately Ush3 for every Ush1 deposited. The hope of receiving a larger loan induces some clients to deposit voluntary savings.

Alternative to Credit

For others, however, credit will do little to fuel business development. The impact of credit may not yield the anticipated benefits. As clients remain in the program for several loan cycles, the percent with loans tends to decline.

Shipton found in the Gambia that loans, "while sometimes useful like a rope ladder, also tie down . . . like a rope around the neck" (1990, 1). The case study of Richard Kaddu, a butcher in Kampala, provides an example:

Mr. Kaddu, in his early 40's when we met, inherited his trade. His father was a butcher and his grandfather was a butcher. Mr. Kaddu was not particularly educated to pursue another trade, so becoming a butcher was the logical choice. He initially worked in the market as an apprentice. Eventually, he managed to save sufficient capital, in the range of Ush78,000 (US\$139) to Ush105,000 (US\$188), to start his own shop in 1982.

Mr. Kaddu is among the most interesting of Faulu Uganda's clients. He remains one of the few to join the program twice. He originally became a member in mid-1996. The first loan received from Faulu was for 400,000 (US\$395). It was used to transport goats from upcountry.

He continued to take two additional loans from Faulu. Then he abruptly exited his solidarity group on November 28, 1997. The stated reasons on his exit form were (1) I need time to make some family/personal decisions, and (2) I need access to my

¹² Assumes an average third and subsequent loan of US\$700, repaid over a 26-payment period.

Loan Security Fund (LSF). His account had accumulated over Ush550,000 (US\$513). His Loan Officer reported that he was a faithful client, the type Loan Officers are sad to see leave their portfolio.

A little over a month later, on January 12, 1998, he requested to rejoin the same group. Mr. Kaddu later recounted that in October 1997, his subgroup of 4 members began to realize that their businesses could only absorb so much investment (one of the five had previously left Faulu).

His business had stock of approximately Ush500,000 (US\$467) with a turnover of 10 times per month. Acquiring additional credit did not benefit the business. Similar to his subgroup members, Mr. Kaddu's business location was not conducive to additional growth. Members of the subgroup decided to stop borrowing and just save. While the other subgroup members remained in Faulu, he perceived leaving the program as the easiest way to retrieve the Ush550,000 (US\$513) in his account.

Rejoining Faulu allowed him to start again, but with a new strategy. During the first few months of 1998, he had deposited Ush30,000 (US\$27) to Ush40,000 (US\$37) during each weekly meeting. Mr. Kaddu has a savings account in Centenary Rural Development Bank, but prefers to remain saving with Faulu to achieve his medium- and long-term savings targets. His subgroup members encourage each other and provide accountability. Each has a dream of how they will utilize funds in their respective LSF account once savings reach the desired level.

Mr. Kaddu dreams of building a house on a plot of land he purchased. If all goes well, he hopes to start construction in January 1999. His goal is to save Ush1,000,000 (US\$916). After withdrawing accumulated savings in January, another goal will be set. He seemed to be on target. As of May 18, 1998, he had accumulated over Ush640,000 (US\$586). He had managed to deposit Ush70,000 (US\$64) that week.

The use of savings is a more efficient means to generate investment in many cases. Mr. Kaddu, for example, wanted to build a home. Use of credit would have been expensive. Credit is difficult to repay when not used in an income-generating activity. Even when credit is used for income generation, the marginal benefit may be less than the marginal cost.

Small, Frequent Deposits

All of the interviewed clients expressed appreciation for the discipline acquired by making small, periodic deposits into their LSF account. Faulu's savings requirement is similar to the forced savings that members of Financial Self-help Associations or clients of savings collectors subject themselves to. Faulu clients, however, have the advantage of greater flexibility in receiving credit and managing deposit balances.

Edward Kigozi illustrates the importance of savings in business development. He also displays the benefits of Faulu's policy of requiring small, periodic deposits:

Mr. Kigozi, age 40, first heard about the group of entrepreneurs starting a Faulu Uganda solidarity group through his wife. He is a retailer of second-hand clothes and had become a member of the group, United Together. Meeting in a Kampala suburb near Lake Victoria, United Together is among the youngest groups in Faulu Uganda. Edward was the first man to join the group. As of May 1998 the group boasted membership of 43 entrepreneurs—including several men.

Mr. Kigozi had received the most education of the interviewed clients. From 1988 to 1991, he studied medical engineering in Makerere University. After graduating, he got a job with the Ministry of Defense, in the medical services department. The income, however, was not adequate to provide for his family of four girls and two boys. Consequently, in 1995 he started a side business of electronic repair.

Much of the start-up capital used to begin the electronic repair business was raised by accumulating savings from allowances received while studying in the United States. The Ugandan government had sent him to obtain advanced training for repairing medical equipment. During the trip, the government furnished him small allowances. In his words, he "did not eat it" (i.e., waste the allowances), but instead slowly accumulated sufficient capital to buy cables and other spares. An advantage of electronic repair is that technical skill is the primary resource required. The type of repair Mr. Kigozi performs does not require many parts.

The business is conducted "after-hours" and as of May 1998 had assets worth Ush2,000,000 (US\$1,832). Two full-time employees, a technician, and another assistant run the business during the day. He and another manager provide oversight and additional technical support. The target for repairs is Ush100,000 (US\$92) per month during the first year.

Arguably, Faulu has little to offer Edward, at least in the short-run. New clients are only eligible for small loans. He admitted that money in his bank account exceeded the anticipated loan of Ush200,000 (US\$183). He stressed, however, that joining Faulu increased his discipline. Faulu encourages clients to turn little money into substantial sums through consistent deposits.

Before becoming a member of Faulu Uganda, he had joined PAP, another microfinance institution in Uganda. "PAP" stands for Poverty Alleviation Project. While both institutions offer similar loan sizes, Mr. Kigozi prefers Faulu's LSF policy. He appreciates the ability to slowly accumulate savings on a weekly basis.

Faulu never requires clients to make large, lump-sum payments into their LSF account. PAP, however, requires that 10 percent of the requested loan be deposited up front as a compensating balance. In the long-term, Faulu Uganda's policy will induce greater financial cost on clients. Faulu requires a 35 percent beginning LSF balance for second and subsequent loans (compared to PAP's 10 percent for loans). The policy of slow accumulation, however, makes the deposits much more bearable for clients.

Encouraging Clients to Set Goals

Mandatory weekly deposits have encouraged clients to set goals. This was shown in the case study of Mr. Kaddu. It is also illustrated by Sarah Kacu:

In the future, Ms. Kacu intends to increase deposits into her LSF account. She does not have a bank account. The benefit of using the LSF account is that funds in the account are less tempting to withdraw, yet safe. As of May 1998, her balance stood at over Ush208,000 (US\$190). She hopes to save Ush5,000,000 (US\$4,579). Of this goal, Ush3,000,000 (US\$2,747) would be withdrawn to invest in a house for her mother in the village.

When we met, Ms. Kacu's LSF balance of Ush208,000 (US\$190) was far from her goal of Ush5,000,000 (US\$4,579). Weekly deposits, however, enable her to break this down into realistic

payments. Weekly payments of about Ush30,000 (US\$27.50) over a three year period, for example, would achieve this goal.¹³ Goals are easier to attain when achieved by small steps, not large leaps.

Goals often involve buying nondivisible assets. The inability to finance larger, nondivisible assets often forces the poor to accept lower-yielding investment options (Fafchamps and Pender 1996). Depositing funds in the LSF account provides a long-term savings mechanism, reducing the temptation to unnecessarily “eat” savings before goals are achieved. Because clients historically were only able to access savings once per year, there was little temptation to withdraw savings.

Fuel Business Growth and Stability

Paul Wambwa, a Faulu Uganda client, illustrates the business growth and stability generated by accumulating savings in his LSF account:

Mr. Wambwa's first job was delivering newspapers. He has since hired somebody else to sell his newspapers. His focus has shifted to another, more profitable enterprise. The savings accumulated from newspaper sales provided the seed capital for a small electronics shop in 1980. This capital was augmented by a small “push” from a friend in the form of a soft loan for Ush5,600 (US\$150).

Operations in his new endeavor commenced when he gave a friend Ush11,300 (US\$300) to purchase electronics (i.e., small radios, watches, etc.) in Dubai—the “duty-free capital” of Africa and the Middle East. He also bought some electronic goods on the local wholesale market. The soft loan from his friend supplied rent money for the first 5 months. He noted that one could sell simple electronics from a small, relatively cheap place. In total, Mr. Wambwa started with stock valued at Ush11,300 (US\$300), cash totaling Ush15,100 (US\$400), and Ush5,600 (US\$150) for five months rent.

After eighteen years, Paul still sells electronics. But the technology he dispenses has evolved greatly. The value of his operations has increased accordingly. Now, he has stock valued at over Ush16,000,000 (US\$14,652). He is still renting a shop and, consequently, the business lacks fixed assets.

Mr. Wambwa joined Faulu to help grow his business. He received his first loan from Faulu in December 1996. As of May 1998, he was repaying a sixth loan for Ush1,000,000 (US\$916)—among the highest loans received in Faulu Uganda. He is the treasurer of his solidarity group that boasts 48 members.

As of May 18, 1998, he had accumulated Ush380,000 (US\$348) in his LSF account. How has he used his savings?

Savings in the account initially were leveraged to receive credit. During a lean period, accumulated funds paid his outstanding loan balance. The remaining funds in his LSF account enabled him to stabilize and later expand his business by allowing him to request another loan.

Eventually, Paul intends to use his LSF account as a substitute to receiving credit. Originally, he had deposited voluntary savings to get a larger loan. Now he perceives value in the account as an independent financial instrument, without

¹³ Assumes an annual interest rate of 5.1 percent.

necessarily linking it to credit. He prefers using the LSF account instead of saving in a local bank, because there is less temptation to withdraw money.

Accumulated funds provided a vital buffer when Mr. Wambwa's business experienced a period of decreased profitability. The accumulated savings enabled him to pay the outstanding loan balance of his loan. Consequently, he did not have to extract funds from his household to pay off the loan balance. The ability to leverage savings to receive additional credit enabled the business to stabilize and continue growing.

Weaknesses of the Mandatory Savings Account

While the mandatory savings account has offered many benefits to clients, the design of the account has some weaknesses. These problems partially result from the institution's concentrated attention on credit. While Faulu benefits from investing clients' deposits, little effort had been made to improve the product.¹⁴ Analyzing these deficiencies will be useful in understanding how to encourage clients to save with microfinance institutions.

Limited Withdrawal

The usual process for requesting a savings withdrawal takes a month. Clients are allowed to request an annual withdrawal from their LSF account in mid-November and receive their withdrawal in mid-December. This limits flexibility in planning foreseen investment and eliminates the ability to withdraw in times of emergency.¹⁵ While some clients benefit from limited access, others complain. Some clients left the program because they could not withdraw savings from their LSF account when they needed funds. According to discussions with Loan Officers, access has been the biggest obstacle to mobilizing additional voluntary savings. This provided the primary motivation for the LSF Access Trial discussed later in this chapter.

Withdrawals Given as Checks

Withdrawals historically have been given to clients using open checks. After waiting a few weeks for Faulu to process the request, a client must travel to a local bank to cash the check. In the process, the client has to bear the cost of transport. At the bank, the client may be subjected to long lines and may be greeted by unfriendly service. The time spent going to a bank imposes the opportunity cost of not working.¹⁶

Cross-guarantee of Group Members

Depositing voluntary savings into the LSF account does have some risk. Default of a group member could force Faulu to extract funds from fellow group members' LSF accounts to cover the outstanding loan balance. Once group members have been forced to cover another member's loan, they are less likely to deposit voluntary savings in their account. This apprehension is illustrated by Wanjiku Gitau:

Ms. Gitau contributes the mandatory, weekly LSF payment, without depositing extra. She used to build up her LSF account by depositing a little extra every week.

¹⁴ Throughout 1997 and early 1998, Faulu Kenya was earning a spread of almost 17 percent on mobilized deposits by investing in Kenyan Treasury Bills (note this does not include Faulu's monitoring costs).

¹⁵ Subject to Branch Manager's approval, LSF balances may be used to pay outstanding loan balances in periods of repayment difficulty.

¹⁶ Poor service and high transaction costs were some of the reasons why low-income entrepreneurs did not deposit savings in banks. The use of checks by Faulu posed some of the same problems for its clients.

The goal was to get a higher loan. But the default of a group member led to the tapping of her account. Over Ksh10,000 (US\$172) was removed from her account in 1997 to pay for the defaulted loan. Now she is scared to deposit any voluntary savings.

While Faulu Kenya's policy states that clients cannot be tapped in excess of 25 percent of their outstanding loan (35 percent for Faulu Uganda), Loan Officers admitted that this policy was occasionally breached. Because of this inconsistency, members of groups that have experienced default are less likely to make voluntary savings deposits.

Withdrawal Linked to Performance of Group Members

Besides potentially losing some voluntary savings to cover another member's default, poor performance of group members can limit eligibility to access savings. A Loan Officer may decide that members of a group are not permitted to withdraw funds. This is "punishment" for poor performance. To augment social pressure, access is denied for all group members. Uncertainty of fellow member's future performance may limit the ability of clients to effectively utilize the LSF account.

Personal Balances Not Private

The amount deposited by individual members can be known by all group members. Weekly savings and loan activity for a group is printed on a Client Status Report. Consequently, members know how each other is performing.

This did not seem to be a major issue among interviewed clients, however. Lack of privacy also is evident in Financial Self-help Associations. Because members share similar dreams, such as expanding their business or building a home, the lack of privacy may provide encouragement for members to spur each other on to excel.

Trial to Improve Access to Mandatory Savings Account

In collaboration with Faulu staff, a trial was developed to remove the most significant weakness of Faulu's mandatory savings account—limited access. The institution had been guided by the hypothesis that increasing access to LSF accounts would be impractical given administrative and accounting procedures. The first objective was to test this hypothesis. Second, the trial probed the possibility that increased access would increase voluntary deposits. Greater access should improve client's ability to plan withdrawals and generate additional confidence in Faulu. Third, the trial tested the hypothesis that increased access would reduce the number of clients exiting Faulu Uganda. Some clients have left in the past simply to access funds in their LSF account. Client exits could be reduced as clients begin to use the savings mechanism as an independent financial tool. Consequently, motivation for membership would transcend mere access to credit.

Framework for Trial

The trial was conducted at Faulu Uganda. It was conceived through collaboration with the Faulu Uganda Director, Branch Manager, Loan Officers and Accounts Staff. The trial started in November 1997, incorporating 12 of the institution's 62 solidarity groups. The remaining 50 provided a control group. In the first phase, three different scenarios were pursued for solidarity groups in the trial. Three groups were in each of the following categories: weekly access, fortnightly access and monthly access. All withdrawals were given as checks, which could be cashed at a local bank. Minimum withdrawal was set at Ush30,000 (US\$27). Clients still have to meet basic criteria to request withdrawal. Clients have to maintain minimum LSF balance requirements (e.g., 35 percent in Faulu Uganda). Required loan repayments and LSF payments, as stipulated on their most recent loan application, also must be satisfied for the

preceding three weeks. Subgroup members also had to satisfy these criteria. Either all or none of the subgroup members are eligible for withdrawal.

A new form indicating whether clients satisfied these criteria was designed and printed along with other weekly reports. This made eligibility requirements more explicit and understandable. If clients are eligible, the form indicates how much can be withdrawn.

A management decision forced the trial to evolve six months after the first phase started. This resulted from a shift in policy for the control group. The management of Faulu Uganda decided that positive results from the first phase warranted a policy change.

The second phase started in April 1998. All groups in the trial were permitted to request withdrawal on a weekly basis. The control group was allowed to make monthly requests for withdrawal. Eligibility requirements remained the same.

During the second phase, a pilot cash withdrawal procedure was initiated. The idea for cash withdrawal was motivated by observations of a Financial Self-help Group in Nairobi. After collecting loan repayments and savings deposits, the group made one or two loans to members at the end of the meeting. Little money was deposited in the bank. This system reduced transaction costs for members and reduced risk of losing money on the way to the bank. The cash withdrawal process for Faulu Uganda utilizes a similar technique. After the group Treasurer and Assistant Treasurer account for weekly repayments and deposits, members are permitted to request LSF withdrawal. While the process seems straightforward, there initially was some resistance from Faulu's accountants. To limit risk, the cash withdrawal process started with one group, Nakawa United. Another group, Bugalobi Women's Group, was added at the end of May.

Impact of Frequency

Contrary to fears expressed by several of Faulu Uganda's staff during the design stage, there was no noticeable influx in requests for LSF withdrawal using the check method. There had been some fear that data entry would have to devote significant effort to processing checks for groups in the trial.

The primary result was to allow clients access to their savings as needed. This eased pressure on Loan Officers of clients threatening to leave the program to access their LSF account. Consequently, according to the Branch Manager and Loan Officers, fewer clients left the program. Given the short time span and the evolution of the trial in April, it is difficult to quantify the decrease in client turnover.

Greater access enables clients to better plan withdrawal from their LSF account. This provides a sense of security. Even if clients do not access their funds, they are able to request withdrawal when and if necessary. Because withdrawals can be distributed throughout the year, Loan Officers anticipate less of an administrative burden in December.

The benefits from the first phase of the trial compelled Faulu Uganda's management to alter the previous withdrawal policy. This resulted from increased client satisfaction expressed to Loan Officers during weekly group meetings. The majority of clients appreciated increased flexibility to withdraw funds throughout the year. The increase in deposits was not possible to measure, however. Procedures for groups in the pilot evolved in April. Faulu Uganda also was in the process of changing its mandatory savings policy. For clients receiving their third and subsequent loan, the required weekly LSF payment was reduced from 1 percent of the loan to Ush2,000 (US\$1.80). This change occurred over time as clients requested new loans.

Conditions for Withdrawal

Some Loan Officers reported that the eligibility conditions for withdrawal limits use of the LSF account. Clients, for example, may fear that subgroup members may not make the required payments. Consequently, no subgroup members would be able to withdraw their savings. Some clients and Faulu staff argued that a purely voluntary savings mechanism should not be tied to the performance of subgroup members.

When designing the trial, however, we attempted to strike a balance between social pressure and individual flexibility. Instead of focusing on performance of the larger group (as previously practiced), we focused on the subgroup. The weekly form enabled clients to better understand eligibility of the subgroup to access savings.

The extent to which the link between access and subgroup performance reduced willingness to deposit voluntary savings is uncertain. The groups that raised issue with the link seemed to have experienced past payment difficulties. Groups that performed relatively well and typically satisfied Faulu's payment criteria did not object. Indeed, the eligibility criteria provided an incentive for these groups to improve performance.

In the long term, clients and Faulu would benefit from creating separate mandatory and voluntary savings accounts. The name "Loan Security Fund" is understandably deceptive to some clients. Separate accounts would allow Faulu to better target client needs (e.g., liquidity, access, and return on investment) and institutional needs (e.g., loan security and account administration).

Check versus Cash

The process for withdrawing funds via check still spans at least two weeks. This limits the capacity of entrepreneurs to withdraw savings from their LSF account in times of emergency. Ironically, several clients noted that they did not mind the waiting period. This reflects the illiquidity preference of some clients. While the LSF account may not be efficient for funding unforeseen expenses, the account can be particularly useful for planned investment. The desire for easy access by some clients and the illiquidity preference by other clients suggests the need for developing multiple types of savings accounts.

The cash withdrawal process was developed to facilitate access to savings. The first cash withdrawal occurred on April 7, at Nakawa United's weekly meeting. Out of the Ush724,700 (US\$664) deposited (including loan repayment and LSF payment), Ush664,000 (US\$608) was withdrawn. Of the total amount withdrawn, Ush400,000 (US\$366) was received by Fred Kogula. His use of the withdrawn money illustrates the use of accumulating savings in the LSF account to fuel business development:

Mr. Kogula left the meeting with a noticeable wad of money in his pocket and a huge smile on his face. His LSF account had accumulated over Ush750,000 (US\$687). After the withdrawal, he still remained with over Ush350,000 (US\$321) in his LSF account.

The small weekly deposits made over a two-year period had grown into a sizeable balance. The withdrawal was used to buy several goats that week. Mr. Kogula typically deposits more into his LSF account than required on a weekly basis. He intends to simultaneously utilize the benefits of credit and savings.

Anne Kalyabo, a member of Nakawa United, requested a cash withdrawal during that meeting too:

Ms. Kalyabo withdrew Ush50,000 (US\$46). She reported that LSF withdrawals via cash at the meeting should encourage deposits. The cash process, as

compared to the check process, is more efficient. Her cash withdrawal was used to buy cement for the foundation of a house that her family is building for rental income. The house is located on a plot received when her father died.

The cash withdrawal method reduces transaction costs for Faulu and its clients. A comparative flow chart of the cash and check withdrawal processes is illustrated in *Figure 5*. Processing checks is costly. Each check costs Ush30 (US\$0.03). The check request must be filled by the Loan Officer. It must be signed by two signatories, including the Branch Manager and either the Finance Manager or Director (the highest paid staff members). This process usually takes two weeks. Then the transaction must be entered into Faulu's tracking system. Clients must bear the opportunity cost of waiting for the check to be processed. The client also has to incur the cost and hassle of cashing the check at a local bank.

The cash method, however, eliminates most of these costs. The decentralized process allows the group's treasurers (under the guidance of the Faulu Loan Officer) to complete the transaction at the weekly meeting, based on the eligibility form brought to the meeting. Savings withdrawals are very transparent. Withdrawals are given in full view of group members. The reconciliation process removes the potential for fraud. The client benefits by receiving funds at the meeting. Consequently, she does not have to endure travel costs associated with cashing a check.

The Loan Officer responsible for Nakawa United reported that the cash withdrawal process has improved repayment and group pressure. Clients are aware that they cannot request withdrawal unless all subgroup members make scheduled payments. She also noted that the group has always performed relatively well. The criteria encouraged the group to perform even better.

The Loan Officer reports that cash withdrawals have been made at each meeting. Clients tend to access their LSF account more given the cash option. Cash withdrawal is more suitable for unexpected expenses and investment opportunities. Check withdrawal is most useful for long-term goals. Clients also are more apt to withdraw smaller amounts using the cash system. This reflects the lower transaction costs for this alternative.

Weekly LSF payments have increased at Nakawa United. The total LSF payments collected from June to August 1998 for the group was Ush1,659,400 (US\$1,520). The average amount collected from each of the 38 members was approximately Ush3,400 per week (US\$3.11).¹⁷ This represents a 1.5 percent increase over the weekly deposits during the same period in 1997. The required LSF deposits decreased from 1997 to 1998, resulting from a change in policy.

The marginal increase was less than expected. Several reasons are possible. During this period, economic growth in Uganda slowed. The El Nino phenomena created havoc for the transportation system and hindered harvest of agricultural crops. The slowed economy undoubtedly reduced demand for goods and services produced by the informal sector.

Increased deposits may require a longer period for clients to evolve their perceptions of the LSF account. All clients originally entered Faulu to receive credit. Some clients, like Mr. Kaddu and Mr. Kogula, have begun to use the LSF account as a savings mechanism, independent of credit. Additional time and continued positive experience may be required before clients increase deposits with Faulu.

¹⁷ This figure does not include the five new members who joined the group in 1998.

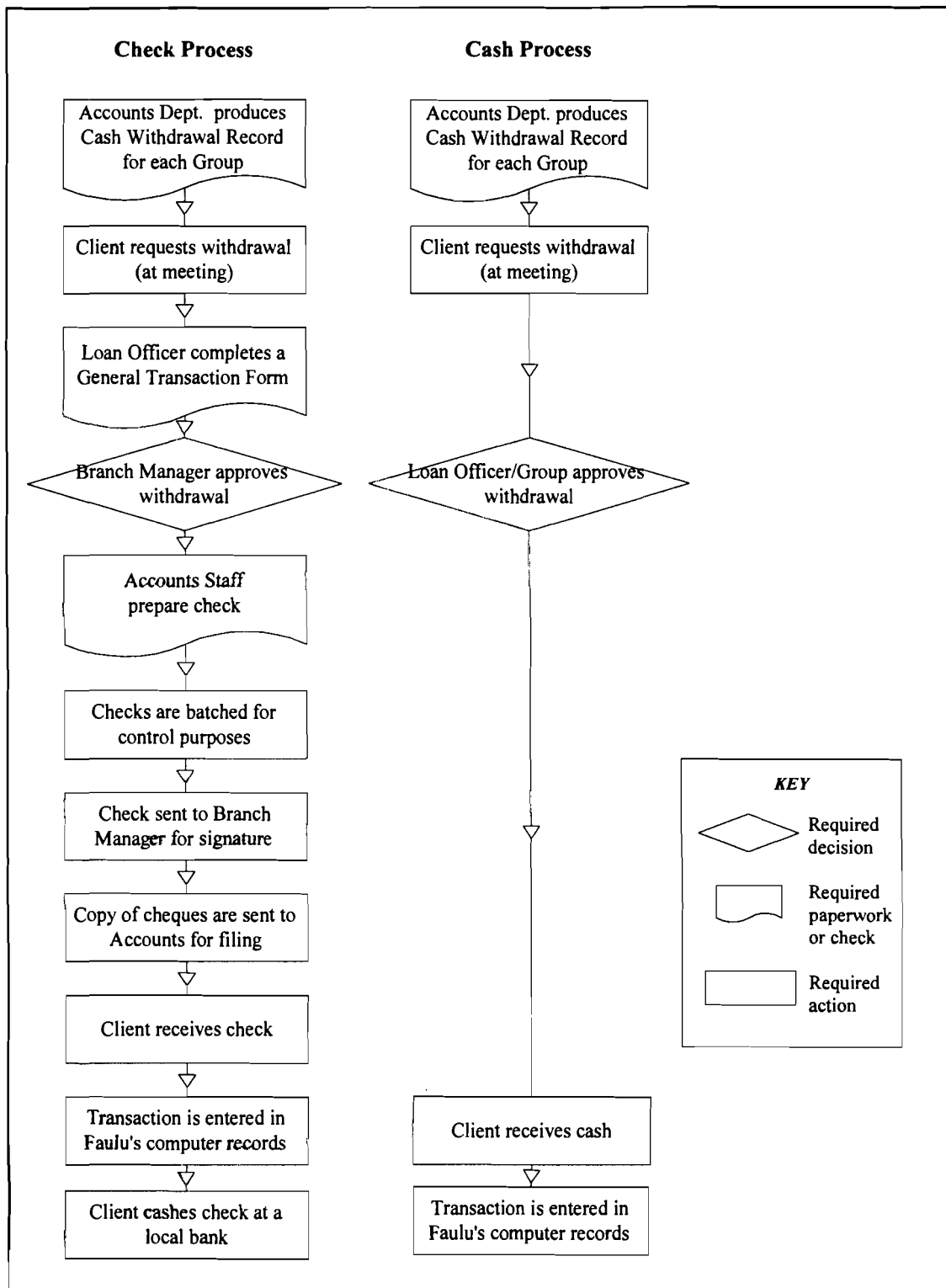


Figure 5. Flow Chart for Withdrawal Options

CHAPTER 4: FRAMEWORK FOR SAVINGS SERVICES

Evidence from Faulu's mandatory savings account indicates the potential for microfinance institutions to mobilize savings. It also underscores some of the constraints to collecting savings. After discussing these constraints, the necessary ingredients to savings services will be discussed. Faulu's experience, coupled with an analysis of savings mechanisms in *Chapter 2*, will be utilized. Results from a market survey will provide additional insight.

There are two main platforms for offering these savings services. First, a partnership between a microfinance institution and a commercial bank could be established. The microfinance institution could focus on innovative credit products and the bank could offer savings services. This would allow the microfinance institution to concentrate on developing a core competency in lending to low-income entrepreneurs. The link with a commercial bank would assist clients accumulate savings. Alternatively, the microfinance institution could develop its own mechanism for mobilizing savings. While subject to several constraints, this alternative would provide greater flexibility in product design.

The proposed alternatives do not require becoming a bank. A few microfinance institutions have transformed into a bank or are in the process of becoming a bank.¹⁸ This remains an option, but may be too costly in the short term for many microfinance institutions. Laws in Kenya, for example, require up-front paid in capital of close to US\$3.5 million. Consequently, recommendations will focus on options that are more feasible and realistic.

Constraints to Collecting Savings

Legal

Most microfinance institutions operate outside the bounds of local banking laws. Microfinance institutions usually are registered as some form of company or NGO, not as a commercial bank. National legislation generally allows institutions without a banking license to lend money. If the company goes bankrupt, clients have little to lose.

Because of risk to depositors, most countries are very strict about savings mobilization. According to Part II, Section 16 of *The Banking Act* of Kenya, institutions without a banking license are not permitted to engage in deposit taking activity (Laws of Kenya 1991). The Central Bank of Kenya has maintained that any institution not registered as a bank may not collect deposits. Faulu Kenya maintains that the mandatory loan security fund is a security mechanism and not a savings account offered to the public. Only clients who have an outstanding loan or anticipate receiving a loan have a loan security fund account.

The Government of Uganda has been more lenient. A few microfinance institutions accept savings. The Ugandan Central Bank has taken a pro-active stance to create legislation that will yield a framework for larger microfinance institutions to mobilize savings. A tier system is envisioned, creating levels of fiscal accountability to the Central Bank. The smallest of these institutions, which do not mobilize deposits, would not be closely monitored. Larger microfinance institutions, those with several thousand clients, which mobilize savings and lend these savings to clients, would have to meet stricter standards.

Partnering with a commercial bank would be a means to bypass legal constraints. While the microfinance institution would play a role in aggregating savings, the commercial bank would be

¹⁸ Including K-REP in Kenya and BancoSol in Bolivia.

responsible for storing and managing collected funds. The microfinance institution would not be bothered with submitting cumbersome reports to government regulatory bodies, but it would have to report to the partnering bank.

Financial

The financial aspects of collecting savings also have to be analyzed. Few microfinance institutions around the world can pay operating costs with received revenue (i.e., operating self-sufficiency). Even fewer have achieved financial self-sufficiency, which includes the cost of inflation and the cost of capital. Faulu Uganda seeks to achieve financial self-sufficiency by December 2003. Faulu Kenya seeks to reach financial self-sufficiency by March 2000. As of July 1998, it was able to cover approximately 70 percent of its financial costs. The costs not covered by operating income must be funded through donor subsidy.¹⁹

Microfinance institutions have had trouble covering costs, although they generally charge market interest rates or higher on loans. Real effective rates range from 20 percent to upwards of 70 or even 100 percent. Part of the interest rate charged reflects the cost of processing small loans. Part, however, reflects institutional inefficiencies.

Many institutions have small portfolios with relatively large overhead costs. The difficulty of covering costs is rooted in the NGO heritage of many microfinance institutions. Cars, nice offices and a cadre of support staff may be viewed as necessary fixed costs, regardless of whether revenue permits such expenditure.

Besides adopting cost-saving measures, microfinance institutions can pursue a mix of strategies to increase revenue. While each strategy could potentially yield adequate revenue to reach financial sustainability, ideally a mix of the following options should be utilized. Offering credit and savings products would help an institution become financially sustainable.

The most important way to generate additional revenue is to increase the number of clients served by existing personnel. Staff remuneration compromised almost 50 percent of Faulu Kenya's total expenses during 1997. Faulu Kenya's 35 Loan Officers comprised approximately one third of its total staff. Each Loan Officer served an average of 263 clients as of June 1998, up from an average of 146 clients during December 1997. Faulu Kenya's financial model requires an average of 400 clients per LO to reach financial sustainability.²⁰ This would require adding over 4,500 clients without increasing the number of Loan Officers.²¹

Average loan sizes could also be increased, while maintaining the same number of clients. This would keep costs constant (except for an increase in the loan loss provision) while increasing interest revenue. In June 1998, the average loan size was \$342. An increase of approximately \$400 in average loan size, however, would be required to cover the total subsidy received by Faulu Kenya in 1997.²²

The interest rate charged on loans could also be raised. The nominal interest rate of 49 percent would have to double to generate sufficient funds to cover the subsidy received in 1997.

¹⁹ Donors claim that they will remove support after each institution has been given "adequate" time (approximately 5-7 years) to achieve operational and financial self-sufficiency.

²⁰ This goal has been achieved by a few Loan Officers in Faulu Kenya and Faulu Uganda.

²¹ Some ideas are under investigation to increase the number of clients (and accompanying loan portfolio) of Loan Officers. Faulu Uganda, for example, is developing a performance-based incentive system.

²² Increasing loan amounts may cause "mission drift." Segmenting the market with different products would help in maintaining a focus on lower income entrepreneurs.

Increasing deposits provides another means to increase revenue. Faulu Kenya earned almost 20 percent of its operating revenue by investing deposits in Kenyan Treasury Bills during 1997. Roughly tripling the savings deposits would yield adequate revenue to cover the subsidy received in 1997.²³ Revenue from mobilized savings could be increased if deposits were used as loan capital. The interest earned on loans is much higher than the return on Treasury Bills.

The cost of collecting deposits and managing savings accounts will require increased efficiency. A streamlined system of transactions and bookkeeping will be necessary. Many commercial banks shun low-income savers, because of the proportionally high transaction cost per deposit (or withdrawal) compared to middle- and high-income clients. Microfinance institutions that desire to provide savings services will have to use creative mechanisms, such as solidarity groups, to control costs. Graduated interest rates could be used to encourage larger account balances. The use of term deposits also may be useful to limit transaction costs.

Technical

Microfinance institutions have been successful partially because of their ability to simplify operations. Paperwork is minimized. Many institutions rely on a basic accounting system. A simple system, employing "cookie-cutter" methodology, is often used to disburse loans. For example, disbursements may be synchronized. Some institutions require that all members of a group follow a specified path in loan increments. Interest rates usually are calculated according to a flat rate method, not by the declining balance method. Prepayment may not be allowed.

Mobilizing deposits requires a greater degree of complexity and accountability. If a microfinance institution independently develops a savings mechanism, several technical issues must be addressed. Accurate records are paramount. Maintaining transactions of clients and posting interest become harder to maintain and reconcile as the number of accounts increase. A paper system probably would be impractical in most settings to track savings, because it would be too cumbersome to reconcile. Posting interest based on monthly (or daily) balances, for example, usually necessitates some type of automated system.

Microfinance institutions that desire to mobilize savings must maintain the standards of a commercial bank. This may not be realistic for many of the microfinance institutions that are the offspring of NGOs. When lending, microfinance institutions must judge whether clients are trustworthy to repay a loan. When collecting savings, clients must judge whether an institution is reliable.

The mode of transaction becomes a more serious issue when mobilizing savings. Many microfinance institutions give loans to clients in the form of a check, which are cashed at a local bank. Use of checks as a means of withdrawing deposits is probably not a viable long-term strategy. Faulu, for example, will have more difficulty managing the check system as the client base continues to grow. Checks impose undesirable transaction costs on clients and the microfinance institution.

If microfinance institutions desire to use cash, creative mechanisms will be required. In many countries, including Kenya and Uganda, cash would pose a security risk. Loan Officers would quickly become a target for theft if forced to carry money to and from the office. In other countries, however, there seems to be fewer security risks in dealing with cash. Microfinance institutions operating in Muslim countries, including Bangladesh and Indonesia, seem to be able to conduct cash transactions.

²³ Although there may be some additional expenditures related to withdrawal of funds.

The cash withdrawal procedure tested at Faulu Uganda is one possibility that may work in either secure or insecure environments. Cash transactions are limited to the group meeting. Funds not given out as savings withdrawals would be deposited into the microfinance institution's bank account by representatives of the group. The members responsible for depositing funds would rotate each meeting to limit fraud and reduce security risks.

Alternative means to using cash, such as creating a physical transaction counter (similar to banks) or a mobile collection vehicle also would be convenient. The need for armed security in some areas to guard mobile or fixed locations may present prohibitive costs.

Liquidity Management

Another issue, which must be addressed when collecting savings, is liquidity management. Cash reserves need to be closely monitored to ensure adequate funds to cover day-to-day transactions. Managing liquidity may be particularly difficult and less efficient for microfinance institutions with a small savings portfolio. Smaller institutions may lack the human resources and systems to manage liquidity. There is some evidence, however, that the savings balances of low-income depositors tend not to fluctuate as widely as large businesses in urban areas (Maurer 1997). The stability of account balances could ease some pressures of liquidity management.

Investment Risks

Investment risks also need to be managed when investing savings. Presumably, most of the savings would be invested in the institution's loan portfolio. Many microfinance institutions have maintained consistently high repayment and collection rates. Faulu's on-time repayment rate, for example, exceeds 95 percent.²⁴ The collection rate of loans is close to 100 percent. Even with high repayment rates, focus should be given to diversifying investment. This may be difficult for small institutions that lack the ability to move funds across communities and regions. Agricultural based businesses are prone to risks associated with poor weather. This may cause repayment problems in a region, effecting a large portion of an institution's portfolio.

Designing the Savings Mechanism

The constraints provide the boundaries for developing savings services. If microfinance institutions are not permitted to mobilize savings, for example, savings can only be collected through a linkage with a commercial bank. This may limit some flexibility in tailoring the designed savings product. Regardless of the structure of the savings services, it will have to be cheap. Innovation will be required to minimize transaction costs.

Within the boundaries of these constraints, savings services should be tailored to meet the demands of prospective clients. One method to understand demand is to analyze alternative saving mechanisms. Understanding why entrepreneurs invest in fixed assets, for example, has ramifications for developing a liquid savings mechanism. A market survey also helps in understanding needs. Offering multiple types of savings accounts would enable better targeting of different needs, including short-term and long-term concerns of clients.

²⁴ The on-time repayment rate measures amount paid each week as a percent of the amount due.

Necessary Ingredients

Three main categories of ingredients to savings service require attention. First, the *specifications of the account(s)* must be defined (e.g., favorable interest rate and low minimum balance). Second, *linked services* to maintaining a savings account should be identified (e.g., access to credit and marketing services). Third, the *context of services* (e.g., including customer service and security) needs to be considered.

Microenterprise owners' principal considerations for why they would open a savings account with a microfinance institution are displayed in Figure 6.^{25,26} The survey, conducted by Esipisu and Musinga (1996), was administered to 815 microenterprise owners in Kenya. Respondents provided their first and second considerations for opening a hypothetical savings account. The responses are plotted on a scale of 0 to 100 percent. No weighting was used to differentiate first and second considerations. Answers were organized into the three categories (and main subcategories) to help understand responses.

Linked Services. Access to credit was the single most important consideration for opening an account with a microfinance institution, receiving a score of almost 70 percent. This reflects the lack of alternative sources of credit. Respondents desire the ability to leverage savings to receive credit when and if necessary. The opportunity to receive savings and credit services from the same institution would be convenient. Transaction costs could be reduced as clients conduct multiple transactions at the same place. It also would allow clients to better manage financial tools to stabilize and grow the household economic portfolio. Receipt of a loan, for example, could augment withdrawal of savings.

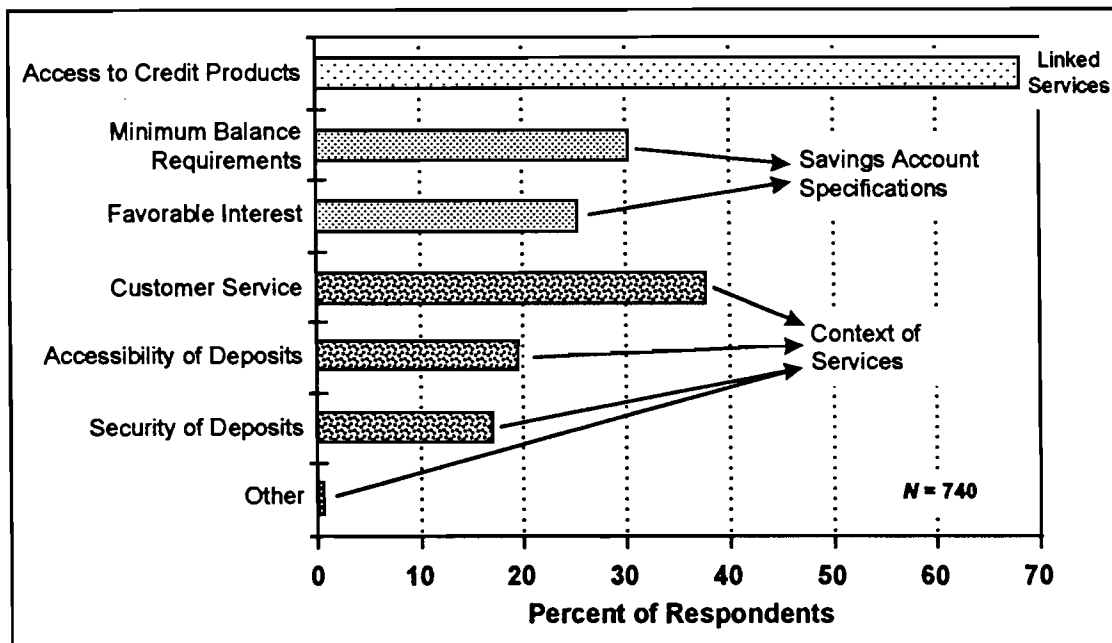


Figure 6. 1996 K-REP Survey: Principal Considerations for Opening a Savings Account with a Microfinance Institution

²⁵ "Savings account" refers to any type of deposit account.

²⁶ While the responses refer to opening an account with a microfinance institution, the responses also would apply to opening an account at a commercial bank under the partnership structure.

Access to savings and credit products would facilitate mutual trust between the institution and its clients. A client's history of saving, for example, could be used to facilitate access to credit.

Savings Account Specifications. The most important specification of the savings account was a low-minimum opening balance. Clients are capable of making small, periodic deposits; however, their capacity to render a large sum of funds at one time is limited. The requirement of high-opening balances is one of the reasons entrepreneurs do not utilize savings accounts offered by commercial banks.

Few, however, mentioned a low operating balance as a requisite for opening a savings account. Entrepreneurs are capable of accumulating a significant amount of savings, but it requires time.

Favorable interest on deposits is also important. Evidence suggests that there is a correlation between real interest rate and savings rate at the national level (Ragazzi 1981, Azam 1996). Likewise, response to the survey reflects the importance of the interest rate at the household level. The existence of savings collectors, however, questions the extent to which the interest rate is important. From discussions with entrepreneurs, interest rates seemed to be more important as the amount of savings increased. Entrepreneurs with smaller savings balances may be less sensitive to interest rates and more concerned with other issues, such as security and transaction costs.

Some type of fixed deposit mechanism should be included. All of the interviewed clients appreciated small, periodic deposits. This helped in setting goals. Depositors could save for short-term targets, such as tri-annual school fees, or long-term targets, such as constructing a home. Account holders could enter an agreement in which they would deposit a specified amount each week, based on their individual target.

Frequency of withdrawals is another important ingredient to a savings account. Allowing few withdrawals imposes illiquidity. This may be preferred by some clients. Experience from the LSF access trial at Faulu Uganda illustrates that when access to the mandatory savings account increased, most clients did not make additional withdrawals. Still, other clients desire greater liberty in accessing funds. Entrepreneurs engaged in retail businesses, for example, may require increased access to savings to purchase goods from wholesalers.

Offering multiple types of accounts would give the microfinance institution increased flexibility in meeting the needs of clients. An account focusing on long-term goals could offer a higher interest rate and less access. Another account focusing on short-term objectives could provide less interest while allowing increased access.

Context of Services. Customer service is an important motivation for opening a savings account with a microfinance institution. Receiving fast service was the primary concern. Excess paperwork and inefficient procedures can delay service. Slow service is frustrating and reduces the time that entrepreneurs have available to work.

Attitude of the institution's officials was also important. Low-income clients are often given poor treatment at commercial banks. A laudable strength of microfinance institutions has been the ability to target low-income people when most commercial banks would not. Attitude will be manifest in the simplicity of services. In many settings, procedures will have to accommodate illiterate customers.

Like all of the ingredients of the developed savings services, customer service must be dynamic. Successful institutions must continuously repackage products to better meet client needs. This may require a separate department within the institution to continuously analyze client perceptions and to develop new services.

Providing a lottery to savers may be a useful marketing tool (Eschborn 1997). Clients who save more could be given more opportunity to win. Savers could be eligible to win household supplies, appliances and even motorcycles.

Respondents also wanted services to be delivered in close proximity to their business. A few options are possible to bring services closer to clients. Conducting transactions using a group structure allows clients to access services locally, instead of always having to travel to a bank. Funds are aggregated in the meeting and later deposited by a few of the members.

Alternatively, a microfinance institution could have mobile units. Mobile collection units, for example, could rotate between different markets. Clients could access services at a specified time each day or during the week.

Several respondents mentioned more sophisticated forms of access, including country-wide access to accounts. This could be particularly useful in facilitating urban to rural remittances. While most microfinance institutions lack the necessary management information systems and networks to conduct such a transaction, methods of improving accessibility need to be addressed.

Security is also significant. Kenya, like many African countries, has been plagued by banks defaulting on outstanding obligations. Typical savings techniques, such as investing in assets, reflect a desire to minimize risk. Microfinance institutions must focus on securing deposits.

Other. Two respondents mentioned the desire to become shareholders of the microfinance institution from which they would receive savings services. While most low-income entrepreneurs lack the capacity to invest in stocks, this displays the importance of ownership. Financial Self-help Associations, for example, are user owned and managed. Microfinance institutions must consider how to cede ownership of delivered services to the actual users. One way is to involve clients in the process of designing the savings account(s) to be offered (e.g., during the trial phase).

Use of groups could facilitate the sharing of lessons between entrepreneurs. Members can learn from the successes and failures of fellow entrepreneurs. Groups also could serve as a platform for other activities and services. Lake Victoria Women's Group, for example, conducts joint marketing of products in a local tourist market.

Independent Offering of Savings Services by Microfinance Institution

Few microfinance institutions are actively involved in mobilizing savings. As of June 1998, only 2 of about 15+ microfinance institutions in Uganda had developed a savings mechanism that was completely independent of credit products. None of the 5 major microfinance institutions in Kenya were attracting client savings.²⁷ This reflects the legal constraints in Kenya.²⁸ Institutions in Uganda and Kenya are indicative of the global microfinance industry, which for one or more reasons, has focused primarily on credit. There is growing interest within the microfinance community, however, to investigate mechanisms for collect savings. This is occurring among both practitioners and donors.

²⁷ K-REP will start to collect savings when it becomes a bank.

²⁸ The large number of microfinance institutions in Uganda reflects the large amount of donor funding being pumped into the industry. In Kenya, however, there has been a decline in the number of microfinance institutions as the industry matured and less serious institutions ceased to operate. Kenya was among the first countries to receive massive amounts of donor funding to develop microfinance institutions.

As governments become educated to the importance of microfinance institutions in providing financial services, willingness to design legislation that would accommodate and regulate savings mobilization should increase. This may be expedited as microfinance institutions create networks to lobby governments for new regulations.

A possible model for savings services offered directly by a microfinance institution is illustrated in *Figure 7*. It is an evolution of typical solidarity group style lending, similar to the methodology employed by Faulu. The model provides a simplified process of how the microfinance institution would collect savings and enable withdrawals. The microfinance institution would still rely on the commercial bank as a means to store savings until invested (possibly in new loans). This can be accomplished without the need for a partnership arrangement. Use of the bank account should limit some of the technical constraints (e.g., vault and security).

Services still would be given to individuals who are members of solidarity groups. The major distinction would be the addition of the voluntary savings accounts to the existing mandatory savings account (if required - similar to Faulu's Loan Security Fund account). It would be possible to have more than one voluntary savings account, as services become more sophisticated. For example, a termed deposit account could be offered along with a current account. Clients would not have to deposit into their mandatory security account. Instead, the microfinance institution could automatically transfer funds into the account when needed to provide security for their loan and to cross-guaranteed loans of fellow members.

Group meetings provide a means to reduce transactions costs. Collection of savings deposits and loan repayment at the group meeting enables the institution to conduct multiple transactions at a time. This would reduce the need for clients to access credit and savings services from separate institutions.

The group mechanism transfers some of the transaction costs of collecting and aggregating funds to clients. The group's leadership committee would be responsible for recording weekly payments on the group transaction record. All recording of payments would be done directly at the meeting to increase transparency. All of the deposits would be deposited as one large payment into the institution's bank account. This should reduce the cost of accepting many small deposits.

Savings withdrawals would be given to clients out of the funds collected at each meeting. This would involve a process similar to the Faulu Uganda cash withdrawal mechanism. Large withdrawals could be disbursed as checks.

Meeting locations would be decentralized. Consequently, meeting locations could be closer to an entrepreneur's business location. This helps to further reduce transaction costs for clients. Decentralization also allows the microfinance institution to expand its target area.

Weekly meetings would enable the microfinance institution to offer other enterprise support services without much additional cost, such as business training and marketing services. These could be provided on a fee-for-use basis to groups or individuals.²⁹ Services should be offered by a separate profit center within the institution to encourage self-sufficiency of the institution. Groups would also be encouraged to conduct activities independent of the microfinance institution (e.g., social events). This strengthens group cohesion.

²⁹ Training may be offered "free" (or paid through loan fees) if the training is deemed crucial to success of all members. Simple bookkeeping techniques, for example, may be taught to all members prior to receiving a loan.

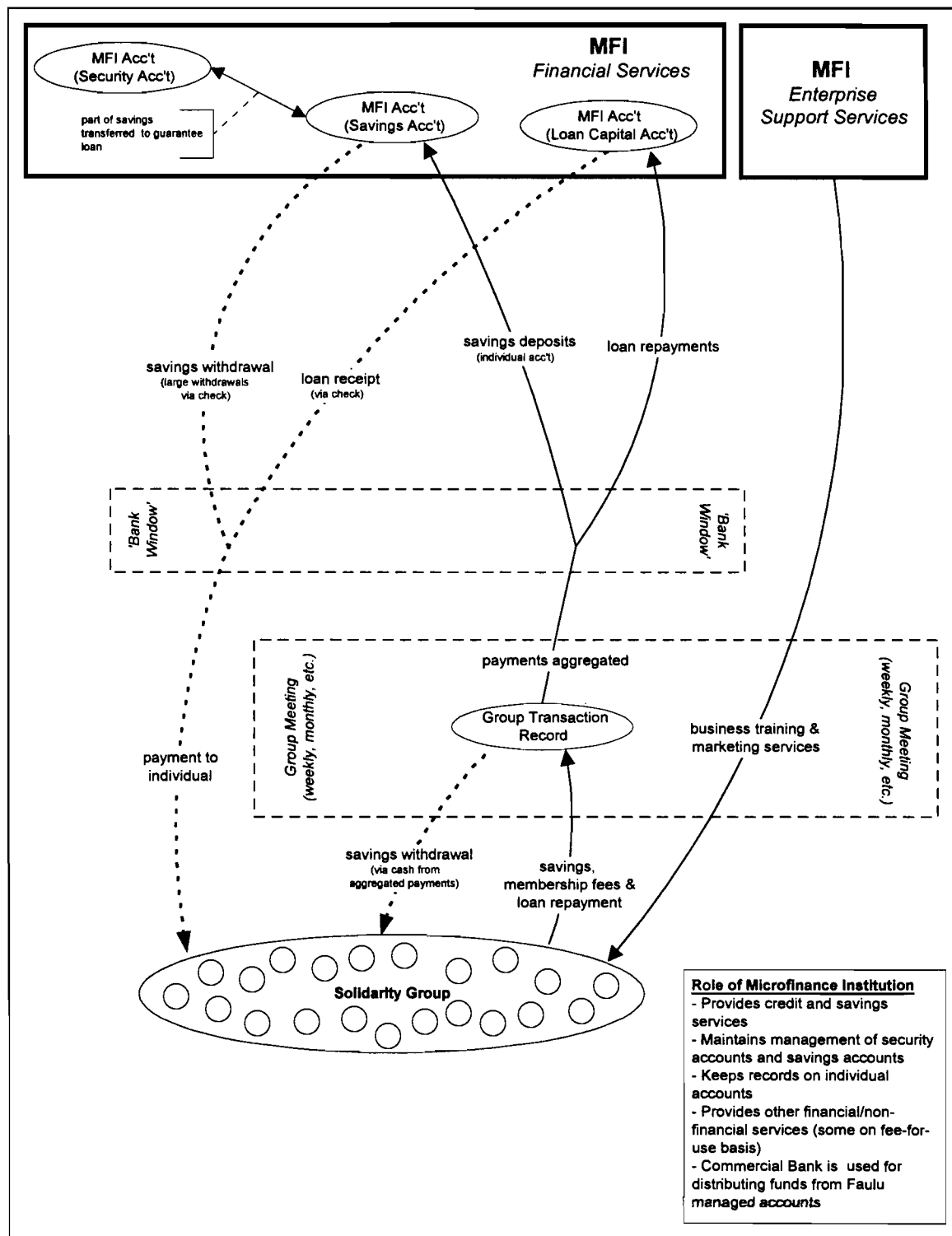


Figure 7. Independent Offering of Financial Services by Microfinance Institution

The model, as displayed in *Figure 7*, utilizes three basic "pots" of money from which the microfinance institution would make transactions. These include the Loan Account, Savings Account³⁰ and Security Account. In practice, one account controlled by the microfinance institution could fulfill these different functions. Viewing them as separate accounts provides a simplified view of the capital flows between clients and the institution.

All transactions would be routed through the microfinance institution's account(s) at a commercial bank. Groups would deposit funds directly into the microfinance institution's account(s). This reduces the need for the microfinance institution to deal with cash. Records on individuals would be maintained by the microfinance institution.

Loans could be disbursed to clients in the form of a check, if necessary, to provide security. If permitted by law, the loan fund would be capitalized by deposits. Additional loan capital could be acquired through equity investments or commercial loans.

Partnership between Microfinance Institution and Commercial Bank

For microfinance institutions seeking to offer savings services, but unable to because of legal or other constraints, the partnership model provides an alternative. The partnership between a microfinance institution and a commercial bank would build on the strengths of each. Blending the advantages of each partner would reduce the need for either institution to make significant changes to the services typically offered.

The microfinance institution would bring experience in administering microenterprise credit services. Some commercial banks in Kenya, for example, have attempted to offer credit to microenterprises on a limited, trial basis. Absence of adequate systems to ensure loan repayment has doomed collection of loans. Furthermore, traditional banking techniques proved too costly. Microfinance institutions have developed methods to mobilize, organize, and train clients. Historically, microfinance institutions have achieved repayment success while providing small loans. Many microfinance institutions have a large client base. In the case of Faulu, the institution has mobilized a significant amount of deposits that could be transferred to the partnering commercial bank. The partnership would provide the bank an efficient mechanism to expand its target market.

The commercial bank would provide the legal status and institutional structure to offer a wider array of financial services. The commercial bank would be responsible for managing the savings accounts. This may allow clients to access more sophisticated services, such as money transfers from urban branches to rural branches. Clients potentially could also have access to individual accounts throughout the week. This could increase flexibility in depositing and withdrawing funds.³¹ The microfinance institution potentially could expand geographical coverage by working through a bank's existing network.

The ability of microfinance institutions to bring services to clients would benefit both institutions. Commercial banks usually limit transactions to the bank counter. Solidarity groups could meet in local churches, schools, and community centers in close proximity to a client's business. This could stimulate increased deposits.

A possible partnership model is displayed in *Figure 8*. Similar to the previous alternative, services would be delivered through the solidarity group mechanism. Payments would be aggregated at the group

³⁰ The microfinance institution could offer multiple types of savings accounts to clients (e.g., current account or fixed account) out of one "pot" devoted to savings.

³¹ Which may improve their capacity to deal with emergencies.

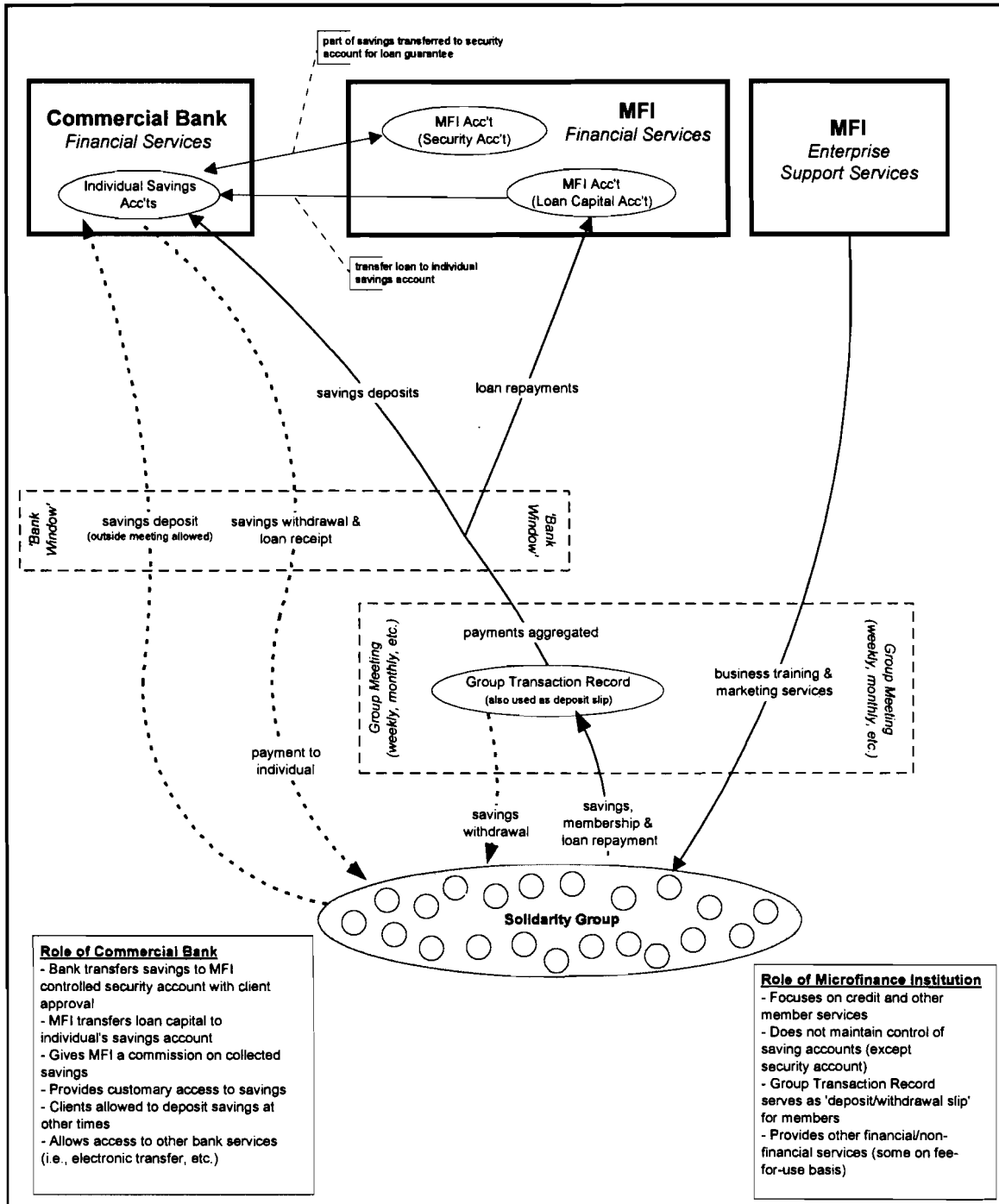


Figure 8. Alliance between Microfinance Institution and Commercial Bank

meeting and recorded on a group transaction record. This record would monitor loan payments. It also would serve as a deposit slip for the savings accounts of group members. This would remove some of the costs of processing small deposits. The form also would provide a record of loan repayments to Faulu. After crediting individual savings accounts, the remaining loan payments would be routed into the microfinance institution's account.

Besides its role in facilitating the collection of deposits and facilitating withdrawals, the microfinance institution would not be involved in managing savings. Withdrawals directly at the group meeting would still be possible. Withdrawals could be made out of the funds aggregated at the meeting. The group transaction record could serve as a withdrawal slip. This would require significant synchronization between the bank and the microfinance institution: an arrangement would be required between them to transfer funds from clients' savings accounts to a Faulu-controlled security account. This would provide some loan security. Alternatively, the bank could limit access to a portion of a client's voluntary savings account.

The microfinance institution would transfer loans into clients' savings accounts. This would reduce some of the costs of writing checks. It would also increase security for clients. They would not have to receive a large amount of money at once, as with the check method, and store it in their home until invested. Money could be retrieved from their bank account as needed.

The microfinance institution would have to borrow funds to capitalize its loan portfolio instead of lending mobilized savings. Funds potentially could be borrowed from the partnering bank at a favorable rate, given the on-going relationship and the microfinance institution's role in aggregating savings.

Revenue for each of the partners would be accrued from their respective activities. The commercial bank would receive all the revenue from savings mobilization. It also would be responsible for paying clients a competitive rate of interest on deposits.

The microfinance institution would receive revenue from lending activity. The microfinance institution may be able to receive a commission on collected savings. The microfinance institution also would be responsible for bearing the costs of training and monitoring solidarity groups.

Towards A Balanced Financial Services Approach

Where allowed, collected savings could provide a vital source of capital for microfinance institutions. Donor grants and cheap money will be limited in the future. As the number of institutions increase, there will be less money to capitalize loan portfolios. Collecting savings from clients may be the cheapest source of funds.

Offering saving services could help to reduce client turnover. This is one of the biggest, yet publicly ignored problems encountered by microfinance institutions. From conversations with microfinance practitioners, a client turnover rate exceeding 30 percent per annum is common. This presents a huge cost to microfinance institutions. Bringing in clients is laborious. Information on new clients has to be gathered. Clients must be oriented on the institution's methodology. Capacity to repay loans (with the assistance of the group) has to be established. The institution must bear the risk of constantly changing group dynamics. New clients may be ill positioned to guarantee larger loans of more mature members.

Offering saving services would provide motivation for clients to retain membership. Entrepreneurs must always engage in some form of short-term or long-term savings. They require credit less frequently, however, as evident by the high turnover rate. Retaining membership status would enable depositors quick access to credit if and when necessary. This would reduce the constant flux of membership and facilitate cohesiveness of groups.

Microfinance institutions would be able to increase the total number of clients. Besides increased services to entrepreneurs, offering savings accounts would enable microfinance institutions to target people without businesses. Most microfinance institutions hesitate to deal with people without businesses, because they lack a record of accomplishment. Collecting savings could help people start their own business. Savings could provide a means of cultivating trust and financial discipline. Prospective entrepreneurs could save for a set duration (e.g., six months or a year) after which they would receive their savings and, if necessary, access to credit.

Collecting savings would enable increased depth of outreach. Most microfinance institutions like to claim that they target "the poorest" segments of society. The fact that the overwhelming majority of clients already have businesses prior to membership negates this claim. Offering savings services is a means for reaching lower-income clients, who are perceived as too risky to receive credit.

Providing a mix of savings and credit services also would spawn a feedback effect. Loans and savings withdrawals could facilitate expansion of microenterprises. This could lead to increased profitability, increasing entrepreneurs' capacity to save. Consequently, savings balances also would rise. This would increase available funds for the institution to lend. The cycle would begin again.

The feedback effect would yield positive impacts to local communities as internal investment is generated. In Africa, "financial markets remain highly fragmented and inefficient, with little deepening (either in terms of monetization or wider clientele)" (Aryeetey *et al.* 1996, 1). Microfinance institutions could play a vital role in generating additional community investment.

Savings from the informal sector also could fuel investment in the wider national economy. Some have criticized channeling money out of the informal sector into formal sector investment (Remenyi 1991). This is a myopic view. Depositors will benefit as savings balances earn interest.

Furthermore, the ability of microenterprise owners to pay market interest rates (or higher) for credit ensures that funds will be channeled back to provide loans to them. Some microfinance institutions, such as BancoSol in Bolivia, have already begun to access commercial funds that are on-lent to clients.

The widening savings-investment gap in developing countries is often discussed. Foreign savings accounted for over 40 percent of the domestic investment in Kenya in 1989 and 1990 (Government of Kenya 1994). Development reports herald the need to stimulate domestic savings. Increased local savings are needed to reduce the enormous external debt of developing nations (Adera 1995). Yet, the capacity of low-income entrepreneurs to save remains overlooked.

REFERENCES

- Adera, Abebe. 1995. Instituting Effective Linkages Between the Formal and the Informal Financial Sectors in Africa. *Savings and Development* 19:5-28.
- Ardener, Shirley. 1995. Women Making Money Go Round: ROSCA Revisited. In *Money-Go-Rounds: The Importance of Rotating Savings and Credit Associations for Women*. Oxford: Berg.
- Aryeetey, Ernest, H. Hettige, M. Nissanke, and W. Steele. 1996. Financial Market Fragmentation and Reforms in Sub-Saharan Africa. World Bank - Private Sector Development and Technical Department, Washington, D.C. Mimeo.
- Aryeetey, Ernest and William Steel. 1995. Savings Collectors and Financial Intermediation in Ghana. *Savings and Development* 19:191-211.
- Azam, Jean-Paul. 1996. Savings and Interest Rate: The Case of Kenya. *Savings and Development* 20: 33-43.
- Blanchet, Therese. 1986. Rural Women, Savings and Credit: An Anthropological View. Typescript. Quoted in C. Maloney and A.B. Ahmed, *Rural Savings and Credit in Bangladesh* (Dhaka: University Press Limited, 1988), 10.
- Bouman, F.J.A. 1994. ROSCA and ASCRA: Beyond the Financial Landscapes. In *Financial Landscapes Reconstructed: The Fine Art of Mapping Development*. Boulder: Westview Press.
- Brundin, Ingela and Mikael Sandstrom. 1992. *Savings and Credit in the Informal and Cooperative Financial Sectors in Kenya*. Department of International Economics and Geography Minor Field Studies no.31. Stockholm.
- Chen, Monique and Elizabeth Dunn. 1996. "Household Economic Portfolios." Assessing the Impact of Microenterprise Services Paper. Available from internet: www.mips.org.
- Chuta, Enyinna and Carl Liedholm. 1985. *Employment and Growth in Small-Scale Industry: Empirical Evidence and Policy Assessment from Sierre Leone*. St. Martin's Press. Referenced in C. Liedholm, *Dynamics of Small- and Micro-Scale Enterprises and the Evolving Role of Finance*. GEMINI Working Paper no. 26 (Maryland, 1991).
- Colson, Elisabeth. 1965. Trade and Wealth among the Tonga. In *Markets in Africa*. Chicago: Northwestern University Press.
- Daniels, Lisa, Donald Mead, and Muli Musinga. 1995. *Employment and Income in Micro and Small Enterprises in Kenya: Results of a 1995 Survey*. K-REP Research Paper no. 26. Nairobi.
- de Soto, Herando. 1989. *The Other Path: The Invisible Revolution in the Third World*. New York: Harper and Row Publishers.
- Dercom, Stefan. 1996. Risk, Crop Choice, and Savings: Evidence from Tanzania. *Economic Development and Cultural Change* 44: 485-514.
- Economist Intelligence Unit. 1998a. *Kenya Country Report 2nd Quarter 1998*. London: Business International Limited.

- Economist Intelligence Unit. 1998b. *Uganda, Rwanda, Burundi Country Report, 3rd Quarter 1998*. London: Business International Limited.
- Ekpenyong, David and M.O. Nyong. 1992. *Small and Medium-Scale Enterprises in Nigeria*. African Economic Research Consortium Research Paper no. 16. Nairobi.
- Eschborn. 1997. Comparative Analysis of Savings Mobilization Strategies. Working Paper, CGAP Working Group – Financial Instruments and Savings Mobilization.
- Esipisu, Ezekiel and Muli Musinga. 1996. *Microenterprise Financial Services: K-REP's Move Toward Mobilizing Voluntary Savings*. K-REP Research Paper no.32. Nairobi.
- Fafchamps, Marcel and John Pender. 1996. "Precautionary Saving, Credit Constraints, and Irreversible Investment: Theory and Evidence from Semi-Arid India." Available from the internet: www.leland.stanford.edu/~fafchamp.
- Fafchamps, Marcel, Christopher Udry, and Katherine Czukas. 1996. Drought and Saving in West Africa: Are Livestock a Buffer Stock. Mimeo.
- Faulu Africa. 1998a. "Quarterly Monitoring Report: October – December 1997." Mimeo.
- Faulu Africa. 1998b. "Quarterly Monitoring Report: April - Jun 1998." Mimeo.
- Government of Kenya. 1992. *Sessional Paper No. 2 of 1992 on Small Enterprise and Jua Kali Development in Kenya*. Nairobi.
- Government of Kenya. 1994. *National Development Plan for the Period 1994 to 1996*. Nairobi.
- Huddle, Donald. 1977. *An Analysis of the Savings Behavior of a Group of Colombian Artisan Entrepreneurs*. Rice University Program of Development Studies Research Paper No.81. Houston.
- International Monetary Fund (IMF). 1998. *International Financial Statistics Yearbook*. Washington, D.C.
- Juma, Calestous, C. Torori, and C.C.M. Kirima. 1993. *The Adaptive Economy: Economic Crisis and Technological Innovation*. Nairobi: ACTS Press.
- Laws of Kenya. 1991. *The Banking Act (Chapter 488)*.
- Maloney, Clarence and A.B. Sharfuddin Ahmed. 1988. *Rural Savings and Credit in Bangladesh*. Dhaka: The University Press Limited.
- Maurer, Klaus. 1997. Comparative Analysis of Savings Mobilization Strategies – Case Study of Bank Rakyat Indonesia. Working Paper, CGAP Working Group – Financial Instruments and Savings Mobilization.
- Miracle, Marvin P., Diane S. Miracle, and Laurie Cohen. 1980. Informal Savings Mobilization in Africa. *Economic Development and Cultural Change* 28:701-24.
- Mutua, Kimanthi. 1998. Regulation and Supervision of Microfinance Institutions: Experiences from Kenya. Paper presented at CGAPS's Working Group's Africa Conference: Savings in the Context of Microfinance. February 10 –13, Kampala, Uganda.

- Nelson, Nici. 1995. The Kiambu Group. In *Money-Go-Rounds: The Importance of Savings and Credit Associations for Women*. Oxford: Berg.
- Parker, Joan and Tanya Torres. 1994. *Micro- and Small-Scale Enterprises in Kenya: Results of the 1993 National Baseline Survey*. GEMINI Working Paper no. 26. Maryland.
- Ragazzi, Giorgio. 1981. Savings Mobilization in Africa. *Savings and Development* 5:45-60.
- Remenyi, Joe. 1991. *Where Credit is Due: Income Generating Programs for the Poor in Developing Countries*. Colorado: Westview Press.
- Rutherford, Stuart. 1998. The Poor and their Money: An Essay about Financial Services for Poor People. Mimeo.
- Shipton, Parker. 1990. *How Gambians Save – and What Their Strategies Imply for International Aid*. World Bank Working Paper 395. Washington, D.C.
- Shipton, Parker. 1995. Luo Entrustment: Foreign Finance and the Soil of the Spirits in Kenya. *Africa* 65:165-94.
- Zeller, Manfred, G. Schrieder, J. von Braun, and Franz Heidhues. 1996. Review of Rural Finance for Food Security of the Poor: Concept and Implications for Research and Policy. International Food Policy Research Institute. Washington, D.C. Mimeo.
- Zeller, Manfred. 1995. The Demand for Financial Services by Rural Households: Conceptual Framework and Empirical Findings. *Quarterly Journal of International Agriculture* 34:149-70.

APPENDIX A: CURRENCY CONVERSION

Unless otherwise noted, all US Dollar figures are inflated to a 1998 equivalent. Amounts are converted using the annual exchange rate from Kenyan Shillings (Ksh) to US Dollars (US\$) and Ugandan Shillings (Ush) to US Dollars. The annual exchange rates are provided in *Table A.1*. Figures are inflated to a 1998 equivalent using a conversion factor based on the Consumer Price Index (CPI). The currency inflators, provided in *Table A.2*, are calculated by dividing the CPI in the given year by average CPI from January to May 1998.

Table A.1. Exchange Rates, 1980-1998

	1980	1981	1982	1983	1984	1985	1986	1987	1988
Ksh/US\$	7.4	9.0	10.9	13.3	14.4	13.4	16.2	16.5	17.7
Ush/US\$	74.2	500.5	940.5	1,538.6	3,597.0	6.7	14.0	42.8	106.1

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Ksh/US\$	20.6	22.9	27.5	32.2	58.0	56.1	51.4	57.1	58.7	60.5
Ush/US\$	223.1	428.9	734.0	1,133.8	1,195.0	979.4	968.9	1,046.1	1,083.0	1,092.0

Source: International Monetary Fund (IMF). 1998. *International Financial Statistics Yearbook*. Washington, D.C.

Table A.2. Currency Inflators, 1980-1998

	1980	1981	1982	1983	1984	1985	1986	1987	1988
Conversion Factor	1.97	1.78	1.68	1.63	1.56	1.51	1.48	1.43	1.37

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Conversion Factor	1.31	1.24	1.19	1.16	1.12	1.09	1.06	1.03	1.01	1.00

Source: Agribiz Economics Department. 1998. "Consumer Price Index, 1913-1998." Available from internet: www.agribiz.com/economy/inflation.

APPENDIX B: CLIENT CASE STUDY METHODOLOGY

While attached to Faulu Africa, I compiled case studies of several clients from Faulu Uganda and Faulu Kenya between March and May 1998. Information on several of the clients is included in the paper. All could be considered “good” clients. Each had a history of making the required loan repayments and security fund deposits. Several deposited voluntary savings. The clients reflect a wide range of economic and educational backgrounds. All worked in urban areas, either Nairobi or Kampala.

Loan Officers helped in selecting clients for the case studies. The interviews were open-ended. Each was conducted either at the Faulu solidarity group meeting or at the client’s business. Interviews away from the business tended to be less hurried, with fewer distractions. Interviews in Nairobi were conducted with a lecturer from the University of Nairobi. In Uganda, I was assisted by Loan Officers. My colleagues helped in translating Kiswahili or Lugandan when necessary. Additional information on clients was acquired by analyzing loan applications and weekly transaction records for solidarity groups.

The clients were selected to reflect the varying forms of savings used by entrepreneurs throughout the business cycle. The goal of the case studies was to understand the role of savings in each of the businesses and their use of the loan security fund. Given the sensitive nature of the topic, indirect questions were often required. Respondents, for example, were hesitant to answer questions regarding the value of their assets or the amount of cash kept at home. Consequently, I often was not able to quantify the savings behavior of respondents.

APPENDIX C: FAULU AFRICA DATA

Information on Faulu Africa was taken from Faulu Africa's Quarterly Reports (Faulu Africa 1998a and 1998b). All currency figures are given in current units. GDP estimates were calculated by the Economic Intelligence Unit (1998a and 1999b).

**Table C.1. National GDP per Capita and Loan Security Fund per Client,
Faulu Uganda and Faulu Kenya, 1997**

(in current US\$)

	Average LSF per Client	Average GDP per Client
Kenya	139	321
Uganda	116	308

**Table C.2. Faulu Africa Trend in Number of Clients and Loan Security Fund per Client,
March 1996 to June 1998**

(currency values in US\$)

	1996				1997				1998	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June
No. of Registered Clients	3,898	4,682	5,018	5,029	4,942	5,313	6,151	6,830	7,879	9,206
LSF per Registered Member	106	109	112	129	140	138	122	133	130	133

Table C.3. Faulu Africa Loan Security Fund and Value of Loan Portfolio, March 1996 to June 1998

(currency values in US\$1,000)

	1996				1997				1998	
	Mar.	June	Sept.	Dec.	Mar.	June	Sept.	Dec.	Mar.	June
Face Value of Outstanding Loan Portfolio	1,081	1,166	1,397	1,409	1,301	1,248	1,404	1,885	1,923	2,551
Outstanding Loan Balance	580	664	868	873	726	758	879	1,193	1,111	1,711
Loan Security Fund Balance	412	509	561	648	691	734	749	908	1,023	1,229

OTHER A.R.M.E. WORKING PAPERS

<u>WP No</u>	<u>Title</u>	<u>Fee (if applicable)</u>	<u>Author(s)</u>
99-15	Cornell University's Entrepreneurship Education and Outreach Program, Evaluation and Proposal		Schlough, C. and D.H. Streeter
99-14	Why is Inequality Back on the Agenda?		Kanbur, R. and N. Lustig
99-13	World Oil: The Growing Case for International Policy		Chapman, D. and N. Khanna
99-12	The Timing Option in Futures Contracts and Price Behavior at Contract Maturity		Hranaiova, J. and W.G. Tomek
99-11	Measuring the Risks of New York Dairy Producers		Schmit, T.M., R.N. Boisvert and L.W. Tauer
99-10	Non-Market Valuation Techniques: The State of the Art		Rose, S.K.
99-09	The Economics of Oil Palm Production in Chiapas, Mexico		Wolff, C.
99-08	Productivity of Dairy Production in Individual States		Tauer, L.W. and N. Lordkipanidze
99-07	On Improving Econometric Analyses of Generic Advertising Impacts		Tomek, W.G. and H.M. Kaiser
99-06	A Framework for Thinking Through Reduced Aid Dependence in Africa		Kanbur, R.
99-05	International Public Goods and the Case for Foreign Aid		Jayaraman, R. and R. Kanbur
99-04	Income Distribution Implications of Globalization and Liberalization in Africa		Kanbur, R.
99-03	Valuing Electricity Assets in Deregulated Markets: A Real Options Model with Mean Reversion and Jumps		Ethier, R.G.

To order single copies of ARME publications, write to: Publications, Department of Agricultural, Resource, and Managerial Economics, Warren Hall, Cornell University, Ithaca, NY 14853-7801. If a fee is indicated, please include a check or money order made payable to Cornell University for the amount of your purchase. Visit our Web site (<http://www.cals.cornell.edu/dept/arめ/>) for a more complete list of recent bulletins.