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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

ENTREPRENEURS AND INFORMAL FINANCE IN KENYA

by

Ellen M. G. Canup

September 2016

Thesis Advisor: Second Reader: Robert Looney Rachel Sigman

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ENTREPRENEURS AND INFORMAL FINANCE IN KENYA

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Submitted in partial fulfillment of the requirements for the degree of

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ABSTRACT

The future of a country is closely tied to its economy, and entrepreneurs have a direct impact on that future. Many Kenyans are underserved by formal financial institutions, despite Kenya's relatively robust banking structure when compared to those of other African nations. Kenyan entrepreneurs can, however, turn to alternative finance options like microfinance institutions (MFIs) and rotating savings and credit associations (ROSCAs). In this paper, the success of these two alternative finance institution types is judged in terms of their respective abilities to create economic growth and improve individual welfare. In general, while MFIs targeted toward entrepreneurs, like the Kenya Women's Finance Trust (KWFT), present a more direct causal link to business growth, ROSCAs are more prevalent and are in a better position to increase individual welfare. In the future, MFIs should adapt their lending practices to leverage some of the cultural aspects of group-centered lending that are firmly embedded in ROSCAs. By doing so, MFIs will lower their transaction costs and ensure they are better able to operate in the future. Similarly, as new financial technologies like mobile phone-based banking emerge, MFIs and ROSCAs must adapt to remain competitive options.

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LIST OF ACRONYMS AND ABBREVIATIONS

| ASCRAs | accumulating savings and credit associations |
|--------|--|
| GDP | gross domestic product |
| GNI | gross national income |
| IMF | International Monetary Fund |
| MFIs | microfinance institutions |
| MSE | micro and small enterprise |
| NGO | non-governmental organization |
| Ksh | Kenyan shilling |
| KWFT | Kenya Women's Finance Trust |
| PPP | purchasing power parity |
| ROSCAs | rotating savings and credit associations |
| SACCOs | savings and credit cooperative societies |
| SME | small and medium enterprise |
| SSA | Sub-Saharan Africa |

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I. BACKGROUND

For Kenyans who wish to start or expand businesses, traditional financial options are limited. Banks, which are ubiquitous in the West, are not as common in Africa. Though Kenya has one of the most robust banking systems in Africa, many Kenyan entrepreneurs are still unable to access formal financial services. This problem is especially prevalent among women.¹ For those who seek financial services and find that banks cannot or will not meet their needs, other informal financial options have gained popularity. In this environment, microfinance institutions (MFIs) and rotating savings and credit associations (ROSCAs) have served entrepreneurs. Contrasting the positive publicity that these alternative finance options have received in recent years, studies have also shown that these financial options have drawbacks and limitations. This dichotomy begs the questions: First, do informal finance mechanisms actually create business growth and improve economic welfare for Kenyan entrepreneurs? Second, why are some models more effective than others?

A. GENERAL FAILURES OF FORMAL BANKING

Banks may not be the best option available for entrepreneurs seeking to open micro, small, and medium enterprises in developing countries. The typical interest rates of 16 percent to 21 percent put loans out of reach for many entrepreneurs.² Additionally, formal financial institutions prefer to deal with clients who take out larger loans because the marginal costs of servicing those loans are much lower than for small loans. Even with their higher interest rates, many banks in the region have failed. Likewise, publicly administered agricultural and development banks in Cameroon, Benin, Senegal, Togo, and Zaire have all declared bankruptcy, and in doing so, have made people wary of doing

¹ This thesis will primarily present research and analysis that focuses on women; however, where appropriate, it also includes some analysis of how informal finance supports men.

² Lois Stevenson and Annette St-Onge, *Support for Growth-Oriented, Women Entrepreneurs in Kenya* (Geneva: International Labour Organization, 2005), 10.

business with banks.³ Furthermore, formal banks tend to be located in population centers, so citizens in rural regions have an increased barrier to service.

Formal banks do not effectively serve women in Kenya. According to Fridah Mwobobia, writing for the International Journal of Business Administration, women face discrimination from bank officials who ignore them and instead attempt to talk to their husbands or male business partners.⁴ This may be an inherently cultural bias; however, it still precludes women from enjoying full access to banking services. Despite the revision of inheritance laws within the Succession Act of 1981, few women today inherit land or other physical property.⁵ Only the 1 percent of women in Kenya who do own property would have the option to use those deeds as collateral against a loan.⁶ Another credit option is to take out a short-term credit contract with an agricultural cooperative. Again, this option is much more available to men. Peter Kimuyu studied a specific Kenyan community where 79 percent of the households took out such a contract with a coffee marketing cooperative society.⁷ Although women may benefit because they are part of a household where their husband receives credit, they may not individually control the farm goods to establish credit in their own right. Poor access to formal financial institutions has led many women entrepreneurs to seek out financial services from MFIs and local ROSCAs.

Where there is a financial need and the government or other formal financial options cannot meet that need, other organizations have stepped in to fill the gap. John Akoten, Yasuyuki Sawada, and Keijiro Otsuka, in a study of how credit affects small and medium enterprises (SMEs), found that, with perhaps devastating consequences, a lack of

³ Frits J. A. Bouman, "Rotating and Accumulating Savings and Credit Associations: A Development Perspective," *World Development* 23, no. 3 (1995): 373.

⁴ Fridah M. Mwobobia, "The Challenges Facing Small-Scale Women Entrepreneurs: A Case of Kenya," *International Journal of Business Administration* 3, no. 2 (2012): 115.

⁵ Ibid.

⁶ Ibid., 114.

⁷ Peter Kiko Kimuyu, "Rotating Saving and Credit Associations in Rural East Africa," *World Development* 27, no. 7 (1999): 1301.

credit reduces private investment in Africa.⁸ Because of this reality, the failure of many government-subsidized programs whose expressed purpose was to administer rural credit spurred the growth of informal credit to reduce the access barrier.⁹ The government should support informal finance programs because they have the potential to help grow the economy when other formal services are lacking.

B. WHY BUSINESS GROWTH AND INCREASED INDIVIDUAL ECONOMIC WELFARE MATTER

Growth is key to the future development of Africa, and alternative finance might be a way to facilitate that growth. Despite criticisms of foreign aid programs, aid is likely to remain in place for the foreseeable future in Africa. So, a determination that a MFI or ROSCA would be better suited to serve the needs of entrepreneurs is a valuable finding. If informal finance can be proven to create economic growth in Kenya, aid programs would likely consider making larger investments in informal finance. Finally, policy makers at the highest levels have recently focused on economic policies. President Obama's participation in the sixth global entrepreneurship summit in 2015, during his visit to Kenya, highlights a growing focus on entrepreneurship.¹⁰

Some of these informal finance mechanisms might have also helped business owners increase their individual wealth. This would be an important finding, because an increase in income could potentially help pay for education and medical care. For an individual, or their family members, the ability to access these services might have been out of reach without the help of informal finance.

Especially within the developing world, would-be entrepreneurs often fight uphill battles to start their businesses. One of the main problems that Kenyan entrepreneurs—

⁸ John E. Akoten, Yasuyuki Sawada, and Keijiro Otsuka, "The Determinants of Credit Access and Its Impacts on Micro and Small Enterprises: The Case of Garment Producers in Kenya," *Economic Development and Cultural Change* 54, no. 4 (2006): 927.

⁹ Rosemary Atieno, *Formal and Informal Institutions' Lending Policies and Access to Credit by Small-Scale Enterprises in Kenya: An Empirical Assessment*, Vol. 111 (Nairobi, Kenya: African Economic Research Consortium, 2001), 11.

¹⁰ Augustus Muluvi, Paul Odhiambo and Manaseh Otieno, "Deepening Kenya-U.S. Relations: Prospects for President Obama's Visit to Kenya, *Africa in Focus* (blog), July 24, 2015, https://www.brookings.edu/blog/africa-in-focus/2015/07/24/deepening-kenya-u-s-relations-prospects-for-president-obamas-visit-to-kenya/.

male or female—identify is lack of access to financial services. For micro, small, and medium enterprises, the preponderance of business owners are women. For these women, who may face multiple hurdles to secure formal financing, more informal options like microfinance and ROSCAs may present their best options for starting businesses.

C. CHARACTERIZING MICRO, SMALL, AND MEDIUM ENTERPRISES

The characterization of micro, small, or medium enterprises varies globally. They can be registered or unregistered. Small and medium enterprises are often combined under the umbrella of SMEs; likewise, micro and small enterprises can be grouped together as micro and small enterprises (MSEs). Typically, SMEs have fewer than five workers and are started on a budget of less than \$35,000. For example, in Australia, small enterprises are businesses that have fewer than 20 employees. In the European Union, SMEs must meet any two of the three following criteria: fewer than 20 workers, balance sheet value below \$800,000, or turnover below \$800,000.¹¹ These definitions are important because much of the research focuses on a specific size of business.

Within various research efforts, enterprises in Kenya have been segregated into distinct categories that better reflect the local nature of business. In the available research, and in contrast to Europe, there seems to be little emphasis on categorizing enterprises by earnings in Kenya. When describing Kenyan SMEs, Mwobobia does break out distinct categories. His study identifies small enterprises as those with 10–50 employees and medium enterprises as those with 51–99 employees.¹² Any enterprise with fewer than 10 employees is a microenterprise. Many farmers would logically fall into the microenterprise category, but generally farmers are not considered as entrepreneurs unless they sell or barter their goods.¹³ Agricultural workers who personally consume their goods are better characterized as subsistence farmers. Stevenson classifies a woman entrepreneur as a woman who starts, actively manages, and owns at least a 50 percent

¹¹ Mwobobia, "The Challenges Facing Small-Scale," 113–114.

¹² Ibid., 114.

¹³ Stevenson and St-Onge, Support for Growth, 4.

stake in a business.¹⁴ Stevenson's definition also qualifies that the business must have been in operation for over a year.

Entrepreneurs in Kenya contribute greatly to the growth and development of the Kenyan economy. In the International Journal of Social Entrepreneurship and Innovation, Ashley Francis, Abdalla Nassar, and Khanjan Meta report that, as of 2013, Kenyan small-scale enterprise accounts for 17 percent to 28 percent of adult employment.¹⁵ From 1999–2002, the MSE sector generated 675,000 jobs annually.¹⁶ Given the mounting evidence, the Kenyan government saw the potential for growth and job generation and publicly committed to "integrating the MSE sector into the national economic grid."¹⁷ Kenya's Vision 2030, which was laid out in 2012, describes plans to create five SME parks that focus on different sectors, including metals and agroprocessing, though little progress seems to have been made so far.¹⁸ From 2000–2002 the MSE sector experienced a boom in growth "increasing to 2.8 million enterprises and MSE employment of 5.1 million persons, accounting for 74.2 per cent of total employment."¹⁹ In 2001, Rosemary Atieno, writing for the African Economic Research Consortium, found that small-scale enterprise accounts for 12–14 percent of gross domestic product (GDP).²⁰ Furthermore, she found that since 70 percent of these enterprises are located in rural areas, growing these businesses is a valuable option to spur rural development.²¹ According to a Kenyan economic survey conducted in 2005, small-scale enterprises contributed over 50 percent of all the new jobs created that year.²²

¹⁴ Mwobobia, "The Challenges Facing Small-Scale," 114.

¹⁵ Ashley Francis, Abdalla Nassar, and Khanjan Mehta. "Are We Formal Yet? The Evolving Role of Informal Lending Mechanisms to Support Entrepreneurship and Poverty Alleviation in Central Kenya." *International Journal of Social Entrepreneurship and Innovation* 2, no. 2 (2013): 112.

¹⁶ Stevenson and St-Onge, *Support for Growth*, 3.

¹⁷ Ibid.

¹⁸ Kenya Vision 2030, "Development of SME Parks: Project Profile," accessed August 27, 2016, http://www.vision2030.go.ke/projects/?pj=39.

¹⁹ Stevenson and St-Onge, *Support for Growth*, 4.

²⁰ Atieno, Formal and Informal Institutions' Lending Policies, 3.

²¹ Ibid.

²² Mwobobia, "The Challenges Facing Small-Scale," 113.

It is obvious that these enterprises have done great things for Kenya, and yet entrepreneurs still encounter difficulties.

Despite nascent government attempts to encourage growth, businesses seem trapped at the micro and small level. There is a relative dearth of medium sized businesses with 11–50 employees (Figure 1). The statistics are even worse for women in bigger businesses. When broken down by gender, it is estimated that fewer than 20 percent of medium size businesses are woman-owned, which equates to only 0.3 percent of all MSEs.²³ Among the enterprises Stevenson and St-Onge studied, the owner is the sole employee for 85 percent of women-owned businesses.²⁴ This seems to indicate that either micro and small enterprises simply are incapable of growing into the medium level, or that there are impediments to the growth of these enterprises that need to be addressed, especially when it comes to women.

| Enterprise Size (number of employees) | Number of enterprises | Share of enterprises by employment size (%) |
|---------------------------------------|-----------------------|--|
| 1 | 899,787 | 70.1 |
| 2 | 229,759 | 17.9 |
| 3-5 | 111,671 | 8.7 |
| 6-10 | 33,374 | 2.6 |
| Subtotal | 1,274,591 | 99.3 |
| 11-15 | 6,418 | 0.5 |
| 16-25 | 1,283 | 0.1 |
| 26-50 | 1,283 | 0.1 |
| Total | 1,283,575 | 100.0 |

Figure 1. Breakdown of Enterprises by Number of Employees²⁵

Source: National Baseline MSE Survey, 1999, p. 11.

²³ Stevenson and St-Onge, *Support for Growth*, 8.

²⁴ Ibid.

²⁵ Source: Stevenson and St-Onge, Support for Growth, 5.

Among several other options, reducing or removing financial barriers for those who work in SMEs and MSEs addresses a growth limitation. Mwobobia identified lack of credit as "one of the most serious constraints facing SMEs and hindering their development."²⁶ However, simply throwing money at the problem will not solve it completely. Ideally, informal or formal finance solutions must be responsive to the needs, expectations, and culture of Kenyans. Family is a crucial social link in African society. Within Kenya 80 percent of MSE employment involved only owners and family members.²⁷ So, an ideal solution would not create tension within families. About twothirds of Kenyan MSEs operate in rural areas, which is also where up to 80 percent of the population lives and where the services of commercial banks are limited.²⁸ The relative lack of formal financing options in rural areas creates an artificial constraint to service. This helps explain why Atieno found that entrepreneurs more frequently used informal credit sources than formal ones.²⁹ On the continent of Africa, women own almost 50 percent of all enterprises.³⁰ Since women have limited access to formal banking, and formal banking is also less prevalent in rural areas, an informal finance mechanism that addresses both issues can provide a solution.

D. CHOOSING KENYA FOR RESEARCH

Kenya, located in eastern Africa, borders Somalia, Ethiopia, South Sudan, Uganda, and Tanzania. Gaining independence in 1964, Kenya is a relatively new republic. Its coastline along the Indian Ocean provides easy access to global value chains when compared with land-locked countries in Africa. Home to approximately 45 million people,³¹ Kenya is regionally important and has a diversified economy. It plays a central

²⁶ Mwobobia, "The Challenges Facing Small-Scale," 114.

²⁷ Stevenson and St-Onge, *Support for Growth*, 4.

²⁸ Ibid.

²⁹ Atieno, Formal and Informal Institutions' Lending Policies, 33.

³⁰ Francis, Nassar, and Mehta, "Are We Formal Yet?," 116.

³¹ World Bank, "World Development Indicators," 2014, http://databank.worldbank.org/data//reports.aspx?source=2&country=KEN&series=&period=#.

role in regional transport, communications infrastructure, and financial services.³² Nevertheless, the country faces several looming problems. Recent terrorist attacks have created uncertainty, hurt prospects for growth in tourism, and potentially deterred foreign investors. Agriculture, which contributes greatly to Kenya's GDP, is highly susceptible to adverse weather. Kenya's vast ethnic diversity can also be a source of conflict. Because of its rapid growth and regional importance, investing in businesses that are not as heavily exposed to the aforementioned risks will pay dividends in the future.

Despite the challenges it faces, Kenya's economy continues to grow. In 2014, Kenya posted its highest GDP to date, totaling approximately \$61 billion U.S. dollars.³³ In recent years, percent GDP growth has ranged from 1 percent to 8 percent (Figure 2).³⁴ Additionally, Kenya's per capita gross national income (GNI) purchasing power parity (PPP) is steadily increasing. Measured at \$2,890 international dollars in 2014 (Figure 3), this statistic compares the purchasing power of a Kenyan dollars spent in Kenya to that of an equivalent U.S. dollar spent in the United States.³⁵ Rising incomes mean a greater portion of Kenyans will have income to either start businesses or purchase goods from entrepreneurs.

³² Alexandra Dumitru, "Country Report: Kenya," Rabobank, September 9, 2014, https://economics.rabobank.com/publications/2014/september/country%2Dreport%2Dkenya/.

³³ World Bank, "Kenya: Country at a Glance," accessed April 14, 2016, http://www.worldbank.org/en/country/kenya.

³⁴ World Bank, "World Development Indicators."

³⁵ Ibid.

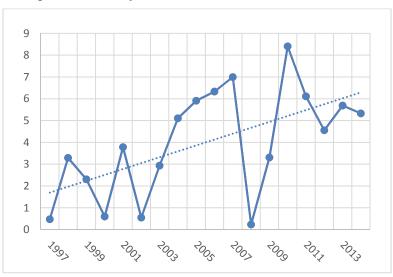
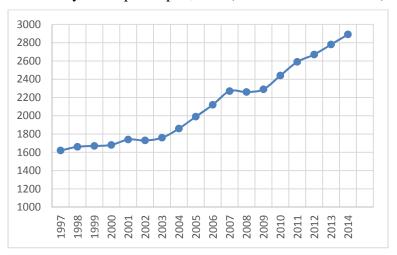


Figure 2. Kenya's GDP Growth (Annual %).³⁶

Figure 3. Kenya GNI per Capita, PPP (Current International \$)³⁷

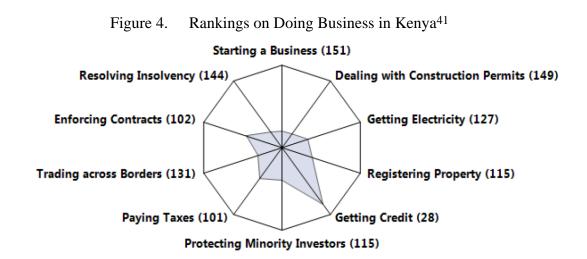


Despite its growing economy, Kenya does not rank favorably for business and entrepreneurship. Reforms in this area could greatly improve outcomes for businesses. According to the Legatum index, Kenya ranks 101 of 142 nations for entrepreneurship

³⁶ Adapted from: Legatum Institute, *The 2014 Legatum Prosperity Index: Kenya Country Factsheet* [*Kenya Country Factsheet*] (London: Legatum Institute, 2014), http://media.prosperity.com/2014/pdf/country profiles/KEN.pdf.

³⁷ Adapted from: Legatum Institute, Kenya Country Factsheet.

and opportunity.³⁸ This ranking not only quantifies opportunity, but also measures the ability of individuals to start and run businesses, considering things like startup costs and Internet bandwidth.³⁹ For those who do manage to start a business, they encounter roadblocks. As of 2014, Rabobank rates Kenya 129 of 185 for ease of doing business.⁴⁰ Some roadblocks are easier to mitigate than others. Before any business can grow, it must successfully open. The World Bank ranks Kenya 151 of 189 nations for businesses startups (Figure 4). The World Bank identified access to credit as one key limitation to entrepreneurship in Kenya; since alternative finance can provide access to credit, it is a valuable solution to explore.



After conducting a review of the available research relating to informal finance in Sub-Saharan Africa (SSA), several nations stand out. When compared with other nations, Kenya seems to have more informal finance studies to consider; it also boasts a relatively

³⁸ Legatum Institute, *Kenya Country Factsheet*.

³⁹ Legatum Institute, *The 2014 Legatum Prosperity Index Report: Mobility and Opportunity Bring Prosperity* (London: Legatum Institute, 2014),

 $http://media.prosperity.com/2014/pdf/publications/PI2014Brochure_WEB.pdf, 20.$

⁴⁰ Dumitru, "Country Report: Kenya."

⁴¹ Source: World Bank, *Doing Business 2016: Measuring Regulatory Quality and Efficiency* (Washington, DC: World Bank Group, 2016),

http://www.doingbusiness.org/data/exploreeconomies/kenya/~/media/giawb/doing%20business/documents/profiles/country/KEN.pdf?ver=3, 9.

robust formal banking network. Francis, Nassar, and Mehta wrote in their review of the evolving role of informal lending in Africa that Kenya's banking and formal financial sectors are "among the most developed in Sub-Saharan Africa."⁴² Kenya hosts 45 separate financial institutions—43 commercial banks and two mortgage finance companies—which serve 22 percent of adults in Kenya.⁴³ Despite it being a regional leader, her research also noted that 70 percent of all adult Kenyans do not have a bank account.⁴⁴

In Kenya, gender tends to be associated with the type of financial services that people use. Men lean toward formal finance and, conversely, women are more likely to choose the robust informal sector where ROSCAs and microfinance are more prevalent. Reviewing access and exclusion to financial services in Kenya and Uganda, Susan Johnson and Max Nino-Zarazua found ROSCAS dominating the informal sector in Kenya meant that women actually had greater access, when considering the whole financial landscape, than men.⁴⁵ Thus, the issues that preclude women from formal baking do not appear to have the same impeding effect for informal banking.

Within Kenya, small and medium enterprises (SMEs) employ 75 percent of those with jobs who in turn earn 22 percent of GDP. Therefore, because microfinance supports SMEs, expanding microfinance should increase employment opportunities and GDP as a second-order effect. To break down sectors that contribute to GDP within Kenya: 30 percent comes from agriculture, 20 percent comes from industry, and 50 percent comes from services.⁴⁶ While data for unemployment within Kenya is hard to find, the World Bank and the Legatum index estimates it to be on the order of 9.2 percent.⁴⁷ In 2005, 43.7

⁴² Francis, Nassar, and Mehta, "Are We Formal Yet?," 112.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ Susan Johnson and Max Nino-Zarazua, "Financial Access and Exclusion in Kenya and Uganda," *The Journal of Development Studies* 47, no. 3 (2011): 476.

⁴⁶ World Bank, "World Development Indicators."

⁴⁷ Legatum Institute, "The 2015 Legatum Prosperity Index: Kenya Country Profile," 2015, http://www.prosperity.com/#!/country/KEN.

percent of Kenyans lived below the \$1.25 a day (PPP) international poverty line.⁴⁸ Through microfinance the unemployed can facilitate their self-employment, which will raise living standards and ultimately boost GDP.

E. RESEARCH DESIGN

Though some Kenyans may employ both financial options in their lifetimes, as essential background information, it is important to briefly review how each one operates. Microfinance and ROSCAs are generally distinct financial options that borrowers may seek. Microfinance is typically a resource available to entrepreneurs that is facilitated by microfinance institutions (MFIs). Some MFIs include both savings and loans programs. Typically, the loans are for very small amounts, and they are given to entrepreneurs who would like to build their small businesses. Often, the intended purpose of these loans to entrepreneurs centers around the purchase of a capital good, like a sewing machine, though some MFIs choose to loan to anyone in need irrespective of how the loan will be employed. ROSCAs are savings groups. They are much more informal than MFIs and have no institutionalized management, though most will have a group leader. In general, each group member puts a small amount into a pot on a periodic basis, and then gets one turn to take home the combined pot. Though ROSCAs can be formed with specific purchases in mind, spending is determined by the individual. Of note, because ROSCAs are generally organized within a community or group of friends, there is tremendous cultural pressure to attend every meeting and have the required contribution in hand. Conversely, Kenyans may not perceive a debt to an NGO-sponsored MFI loan as an important debt, but one that should be paid after debts to family and community.

This thesis will present specific background information about MFIs and ROSCAs; then evaluate each option independently in separate chapters. The analysis of each alternative finance method will begin with general information. Then the analysis of available studies, within the respective chapter, will focus on positive findings for business growth and improved economic welfare. Finally, each chapter presents negative findings or areas for improvement.

⁴⁸ World Bank, "World Development Indicators."

Microfinance is presented in Chapter II as a fairly new financial option for entrepreneurs. The existing research on microfinance has found mixed results, especially with respect to female entrepreneurs. There is not enough data to do cross-case comparisons on this population. With that in mind, valuable insight may be gained by focusing on researching the specific case of the Kenya Women's Finance Trust (KWFT). One of the few organizations that has been in place for decades, the KWFT is also among the most studied of the various microfinance institutions in Kenya, and it has produced some of the most positive results. For these reasons, it represents an influential case. By referring to various studies and journal articles, this thesis will attempt to tease out some of the specific things that the KWFT does differently than other microfinance institutions, which may suggest ways in which others could modify their programs to achieve beneficial results. Based on the preliminary research, many microfinance institutions are not set up with specific goals, and they often lack the education and training mechanisms that the KWFT has put in place. Therefore, highlighting the successes that the KWFT has had is key; however, it will take more in-depth research to develop reliable data identifying the causal factors and building a larger baseline for comparison purposes.

ROSCAs are analyzed in Chapter III as a longstanding informal finance mechanism. ROSCAs represent a typical case of alternative finance in Kenya. They are prevalent worldwide and in Africa. For the chapter on ROSCAs, the thesis research and analysis will focus primarily on journal articles that have studied these groups. First, it will survey the various forms of ROSCAs, then make the case that they are a culturally relevant model in Kenya. The preliminary data suggests that ROSCAs are more prevalent in certain segments of the population and among those who lack other financial options. However, there are outlier groups that do not fit the typical framework. Existing research suggests that, although ROSCAs are not typically formed to serve women entrepreneurs, they have the capacity to do so. As a prevalent and culturally relevant model, it may be possible to adapt the framework to better serve entrepreneurs.

The final chapter will compare the two alternative finance options, present general conclusions, and identify the emerging technological realities in Sub-Saharan Africa that may influence microfinance and ROSCAs. Some of the best practices of one option may

be leveraged to improve another. The inclusion of these best practices indicates the relative strength of each financial model.

In general, many authors have studied informal finance, and these authors articulate both positive and negative findings. Much debate exists within the existing research. As a relatively new field, MFIs do not have a long history of study in Africa. For ROSCAs, because there is no obligation to use the money to build businesses, it is difficult to find research that specifically details how ROSCAs serve entrepreneurs. Through comparison and analysis, however, several things become clear. First, both MFIs and ROSCAs have the potential to create growth and improve economic welfare. However, entrepreneur-centered MFIs tend to create better business outcomes, and ROSCAs more broadly serve individual welfare needs. Second, by adhering more closely to and leveraging cultural norms, ROSCAs have lower transaction costs. Given the high interest rates of microfinance, exploring options to lower transaction cost is a valuable pursuit that could make existing and future MFIs more desirable financial options for Kenyans. Finally, based upon their long history, ROSCAs are likely to endure for the foreseeable future; similarly, MFIs will continue to operate in Kenya so long as they remain at least cash neutral or are supported by governments or non-governmental organizations (NGOs). However, the evolving landscape of financial technology in Africa, including M-PESA in Kenya, presents new financial options that may become even more appealing in the future. In the end, Kenyan entrepreneurs will choose the option that best fits and serves their needs.

II. MICROFINANCE

A. CHAPTER OVERVIEW

Multiple studies show that the KWFT has been able to facilitate both business growth and improved welfare among the clients it serves. The KWFT, in particular, is a good example of a MFI that creates both of these positive outcomes because it chooses to focus on entrepreneurs, whereas a MFI that serves clients with a less directed aim is less likely to produce business growth. In general terms, the case for microfinance creating improved welfare is strong. By serving segments of the Kenyan population that formal institutions do not, microfinance can serve the previously unmet financial needs of the growing Kenyan population. Microfinance also comes with its share of problems; finding solutions to those problems will help ensure its continued availability as an option to entrepreneurs in need. Microfinance institutions vary greatly; however, so after presenting general MFI background information, this chapter will analyze the KWFT in depth.

B. HISTORICAL BACKGROUND

Microfinance is defined as "the supply of loans, savings, money transfers, insurance, and other financial services to low-income people."⁴⁹ Microfinance is a fairly new financial option. It originated in Asia in the 1970s, which partially explains why Africa lags behind Asia and Latin American in program development.⁵⁰ Finding rigorous and conclusive data citing a causal relationship between microfinance and entrepreneurship within Africa is difficult, given its relatively short history. The terms *microcredit* and *microsavings* fall under the umbrella of microfinance. Microcredit is also referred to as microloans in a number of articles, so, within this paper, those terms are

⁴⁹ Anne-Lucie Lafourcade et al., *Overview of the Outreach and Financial Performance of Microfinance Institutions in Africa* (Washington, DC: Microfinance Information eXchange, 2005), http://afraca.org/download/afraca_kmp's_regional_experiences/Outreach-and-Financial-Performance-of-Microfinance-Institutions-in-Africa-An-Overview-by-Anne-Lucie-Lafourcade-et-al.pdf, 2.

⁵⁰ George O. K'Aol, "The Role of Microfinance in Fostering Women Entrepreneurship in Kenya," *International Council for Small Business (ICSB) World Conference Proceedings* (Halifax, Nova Scotia: International Council for Small Business, 2008).

considered synonyms. Typically, loans are small, on the order of \$100 or less, and given to those who have very low income.

By all accounts, the first and most well-known microfinance institution was the Grameen Bank, which was founded in Bangladesh in the mid-1970s. Though not without critics, Grameen Bank has been widely celebrated for its ability to create profits and social goods.⁵¹ In recognition of its perceived ability to create social good, the Grameen Bank and Muhammad Yunus, its founder, jointly won the Nobel Peace Prize in 2006.⁵² As of April 2016, the bank had served 8.8 million individuals, of whom 97 percent were women; the bank also loaned money to 1.3 million groups.⁵³ There are several reasons why it makes sense to loan to groups over individuals; however, that will be discussed in subsequent chapters.

C. PREVALENCE OF MICROFINANCE

Microfinance is prevalent globally. In 1999, the World Bank reported that 25 million borrowers financed their business endeavors through microfinance, and by 2010 microfinance served 150 million globally.⁵⁴ According to Berhanu Nega and Geoffery Schneider's article, in 2009 the 20 largest MFIs served 47 million people.⁵⁵ Microfinance is therefore common and growing. In 2010, microloans from the top 50 MFIs totaled \$5.4 billion.⁵⁶ Though the individual loan amounts may be low, several large microfinance institutions serve large portions of the market.

⁵¹ Abjijit V. Banerjee and Esther Duflo, *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty* (New York: Public Affairs, 2011), 166.

⁵² Ibid.

⁵³ Grameen Bank, "2016-07," *Grameen Bank Monthly Update in US*\$ 1, no. 439 (2016), http://grameen.com/index.php?option=com_content&task=view&id=453&Itemid=527.

⁵⁴ Clemencia Osa Ouma and Charles M. Rambo, "Effects of Access to Microcredit on the Growth of Women-Owned Small and Medium Enterprises in the Central Business District of Kismu: The Case of Kenya Women Finance Trust," *Institute for Business & Finance Research, Global Conference on Business and Finance Proceedings* 8, no. 1 (2013): 2.

⁵⁵ Berhanu Nega and Geoffrey Schneider, "Social Entrepreneurship, Microfinance, and Economic Development in Africa," *Journal of Economic Issues* 48 no. 2 (2014): 369.

⁵⁶ Ibid., 369.

Microfinance is growing within Africa, but it still faces obstacles to that growth. Globally, African MFIs have the most borrowers and savers per staff member.⁵⁷ Within Africa, where savings accounts outnumber loans 3:1, the lower overhead on administering savings accounts may explain the disparity. For a personal savings account the incentive to manage the money proactively is with the saver, whereas for a loan the more interested party is bank that collects interest and payments on the debt. In terms of cost per borrower, efficiency is lower in African microfinance than in other global regions.⁵⁸ The lower efficiency is understandable. Many nations in Africa have very weak infrastructure. Extensive logistics and coordination may be required to reach those most in need. By comparison, in a country like India, high population density facilitates access and drives administrative costs down. Finding low-income areas with high population density and little access to credit would be a great strategy for MFIs looking to find a pool of borrowers with lower overhead. According to Lafourcade et al., although "the overall financial performance of MFIs in Africa lags behind other global regions, a growing number of MFIs—especially regulated and cooperative MFIs—are profitable."59 If the already growing number of MFIs can be designed to be more profitable, it is reasonable to assume that they will continue to be a resource for credit and savings within Africa, at least in the near future.

D. LEGAL STATUS OF MICROFINANCE

In the 1990s, the government of Kenya began to move toward policies that supported informal financing by extending resources to improve infrastructure and channel credit to the microfinance industry.⁶⁰ Kenya went a step beyond other nations by setting up a formal legal structure to regulate microfinance. In 2016, the Brookings Institution rated Kenya the highest among the 26 financially underserved nations it

⁵⁷ Lafourcade et al., *Overview of the Outreach*, 1.

⁵⁸ Ibid., 1.

⁵⁹ Ibid., 14.

⁶⁰ Washington K. Kiiru and Glenn D. Pederson, *Kenya Women Finance Trust: Case Study of a Micro-Finance Scheme, Africa Region* (Washington, DC: World Bank, 1996), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2000/11/04/000094946_001021114644 38/Rendered/PDF/multi_page.pdf, vii.

evaluated for use and access to affordable financial services.⁶¹ Bureaucracy can often be seen as an impediment to growth, but in this case it can be viewed as tacit government support. Combined with microfinance regulations on deposit-taking institutions that went into effect in 2008, the Microfinance Act of 2006 is the foundation for government regulation achieved by licensing and supervision. The Central Bank of Kenya expects that microfinance "will play a pivotal role in deepening financial markets and enhancing access to financial services and products."⁶²

The Microfinance Act of 2006 subdivides MFIs within Kenya into deposit-taking, credit-only, and informal organizations. The KWFT falls into the final category. In comparison, deposit-taking institutions are directly licensed and regulated and are subject to higher levels of scrutiny by the Central Bank of Kenya. They are also "permitted to mobilize and intermediate (or lend) deposits from the general public."⁶³ In contrast, credit-only institutions simply loan shareholder or other borrowed funds. Informal organizations, which the central bank does not explicitly regulate, are those such as NGOs.

Kenya embraces microfinance, yet 30 percent of Kenyans have no access to financial services of any kind.⁶⁴ This lack of access shows just how much future outreach is possible. In 2013, 52 MFIs, whose expressed purpose was reaching the unbanked poor, served 6.5 million clients and controlled \$310 million in assets within Kenya. Today, MixMarket, an online microfinance database, tracks Kenyan loans totaling \$3.3 billion U.S. over 1.5 million borrowers and \$3.8 billion in savings deposits spread over 10.6

⁶¹ John D. Villasenor, Darrel M. West, and Robin J. Lewis, *The 2016 Brookings Financial and Digital Inclusion Project Report: Advancing Equitable Financial Ecosystems* (Washington, DC: Brookings Center for Innovation Technology, 2016), https://www.brookings.edu/wp-content/uploads/2016/08/fdip_20160816_project_report.pdf, 64.

⁶² Central Bank of Kenya, "Microfinance Institutions," accessed August 30, 2015, https://www.centralbank.go.ke/index.php/bank-supervision/microfinance-institutions.

⁶³ Central Bank of Kenya, "Bank Supervision," accessed 26 August 2015, https://www.centralbank.go.ke/index.php/banksupervision#microfinance-banks.

⁶⁴ Odongo Kodongo, and Lilian G. Kendi. "Individual Lending Versus Group Lending: An Evaluation with Kenya's Microfinance Data." *Review of Development Finance* 3, no. 2 (2013): 99.

million depositors.⁶⁵ The obvious and prevalent growth of microfinance should be viewed as an opportunity for governments to create sound foundational economic policy.

Interestingly enough, not all nations set up legal frameworks for MFIs; others do not formally regulate MFIs. Even without the formal codification that exists in Kenya, microfinance remains a crucial resource within Africa. For instance, of small and medium enterprises within Ghana, 80 percent received credit from private MFIs, and 9.3 percent received credit from private non-profit organizations.⁶⁶ MFIs can be classified as private or public as well as profit or nonprofit, and various organizations like established banks, cooperatives, NGOs, and postal financial institutions can—and already do—administer microfinance. The presence of legal frameworks and regulations, or the lack thereof, appear to have very little impact on an individual's desire to access credit and savings.

E. TYPICAL MICROFINANCE OPERATIONS

To serve their customers, MFIs have several instruments at their disposal, primarily savings and loans. As previously stated, saving is popular in Africa with a 2003 survey of 163 MFIs reporting 6.3 million savers in comparison with 2.4 million borrowers.⁶⁷ Saving is therefore almost three times more prevalent than borrowing. Anne-Lucie Lafourcade et al. report in their overview of global microfinance, "African MFIs lead the world in savings mobilization, in both the number of clients served and the absolute volume of savings on deposit."⁶⁸ Furthermore, they convey that 70 percent of MFIs in Africa report savings as a core service and key to fund lending.⁶⁹ Savings therefore facilitate loans and are essential to the continued success of the industry.

⁶⁵ MixMarket, "Kenya Market Profile," accessed August 30, 2015, http://www.mixmarket.org/mfi/country/Kenya.

⁶⁶ Kwaku D. Kessey, "Micro Credit and Promotion of Small and Medium Enterprises in Informal Sector of Ghana: Lessons from Experience," *Asian Economic and Financial Review* 4, no. 6 (2014): 774.

⁶⁷ Lafourcade et al., *Overview of the Outreach*, 2.

⁶⁸ Ibid., 14.

⁶⁹ Ibid., 1.

Globally, microcredit supported 30 million small and medium businesses over the last 30 years.⁷⁰

F. CHARACTERIZING MICROFINANCE CLIENTS

A key consideration for new microfinance institutions is who utilizes and benefits from them. In general, women are much more likely to make use of microfinance. According to Lafourcade et al., in 2003 women represented 61 percent of African MFI borrowers,⁷¹ though data on women may be a bit skewed because some NGOs specifically seek out or serve women. The Kenya Women's Finance Trust (KWFT) is a prime example of targeted MFI that "was established to provide credit to women clients who did not have access to credit from commercial banks and other financial institution."⁷² The organization was started by successful women had a greater financial need than men. Since women make up 60–70 percent of Kenya's poor,⁷³ the trust's decision to serve only women impacted a larger percentage of low-income Kenyans than a decision to serve only men. Though not by design, the KWFT served the more vulnerable market segment.

A number of factors drive low-income individuals to seek microfinance. Traditional banks may not be staffed to administer small loans that earn little interest, so some do not offer them. These banks are also reluctant to lend to those who lack collateral in the event of default. Low literacy rates are another barrier that manifests itself when applicants are unable fill out paperwork. However, the problem can be very basic: in many rural areas there are no banks. Although less often the case in Kenya, for cultural or religious reasons African women may be uncomfortable dealing with men,

⁷⁰ Ouma and Rambo, "Effects of Access to Microcredit," 2.

⁷¹ Lafourcade et al., *Overview of the Outreach*, 1.

⁷² Kiiru and Pederson, Kenya Women Finance Trust, 28.

⁷³ Faith Wambura Ngunjiri, "Banking on Women for Poverty Reduction," in *Innovative Approaches to Reducing Global Poverty*, ed. James A. F. Stoner (Charlotte, NC: Information Age Publishing, 2007), https://books.google.com/books?hl=en&lr=&id=IcIE6kGg_48C&oi=fnd&pg=PA93&dq=%22kenya+wom en's+financial+trust%22&ots=LKcFPyDCrQ&sig=68HdbnxufDmCqDw5p0IXPYiVM6M#v=onepage&q=%22kenya%20women's%20financial%20trust%22&f=fal, 93.

who are predominantly the employees at banks. Microfinance can facilitate access to credit for those who would not ordinarily have it. Access to credit is often the stumbling point for business creation, globally and in Africa. This is further underscored by the 38.2 percent of Kenyans that identify business startup costs as a barrier.⁷⁴

Because of the force multiplier effect that entrepreneurs have on a region's economy, they are a great investment toward the future development of a nation. However, hoping that unencumbered microloans will create entrepreneurs is the wrong methodology, and the available data is still too limited to make that strong of an argument. Instead, the better question is this: What can entrepreneurs make of microfinance? Enter the KWFT.

G. INFLUENTIAL CASE STUDY: KENYA WOMEN'S FINANCIAL TRUST

Since 1981, the KWFT has served women entrepreneurs in need of savings and loans. Because of the legalities in Kenya during the 1980s, it was set up as a trust. In 2015, as rated by the Think Business Banking Awards, the KWFT won its third consecutive award as the best microfinance bank in Kenya.⁷⁵ Not only does the bank serve Kenyans, but over the years it has expanded to serve 45 other African nations.⁷⁶ In Kenya, it is classified as an NGO and is therefore not required to pay taxes on income earned on interest from loans.⁷⁷ Likewise as an NGO, it is not regulated by either the Microfinance Acts of 2006 or amplifying framework released in 2008. The trust initially enjoyed successful years and then entered into a period of managerial neglect. By 1995, the fund regained its footing and achieved a loan repayment rate of 97.4 percent.⁷⁸ As of 2014, the KWFT had a loan portfolio of \$211.4 million, serving roughly 234,000 active borrowers; the average loan value was \$901 U.S. dollars.⁷⁹

⁷⁴ Legatum Institute, *Kenya Country Factsheet*.

⁷⁵ Peter Kiragu, "KWET Wins Big for Banking on Women," *Standard Digital*, May 21, 2015, http://www.standardmedia.co.ke/business/article/2000162996/kwft-wins-big-for-banking-on-women.

⁷⁶ Ibid.

⁷⁷ Kiiru and Pederson, Kenya Women Finance Trust, 9.

⁷⁸ Ibid., 33.

⁷⁹ MixMarket, "MFI Report: KWFT MFB," accessed April 20, 2016, http://mixmarket.org/mfi/kwft-mfb.

The KWFT administers several microfinance instruments and runs a website that provides a wealth of information for those with access to the Internet. It administers accounts for parents who wish to save on the behalf of their children, adult savings, group savings, pre-loaded cash cards, teen savings, and student savings. With the aid of other NGOs and international financing, the KWFT now offers loans for education to include nursing school, emergencies, water and sanitation, clean energy, and agricultural loans. The KWFT website implies that these non-business loans exist to provide an option to meet individual needs without diverting funds from a business loan, but it is not explicitly stated. While it is not clear if these loans are given out independent of business loans, it is clear is that the focus of the KWFT is on women entrepreneurs.

The KWFT provides a plethora of loans to women who are already in business. It delineates several circumstances under which it grants business loans: to groups seeking to purchase capital assets, to individuals who want to expand their businesses, and to clients who would like to improve their business through the purchase of sewing machines, vehicles, and the like. Clients may select a variety of loans (Figures 5 and 6).

Figure 5. KWFT Business Loan Options I⁸⁰

a) Tujiunge Chama Loan

This product is designed to help groups purchase capital assets to improve their economic and social status.

b) SME Business Loan

This is a loan product designed for entrepreneurs or companies who are already in business and need access to working capital to expand their businesses. Financing is from 3 million and above.

c) Asset Financing Loan

Enables clients with entrepreneurial venture to acquire tangible assets like machines, equipment and vehicles for business efficiency and commercial use

Features & Benefits of Business Loans:

- Help clients to expand their investments/ businesses
- Competitive interest rates
- Affordable monthly loan repayments
- Flexible security requirement
- Business skills training

Requirements for Business Loans:

- Own a business/ an income generating venture
- Bank statement for the last six months
- 2 guarantors
- Flexible collaterals

⁸⁰ Source: KWFT Microfinance, "Business Loan Products," accessed August 30, 2015, http://kwftdtm.com/page.php?id=23.

Figure 6. KWFT Business Loan Options II⁸¹

Biashara loans

To support women with small and medium scaled businesses to access affordable financial services. It aids in creation of employment and reduction of rural - urban migration.

Features:

- Flexible security requirement
 Monthly meetings and loan repayments
- Flexible loan amounts
- Business skills training
- Low processing fee
- Low monthly savings
- Loan from ksh 10.000
- Insurance cover at a low premium

Requirements:

- Group of 15– 30 members
- Be in a business

Mwangaza loans

To enable medium and big scaled business women to access affordable financial services.

Features:

- Flexible security requirement
- Access to business skills
- training
- Flexible loan amounts
- Fast processing of loans
- Monthly loan repayments
- Loan from ksh 50,000

Requirements:

- Group of 7 10 members (mini
 - group)
- Be in a business

Mwamba loans

This is a loan to individual entrepreneurs with large scaled businesses to access affordable financial services. This loan can be advanced to our customers to facilitate the acquisition of assets like vehicles and machinery.

Features:

- Access loan as an individual
- No group guarantee
- Flexible loan amounts
- Flexible monthly loan
- repayments
 Flexible security requirements
- Fast loan processing

Requirements:

- Own a business
- Bank statement for the last six months
- 2 guarantors
- Flexible collaterals

For the KWFT, identifying high-potential individuals is key. For MFIs the ideal growth client is an individual from a low-income, high-population-density region of Kenya who needs money to start a small business. Eventually, the client would use the loan to grow her new small business into a large one that employs thousands and boosts the region out of poverty. This is a very idealistic model. Although there is surely a Kenyan Bill Gates or Steve Jobs waiting for that opportunity, few will rise to that level of success. Since limited access to capital is identified as a key problem in Kenya, providing access should boost the successes of entrepreneurs and allow others entry into a market that was otherwise closed to them.

By lending to entrepreneurs, the KWFT is goal oriented, and its targeted approach limits risk. Loaning to an individual who has few skills or education, while benevolent, cannot be expected to generate higher magnitude effects far beyond that individual. Even with skills and education, entrepreneurs without business ideas are stymied. In general, if MFIs seek specific outcomes, it is better that they seek individuals who exhibit interest in achieving that matching outcome. For many, the prospect of starting a business is daunting. Ownership of, or participation in, a business is a minimum qualifier for a loan

⁸¹ Source: KWFT Microfinance, "Business Loan Products."

through the KWFT (Figures 5 and 6). In essence, with this requirement the KWFT has restricted the availability of loans in order to lower its own risk. Additionally, for all but individuals who already own large-scale businesses, the KWFT provides crucial business skills training. In addition, selecting entrepreneurs reduces the likelihood that the funds are redirected for other needs. Because these women already have businesses in place, they have a much more realistic expectation of where they need to invest.

A potential weakness of the research on the KWFT is that it represents an influential case that focused on women entrepreneurs. The difficulty in finding other institutions that report such success might mean that the trust represents an outlier. However, other MFIs may not operate similarly enough to the KWFT to produce similar outcomes. A second explanation for the relative lack of business growth findings among other MFIs may be limited research.

H. POSITIVE RESULTS DRIVEN BY MICROFINANCE

Multiple studies of the KWFT found that it created business growth for entrepreneurs. It is also one of the few organizations that has been in place for several decades and among the most studied microfinance institutions in Kenya. Its longstanding presence may help explain why so many authors reference the trust in their research. When compared with other MFI institutions, the KWFT represents an influential case because it has produced some of the most positive results for women entrepreneurs. In a 1997 World Bank study, Kiiru and Pederson demonstrated that "[the] KWFT has been able to develop entrepreneurship in the coastal towns of Kwale, Kilifi, and Malindi."⁸² As a force multiplier, Idris and Agbim "found that training before taking a microcredit loan increases employment generation."⁸³ Several important findings came from Ouma and Rambo's study of 190 women entrepreneurs financed by the KWFT in Kisumu, Kenya. Of the SMEs, 85 percent were likely to experience higher growth after receiving the loans. There was generally an increase in the number of workers in the SMEs, which

⁸² Kiiru and Pederson, Kenya Women Finance Trust, ix.

⁸³ Adama J. Idris and Kenneth Chukwujioke Agbim, "Micro-Credit as a Strategy for Poverty Alleviation among Women Entrepreneurs in Nasarawa State, Nigeria," *Journal of Business Studies Quarterly* 6, no. 3 (2015): 135.

means that these loans created jobs. Ouma and Rambo also reported that 85.8 percent of the respondents indicated that their liabilities were decreasing.⁸⁴ After borrowing from the KWFT, 87.4 percent experienced higher profits,⁸⁵ and 80 percent of SMEs that received loans from the KWFT also experienced increased sales.⁸⁶ The literature references several schemes, or loan models, that the KWFT has used over the years. Some of the former schemes also created positive effects at the time. Dr. K'Aol presented findings at the World Conference for the International Council of Small Business: "Entrepreneurs under the Chikola Scheme revealed significant improvement after taking the loan in terms business expansion and cattle ownership."⁸⁷ In the same presentation, he relayed that "beneficiaries under the Katikati Scheme had significant improvement in terms of infrastructure and net income as compared to other groups."⁸⁸ These findings demonstrate a pattern of positive business outcomes for the KWFT.

Apart from business growth, several studies reveal that MFIs increase economic welfare. The increased economic welfare enables a host of positive outcomes. Typically, when individuals have more income, they are better able to take care of themselves and their families. While a number of these findings come specifically from studies of the KWFT, many authors find that MFIs are associated with positive outcomes. According to Ouma, in a study on the KWFT, two tertiary benefits of microfinance were an increased ability of women to control their reproductive health and a decrease in domestic violence toward women.⁸⁹ The latter finding was further supported in a Nigerian study that found that household welfare was likely better when microfinance was provided to women over men.⁹⁰ In a Nigerian study on poverty alleviation, Idris and Agbim found that microfinance was associated with better sanitation, higher child immunization rates, and

⁸⁴ Ouma and Rambo, "Effects of Access to Microcredit," 5–6.

⁸⁵ Ibid., 5.

⁸⁶ Ibid., 4.

⁸⁷ K'Aol, "The Role of Microfinance," 9.

⁸⁸ Ibid., 9.

⁸⁹ Ouma and Rambo, "Effects of Access to Microcredit," 2.

⁹⁰ Idris and Agbim, "Micro-Credit as a Strategy," 123.

increased use of contraceptives among women.⁹¹ With so many Kenyans living below the poverty line, basic needs sometimes take priority. Additionally, those who have access to loans can smooth out family budgets during tough times when poverty limits access to food and healthcare. Idris and Agbim further reported on a study that tracked an NGO supporting youth development and found that "Micro-credit schemes present enormous potential for enhancing income generation, improving household's living condition and reducing abject poverty in rural areas."⁹² Poverty can be viewed as a constraint to education and, potentially, a trap for future poverty. A microloan can finance adult or childhood education. Even financing simple technical skills training provides a great advantage. Microfinance creates valuable secondary benefits that extend beyond those who save and borrow. Even if microfinance were definitively proven not to create entrepreneurs, other benefits would remain. Quite simply, available funds create options. Microfinance is an avenue for the unemployed to become self-employed.

I. AREAS OF IMPROVEMENT FOR MICROFINANCE THAT HAVE POTENTIAL SOLUTIONS

The KWFT demonstrates the successes of microfinance. It serves as a model of MFI that provides a holistic approach to savings and loans for entrepreneurs. However, the growth of microfinance faces many challenges including high interest rates, the redirection of loans for personal needs, poor training and education, high operational costs, and barriers to land ownership. Further criticism is centered on the performance of women-owned businesses and whether or not microfinance can provide a way out of poverty. Although sometimes difficult, these obstacles have solutions.

First, MFIs tend to charge very high interest rates. As an example, the West African Monetary Union caps interest at 27 percent for MFIs and 18 percent for banks. In general, government microloans are associated with lower interest rates,⁹³ but government backed microfinance does not reach all who are in need. In a continent that has widespread poverty, 27 percent interest on a very small loan is still a considerable

⁹¹ Ibid., 125.

⁹² Ibid.

⁹³ Kessey, "Micro Credit and Promotion," 774.

sum of money for the borrower to repay. When a MFI administers a small number of low value loans, the overhead per loan is high. When the number of clients increases, the percent cost per loan decreases. Servicing even one microloan requires a minimum number of personnel. In reality, the same staff can cover multiple accounts, thus spreading out the share of administrative costs. One purported reason for these high interest rates is that without them the MFIs cannot cover their overhead costs. Another espoused reason is that high interest allows MFIs to grow, transform into banks, and serve a greater audience. However, there is a need to balance growth with goodwill. Banerjee and Duflo explained why interest rates and operational costs remain high for microfinance. They discovered that mitigating the risk of default limited the efficacy of microfinance.⁹⁴ The MFI had to charge high interest rates to cover those who might default, and then spend its time and effort enforcing repayment; this meant that, eventually, the MFI might choose to loan only to known individuals.⁹⁵ This reality created the same barriers to credit that banks present, a preference for wealthy, known clients. Even with their emergence and rapid growth, MFIs often have stringent borrowing conditions, which limits their utility.⁹⁶ Akoten et al. also note that, as of 2006, MFIs' terms are becoming increasingly strict.97 A growing client base combined with high repayment rates helps explain the KWFT's ability to continue to operate and turn a profit.98

The approach to addressing the high interest rate problem within microfinance deserves more innovation. Apart from seeking out a large client base to spread out the risk, there are other options. The first is to identify less risky individuals. No study mentioned formal credit scores in Kenya, but past loan repayment can be used as a proxy metric. Subsequent loans to individuals who meticulously repaid their previous loans could be made at reduced interest rates while still maintaining a safeguard against default.

⁹⁴ Banerjee and Duflo, *Poor Economics*, 163.

⁹⁵ Ibid.

⁹⁶ Akoten, Sawada, and Otsuka, "The Determinants of Credit Access," 928.

⁹⁷ Ibid., 931.

⁹⁸ Kiiru and Pederson, Kenya Women Finance Trust, viii.

Another option is to invest in individuals that are stakeholders in the MFI. The KWFT Bishara Scheme of the 1990s required those applying for a loan to save 50 Kenyan shillings (about 1 dollar) every week for eight weeks before a loan was authorized.⁹⁹ Mean interest rates globally vary globally (Figure 7). South Asia is a potential windfall for future research in the reduction of interest rates.

| Latin American and the Caribbean | 28 percent |
|----------------------------------|------------|
| Sub-Saharan Africa | 24 percent |
| East Asia and the Pacific | 29 percent |
| The Middle East and North Africa | 32 percent |
| Eastern Europe and Central Asia | 23 percent |
| South Asia | 15 percent |

Figure 7. Global Microloan Mean Real Interest Rates¹⁰⁰

Next, and potentially or partially attributable to high interest rates, microloans generally have high default rates. Within Ghana, Kessey reports default rates of 2.8 percent for those who repay loans monthly and 6.8 percent for those who repay annually.¹⁰¹ MFIs' clients are typically low-net worth individuals. These loans then become total losses to banks because the individuals do not have collateral assets that can be collected in the event of a default.¹⁰² Another complication for MFIs is that the costs of seeking out and following up with debtors in arrears may exceed the value of the loan.

Making matters worse, loans are diverted for personal expenses. As Kessey reports in Ghana, up to 23 percent of microcredit is spent on social activities.¹⁰³ Small loans used to create small businesses, in most cases, will only generate small profits. The business owner must make a choice between investing in the business and gaining a personal benefit from the profit. It is easy to understand how impoverished business

⁹⁹ Ibid., 29.

¹⁰⁰ Source: Nega and Schneider, "Social Entrepreneurship," 372.

¹⁰¹ Kessey, "Micro Credit and Promotion," 768.

¹⁰² Kodongo and Kendi, "Individual Lending Versus Group," 99.

¹⁰³ Kessey, "Micro Credit and Promotion," 777.

owners might choose food for their family over, for instance, a new sewing machine. The KWFT has solved this issue by offering loan instruments to support non-business activities in hopes of lowering their business loan default rate.

Education is an important foundation for development. The KWFT aims to level the playing field by providing business training to their borrowers. Idris and Agbim point out that in male-dominated societies women tend to be ignorant of how to run businesses.¹⁰⁴ They then idenfity another failing: "Women entrepreneurs, especially in developing countries lack training, social capital, and information on markets."¹⁰⁵ The KWFT expressly sought to educate its clients. For instance, instructing good business practices can teach entrepreneurs that reinvestment of profits into the business can provide a larger margin of profit in the future. This would be one way to address the diversion of business loans for personal needs. The Kenyan perspective is much more positive than the Nigerian one: "[the] KWFT's experience has been that non-financial services such as client training enhance credit management performance."¹⁰⁶ Idris and Agbim's logic is sound, but it falls short of a complete analysis. They would advise against investing in those that lack the training to succeed; in contrast, the KWFT would train first and then loan the startup or growth capital to the entrepreneur.

There is not an easy way to overcome the high operational costs that result from working in rural areas. These high expense rates can partially explain the low return rates, relative to other global markets, on loans within Sub-Saharan Africa (Figure 8). Many of the costs can be attributed to a lack of infrastructure, such as roads and communication networks in these areas. Low population densities in rural areas also lead to limited outreach. NGOs experience this problem when trying to determine where their resources can have the most impact. A significant proportion of the very poor live rurally where it is less financially feasible to serve them. As MFIs grow, they could potentially offset high operational costs in rural areas by adding more low-operational-cost loans in areas of high population density. Another solution could be to convince the government to

¹⁰⁴ Idris and Agbim, "Micro-Credit as a Strategy," 125.

¹⁰⁵ Ibid., 130.

¹⁰⁶ Kiiru and Pederson, Kenya Women Finance Trust, xi.

improve the infrastructure, but that is an exceedingly difficult battle. A third option could be to persuade the local government to underwrite a portion of the loan or issue a government backed microloan. Lafourcade et al. analyzed 163 MFIs in Africa and found that, even with their high expense ratios, 77, or 47 percent, earned positive returns in 2003.¹⁰⁷

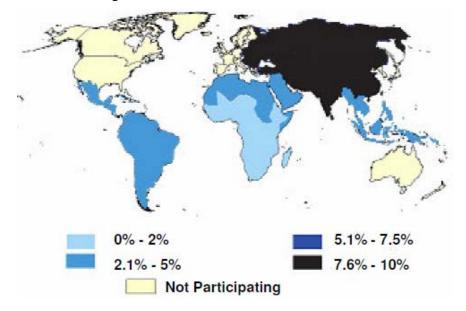


Figure 8. Return on Assets 2003¹⁰⁸

Another hurdle is that in parts of Africa, as in other regions of the world, women cannot legally own land. Since women are the majority users of microfinance instruments, impediments to women entrepreneurs who depend on land are especially problematic. Where women cannot own land, the restriction indirectly limits the types of business that they can open. This limitation may also explain why Idris and Agbim found that women have had lower performing businesses when compared with male entrepreneurs.¹⁰⁹ Kessey points out a workaround in parts of Northern Ghana where men

¹⁰⁷ Lafourcade et al., Overview of the Outreach, 9.

¹⁰⁸ Source: Lafourcade et al., Overview of the Outreach, 9.

¹⁰⁹ Idris and Agbim, "Micro-Credit as a Strategy," 123.

buy the land and then allow their female relatives to use it for their businesses.¹¹⁰ Institutional and legal reform could result in a greater percentage of women having a lower barrier to convert their loans into successful businesses.

The next issue is whether the KWFT's model of loans to women makes good business sense. In Nigeria, Idris and Agbim report that women-owned businesses tend to underperform when compared directly to male-owned businesses.¹¹¹ The implication is that women are a less desirable investment than men are. However, Ouma and Rambo point out that in Kenya women exhibit "preference towards certain business lines such as clothing boutiques and tailoring shops."¹¹² Directly comparing women to male entrepreneurs is an oversimplification. The difference in outcome can be viewed as a difference in what the groups prefer to invest.

Kessey puts forth a relatively simplistic analysis that SME entrepreneurs do not generate enough income to pull themselves out of poverty.¹¹³ His contention is that they will then seek additional microloans to fund their businesses. Microfinance has been linked with many positive outcomes that cannot be measured in financial terms. Unfortunately, within Africa there is not convincing evidence that access to microcredit raises income levels on average. Even within successfully operated microfinance programs, there is not a definitive linkage between poverty alleviation and microfinance.¹¹⁴ Kessey ignores several points. Any rise in income that did not exceed the \$1.25 per day barrier would not meet Kessey's measure of improvement. However, he makes a very valid point in that not every SME will be successful. Guaranteed financing does not ensure success.

Finally, if the goal of microfinance programs is business creation, an innovative strategy would be to offer a business instead of a loan. One of the most widely known businesses that follows this model in the United States is Mary Kay, and there are a few

¹¹⁰ Kessey, "Micro Credit and Promotion," 773.

¹¹¹ Idris and Agbim, "Micro-Credit as a Strategy," 123.

¹¹² Ouma and Rambo, "Effects of Access to Microcredit," 4.

¹¹³ Kessey, "Micro Credit and Promotion," 777.

¹¹⁴ Nega and Schneider, "Social Entrepreneurship," 369.

companies that follow this model in Africa. One example, Solar Sister, sells solar lighting to replace kerosene lamps on consignment and another is Living Goods, which sells clean cook stoves, bed nets, and soap.¹¹⁵ They each operate by providing women with products ready for the market. Starting a business is a difficult thing to do. Providing a business model upfront may be a better strategy than providing a microloan.

J. CRITICISMS OF MICROFINANCE

There are several very legitimate criticisms of microfinance that have no obvious solutions. In *The White Man's Burden*, William Easterly found that microcredit solved only the narrow problem of access to credit; it was not the panacea that other authors made it out to be.¹¹⁶ Microfinance therefore should be used in concert with other comprehensive reforms. Microfinance is better viewed as one of many tools to work toward creating entrepreneurs and subsequently bettering their lives.

Widespread, documented, and statistically significant job creation resulting from microfinance would prove the connection, but there is no certain proof for now. Through statistical analysis Van Rooyen et al. find, "There is little evidence that micro-credit has any impact on job creation."¹¹⁷ They begins their analysis with over 6,000 data points, and are only able to cite two studies that that correlate microfinance and job creation. The first study in 2001 found a significant positive correlation, and the second did not find any statistically significant relationship. The study points out that the results could have been impacted by regional instability and economic crises.¹¹⁸ On the whole, two data points can hardly confirm or refute a hypothesis. Instead, research should seek out successful cases, like the KWFT, and model those within new MFIs.

¹¹⁵ Deborah Burand, "Beyond Microfinance: Creating Opportunities for Women at the Base of the Pyramid," *International Trade Forum* 2 (April 2012): 21.

¹¹⁶ William Easterly, *The White Man's Burden: Why the West's Efforts to Aid the Rest Have Done So Much Ill and So Little Good* (New York: Penguin Books, 2006), 59.

¹¹⁷ C. Van Rooyen, R. Stewart, and T. De Wet, "The Impact of Microfinance in Sub-Saharan Africa: A Systematic Review of the Evidence" *World Development* 40 no 11 (2012): 2258, doi:http://dx.doi.org/10.1016/j.worlddev.2012.03.012.

¹¹⁸ Ibid.

Another criticism is that MFI-supported SMEs cannot access global markets. Microfinance was never intended to back large enterprises that can more easily access global markets. Compounding the problem, SMEs do not have the market share or organizational ability to set market prices, so they must deal with them.¹¹⁹ However, there is room for transformation in this arena as well. In the United States, Etsy connects many micro industries to a single Internet-based marketplace. Similarly, the 10,000 Villages Shop sells fair trade goods made by disadvantaged artisans in the developing world.¹²⁰ Although this approach faces barriers in Kenya due to limitations of the communications network and high cost for individuals to purchase and operate computers, it is reasonable to see how the concept could be successfully employed and expanded in the future.

Critics point out that the burgeoning micro industries created by microfinance have not grown into large-scale industries. Again, this is a generalization, but still a valid problem for job creation. Nega and Schneider point out, "Social entrepreneurship diverts financial resources and talented individuals from other development initiatives ... microfinance tends to reduce funding for larger-scale enterprises that might actually develop into significant engines of job creation."¹²¹ Instead, microfinance fills a niche, the loans are not large enough to purchase expensive machinery or pay for the rent of a large warehouse, nor are they intended to. This is a topic that warrants further research, as lack of data could be to blame for the current ambiguity. Furthermore, only a small percentage of businesses grow to be giants. With microfinance's short history in Kenya, this transformation may be seen in the future.

K. CHAPTER CONCLUSION

Since the 1970s, microfinance has become increasingly common. Kenya, in particular, has taken steps to develop strong support for their financial sector and entrepreneurs. Though certain MFIs, like the KWFT, have had success creating positive

¹¹⁹ Kessey, "Micro Credit and Promotion," 776.

¹²⁰ Ten Thousand Villages, "Our Company: About Us," accessed August 26, 2016, https://www.tenthousandvillages.com/about-us.

¹²¹ Nega and Schneider, "Social Entrepreneurship," 371.

outcomes for both business growth and economic welfare, most MFIs do not report this same level of positive outcomes for entrepreneurs. Generally, a review of the available research reveals that MFIs create positive personal welfare outcomes but relatively few meaningful business outcomes. This difference can be explained, in part, by the fact the KWFT offered training and specifically focused on women entrepreneurs. In that way, its lending practices were goal oriented. The KWFT also chose to lend to individuals who were similarly goal oriented. Both client and lender had an interest in growing businesses. Going forward, MFIs that wish to create business success should follow the lead of the KWFT.

III. ROTATING SAVINGS AND CREDIT ASSOCIATIONS

A. CHAPTER OVERVIEW

In the preponderance of cases, ROSCA membership is correlated with improved economic welfare for Kenyans; however, the argument for ROSCA membership being a primary causal factor of business growth is less clear and more layered. In simple terms, ROSCAs provide a savings mechanism. Therefore, those Kenyans who participate are more or less guaranteed to receive a windfall payment that they can choose to spend as they see fit. Many Kenyans choose to spend the money they receive on education, healthcare, or improving their living conditions, all of which indicate that ROSCAs contribute to increased economic welfare. Because ROSCAs, unlike MFIs, are formed within communities and among friends, there is less formal tracking of how and in what ways the money is spent. Likewise, placing any restrictions on how the money is eventually spent or allocated rests entirely within the group. Generally, ROSCA members are free to spend their pot without restrictions, so if individuals choose to spend their money to grow their businesses, then logically ROSCAS can help create business growth. However, this outcome appears to be much less likely than would be the case for a MFI that specifically targeted entrepreneurs.

B. HISTORICAL BACKGROUND

Though they have many variants, ROSCAs operate as group savings mechanisms. In its most basic form, the group has a set number of members that contributes a set quantity of money on a periodic basis. At each meeting, one group member takes home the pot. The meetings continue until each member takes home the combined contributions. The group may then choose to begin another round or dissolve.

In comparison to newer informal financial tools, like microfinance, ROSCAs have a longstanding global history. There is evidence that this type of alternative finance is prevalent in African society and relies on cultural constructs to continue to function successfully. In contrast to that of microfinance, research about ROSCAs in Kenya abounds, so it is unnecessary to rely on a specific case study. ROSCAs represent a typical case of alternative finance in Kenya.

It can be difficult for scholars looking into Africa's past to find historical context. Many tribal groups relied on oral tradition, so documentation is often nonexistent. Africanists often rely on linguistics for clues about historical practices. The most commonly used word for rotating credit in West Africa, *esusu*, is a term that is generally accepted as Yoruba (Nigerian) in origin. It was documented in use among the Egba in 1843. Shirley Ardener refers to research that shows that at the time contributions were made in cowries then eventually in British currency.¹²² Conversely, the global prevalence of ROSCAs, or equivalent institutions, is well documented throughout history. Though it seems like a bit of an overstatement given the history of ROSCAs in Africa, Rosemary Atieno found that ROSCAs have developed "mostly in response to the lack of access to credit by SMEs."¹²³ Her characterization of the driving force behind ROSCA growth is probably more applicable to modern times.

The development of ROSCAs tends to be associated with the emergence of trading activities. According to Fritz Bouman, writing for *World Development*, credit groups allowed traders flexibility for "multiple speculation, bulk purchases, price fixing, the allocation of buying and selling territories."¹²⁴ In short, it provided them with the ability to accomplish a much broader spectrum of financial goals than would be possible individually. Imagine that a trader traveled to an isolated town; before modern communication, villagers would have no way to know that a trader was en route and to begin saving to afford a large good. By pooling money a large purchase becomes possible.

ROSCAs are prevalent globally and have existed for centuries. While it is possible, and in some cases likely, that ROSCAs developed after their introduction by outside groups, it is not outside the realm of possibility that these groups developed

¹²² Shirley Ardener, "The Comparative Study of Rotating Credit Associations," *Journal of the Anthropological Institute of Great Britain and Ireland* 94, no. 2 (1964): 204.

¹²³ Atieno, Formal and Informal Institutions' Lending Policies, 16.

¹²⁴ Bouman, "Rotating and Accumulating Savings," 372.

organically. By the end of the 19th century, they were well established in China. An urban variant of ROSCAs developed in India at the turn of the century and still exists today. One report of rotating credit associations dated as early as 1275 in Japan. Accounts place ROSCAs in Southern Africa as early as 1913. Among the earliest African findings is a thrift club that was introduced by Nova Scotians to Sierra Leone as early as 1794, though the model may not have been fully implemented until 1865. In Scotland, historically documented savings clubs were found to have existed in 1825.¹²⁵

As evidence of their long history, ROSCAs have developed many variants and have been adapted to reflect cultural norms. The order in which group members benefit was first decided by status in the community. Customarily, this meant that the village elders or the person who initiated the ROSCA were the first beneficiaries.¹²⁶ As will be discussed later, women make up the majority of ROSCA members in Kenya, and there are few women chiefs, so they are more likely to adhere to an alternate disbursement hierarchy. Another potential method to determine the order is bidding. Though this method could be found as early as the 14th century in Japan, it does not have a long historical record in Africa.¹²⁷ Bowman found the first African occurrence of bidding in Cameroon in 1972.¹²⁸

Through their long history, ROSCAs developed many variants and adapted to cultural norms. Some of the ROSCAs Bouman researched have existed for over 20 years.¹²⁹ He feels that their continued existence shows they are robust institutions that can adapt to changes in economic circumstances, monetary policy, political climate, or legislation.¹³⁰ Because the funds are dispersed at meetings, women can interact in order to learn about their societal and economic roles.¹³¹ In addition, the meetings provide a

¹²⁵ Ardener, "The Comparative Study," 202–208.

¹²⁶ Bouman, "Rotating and Accumulating Savings," 378.

¹²⁷ Ibid., 379.

¹²⁸ Ibid.

¹²⁹ Ibid., 374.

¹³⁰ Ibid.

¹³¹ Susan Johnson, "Gender Norms in Financial Markets: Evidence from Kenya," *World Development* 32, no. 8 (2004): 1370.

social outlet and are frequently accompanied by social events, like village feasts. This gives a communal motivation for ROSCA participation that is prioritized over financial needs. The persistence of this financial tool means it can be dependable to entrepreneurs.

C. PREVALENCE OF ROSCAS

Today, ROSCAs are prevalent globally. Working for *World Development*, Peter Kimuyu found that ROSCAs are more common in developing countries where financial markets tend to be fragmented between formal and informal sectors.¹³² He also identified their attractiveness in rural areas because of their low transaction costs, as well as some of their marked advantages due to the fact that they experience relatively few losses and are more or less self-enforcing.¹³³

ROSCAs are also widely present in Africa. They go by various names like *esusu* in Anglophone and *tontines* in Francophone West Africa, *stokvel* in South Africa, and *njangi* in Cameroon.¹³⁴ "Merry-go-round" is also another popular pseudonym for ROSCAs in Africa. In 1986, 50 percent of the total adult population of the Republic of Congo participated, though the report did not address the physical distribution of the participants.¹³⁵ More recently, a 1995 estimate put the participation among the rural population of Liberia, Ivory Coast, Togo, and Nigeria between 50 percent and 95 percent.¹³⁶ Bouman made a noteworthy observation about the communal nature of financial aid in Africa, commenting:

Africa is particularly noted for its proliferation of mutual aid groups with a finance component. Labor groups, church organizations, burial societies, professional associations, and age-groups organized around a certain sport,

¹³² Kimuyu, "Rotating Saving and Credit," 1300.

¹³³ Ibid., 1301.

¹³⁴ Nicole W. Biggart, "Banking on Each Other: The Situational Logic of Rotating Savings and Credit Associations," *Advances in Qualitative Organization Research* 3, no. 1 (2001): 140.

¹³⁵ Bouman, "Rotating and Accumulating Savings," 372.

¹³⁶ Mary Kay Gugerty, "You Can't Save Alone: Commitment in Rotating Savings and Credit Associations in Kenya," *Economic Development and Cultural Change* 55, no. 2 (2007): 251.

dancing, singing or community development activity, or loyalty to a political party: all may involve financial functions.¹³⁷

As previously noted, some ROSCA groups endure for decades. In Mary Kay Gugerty's sample of 70 Kenyan ROSCAs, 22, or 31 percent have been in existence for over 10 years.¹³⁸ African participation, in particular, is remarkably constant. She found that African ROSCA stability is particularly pronounced in southern and eastern Africa.¹³⁹ This makes Kenya, located in eastern Africa, particularly interesting to study.

In Kenya, a 2013 estimate puts the total amount of funds being mobilized outside the regulation or control of a monetary authority, or informally, at \$19 million.¹⁴⁰ From a field survey that Siwan Anderson and associates conducted in a poorer area of Kenya, 57.2 percent of the 374 individuals queried participated in at least one ROSCA.¹⁴¹ This roughly correlates with the participation statistics found by Atieno who surveyed 127 people and found that 51 percent are currently members in ROSCAs (Figure 9). Anderson's team went a bit more in depth and found that, among respondents, the typical contribution was 20.3 percent of individual income or 13.6 percent of total family income.¹⁴²

¹³⁷ Bouman, "Rotating and Accumulating Savings," 372.

¹³⁸ Gugerty, "You Can't Save Alone," 259.

¹³⁹ Ibid.

¹⁴⁰ Francis, Nassar, and Mehta, "Are We Formal Yet?," 114.

¹⁴¹ Siwan Anderson, Jean-Marie Baland, and Karl Ove Moene, "Enforcement in Informal Saving Groups," *Journal of Development Economics* 90, no. 1 (2009): 14.

¹⁴² Ibid.

| Source | Past credit use Number | Percentage | | Current credit use* Number Percentage | | |
|--------------------------------|---------------------------|------------|------|--|-----|------|
| ROSCA | 43 | 34 | (26) | 42 | 51 | (44) |
| Moneylender | 2 | 2 | (1) | 1 | 1 | (1) |
| Friends and relatives | 19 | 15 | (12) | 8 | 10 | (8) |
| NGO | 46 | 36 | (28) | 13 | 16 | (14) |
| Supplier's credit | 11 | 9 | (7) | 13 | 16 | (14) |
| No idea about institution name | 4 | 3 | (2) | 4 | 5 | (4) |
| Missing | 2 | 2 | (1) | 1 | 1 | (1) |
| Total | 127 | 100 | (77) | 82 | 100 | (86) |

Figure 9. Sample Participation in Informal and Formal Credit¹⁴³

D. ROSCA OPERATIONS

ROSCA participation is strictly voluntary. In the modern context, Jacqueline Copeland-Carson found that some ROSCAs have official positions including chair, secretary, treasurer, and auditor.¹⁴⁴ Most of the groups she reviewed have formal written bylaws, and keep meeting minutes.¹⁴⁵ Meetings typically happen in individual homes. In its most basic form, the officers collect and distribute funds until everyone has had a turn. The overall goal is to provide each member one opportunity to have a lump sum payout during the ROSCAs operation. For all but the last recipient, this methodology provides quicker access to the payout than individual savings would be able to amass in the same amount of time. For the local economy there is also a benefit: as the windfall is spent by each member the money is put directly back into circulation instead of being held as individual savings. The turnover of money accelerates. Once each member has received a payout the ROSCA can dissolve or recommence.

The contribution amounts vary from group to group. In broad terms, each member contributes exactly the same amount at each meeting. Bouman found, in 1995, that monthly payouts of ROSCAs in Cameroon varied between 50,000 and 50 million FCFA per month per member.¹⁴⁶ That converts to between \$187 and \$187,000 in 1995. It is

¹⁴³ Source: Atieno, Formal and Informal Institutions' Lending Policies, 32.

¹⁴⁴ Jacqueline Copeland-Carson, *Kenyan Diaspora Philanthropy: Key Practices, Trends and Issues* (Cambridge: Harvard University, 2007), https://www.cbd.int/financial/charity/kenya-diaspora.pdf.

¹⁴⁵ Ibid., 10.

¹⁴⁶ Bouman, "Rotating and Accumulating Savings," 380.

likely that the individuals who can contribute to the top-tier ROSCAs would have access to formal banking, yet they choose to continue to be involved in ROSCAs for other reasons. Most ROSCAs are more modest. Akoten, Sawada, and Otsuka determined that in Kenya ROSCAs are "the most important source of credit in terms of average loan size," which was 44,960 Ksh or about 500 U.S. dollars.¹⁴⁷ In contrast to loans, in 2007, Gugerty's study of 70 women's ROSCAs that were in operation for an average of seven years, discovered that the average pot size was \$25, which typically covers about a third of monthly expenses in Kenya.¹⁴⁸

The sources of the money that are put into ROSCAs can also vary. Women entrepreneurs can invest their own income directly. The minority of Kenyan men who participate may likewise invest their earnings. The family may also decide to invest joint funds. Gugerty found that 41 percent of Kenyan women received money from their husbands for their ROSCA contribution, where the average support from the husband equated to \$15.¹⁴⁹

The easiest way to differentiate types of ROSCAs is by the way they allocate funds. The main methods are fixed, random, and bidding, the last of which is also called auction. In a fixed allocation scheme, the order of recipients is set from the beginning. Likely, the ROSCA completed a previous round and the member remained in the same position. In a random ROSCA, names are chosen through a lottery. The lottery may happen at the beginning of each meeting or when the ROSCA is formed. In a bidding ROSCA, members auction off the rights to take home the purse.

There is a commodity variant of ROSCAs. For Kenyan women, this typically manifests itself as a group that amasses home goods like kitchen utensils. Through these goods-based ROSCAs Kenyan women can acquire a large number household items more quickly than would be possible for them individually. For men, the favorites are radios, bikes, tools, and construction goods.¹⁵⁰ In the commodity model, a second positive

¹⁴⁷ Akoten, Sawada, and Otsuka, "The Determinants of Credit Access," 933.

¹⁴⁸ Gugerty, "You Can't Save Alone," 259.

¹⁴⁹ Ibid., 267.

¹⁵⁰ Bouman, "Rotating and Accumulating Savings," 375.

externality, beyond getting a large payout, happens. In the bike example, it is possible to take advantage of economies of scale and negotiate a group price. Another example that Lois Stevenson found was a scheme where members contribute building materials: fencing poles, roofing material, or manual labor.¹⁵¹ The donation of goods or skills is an interesting variant, because even those in abject poverty who may lack financial liquidity can participate and benefit.

The different variants and adaptations of ROSCAs are a testament to their flexibility. The bidding ROSCA seems to present the broadest range of modifications. On top of their set contribution, members desiring to take home the pot bid. As the bid goes higher, the winner takes home even more money. However, since the person who bids the most takes home the lump sum, there is a leveling effect. Since the final two or three bidders may be incentivized to outbid each other, to avoid giving another their contribution, some groups put a max percentage on bids. To avoid members artificially bidding up the pot, some groups take the bids and allocate them to a separate fund. This separate fund has a few positive externalities. Some groups choose to divide up this new pot at the end of the cycle; others use it to make loans to members. For low income ROSCAs, another adaptation is to offer a discount rate instead of a bid. The member who takes the pot is the one willing to take the lowest.

ROSCAs also have informal ways to deal with nonpayment. For fixed allocation funds, new members are often placed in the final payout positions. In this way, it ensures that they pay for the duration of the ROSCA, and then they can have a more favorable position in the next round. Additionally, the organizer or head of the ROSCA may take the first payout so that they can cover for other member's nonpayment.¹⁵² Alternately, the first payout may be set aside.

Since the last player is at a disadvantage, several adaptations can level the playing field for them. Under certain setups, each winner may be expected to contribute slightly

¹⁵¹ Kimuyu, "Rotating Saving and Credit," 1300.

¹⁵² Biggart, "Banking on Each Other," 143.

more than the others in future rounds.¹⁵³ For example, if the monthly buy in is \$10, the first winner contributes \$12 each subsequent month, the second contributes \$11, and the third \$10, etc. In this way, the final winner takes home a larger pot than the first, and puts in less money than his or her peers did to do so. A more simplistic option is to reverse the payout for the next round. In this setup, the final winner is the first winner the next time, and benefits from two large payouts in a row.¹⁵⁴

One criticism of ROSCAs is that members only receive funds once. If an emergency arises after their initial distribution, they may have no means to get further funds. There are several ways in which the single payout problem can be addressed. In a bidding ROSCA, the bids may be divided among the non-winning members at each meeting. Additionally, ROSCAs may set aside a portion of the funds to provide loans to those facing emergencies. One of the most common ways that people address this problem is through simultaneous membership in multiple ROSCAs. Peter Kimuyu discovered that of the "45% of the 110 households participated, 65.3% in one scheme each, 20% in two schemes, 10% in three schemes, 2% in four schemes and one household in a record five schemes."¹⁵⁵ He also found that, as household size increased, so did a family's number of ROSCA scheme memberships.¹⁵⁶

Bidding ROSCAs often have organizers who receive commissions to do their jobs.¹⁵⁷ For these associations, a positive net effect is job creation. So, not only can the lump sum payouts buy a capital asset that might be required to open a business, like a sewing machine, but the act of administrating informal finance creates jobs in the informal sector.

¹⁵³ Bouman, "Rotating and Accumulating Savings," 379.

¹⁵⁴ Ibid.

¹⁵⁵ Kimuyu, "Rotating Saving and Credit," 1302.

¹⁵⁶ Ibid., 1303.

¹⁵⁷ Bouman, "Rotating and Accumulating Savings," 379.

E. LEGAL STATUS OF ROSCAS

Despite government support for improving access to financing, there is no formal legal construct that codifies ROSCAs in Kenya. In general, ROSCAs operate independently from government, financial, and fiscal authorities.¹⁵⁸ The lack of government involvement may be considered an advantage because it allows for quite a bit of flexibility. Groups can be highly adaptable to meet member needs, without the fear of government involvement via taxation. One legal variant is that the groups might be registered as welfare groups, this characterization seems more likely with ROSCAs that are associated with NGOs.¹⁵⁹

There are drawbacks to lacking legal status. Because ROSCAs are informal and unregulated finance mechanisms, there is no legal enforcement mechanism that would kick in in the event of non-payment. In rural Kenya, it is worthwhile to consider that the government may have limited ability to project law enforcement. So, the lack of this government enforcement mechanism is a non-issue, and it might be considered the status quo. Instead, most ROSCAs rely on social norms as their primary enforcement mechanisms. Gugerty noted that they heavily rely on interpersonal connections to mitigate the risk of large-scale defaults.¹⁶⁰ Even with the lack of legal enforcement, typically only 6 percent of participants choose to leave their ROSCA at the end of a cycle.¹⁶¹ That statistic is a direct testament to the incredible durability of this informal institution.

F. CHARACTERIZING ROSCA PARTICIPANTS

Accessibility of formal finance, income, gender, education level, and social status all correlate with an individual's propensity to participate in a ROSCA. Globally, ROSCA participants come from all segments of society. On the whole, because of the

¹⁵⁸ Ibid., 374.

¹⁵⁹ Atieno, Formal and Informal Institutions' Lending Policies, 16.

¹⁶⁰ Gugerty, "You Can't Save Alone," 255.

¹⁶¹ Ibid., 259.

requirement for each member to contribute an equal amount on a set schedule, the membership of each group tends to be fairly homogenous.

Access to formal finance is a key determinate of where ROSCAs develop and thrive. ROSCAs are commonly found in areas of geographic or social isolation.¹⁶² If there is no nearby formal construct that allows banking at the frequency level an entrepreneur might need, he or she must find another option. Proximity is not the only access issue; in developed nations, many individuals are excluded from loans and credit because of their poor credit ratings. When people leave nations where ROSCAs are ubiquitous, and find themselves in need of credit that they cannot secure through formal channels, they have been known to set up ROSCA schemes within their minority group in their new locations.¹⁶³

Income level also correlates to participation in ROSCA schemes. Because the very poor are unlikely to have liquid assets, their participation numbers are lower. However, they may participate in ROSCAs that amass tangible goods and services, though the relative lack of documentation on this type of ROSCAs seems to indicate that these schemes are rare. In his research on addressing self-control problems Stefan Ambec and Nicholas Treich found that, in general, ROSCAs tend to attract individuals who have average incomes.¹⁶⁴ High income individuals are more likely to have access to formal finance mechanisms. Even without ready access to banks, the upper strata has more liquid assets so the benefit of a ROSCA windfall is diminished.

Specific occupation does not seem to be a determinate of participation, however, steady income does. ROSCAs operate with periodicity, so without a guaranteed stream of income, a binding financial commitment is risky. A wider occupational survey of ROSCA participants in Africa yields some surprising results. Bouman found that 75 percent of the employees at the Agricultural Bank of Egypt were ROSCA

¹⁶² Biggart, "Banking on Each Other," 144.

¹⁶³ Kimuyu, "Rotating Saving and Credit," 1299.

¹⁶⁴ Stefan Ambec and Nicolas Treich, "Roscas as Financial Agreements to Cope with Self-Control Problems," *Journal of Development Economics* 82, no. 1 (2007): 123.

members.¹⁶⁵ In Zimbabwe 76 percent of the urban market traders were members even though 77 percent of them reported having bank accounts.¹⁶⁶ Gugerty found ROSCA members among bank staff in Ghana.¹⁶⁷ Even IMF employees participated in ROSCAs.¹⁶⁸ The use of ROSCAs in Africa among those who have access to formal credit indicates that there is some larger rationale than financial need alone can account for.

In Kenya, the numbers may vary from survey to survey, but the vast majority of participants are women. This characterization may have more to do with lack of access to formal credit than gender affinity for ROSCA membership. In circumstances where a woman is the head of household, like widowhood, single motherhood, divorce, or separation, participation is also more likely.¹⁶⁹ Some groups do allow men, although they are the minority. There are a few groups that are men only, interestingly Gugerty found that 66 percent of the men who participated in the ROSCAs she surveyed also had wives who were participants.¹⁷⁰

Education levels also appear to correlate with ROSCA participation in the several studies. Jacqueline Copeland-Carson, noted that "Most, if not all, members of merry-go-rounds are literate and therefore operate the groups in a modern way."¹⁷¹ She went on to characterize the nature of the groups as one where individuals assume formal administrative roles. Gugerty found a positive correlation with participation and years of education.¹⁷²

Familial or social ties tend to be one of the best determinates of which ROSCA group an individual will join in their region. In general, ROSCAs tend to exist where

¹⁶⁵ Bouman, "Rotating and Accumulating Savings," 374.

¹⁶⁶ Gugerty, "You Can't Save Alone," 252.

¹⁶⁷ Ibid.

¹⁶⁸ Ibid.

¹⁶⁹ Kimuyu, "Rotating Saving and Credit," 1304.

¹⁷⁰ Gugerty, "You Can't Save Alone," 268.

¹⁷¹ Copeland-Carson, Kenyan Diaspora Philanthropy, 10.

¹⁷² Gugerty, "You Can't Save Alone," 267.

there are strong social ties. Individual ROSCAs are also likely to have a dominant ethnic group, and those of that ethnic group will have an easier time becoming members.¹⁷³ Societies with "kinship networks, clan membership, and common identification with a native place or place of cohabitation" form these requisite strong associations.¹⁷⁴ This close association can serve a number of purposes. First, it may imbue the group organizer with direct knowledge about an individual who would like to participate. Even without direct knowledge of an individual, kinship networks and clan membership can give the leader an idea about the social norms to which a person is likely to adhere.

G. PURCHASES WITH ROSCA FUNDS

ROSCAs provide members with a lump sum to spend at their discretion. While some ROSCAs are formed to purchase specific goods, like a bike, other member purchases fall into several broad categories. In general, members choose to meet immediate needs, buy a high cost durable good, invest in the future, or meet family financial obligations. Due to the variable nature of ROSCAs, this list is not exhaustive.

In difficult times, the pot will first pay for immediate needs. For instance, beneficiaries may pay for medical care for themselves or a family member. Even more basic, Kimuyu noted that of the 49 households he surveyed, 27 percent purchased food.¹⁷⁵ These immediate needs do not necessarily exhaust the pot. So, despite purchasing consumables, there is often money left over. Purchasing big ticket items is the most common reason that people save through ROSCAs. According to Gugerty, 76 percent of the funds received are spent on a single item.¹⁷⁶ Among other uses, funds are used to finance agricultural implements and purchase livestock in rural areas.¹⁷⁷ Twenty percent of Kimuyu's families put their ROSCA lump sums toward school fees.¹⁷⁸ Kenyans have also used ROSCAs to provide income to stabilize their new lives as they

¹⁷³ Ibid., 263.

¹⁷⁴ Biggart, "Banking on Each Other," 134.

¹⁷⁵ Kimuyu, "Rotating Saving and Credit," 1306.

¹⁷⁶ Gugerty, "You Can't Save Alone," 261.

¹⁷⁷ Kimuyu, "Rotating Saving and Credit," 1303.

¹⁷⁸ Ibid., 1306.

move from rural to urban areas.¹⁷⁹ This gives them a measure of freedom when they would otherwise remain financially dependent on their former village elders. In such closely knit societies, the lump sum can also pay for familial obligations. Gugerty found that 48 percent of the women she studied gave a portion of the money back to their husbands, though she also notes that husbands gave some money to the wives to help bankroll their membership.¹⁸⁰ For the husband's part, 22 percent of the men reported being in debt to their in-laws over the bride price.¹⁸¹

There is not much evidence that points to a positive correlation between ROSCA membership and entrepreneurship or business growth. However, it is not a large leap to surmise that members who benefit from the lump sum payout have the freedom to invest in a capital good that will facilitate a business. At the very least, availability of liquid assets removes a financial barrier and will not harm entrepreneurs.

H. WHY SAVE WITH ROSCAS?

There are several reasons why informal financial institutions make sense. Kenya's credit market is highly fragmented, it is costly to verify information on banking and loan applications. For marginal applicants, this means that they may be denied financing. For those in rural areas, formal banks may not be available.

The bar to membership is lower for ROSCAs than formal banking institutions, and the framework is easier to understand. There is likely no requirement for a formal application. Without an application, the interested individual does not have to be literate. Women are not forced to deal with men, who are the majority of employees at banks. There is no fine print. The ROSCA group setting provides a ready source of people that are happy to explain the bylaws and expectations of a member.

When questioned, ROSCA members gave varied reasons for joining their groups (Figure 10). Among the 270 respondents, the leading rational for joining was to help them save a large sum of money when they were unable to save on their own. The

¹⁷⁹ Bouman, "Rotating and Accumulating Savings," 382.

¹⁸⁰ Gugerty, "You Can't Save Alone," 267.

¹⁸¹ Kimuyu, "Rotating Saving and Credit," 1302.

commitment to savings is a key feature of ROSCAs. For people with self-control issues who make impulse purchases, the discipline that group savings provides facilitates large purchases.

| | Number of Respondents | Percentage of Total |
|--|--------------------------|------------------------|
| | Respondents | OF IOLAI |
| A. What is the most important reason why you joined a | | |
| rosca? (open-ended) | | |
| l can't save at home because money gets used up on | | |
| household needs | 103 | 38 |
| Get strength to save from sitting with others/can't | | |
| save alone | 57 | 21 |
| Group wanted to make sure that each member had a | | |
| certain item | 41 | 15 |
| Can't save at home; my family will use | 18 | 7 |
| Can get a lump sum to buy a big item | 16 | 6 |
| Safe place to save/fear of theft | 8 | 3 |
| Can't save at home, my husband will use | 3 | 1 |
| To visit each other's houses and see how the person | | |
| is living | 3 | 1 |
| Other | 21 | 8 |
| Here are seven reasons why you might belong to a | | |
| rosca; which is most important to you personally? | | |
| Get strength to save from sitting with others/can't | | |
| save alone | 94 | 35 |
| Group wanted to make sure that each member had a | | |
| certain item | 70 | 26 |
| Can't save at home; money gets used on other things | 49 | 18 |
| To visit each other's houses and see how the person | | |
| is living | 35 | 13 |
| Safe place to save/ fear of theft | 9 | 4 |
| Can't save at home; my family will use | 5 | 1.5 |
| Can't save at home; my husband will use | 4 | 1.5 |
| Other | 4 | 1.5 |

| Figure 10. | Self-Reported Reas | sons for Joining a ROSCA ¹⁸² |
|------------|---------------------------------------|---|
| 0 | F F F F F F F F F F F F F F F F F F F | 8 |

Note. Observations = 270.

Another member-reported problem that a ROSCA can overcome is a situation where a family member irresponsibly spends. This is a particularly difficult circumstance for a wife who would like to save and a husband who likes to spend. If there is money available, it is liable to be spent. However, men and women alike understand and value that a commitment made to a group, especially a kinship group, must be kept. In a sense, the wife becomes illiquid. Her promise reduces the funds she has available. In this way, the wife's ROSCA membership constrains the behavior of her husband.¹⁸³

¹⁸² Source: Gugerty, "You Can't Save Alone," 269.

¹⁸³ Ambec and Treich, "Roscas as Financial Agreements," 122.

ROSCAs can provide certainty combined with a level of flexibility that rarely exists in formal banking. Intergenerational ROSCAs can provide a leveling effect. They can be designed so those with school-age children get their funds when school fees are due.¹⁸⁴ ROSCAs can be a proxy for insurance.¹⁸⁵ Members can be assured that at a future time they will have a large payout.

I. CULTURAL NORMS PERMEATE AND STABILIZE ROSCAS

By operating within and being reinforced by existing cultural constructs, ROSCAs have been extremely successful in Africa, specifically Kenya. In contrast to the newer informal finance tools like microfinance and crowdfunding, as they exist today, cultural norms are almost indivisible from ROSCA operations. ROSCAs rely so heavily on cultural norms to function, that they tend not to exist in societies without strong social ties. In fact, Anderson, Baland, and Moene found that ROSCAs are "never sustainable" without a social sanctioning mechanism.¹⁸⁶ Adapting microfinance and crowdfunding to take advantage of some of the cultural characteristics of ROSCAs will help secure their longevity in the financial sector. Entrepreneurs will further benefit from a wide array of reliable financing options.

The homogenous nature of ROSCAs facilitates trust. It is a cyclic relationship. ROSCAs cannot exist without trust, and tribal, ethnic, or familial relationships build a strong basis for trust. Likewise, those who trust each other tend to form ROSCAs. The homogeneity is likely a byproduct of trying to build a group where all members have faith in each other. In rural and sparsely populated areas, the association by family or tribe may be the only option. However, since each individual has a comparatively larger direct knowledge of their neighbors, there is still the option to exclude untrustworthy individuals. In urban settings, migrants tend to form ROSCAs along tribal or ethnic lines.¹⁸⁷ While these individuals may not have direct knowledge of each other, they have

¹⁸⁴ Kimuyu, "Rotating Saving and Credit," 1306.

¹⁸⁵ Ambec and Treich, "Roscas as Financial Agreements," 121.

¹⁸⁶ Anderson, Baland, and Moene, "Enforcement in Informal Saving Groups," 14.

¹⁸⁷ Biggart, "Banking on Each Other," 137.

an understanding of the upbringing and values of other members. If there is doubt about an individual that wishes to join, current ROSCA members can reach back to the community to get more information. This process sounds eerily familiar the vetting process of references that might accompany a formal loan application, but it happens organically. Each member wishes to secure his or her payout, so there is little incentive to hide negative information about a prospective member. Alternately, new group members may require a backer to vouch for their ability to pay or to underwrite their debt in the event of default.¹⁸⁸ The leaders of ROSCA groups may simply deny membership to individuals they deem untrustworthy. Gugerty found in one urban Kenyan ROSCA that disclosing the identity of the participants resulted in a bar to participation.¹⁸⁹ According to the Legatum index, in 2014, 76.8 percent of Kenyans felt they could depend on family and friends in a time of crisis.¹⁹⁰ Therefore, ROSCAs typically form among family and friends.

ROSCA default is rare. Generally, ROSCAs are made up of individuals from the same socio-economic strata. The reasoning is that if one member was significantly better off than the rest, the social pressure for payment would not be enough to ensure his or her compliance.¹⁹¹ There is an immense societal pressure to pay debts. Individuals who do not have enough available assets to pay regularly, do not choose to join ROSCAs. Husbands without steady employment may not allow their wives to join if they cannot be certain to have funds to pay. Failure to pay debts can result not only in sanctions on the individual, but sanctions on entire families.¹⁹² So, if a slightly irresponsible prospective member belongs to a trustworthy family entry may be allowed, under the assumption that the individual's family will attempt to repay the debt if necessary. ROSCAs have developed into an institution that is so common, that an exclusion for non-payment,

¹⁸⁸ Ibid., 145.

¹⁸⁹ Gugerty, "You Can't Save Alone," 268.

¹⁹⁰ Legatum Institute, "The 2015 Legatum Prosperity Index."

¹⁹¹ Biggart, "Banking on Each Other," 145.

¹⁹² Ibid., 137.

would constitute serious social deprivation.¹⁹³ Contributions to a ROSCA are recognized in the community as obligatory, and other community members understand that the debt must be paid.¹⁹⁴

Relying on societal norms to work in place of legal enforcement mechanisms is a reliable and efficient method to administer ROSCAs. Research indicates that ROSCAs debts are set up as debts to members of the community, and microfinance debts are typically owed to an NGO or MFI. Understanding the hierarchy of debts in Kenya is also important. Debts to community members are more likely to be repaid, which means that ROSCAs might have better success over the long term in improving economic welfare and business prospects. Another advantage of ROSCAs is that there is no formal cost to investigate the creditworthiness of a prospective member.

Societal norms also dictate that affluent individuals have a duty to help poorer ones. ROSCAs facilitate this unwritten social contract. People may actually be ostracized for accumulating and not sharing wealth.¹⁹⁵ The desire to accumulate tangible goods may come from tribal values, but it also reinforces the need to accumulate a large lump sum to purchase these assets.¹⁹⁶ ROSCAs provide the means to purchase the good and give members piece of mind that they will be able to continue to deliver goods to their family and friends in the future. The members who use their ROSCA pot for communal purposes can expect to receive social prestige from community members.¹⁹⁷

African gender norms play a role determining in ROSCA participation. According to Biggart, when it comes to certain areas of responsibility like collective financial obligation, women's gender norms tend to leverage honesty and purity more than would be true for men.¹⁹⁸ Again, this reinforces their trustworthiness. Susan Johnson found that

¹⁹³ Anderson, Baland, and Moene, "Enforcement in Informal Saving Groups," 15.

¹⁹⁴ Bouman, "Rotating and Accumulating Savings," 375.

¹⁹⁵ Ambec and Treich, "Roscas as Financial Agreements," 123.

¹⁹⁶ Ibid., 122.

¹⁹⁷ Ibid.

¹⁹⁸ Biggart, "Banking on Each Other," 142.

some women's groups will actively exclude men.¹⁹⁹ Women also tend to handle small but frequent flows of money, whereas men are more likely to handle large sums of money infrequently.²⁰⁰ Hence, ROSCAs generally work better for the traditional Kenyan woman's spending pattern. Women are much more likely to have the guaranteed financial support of their husband after joining a ROSCA. The husband equally values the financial obligation and wants to make sure that his wife, directly, and he himself, indirectly, is above reproach.²⁰¹ There would likely be a strong stigma for a husband who had agreed to support his wives participation then reneged. When they do participate, men's contributions are higher on average than women's are, but men's participation is rarer.²⁰² In one study of those living in the town of Karatina in Central Kenya, men reported that they did not want to be seen as dependent, which could be viewed as a proxy for inferiority.²⁰³ Furthermore, they reported apprehension or unwillingness to admit publicly they were facing a financial emergency.²⁰⁴ This group of men was also found to be less likely to fear the repossession of their personal goods in the event of nonpayment.²⁰⁵ So other methods of informal credit may be more societally appropriate for them.

A reliable and efficient method to administer ROSCAs is relying on societal norms in place of legal enforcement mechanisms. There is no formal cost to investigate the creditworthiness of a prospective member. In addition, the meetings provide a social outlet. They are frequently accompanied by social events, like village feasts, and are a source of solidarity.²⁰⁶ This gives a communal motivation for ROSCA participation, above what financial needs might dictate.

²⁰⁵ Ibid.

¹⁹⁹ Johnson, "Gender Norms in Financial Markets," 1356.

²⁰⁰ Johnson and Nino-Zarazua, "Financial Access and Exclusion," 491.

²⁰¹ Gugerty, "You Can't Save Alone," 262.

²⁰² Johnson, "Gender Norms in Financial Markets," 1356.

²⁰³ Ibid., 1368.

²⁰⁴ Ibid.

²⁰⁶ Biggart, "Banking on Each Other," 146.

J. POSITIVE ROSCA OUTCOMES

There are many positive results from ROSCAs. Some are more direct than others. The nature of the goods that are bought with ROSCA funds is important. A Taiwanese study noted a link between ROSCA participation and durables accumulation.²⁰⁷ In a study about micro and small business growth, Esther Mbwiria made some exceptional discoveries. First, as a result of ROSCA credit intervention, incomes increased ranging from 8 percent to 500 percent and averaged an improvement of 115 percent.²⁰⁸ Savings went up 82.3 percent, sales climbed 57.7 percent, and 46 percent of businesses hired more workers.²⁰⁹ Finally, 11.5 percent of the respondents in her survey reported opening new business branches, but none transitioned to the next strata (i.e., micro to small or small to medium enterprises).²¹⁰ This study is significant because it finds that ROSCAs have the potential to positively impact business growth.

ROSCA membership has increased individual economic welfare. According to Fritz Bowman, ROSCAs allowed traders flexibility for "multiple speculation, bulk purchases, price fixing, the allocation of buying and selling territories."²¹¹ In short, it provided members with the ability to accomplish a much broader spectrum of goals than would be possible individually. Some groups have mechanisms in place that amend the original distribution order when a member experiences a financial crisis. Members of MFIs have turned to ROSCAs when they have needed money for AIDS treatment.²¹² This preserves their MFI loan and shows that the two informal credit mechanisms can work in concert to pay business and emergency bills. In this way, the increased economic welfare that ROSCA membership brings can help pay unforeseen medical bills.

²⁰⁷ Bouman, "Rotating and Accumulating Savings and Credit Associations," 375.

²⁰⁸ Esther K. Mbwiria, "Characteristics and the Impact of Rotating Savings and Credit Associations on the Growth of Micro and Small Enterprises in Nairobi-Kenya," PhD diss., Kenyatta University, 2011.

²⁰⁹ Ibid.

²¹⁰ Ibid.

²¹¹ Bouman, "Rotating and Accumulating Savings," 372.

²¹² Jill Donahue, Kamau Kabbucho, and Sylvia Osinde, *HIV/AIDS–Responding to a Silent Economic Crisis Among Microfinance Clients in Kenya and Uganda* (Nairobi, Kenya: MicroSave-Africa, 2001), http://www.microsave.net/files/pdf/HIV_AIDS_Responding_To_A_Silent_Economic_Crisis_Among_Micr ofinance_Clients_In_Kenya_and_Uganda.pdf, 12.

The sense of community that ROSCAs enforce is also important. Through their regular meetings, group members can keep tabs on each other. They have the flexibility to temporarily change the rules and give a payout in times of emergency. Members have been known to swap turns in rotation to better suit individual needs.

K. NGO INVOLVEMENT IN ROSCAS

The research about NGO involvement in ROSCAs was slim but provided some worthwhile ideas. For ROSCA groups that lack liquid funds, NGOs can borrow from banks, and turn around and lend the money to the ROSCA. The ROSCA then loans out the fund at a slightly higher interest rate, and the group gets to keep the interest differential. It is a win for the ROSCA because it accumulates funds. It is also a win for the NGO because it does not have to shoulder the administrative burden of a loan, and the risk of total default is lessened because the money is spread over multiple group members.²¹³

NGO lending has some drawbacks. They do not have the same level of knowledge of ROSCA groups or individuals as indigenous community members.²¹⁴ Even if the NGO hires a person from the community to help with fund allocation, there is a perception in Africa that it is more acceptable to refuse to pay a government debt than a clan or familial one. There is also very little research that shows this type of lending is effective. Even if it was proven highly effective, NGOs are more accustomed to handling welfare and humanitarian aid, they may lack the resources to administer more complicated financial programs.²¹⁵ Currently, results are mixed. Though pessimistic, Bouman observed that "After 40 years of development aid, we must finally accept that indigenous self-help societies have their own ways of helping themselves and their own ideas of what Utopia looks like and at what tempo to get there."²¹⁶ If building enterprises is the goal, Bouman would contend that development must not be forced upon Kenyans.

²¹³ Atieno, Formal and Informal Institutions' Lending Policies, 18.

²¹⁴ Biggart, "Banking on Each Other," 148.

²¹⁵ Bouman, "Rotating and Accumulating Savings," 382.

²¹⁶ Ibid.

Instead, it must emerge in a way that Africans can embrace, which means it should reflect their social ideals.

L. CRITICISMS OF ROSCAS

Criticisms of ROSCAs include the unpredictability of payout, a high administrative burden for the group leader, the inability to accommodate multiple emergencies at one time, lack of interest on deposits, and single payout. Furthermore, as businesses grow, ROSCAs are unlikely to grow to meet an individual's mounting needs.²¹⁷ These budding businesses may not yet possess enough collateral assets to secure a formal loan. This creates a segment of businesses that can remain open and functional, yet does not grow. This might explain why women own so few medium size enterprises in Kenya. Perceptions also create problems for women entrepreneurs. Because ROSCAs are used so widely among women in Kenya, entrepreneurs reported a general errant view that their credit options were favorable.²¹⁸ Groups can also be discriminatory. ROSCAs are also generally out of reach for those without reliable income. Even with their emergence and rapid growth, microfinance institutions often have stringent borrowing conditions, which limits their utility.²¹⁹ Akoten, Sawada, and Otsuka also note that, as of 2006, MFIs terms are becoming increasingly strict.²²⁰ This is a troubling trend.

ROSCAs do not typically earmark their funds, and their members are free to use their funds as they see fit. Given that reality, an NGO that's expressed goal is business development may not find that ROSCAs are an efficient way to invest because only a portion, if any, of their money will develop businesses. Additionally, the money does not have strings attached. Short of providing a forum for discussion and information sharing, ROSCAs do not provide training to entrepreneurs. There is likewise no requirement that members take classes about financial responsibility or business development.

²¹⁷ Francis, Nassar, and Mehta, "Are We Formal Yet?," 115.

²¹⁸ Stevenson and St-Onge, *Support for Growth*, 23.

²¹⁹ Akoten, Sawada, and Otsuka, "The Determinants of Credit Access," 928.
²²⁰ Ibid., 931.

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Several criticisms of ROSCAs can be addressed by modifying their operational rules to tackle predictability of payout, high administrative cost for the group leader, multiple personal emergencies at a time, no interest, and only one payout. Established groups may resist change. Many studies found that individuals belong to multiple ROSCA groups; if they found their current group could not meet their needs, they could leave at the end of the cycle.

M. CHAPTER CONCLUSION

ROSCAs have a longstanding history. Their formation and operation is flexible and adapts to the needs of members. The informal credit market, which is dominated by ROSCAs in Kenya, can enable entrepreneurs to open micro or small enterprises. When comparing microfinance and ROSCAs, ROSCAs provide the most culturally relevant model. However, ROSCAs do not stipulate that funds must be spent on businesses, nor do they provide training for entrepreneurs, so their contribution to MSE or SME development is likely coincidental. Though the research on the direct linkage between business growth and ROSCAs is sparse, the capability to purchase a large capital good would enable Kenyan entrepreneurs to buy items that they need to support their operations. It seems reasonable that ROSCAs could facilitate business growth; however, they are more likely to be associated with other positive welfare outcomes. The most important take away from ROSCAs is that adapting an informal finance option to the culture that employs it means it has a greater potential to endure long term. THIS PAGE INTENTIONALLY LEFT BLANK

IV. COMBINED ANALYSIS AND CONCLUSIONS

A. IMPORTANCE OF BUSINESS GROWTH VERSUS INCREASED INDIVIDUAL WELFARE

Both business growth and increased individual welfare resulting from alternative finance options are important outcomes. Business growth helps the national economy. It provides jobs and grows the GDP. Improved personal welfare reduces the negative effects of poverty. Kenyans with increased financial means can afford to send their children to school and pay for medication in times of need. They have a buffer in times of economic hardship, as are common during Kenyan droughts. Though an alternative finance method that could create both is preferable, the ability to improve financial circumstances in either respect would merit a policy of continued support to either microfinance or ROSCAs.

B. COMPARING MICROFINANCE VERSUS ROSCAS IN TERMS OF ECONOMIC GROWTH

Business growth is an important finding, whether it results from microfinance loans and savings or ROSCA membership. Growth means that employers might be able to hire more employees, earn higher profits, and increase their output. Perhaps, most significantly, enduring business growth means a higher GDP for Kenya.

Though historical research findings on the ability of microfinance to create meaningful economic growth are mixed, recent studies are more optimistic. In a 2016 report from Bangladesh, often cited as the birthplace of microfinance, Yousuf Sultan and Mansur Masih empirically tested microfinance's ability to cause domestic economic growth. Their two key findings were that "(i) There is significant impact of microfinance on domestic growth (GDP). (ii) Growth also has strong relationship with microfinance."²²¹ In a 2011 study in the *Journal of Development Economics Christian*, Ahlin, Lin, and Maio found that the country context is an important determinate in the

²²¹ Yousuf Sultan and Mansur Masih, *Does Microfinance Affect Economic Growth? Evidence from Bangladesh Based on ARDL Approach* (MPRA Paper No. 72123) (Munich, Germany: Munich Personal RePEc Archive, 2016), https://mpra.ub.uni-muenchen.de/72123/, 1.

success of MFIs.²²² Therefore, poor performance may result directly from poor policies and the failure of MFIs does not prove that MFIs are to blame.²²³ In light of this finding, supportive national policies will generally result in greater levels of MFI success within a nation.

Certain MFIs within Kenya have successfully created economic growth. Specifically, the KWFT MFI presents a convincing case for the continued support of MFIs within Kenya. Ouma's study of 190 women entrepreneurs financed by the KWFT in Kisumu, Kenya yielded several important growth findings. Of the SMEs, 85 percent were likely to experience higher growth after receiving the loans. There was generally an increase in the number of workers in the SMEs, which means that these loans created jobs. Ouma and Rambo also reported that 85.8 percent of the respondents indicated that their liabilities were decreasing.²²⁴ After borrowing from the KWFT, 87.4 percent experienced higher profits,²²⁵ and 80 percent of SMEs that received loans from the KWFT also experienced increased sales.²²⁶ Though tying Kenya's recent GDP growth to the success of the KWFT would be a step too far, national policies and legislation that support MFI in general could help explain a portion of the GDP rise. However, proving the causal link between supportive national MFI policy and GDP growth is beyond the scope of this thesis.

The case for ROSCAs creating economic growth is weaker than that of MFIs. Individual choice plays a large role, and members that do not choose to use their funds to benefit their businesses will not create economic growth as a result of ROSCA membership. However, the case for ROSCAs is not lost. In 2013, about 25 percent of the Kenyan population, or 5.6 million people, reported that they were members of savings

²²² Christian Ahlin, Jocelyn Lin, and Michael Maio, "Where Does Microfinance Flourish? Microfinance Institution Performance in Macroeconomic Context," *Journal of Development Economics* 95, no. 2 (2011): 105.

²²³ Ibid.

²²⁴ Ouma and Rambo, "Effects of Access to Microcredit," 5-6.

²²⁵ Ibid., 5.

²²⁶ Ibid., 4.

groups.²²⁷ Conversely, the Central Bank of Kenya only registers 13 licensed Microfinance banks in its books.²²⁸ Unfortunately, statistics on the total number of Kenyan citizens served by microfinance institutions were not available during the course of this study. If only 1 percent of those that are ROSCA members use their pot toward business goals, this still means that 56,000 citizens have been empowered to create economic growth. Whereas within Kenya, MFIs can create definitive growth, it is reasonable to conclude that ROSCA membership will contribute to economic growth.

For MFIs wishing to increase their success rates, examining the cultural reasons for the prevalence and success of ROSCAs within Kenya can provide clues as to how to structure MFIs for success. The non-payment rate is much lower within ROSCA groups than the default rate on loans is for MFIs. This is attributed in large part to the fact that ROSCAs are generally composed of groups of individuals that know each other. Culturally, the pressure to pay back known individuals is much higher within the Kenyan culture than the pressure to pay back and NGO or government-backed loans. The individual who leads the ROSCA generally does so on a volunteer basis, so there is little administrative cost associated with ROSCAs. By comparison, MFIs must charge interest to cover their overhead. With this reality in mind, the KWFT employs lending practices that leverages ROSCAs practices. One of their schemes lends to groups instead of individuals. By lending to a group, the loan amount can be much higher, and the loan to many individuals is managed as one which reduces relative administrative costs. The group is responsible to the trust and exerts pressure on individual members when it comes time to repay the loan. This reduces the required interest rate, the default rate, and the burden to attempt to check the credit worthiness of each individual.

²²⁷ FSD Kenya, "Explainer: Savings Groups in Kenya," August 12, 2015, http://fsdkenya.org/explainer-savings-groups-in-kenya/.

²²⁸ Central Bank of Kenya, "List of Licensed Microfinance Banks," accessed 14 July 2016, https://www.centralbank.go.ke/index.php/bank-supervision/microfinance-institutions/14-bank-supervision/83-list-of-licensed-deposit-taking.

C. COMPARING MICROFINANCE VERSUS ROSCAS IN TERMS OF INCREASING INDIVIDUAL WELFARE

Both microfinance borrowers and ROSCA members have demonstrated their penchant to use their funds to increase their individual welfare. In the case of MFIs that target entrepreneurs, this diversion of funds might be seen as a negative, but it would be short sided to judge borrowers in this manner. In fact, many MFIs in Kenya have less specific goals than the KWFT and do not dictate how the loan money should or will be spent. When an individual business owner is worried about a sick child or whether they will have enough food to feed their family, their general business productivity suffers. Even if a portion of their loan is diverted to personal needs, the remainder can be spent on the business. Small diversions of loans must be expected and allowed for in times of crisis. Once the immediate need is met and the borrower is surer of their continued personal welfare, he or she will be in a better position to create business growth. This is not to say that MFI loans should be used as the singular means of support for individual welfare. After all, loans are ideally repaid. If individuals are allowed to borrow beyond the ability they have to repay, this will create an additional source of stress. Likewise, if MFI loans are not repaid, the institutions will run dry of funding and be unable to serve the community in any capacity.

Using a ROSCA or MFI loan to increase individual welfare is a fundamental good. Using the funds toward healthcare may ensure that a family member survives and illness. This person will be around to work in the future and their earnings, no matter how meager, will contribute to GDP growth. Money that is used to pay for school fees will result in a more educated work force. Since higher education is directly linked to higher skilled jobs with greater incomes, this use will also support an increasing GDP.

D. OTHER EXISTING ALTERNATIVE FINANCE OPTIONS

There are several less common informal finance mechanisms apart from ROSCAs including Accumulating Savings and Credit Associations (ASCRAs) and Savings and Credit Cooperative Societies (SACCOs). Several banks have also developed programs

that rely on communal institutions. One of the final and most obvious options for those looking to informal finance is to borrow from family or friends.

ASCRA are formed by individuals who contribute to a central pot and are then allowed to take loans from the pot.²²⁹ A benefit of an ASCRA is that loans are repaid with interest. Groups may choose to divide the interest or allow the pot to grow for future loans. In the divided interest scenario, member inputs behave like capital investments that have periodic returns. This informal finance group looks a lot like a ROSCA. The groups are typically homogenous: same ethnic group, socioeconomic status, and gender. They rely on informal social connections for loan repayment guarantees. They are valuable tools, because individuals must merely convince the other members they are trustworthy. ASCRAs can operate within ROSCA groups or as their own entities.

SACCOs are most commonly organized as crop-based or workplace savings mechanisms. Instead of payouts or loans, this type of group focuses on savings.²³⁰ From their member's savings they accumulate capital and can give credit to entrepreneurs. Unlike ROSCAs, which lack legal standing, SACCOs were formalized under the Cooperative Societies Act of 1998.²³¹ Because they are codified to require monthly payments by members, they are inherently less flexible than ROSCAs.

Barclays Bank has established loans specifically geared toward groups of women entrepreneurs. It offers credit to small and large entrepreneurs who work outside the farm sector. Typical loan interest rates remain in force and they do not accept new clients who specifically want to take advantage of these loans. Only existing members may benefit. The client must provide collateral to cover 25 percent of the loan. While this is another potential option, it is limited to those bank members who already have collateral. This rules out a very large percentage of Kenyans.²³²

²²⁹ Bouman, "Rotating and Accumulating Savings," 371.

²³⁰ Stevenson and St-Onge, *Support for Growth*, 23–24.

²³¹ Francis, Nassar, and Mehta, "Are We Formal Yet?," 113.

²³² Atieno, Formal and Informal Institutions' Lending Policies, 16.

E. THE EMERGENCE OF NEW FINANCIAL TECHNOLOGIES

With the emergence of M-PESA, Kenya has led the way in mobile banking. In 2014, 60.6 percent of Kenyans utilized mobile money subscriptions.²³³ According to the Brookings Institute's 2016 report on financial inclusion, Kenya is considered "the most mature mobile money market in the world, driven by the widespread success of Safaricom's M-PESA service."²³⁴ This is a significant development because M-PESA currently serves many more Kenyans than MFIs or ROSCAs do. Mobile banking has also been associated with positive growth and individual welfare findings. The Economist reported that "in rural Kenyan households that adopted M-PESA, incomes increased by 5-30 percent."²³⁵ However, there does not seem to be much research on whether or not this reduces Kenyan proclivity to borrow thorough ROSCA groups or MFIs. When it comes to ROSCAs, their continued existence, even in areas that are well served by formal banks, seems to indicate that they will remain in place in the future. Perhaps ROSCAs will begin to use electronic funds transfers during their meetings in the future, but the change in payment method is not likely to alter their group meeting format. However, the sustainability of MFI in this emerging mobile banking environment is more nuanced. If MFIs leverage mobile technology to reduce their transaction costs, they will stand a better chance of survival. Conversely, if MFIs can only offer more expensive loans than other finance options or are unavailable when needed, they will likely lose market share and risk falling out of favor.

F. SUGGESTIONS FOR FUTURE RESEARCH

There are several topics that would be useful to study in the future. It would have been preferable to focus on a broader range of MFIs that target entrepreneurs instead of a

²³³ Republic of Kenya, Kenya National Bureau of Statistics, *Economic Survey 2015* (Nairobi, Kenya: Kenya National Bureau of Statistics, 2015), http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source =web&cd=9&cad=rja&uact=8&ved=0ahUKEwj4ntnt8drMAhUJ_mMKHdyjDtgQFghdMAg&url=http%3 A%2F%2Fwww.knbs.or.ke%2Findex.php%3Foption%3Dcom_phocadownload%26view%3Dcategory%26 download%3D720%3Aeconomic-survey-2015%26id%3D107%3Aeconomic-survey-publications%26Itemid%3D1181&usg=AFQjCNEuEaxKBNugwOguLZarE3YBZE7Q9w&sig2=ddkPaEN_IGPSSC96GNBqZQ, 7.

²³⁴ Villasenor, West, and Lewis, *The 2016 Brookings Financial*, 64.

²³⁵ "The Economist Explains: Why Does Kenya Lead the World in Mobile Money?" *The Economist*, May 27, 2013, http://www.economist.com/blogs/economist-explains/2013/05/economist-explains-18.

single case study on the KWFT; however, there are no comprehensive studies currently in the literature. Likewise, exact figures on how many Kenyans employ ROSCAs or microfinance would have been helpful. Unfortunately, this number might also be impossible to find. Based on the emergence of financial technologies, it is possible that a fundamental shift is happening in how Kenyans borrow, but the possible trend is too new to have been thoroughly analyzed. Future research on how M-PESA is drawing Kenyans away from formal or informal finance would provide helpful trends for analysis.

More studies of the effects of NGO-run MFIs are needed. In a sense, NGO-run MFIs are foreign aid programs, and one of the biggest criticisms of foreign aid is that it can keep local governments weak and undermine development. Specifically, Van De Wall found that foreign aid programs will cause government programs to be underutilized. Since this type of aid is managed externally, it may not be integrated with or facilitate larger developmental goals. Critics of aid might point out that, the gains from implementing microfinance might undermine the gains a national government could achieve by broadly investing in its economy. The gains from implementing microfinance might be dwarfed by or undermine the potential gains a national government could achieve by broadly investing in its economy. However, convincing African leaders to subscribe to the developmental state model may be impossible. Conversely, convincing a dictator to allow an NGO that administers microfinance entry into his markets might be more feasible, but NGOs must be wary when they operate in these circumstances so that they do not unwittingly become instruments of the authoritarian regime.²³⁶

G. SUMMARY CONCLUSIONS

Ensuring entrepreneurs' success is key to the development and economic future of Africa. In Kenya, the formal credit market does not extend easily to rural areas, and is unlikely to serve the poorest clients. Without access to financing entrepreneurs will be unable to start or grow their businesses. Women face an especially hard time securing formal credit. Without access to resources, businesses will continue to be stunted or

²³⁶ Nega and Schneider, "Social Entrepreneurship," 373.

collapse. While MFIs that target entrepreneurs have generated better economic growth findings, ROSCAs are better structured to broadly increase individual economic welfare.

Specifically, the KWFT shows that investing in entrepreneurs can have broad positive effects in terms of economic growth and increased economic welfare. The Trust succeeded in a nation that is rated as unfavorable to business, but that has passed legislation favorable to microfinance. By seeking out entrepreneurs and training them, the KWFT overcame many obstacles and should be a model for future MFIs. It is an example of success in a region that leaves much to be desired in the areas of business growth and economic prosperity. To help ensure continued success in the future, MFIs should leverage the successes of ROSCAs. The KWFT already does so in is group lending scheme, which is perhaps another explanation for its longevity. As new financial technologies emerge, MFIs should adapt and employ their best practices to lower transaction costs and increase their customer base.

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