The Role of Social Capital in Cooperative Groups:
A Mixed-Methods Study of Women’s Collective Savings Groups in Conakry, Guinea

DISSERTATION

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Abstract

Financial inclusion programs have seen remarkable growth throughout the last two decades, with continued annual growth of up to 15% predicted for micro-credit along in the Sub-Saharan African region over the next three years. However, as private investment funds begin to dominate microfinance funding streams, there is debate about the benefits of microcredit for the population most targeted with these funds: women in the Global South. One aspect of this debate concerns the need for social capital, resources embedded in social networks, for the success of microcredit lending. While its necessity is acknowledged, the way that social capital is created, structured, and employed in women’s groups is not adequately understood. By better understanding these aspects of social capital, microcredit programs can be better designed, and the ethical implications of expanding microfinance services can be better understood.

Employing a mixed methodology of qualitative interviewing and social network analysis, this study explores the phenomenon of social capital across a diverse sample of 12 women’s collective financial groups, including both informal savings clubs and micro-credit groups located in the West African urban capital of Conakry, Guinea. A multi-dimensional model of social capital developed by the World Bank was modified for use with this research population and included six domains: Access to Resources, Trust, Communication, Cooperation, Social Cohesion, and Empowerment.
In depth qualitative interviews with 84 members of collective finance groups were analyzed to answer the question: What are Guinean women’s experiences as members of collective financial groups? Upon developing an understanding of the groups, this study then asked: How is social capital structured in the groups, and how do the social capital networks of collective financial groups function? Sociometric network analysis examined a global measure of social capital as well as analysis of each of six domains in the multidimensional model. A third phase of analysis combined characteristic features of the social capital networks with the qualitative transcripts to answer the question: How do the experiences of participants at characteristic structural locations within a social capital network differ?

Qualitative analysis yielded a typology of collaborative financial groups as well as a set of principles in groups that supported solidarity. Djamakourou, a Guinean concept related to the promotion of social relationships, emerged as foundational to participants’ ability to create and sustain the groups. Results of social network analyses show that social capital in Guinean women’s groups is built from the inside out, relying on strong relationships between a core set of group members. Characteristic positions and accompanying perspectives within social capital networks were produced from combined qualitative and social network analysis. These results provide a contextualized perspective of individual members, illustrating the heterogeneity of experiences within the groups.

This study provides new insights into the way social capital is created and used in women’s collaborative financial groups, and can inform future microfinance interventions as well as address the ethical implications of expanding these services across Sub-Saharan Africa.
This dissertation is dedicated to the Kaloga family
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Fields of Study

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Chapter 1: Introduction

Problem Statement

Financial inclusion in global social and economic development has seen considerable interest since the beginning of the 21st century (Chen, Rasmussen, & Reille, 2010) (Khandakar, 2004). The world portfolio of microfinance exceeds 87 billion USD, and continues to grow at 10%-15% per year (Herrera & Poisson, 2016). As a financial inclusion strategy aimed at the “bottom billion” of unbanked people, micro-credit group lending strategies continue to be considered an indispensable tool to reach poor populations, especially women (ILO, 2007). In a recent report on global microfinance, 81% of borrowers were found to be women (Herrera & Poisson, 2016). Social capital, popularly conceptualized as resources embedded in social networks (Lin & Erickson, Theory, measurement, and the research enterprise on social capital, 2008), is considered to be an indispensable glue that contributes to program fidelity and high loan repayment rates – “an intangible but important asset for the MFI [Micro Finance Institution] (Woodworth, 2008, p. 41).” However, although social capital is considered a vital ingredient in micro-credit, interventions overwhelmingly leverage social capital already existing in communities to lay a group’s foundation (Geleta, 2014). Current knowledge about organic social capital, especially in informal groups, is limited (Kadushin, 2012) (Lin & Erickson, Theory, measurement, and the research enterprise on social capital,
Without a thorough knowledge of the role and structure of social capital in women’s groups, two areas are being overlooked: (a) how financial inclusion interventions should be designed to best take advantage of the social capital they are utilizing and (b) how financial institutions could best support existing social groups that may benefit from direct rather than programmatic support. This study supports this by using a mixed methods design of in–depth qualitative interviewing and social network analysis to explore the phenomena of women’s cooperative savings groups and social capital in Guinea, from informal social groups to multi-generational micro-credit funded organizations. Further, this research deepens knowledge about how these groups function and how social capital is structured within those groups and between members.

**Rationale and Significance**

The Micro-finance (MF) branch of financial inclusion, now a multi-billion dollar industry, has seen unprecedented growth in both volume and scope over the last twenty years (Chen, Rasmussen, & Reille, 2010). Organizations like BRAC, Grameen Bank, and other proponents of financial inclusion provide ample statistics to show that their programs have supplied credit to millions of women who were otherwise disengaged from world’s extensive financial infrastructure (Milana & Ashta, 2012). This form of access to financial capital has been lauded as revolutionary, and welcoming the “bottom billion” into the global financial portfolio is hypothesized to lead to an extreme reduction in poverty (CFI, 2015). This largescale effort to include the world’s poor in the global banking system has also been seen by others through a different lens: as a strategy to integrate marginalized members of humanity into the current globalized neo-liberal
financial markets without a complete understanding of their needs or protection of their vulnerabilities (Mayoux, 1999) (Rakowski, 1999) (Keating, Rasmussen, & Rishi, 2010). Customers of Micro-finance institutions are able to connect to foreign money quickly, and act according to individual rather than community interests, which is a wholly new endeavor in many communities (CGAP, 2016). There are concerns as well about the intended versus actual ways that funds are utilized by participants (Goetz & Gupta, 1996) (Rabiul Karim & Law, 2016) ¹. Indeed, the sweep of micro-finance is so broad that multinational financial corporations are now “investing” in the poorest of the poor. Micro-finance is no longer a wholly non-profit sector as it began with Yunus’ Grameen Bank (Milana & Ashta, 2012).

Whether micro-credit is a benign anti-poverty intervention, an attempt to increase profitability by weaving poor women into global financial portfolios, or somewhere in between, one thing is certain: There are many powerful corporations with a financial interested in expanding their reach into poor communities (Roy, 2010). Whether the lender is an international NGO or a subsidiary of Citibank, the services they provide (broadly speaking) have their genesis outside of the community they hope to serve. And, while these services may provide a benefit, it is also important to look more deeply into the local community systems towards the kinds of financial services that already exist, created by community members to address their specific needs.

¹ Many programs consider funds directed at women to be the most effective use of their capital, due to women’s higher likelihood of investing in better quality food for a family, medical care, or schooling for children. However, research has shown that although many programs are directed towards women, the actual clients of the credit programs may be borrowing on behalf of a husband or male relative for other kinds of purchases or investments. There is not consensus on whether or not this is problematic, as the outcomes of this kind of un-intended borrowing are not sufficiently understood.
Interestingly, micro-credit programs rely on social capital resources that already exist in communities as a glue to hold programs together and maintain loan fidelity (Ito, 2003) (Woodworth, 2008) (Geleta, 2014). Social capital, resulting from relationships built between community members over time, is integral to the success of these programs, as it engenders trust and obligation between members of group lending schemes, resulting in their continued functioning. By relying on internal social control to police lending programs, MFI’s are able to decrease the cost of the programs they operate, as they do not have to provide administrative oversight for the group – it is instead done at no cost by members.

Dense systems of social capital are not the only resources already existing in Global South communities that women have created to support their needs. In addition, locally administered and often homegrown cooperative women’s groups exist around the world. These groups may take the form of agricultural work-sharing, cooperative production, or financial savings, but they already exist, embedded into the social and cultural fabric across all six populated continents (Ardener & Burman, 1995). Even the Nobel Prize winning idea of micro-credit can be viewed as an extension of these organizations, such as “chit funds,” cooperative savings groups that South Asian women operate (Banerjee, 2013). The cooperative nature of these groups, themselves based on close relationships between members, is echoed by current programs of micro-finance both private and non-profit.

In the country of Guinea in West Africa, women’s involvement in public commerce is longstanding. While they face major barriers to formalized wage
employment, they dominate many sectors of the informal market (Glick, 1999). As a function of their role as entrepreneurs, many are involved in informal, flexible, rotating savings and credit organizations (ROSCA). These locally and informally formed cooperative organizations provide access to capital needed for a broad range of larger expenditures such as purchase of bulk goods for resale, children’s school expenses, kitchen wares, baptism or wedding expenses, etc (Ardener & Burman, 1995) (Creevey, 1996). In addition to these overt purposes, ROSCAs have been shown to have multiple latent functions, such as health information sharing, borrowing and lending networks, and political action (Creevey, 1996). These organizations, while historically based in agricultural areas when women shared farming and domestic responsibilities for the common good, became increasingly popular in response to colonialism’s erosion of West African women’s gender specific roles and responsibilities (Oyewumi, 2003).

When considering group micro-credit in relation to Guinea women’s self-organization into ROSCAs, the overlap in purpose is evident. Both organizations are group based lending primarily for female entrepreneurs in the informal sector. ROSCAs are a locally based solution to a lack of working capital or access to formal financial institutions, and they tend to draw on women’s existing social networks (Creevey, 1996). Micro-credit is a formalized institution that creates lending groups with a similar intent, drawing on financial capital outside of the community as well as social capital embedded within it.

It is vital that the community based, bottom-up approaches of ROSCAs that Guinean women have created are better understood, as they may shed light on the nature
and scope of financial services needed by poor women: the proposed clientele of MFIs. This study used a mixed methods exploratory design to look at the array of women’s cooperative financial groups in Conakry, Guinea, focusing on members’ experiences, and the way that social capital operates within the groups. Through the analysis of social network data as well as qualitative data of participant experiences, a more thorough understanding of these groups may lead to changes in the financial services offered through MFIs that make them more reflective of what Guinean women want and need. With financial inclusion as a large scale goal of multiple powerful organizations (Soursourian, Dashi, & Dokle, 2016), modifying existing services to be more useful and appealing to intended clientele or changing focus to support existing community groups has the potential to provide a benefit to both parties. Clients have the opportunity to gain access to the financial services that they want, at the same time increasing the reach of MFIs and other financial organizations.

**Research Questions and Specific Aims**

This study uses a mixed methods, exploratory research design to investigate the inner meanings, processes, and structure of community based, collective savings and credit groups located in Conakry, the capital city of Guinea in West Africa, as guided by a six domain framework of social capital (Dudwick, Kuehnast, Jones, & Woolcock, 2006) created by the World Bank to be modified and used in research with communities in the Global South. The research will use a combined methodologies of in-depth qualitative interviews with social network analysis to engage with these small groups in a knowledge generating research design.

A. A main objective of this research is to begin to develop a deeper understanding of
Guinean women’s experiences in collective savings and credit organizations by asking, “What are Guinean women’s experiences as members of collective financial groups such as micro-credit groups and ROSCA’s?” These groups are widespread throughout Guinea, but also throughout the Global South (ResponsAbility, 2014) (Rippey & Fowler, 2011) (Ardener & Burman, 1995). Although they are ubiquitous, there is limited understanding of why women choose to participate in one over the other, and how the experiences of participation in the organizations compare to one another. Exploring this topic with research participants can deepen the knowledge of this topic and help to define relevant areas for future study.

B. Additionally, the results from this research will contribute to knowledge about social capital and small group networks. While the value in understanding the dynamics and internal workings of small groups cannot be overstated when applied to potential social work interventions, the current state of knowledge has been called under developed (Kadushin, 2012) (Perkins, Subramanian, & Christakis, 2015). The units of analysis for this study, namely informal collective savings and credit associations, are ideal for the development of such theory due to their nature as time limited, self-organized, specifically bounded informal groups (Borgatti, 2006). The concept of social capital has been identified as necessary in the functioning of each type of group and is thus a useful approach to analyzing these networks. This research aims to open up the “black box” of small groups, and begin to explore the structure and nature of their social networks. This research asks: “How is social capital structured in collective financial groups?” and “How do the social capital networks of collective financial groups function?” Answering these questions will add to the knowledge about small group networks in general as well as provide a useful groundwork for
understanding how Guinean women’s networks operate in order to provide knowledge for better and more appropriate financial inclusion programs. Developing culturally grounded knowledge about social capital in this population will also add to the literature on African centered social theory.

C. With the data generated to meet the above objectives, the proposed study will then use the results of both analyses to explore how individual experiences differ qualitatively according to structural location within a group network. This will provide the information to answer the question, **How are the experiences of participants at diverse structural locations within a social capital network characterized?** Through a deeper understanding of how individual people experience savings groups from these different vantage points within the group, financial inclusion organizations can design programs that are better informed of how social capital may effect participant experiences and thus program success.

**Innovation**

Of interest in this study is the method of combining social network analysis and qualitative inquiry into an iterative, holistic approach to exploring group phenomena. The population frame in this study, Guinean women members of cooperative savings groups, is highly communally focused, thus utilizing a culturally relevant approach that privileges collective experiences alongside individual experiences was crucial. By using the social network results to contextualize the subjectivity of participants’ experiences, I was able to understand more fully how membership in the group affected individual perceptions. Conversely, by using the qualitative data to generate a
typology of groups and an indigenous concept of social capital, I was able to better interpret the findings of the social network analysis of social capital in the groups.

In addition to the methodological innovation in this study, the specific population of participants is also novel. While some academic research on ROSCAs or social capital has been done in neighboring countries such as Benin, Senegal, and Ghana (Purkyayastha & Subramaniam, 2004) (Ardener & Burman, 1995), the country of Guinea has comparatively little formal academic literature specific to the social sciences and to these subjects in particular (E. Botta, personal communication, March 15, 2016). Even with considerable ethnic, linguistic, economic, and geographic diversity across West Africa, the lack of data and research has led to the frequent but unfortunate generalizing of phenomena across countries (Jerven, 2015). This study uses an exploratory approach to begin the development of a uniquely Guinean path of inquiry, and thus combats the practice of over-stating external validity of research in this area of the world. By utilizing hypothesis-generating methods, this study creates a foundation for further inquiry.

**Organization of Paper**

This paper is organized into five chapters, namely: Introduction, Literature Review, Methodology, Results, and Discussion. Each chapter is further divided into sections that provide structure to its contents. Chapter one contains an overview of the problem addressed by this study as well as the specific aims and research questions this paper addresses. Chapter two consists of a literature review that covers multiple areas of research that combine to create a tableau of knowledge to support and contextualize this
study. Macro-level theory, financial inclusion, social capital, feminisms and empowerment, and African ontology are discussed in this chapter, which concludes with pertinent information about Guinea, the country where this study is situated.

Methodology in chapter three begins with a discussion of the methods, qualitative inquiry and social network analysis, that are combined in the research design. Chapter three continues with an outline of the conceptual framework that guides this exploratory inquiry. Each component of research design is then elaborated, including sampling and instrumentation. This chapter closes with data collection and methods of analysis.

Chapter four communicates the results of those analyses, and is organized into three sections: Results of Social Network Analysis, Results of Qualitative Inquiry, and Results of the Combined Social Network Analysis and Qualitative Inquiry. The fifth and final chapter in this paper is a thorough discussion of how the results of the analyses combine to address each of the four research questions outlined in this introduction. Conclusions and implications are then presented, with recommendations as well as directions for future research. The final section of the fifth chapter addresses the limitations of the study.
Chapter 2: Literature Review

Introduction

This study is situated in the research on global social development under the domains of financial inclusion and social innovation. This study was undertaken from a feminist political economy perspective nested within a broader systems framework, understanding that the women’s groups in this study are part of, both affected by and affecting, intertwined smaller and larger systems with which they are inextricably linked. Human behavior viewed from a systems perspective is understood to be influenced by multiple layers of intersecting systems, from the individual to the global level. Thus, in order to more fully understand human behavior, it should be understood that actions at all systemic levels have the potential to influence it (Friedman & Allen, 2011). These systems and they ways that they interact to influence individual experiences and behavior can be further defined using the feminist political economy perspective. The political economy perspective, viewed through a feminist lens, is an interdisciplinary macro level approach to the study of society, examining how social, economic, and political forces interact to allow a society to reproduce itself, and potentially reinforce structural inequalities in the lives of the women, including those participating in this study (Mutari, 2000). Applied to the area of women’s cooperative finance groups, this perspective allows for the dual nature of these groups to both operate within a globally dominant
financial system that reifies economic inequalities and also be a vehicle for renegotiating or contesting the unequal roles and limited set of opportunities that this system creates. These structures, their recreation and contestation, are present in the social, economic, and political systems with which participants interact at multiple levels. The combination of systems theory and feminist political economy form the guiding ideas for this review of extant literature. Using three dominant theories of global social development: world systems theory, globalization, and neoliberalism, a macro system that encompasses all actors in this study, whether they are MFIs, group members, or multi-national banks is described. These three areas combine to create the larger dynamic world structure within which the groups in this study interact. Subsequently financial inclusion and microfinance sector which administers the micro-credit interventions of interest to this study, are explored. Competing perspectives of micro-credit are evaluated, highlighting the strengths and weaknesses of each approach. Social capital is subsequently introduced as the main theory of interest in this paper. The origins of this concept are outlined, highlighting the most popular theorists - Bourdieu, Coleman, and Putnam - and ending with the current state of social capital theory applied in network research. The work of these major theorists is compared, making the case that of these approaches, Putnam’s Social Capital is the most apposite as a guiding theory for this exploratory study. Following this the World Bank’s six domain model of social capital is introduced as a set of related constructs that will guide the concept of social capital throughout this study. Feminisms and empowerment, both oft cited concepts connected to women and microfinance, are then explored in their potential application to this study. Finally, in
section 2.6, the context for this study, namely Conakry, Guinea is presented. A brief history and description of this region, and the most recent demographic and economic information about the Guinean population completes this chapter.

2.1 Macro-Level Theory

In a study looking at very local issues of women’s groups through a constructivist lens, it can be challenging to understand how world-level macro theory is relevant. However, an underlying enquiry of this research from the perspective of MFI’s is: how can financial organizations engage with local communities to provide the best services, do the least harm, and generate the most profit? Large multi-national private or non-profit organizations operate globally in a multitude of local markets, bringing global and local together intimately. This overview of major macro-level theories paints a background upon which the local communities of interest in this study are situated. The opportunities and constraints evident in this research are not only guided by local conditions, but by the larger waves of economic policy, international politics, and power relations among nations.

Of the macro-level theories of development, globalization has become pervasive. Yet while it is an accepted paradigm of the current system, there can be difficulty defining what globalization actually is. While dozens of varying definitions of globalization have been posited, a holistic definition of the concept developed by al-Rodham and Stroudmann (2006, p. 5) describes it as “a process that encompasses the causes, course, and consequences of transnational and transcultural integration of human and non-human activities.” While the general recognition of globalization’s influences on
daily life can be easily recognized – American grocery stores in January filled with fruit from South America, instant tech support in India, or smart phones produced in China - it is not necessarily a modern phenomenon (Lechner, 2015). Instead, technological advances in travel and communication have condensed the system to the point where integration of global networks has become readily observable. Thus globalization of the world as it exists today is not new, but is instead present at a degree never before experienced. But how does globalization impact Guinean women’s groups apart from issues of international trade?

The way that forces of globalization influence countries can be understood through World Systems Theory, first popularized by Immanuel Wallerstein in the 1970’s. Since then, World Systems Theory has become a well-known approach to conceptualizing the dynamic network of players, often nation-states, in the modern global power structure (Wallerstein, 2009). Players are broken into three categories: the core, periphery, and semi-periphery. Core countries are the most powerful in the system, and have traditionally benefited by receiving the raw materials from periphery countries and transforming them into finished goods. Periphery countries have little power in the overall system. Semi-periphery countries are in the process of moving from core to periphery, or periphery to core. This is a dynamic system with change and tension as constants. With regard to this study, Guinea is considered a periphery country. The major banking systems have their locus of power in the core countries such as the United States or the United Kingdom. NGOs such as Grameen Bank are located in semi-periphery countries, while other NGOs are located in core countries. The global flow of money,
between periphery countries and core countries demonstrates this, and is replicated in the micro-credit system dominated financially by organizations in core countries. While profit margins on individual loans remain small, by scaling the micro-credit programs to large numbers, organizations are continuing this flow of capital to the core (Roy, 2010).

The dominance of ideas is also a function of the globalized systems of intellectual capital and cultural diffusion, and influences the experiences of the groups in this study. Of these ideas, neoliberalism emerges as the most influential in the creation and implementation of micro-credit as a social development concept. A set of economic policies that has become increasingly popular since the 1980’s, neo-liberalism aims to facilitate the flow of capital, goods, and enterprises across nations through: increased privatization, deregulation, free trade, and decreased spending on social services. Micro-credit as a social development concept fits nicely into the neo-liberal framework by refocusing development policies from state-level intervention, such as agricultural subsidies, to individual level micro-enterprises (Bateman, 2012). Micro-credit also integrates isolated populations into global financial networks, thereby promoting the flow of capital across national borders. Thus micro-finance as a whole, and micro-credit specifically, is an acceptable social intervention within the neo-liberal school of thought, especially as microfinance has evolved from a non-profit NGO model to a commercialized, ostensibly sustainable one. The argument by proponents of this perspective is further detailed in section 2.3 of this chapter.

This trio of theories: world systems, globalization, and neoliberalism, provide a useful background for understanding the financial and economic context within which
both micro-credit groups and ROSCAs are created. In the current world system, Guinea is a periphery country that sends raw materials, such as bauxite ore, to core and semi-periphery countries. It is not a powerful player in the global system. Even so, globalized financial markets seek to expand neoliberal financial policies to Guinea, enhancing the potential of the country to integrate into existing economic systems based in the core countries. Currently, Guinea has an extremely low financial services participation rate, detailed in section 2.6 of this chapter. It is a major goal of financial inclusion policies to integrate individuals in areas such as this into global financial portfolios, even as solely small savings accounts or micro-lending.

2.2 Financial Inclusion

Financial inclusion is an area of research and practice that was borne from the success of the micro-credit revolution in the 1990’s-2000’s (CFI, 2015). This area expands on the idea of micro-credit and expands in scope to include the provision of a broad array of financial services to underserved populations, predominantly in the Global South. In a speech on financial inclusion in India, Dr. K. C. Chakrabarty of the Reserve Bank of India presented a definition of financial inclusion that has become popular (2011):

“the process of ensuring access to appropriate financial products and services needed by vulnerable groups such as weaker sections and low income groups at an affordable cost in a fair and transparent manner by mainstream institutional players.”

The Center for Financial Inclusion (2016), ACCION’s industry leading non-profit
research center on this subject provides a list of five goals as being evidence of successful financial inclusion:

- Access to a full suite of financial services
- Services are provided with quality
- These services are available to everyone who can use them
- Clientele are sufficiently capable to make informed decisions with finances
- These services are delivered in a competitive and diverse marketplace

These five goals are intended as the gold standard of what financial inclusion would mean once fully and successfully realized. The kinds of services that are designed to fulfill these five objectives encompass a wide range from mobile banking to insurance policies to financial literacy courses to loan programs. The specific kinds of financial inclusion programs of interest in this research are those in the microfinance area dealing with group lending, namely micro-credit.

Micro credit (MC) is a financial product aimed at low income populations without access to traditional credit services. By replacing requirements for collateral security with a collective guarantee through solidarity groups, small short-term loans are given mainly for working capital to small groups. These groups engage in cooperative micro-enterprise ventures, which aim to use this small amount of capital to make profit large enough to provide income to group members and pay back the loan in full. These programs have traditionally been directed towards female clientele, due to both women’s high rates of loan repayment and the downstream positive community outcomes of women’s tendency to invest in children and family (Herrera & Poisson, 2016). Organizations that provide
only micro-credit are often non-profit ventures. For-profit organizations may offer micro-credit among a suite of financial products, and use them as an entry for clients to establish a relationship with the institution.

The term micro-finance (MF) applies more broadly to financial services, expanding on the ideas of micro credit. It is financial inclusion approach directed to low-income populations that provides financial products and services as well as social intermediation to those who would not otherwise have access. Microfinance Institutions (MFIs) can include micro-credit as a financial product, however many of these organizations aim to be self-supporting and thus profitable. Because the interest rates on group micro-credit loans have to be low in order for clients to be able to both create a profitable micro-enterprise and pay back the loan, micro-credit alone is usually unable to sustain a profitable MFI.

In West Africa, women’s cooperative financial groups have long existed outside of formal MFI organizations. These groups operate under the basic model of the Rotating Savings and Credit Organization (ROSCA): A flexible and adaptable system of savings, whereby people come together to make regular, cyclical contributions to a common fund. The contributions are given in a lump sum to one member each cycle. This kind of informal system of savings is utilized by women across the globe, with colloquial names and frameworks (Ardener & Burman, 1995). Thus, while MFI’s offer micro-credit services through group loans in West Africa, they are both offering a service beyond what is currently available and competing with the model of women’s cooperative savings groups operating simultaneously in the community.
To provide a concise, visual representation of the array of financial services available in Guinea, Figure 1 is provided below. This diagram is a useful guide for understanding the spectrum of financial services in the West African context. The bottom of the pyramid shows those services that are the least formal and available to the broadest potion of the population, many in extreme poverty. These services can also be thought of as negotiated and occurring at an individual level. The top of the pyramid, conversely, represents those institutions with the highest degree of formality, available to the smallest portion of the population, and catering to those of higher economic status. These institutions can be thought of as being a part of a larger, more centralized economic structure. The remaining category, the topic of the proposed research, are the Semi-Formal and Community Based Providers. These types of services, while not available to all, are available to a large percentage of the population (Rippey & Fowler, 2011). This level of organization is neither focused on individual actors nor on centralized state power structures. Instead, they are “community” based models, in some cases borne organically from mutual need, and in others formulated by organizations in response to perceived needs.
**Figure 1: Financial service providers in developing countries (Rippey & Fowler, 2011)**

**ROSCA/tontine (rotating savings and credit associations).** ROSCA, or Rotating Savings and Credit Association, is the name given to a diverse array of groups that follow a similar pattern of investment and withdrawal. They exist in multiple forms, serving multiple purposes around the world. In her book on these organizations, Ardener defines a ROSCA as, “an association formed upon a core of participants who make regular contributions to a fund which is given in whole or in part to each contributor in turn (Ardener & Burman, 1995, p. 3).” For example, if a group of twelve women each pay $10 once a month to a communal fund, each woman would have a single turn during the year to withdraw a lump sum of $120, or $10 x 12 members. In a World Bank report
on financial inclusion, ROSCAs were said to be “the most efficient intermediation device around, since at each round the savings of many are transformed instantaneously, with no middlemen, into a lump sum for one person (Helms, 2006, p. 38).”

This kind of group is differentiated from other savings and credit institutions due to the rotating nature of the fund. Each locality has a different term for this idea, and in francophone Guinea this kind of group is called a tontine. The guidelines for the management of a tontine are flexible, and are decided upon by the members of the association. In general, there is a leader who manages the fund and oversees the collection of the contributions as well as the lump sum payouts. The group members meet at scheduled times, often weekly, to pay into the tontine. The payout may come once a month to one member. For the most part, a tontine is created with a set purpose, such as saving for school fees, marriages or baptisms, kitchen utensils, or for goods to sell. In addition there are often latent functions of tontines. Women may seek advice or professional counsel from another member without charge. Information is often shared in meetings as well (Ardener & Burman, 1995) (Purkyayastha & Subramaniam, 2004).

The payout schedule is decided in advance, and is often responsive to the needs of the members. For example, if a member’s son is getting married in June, her tontine lump sum payout may be scheduled for that time. Other group characteristics, such as sanctions for members who do not pay, are individual to the tontine. Women may belong to multiple tontines, each with a distinct purpose, even if they also hold a formal bank account (Ardener & Burman, 1995).

ROSCAs are by and large created by people who already know and trust one
another. In the West African context, this may mean that members tend to be related via kinship or ethnicity. Trust is therefore embedded in the network prior to the creation of a group, and this is thought to enhance the dependability of this association. The lump sum payout is not seen as a loan, but rather an entitlement. This enhances the social aspect of mutuality in tontines (Purkyayastha & Subramaniam, 2004).

The origins of these groups in West Africa is thought to be precolonial, in the collective labor practices women used to promote efficiency in their agricultural work (Bryceson, 1995). These associations, as they existed prior to French colonization in the mid-1800s, were primarily focused on agriculture and were more prevalent in rural areas. After Guinean national independence from France in 1958, intense international intervention continued with modernization-type development initiatives (Fournier & Ouedraogo, 1996) (Purkyayastha & Subramaniam, 2004, p. 66). While it was thought that modernization would lead to the end of tontines, in fact the opposite happened. Tontines became even more widespread, and their base of popularity moved from the countryside to the burgeoning cities (Steady, 2006).

The increasing popularity of tontines among West African women can be viewed as an outcome of sweeping changes via international interference in the form of Structural Adjustment Programs (SAPs) enacted by the WorldBank and IMF in the 1980s and 1990s (Purkyayastha & Subramaniam, 2004). The neoliberal tenets of SAPs lead to the displacement and/or unemployment of women and men. Beginning in 1986, part of the economic “shock therapy” entailed laying off thousands of government workers both male and female (Shirley, 2002). In the countryside, changes in agricultural policy and
technology lead to the eviction of agrarian families, and the aggregation of their land to foreign owned commercial farms (Maloba, 2007). The displaced families either worked for the new farm owners, or migrated to towns and cities in search of work. These changes disrupted cultural structures in community and family.

One theory is that women migrants to cities reacted to these disruptions by turning to the *tontine* as a way to re-establish social capital in kin networks (Ardener & Burman, 1995). In addition, the movement from farming to trade created a need for financial services for women, who did not have adequate access to formal savings or credit organizations. In Guinea currently, women still have limited access to formalized financial institutions (Helms, 2006), and *tontines* continue to be common and widespread, serving multiple functions (personal correspondence, Dr. Botta, February, 2016).

**Micro finance.** Although saving and lending programs such as *tontines* have been operating informally around the world for centuries, the current conceptualization of microfinance has a more recent genesis. In large part based on informal micro-credit groups like tontines (Elahi & Rahman, 2006), in the 1970s Muhammad Yunus’ now famous Grameen Bank in Bangladesh began serving its first clients (Karim, 2008). Yunus’ focus on providing small, collateral free loans to the poorest of the poor in Bangladesh was a revolutionary concept at that time, as it stood in contrast to the previous two decades emphasis on top down, industrial led growth best known as the Modernization approach (So, 1990). By using mainly women centered cooperative, trust building programs, he was able to build a model the proved to be successful in providing
opportunities for people to create new enterprises and social capital.

There is a functional difference between micro-credit and micro-finance that must be detailed for conceptual precision. Micro-credit can be defined as a financial product aimed at low income populations without access to traditional credit services. By replacing requirements for collateral security with a collective guarantee through solidarity groups, small short-term loans are given mainly for working capital. Organizations that provide only micro-credit are, by and large, non-profit ventures. In contrast to this, micro-finance is defined as a development approach directed to low-income populations that provides financial products and services as well as social intermediation to those who would not otherwise have access. Micro-finance institutions can include micro-credit as a financial product, however many of these organizations aim to be self-supporting and thus profitable (Elahi & Rahman, 2006). When compared to the ASCA organizations, it is clear that there is significant conceptual overlap, specifically in the dual provision of financial and social services in some groups. For the purposes of this study, and in large part due to the unavailability of disaggregated data between micro-credit and micro-finance organizations, the term MFI’s will be used to describe both for profit and not-for-profit organizations that provide micro-credit services in Guinea.

The concepts of micro-credit and micro-finance, first created by Grameen Bank and subsequently adopted by the international community at large, have been broadened from their initial inception, and are most commonly understood as deposit and/or lending programs that primarily serve individuals with low incomes and restricted access to
credit and banking services (Milana & Ashta, 2012). One of the key aspects to the
Grameen Bank model that has translated into the more recent iterations has been actively
pursuing female borrowers, who are considered to be a safer investment (Roy, 2010). It
is thought that participation in MFI programming will lead to conditions favorable for
female empowerment and subsequent increase in status and living standards for herself
and her family (Grameen Bank, 2014).

In the ensuing decades, this model gained popularity and was spread worldwide,
eraled as an innovative solution to global poverty (MIX Market, 2013) (Roy, 2010). Additionally, it is estimated that only 20% of the potential market for these services is
currently engaged with the industry, indicating that the current patterns of growth will
most likely continue. In recent years, larger financial organizations such as Citigroup
have begun to be involved in MFIs, indicating that this phenomenon that was initially
created as a non-profit to address the dire needs of the most marginalized people has
transformed into a profitable industry worthy of high level investment (MIX Market,

However, the actual role of MFIs in Sub-Saharan Africa (SSA) has been theorized
to be different than the original roles in Bangladesh and India (Lerpold, 2012). This has
to do with the recontextualization of these organizations within the social and economic
structures of in SSA. According to Lerpold, “recontextualization is the process by which
the borrower and organization make sense of the microcredit model transferred into his
or her own cultural environment”. In this context, local institutions and their effect on
contextualization are important. Of note is the large informal sector in Sub-Saharan
Africa (SSA), which has a significant impact on the overall economy of the continent. In many nations it accounts for 30% of total income and more than 40% of total urban income (Chen, 2001).

West African nations like Guinea see an especially high percentage of women engaged in the informal sector, in many cases at a higher percentage than men. In Mali, Chad, and Benin, 97% of women not engaged in agriculture are working in the informal sector (Chen, 2001). The role of micro-credit in these contexts is thought to be primarily to serve a lending option to those people already engaged in the informal economy, many of whom are female. Additionally, the role of women in the marketplace differs in that women often have connections with supportive commerce networks prior to involvement with micro-credit. In her article exploring the adoption of MFIs to the SSA context, Mayoux supports this by writing that, “The existence of already well developed networks between women mean that micro-finance does not necessarily make the considerable contribution to women’s social empowerment noted for some South Asian programmes (Mayoux, 1999, p. 977).” Indeed, other studies have found strong evidence that the social development objectives of micro-credit are rarely met. Even personnel of MFI’s doubt these programs’ abilities to serve as vehicles of empowerment for women (Roy, 2010).

The advent of microcredit in SSA began during the international intervention into African economies in the 1950s, directly following the official “independence” of African states from colonial oppressors. Development theorists at this time assumed that African poverty was due to lack of money, which could be corrected through credit programs for the poor. This direct credit targeting was financed through international
donors. The presence of NGOs in SSA continued through the 1970s, and continued the model of serving as intermediaries of funds between donor agencies and the poor in SSA. Grameen style micro-lending began in the 1980s, and gained popularity. The 1990s saw a formalization of MFI in SSA. Organizations that previously had offered only credit now began to diversify their services into savings and insurance (Segun & Anjugam, 2013). Since 2000, Microfinance in SSA has continued to be mainstreamed into the formal sector. But, Ananya Roy (2010) points out, “However popular microfinance may be, there is no consensus on how to implement and use microfinance for the purpose of development.” In the past decade, Micro-finance has forked into two diverging models: NGO administered, socially responsive financial services on the one hand, and profit-driven MF, incorporated into the globalized financial portfolios of the world’s largest banks. The irony is that micro-credit, initially conceptualized as a rejection of the commercial banking sector, has transformed into micro-finance, a potentially profitable set of sub-prime financial services that is making millions of dollars every year for these same banks.

**Contrasting perspectives in modern microfinance.** In light of these diverging models, three major schools of thought exist about the state of Micro-finance in the current world economy, and they can be described as: The human rights perspective, the creative capitalism perspective, and the critical perspective. The human rights perspective is reflected in the original Bangladesh model of micro-credit, and follows the path of NGO supported micro-credit. This perspective, espoused by Grameen Bank and other large NGOs such as BRAC, views credit as a human right, and values social change over
profit. Profitability is not a central concern in this perspective, although sustainability is often explored. The creative capitalism perspective is optimistically communicated by Bill Gates (2008, p. 23):

*It is mainly corporations that have the skills to make technological innovations work for the poor... We need a more creative capitalism: an attempt to stretch the reach of market forces so that more companies can benefit from doing work that makes more people better off. We need new ways to bring far more people into the system – capitalism – that has done so much good in the world.*

Proponents of this view take a neoliberal approach to development, believing that by incorporating diffuse populations of the world’s poor into the privatized, free market globalized economy will lead to a higher level of economic prosperity for all involved.

Critics of this approach describe it as a “handmaiden of, rather than an alternative to, neoliberal globalization and free market ideologies (Roy, 2010, p. 29).” This critical perspective of microfinance underlines the supposition that capitalism is inherently exploitative, and that the masses of poor people woven into these financial markets are subject to the experimentations of the global elites in the search for profit (Weber, 2002).

One way to concretely view the ways that these contrasting perspectives are at play in the field of microfinance is by looking at the ways in which they are funded. MFIs as organizations are by and large operated by country nationals, they receive their funds from a variety of external sources. Soft loans and grants come from sources such as USAID, the World Bank, or the Bill and Melinda Gates Foundation. These funds are directed towards the Grameen model MFIs, which value the social impact of these invested development
funds. However, for profit corporations are increasingly dominating the streams of equity directed to MFIs. Investment funds at Citigroup, DeutscheBank, Morgan Stanely, and Societe Generale are key sources of funds for MFIs. Societe Generale alone contributes more than 95 million Euros to its subsidiary MF partners in Africa and the Middle East (Societe Generale, 2016). Microfinance investment vehicles (MVI) and private equity funds also play a major role in MFI funding streams (Jayadev & Rao, 2012). These investment funds can be viewed as the “creative capital” the Gates refers to.

ResponsAbility’s (2016) forecast predicts growth in the microfinance sector in Africa of 15-20%, higher than the global growth estimates of 10-15%. Clearly the conversation on the legitimacy and best model of microfinance will continue, and illustrates that the ideas of social development and profit are not easily combined.

*Corporate microfinance and the global commodification of social capital.*

Throughout the previous overview of the varied types of community based financial organizations, the concept of social capital has been paramount. In tontines and other ROSCAs, social networks and kin groups form the basis for trust and mutual benefit at the foundation of the formation of these groups. In microcredit groups through MFIs, organizations actively seek out groups of people with existing social ties, such as kinship groups, to use as the basis for group loans. Across all of these types of organizations, a common thread that unites them is that they all take advantage of existing social ties to give structure and discipline to a financial vehicle such as savings and credit.

The relationship between microcredit and social capital was put on display during the surge in microfinance investing in the 2000s. Due to the rapid growth of MFI’s, these
organizations sought efficiencies and took steps such as limiting group meetings and
downplaying the roles of female group leaders. One result of these actions was a decline in
loan repayment rates. The loss of focus on the relationships between members, which
contributed to the groups’ social capital, was translated into a loss of revenue for the MFI
(Chen, Rasmussen, & Reille, 2010). In their report to the World Bank, The Human
Capital Initiative writes: “When faced with alternative project designs…use information
on the existence and forms of social capital in the community to select the design that
will maximize the leveraging role of social capital in influencing project outcomes
(Grootaert & van Bastelar, 2001, p. 26).” It seems to be an overall consensus that social
capital via a cohesive group network is a necessary foundation for the implementation of
group finance interventions. A necessary question then, in the light of this consensus, is
who owns this social capital, and who should benefit from it?

In the case of tontines, the social capital belongs to the members, and is leveraged
for their mutual benefit. While members may have differing levels of power and
influence in the group, nonetheless each member receives equal financial benefits from
the association. As such, the benefits of the capital rest with the owners of the capital. If
social development programs interact with the group, the social capital is used for
programs that, hopefully, will improve the life conditions of the members. While outside
actors leverage members’ social capital, it is ostensibly for the benefit of the members, as
the outside facilitators or advisors do not profit financially from it. In the case of profit
based microfinance, however, the equation is less easily understood. The social capital
that forms the “glue” that holds the group together also serves to administrate and
discipline the group (Putnam, 2000). In fact, these collective groups have very low default rates using their own social resources in this way. Without this role, the banks that own microcredit portfolios have less administrative overhead, leading to potentially higher profit margins on their micro-investments. There is demonstrable value in these social networks, and private banks and investment firms are taking advantage of it.

2.4 Social Capital

Social networks and social capital are emerging as prevalent concepts in research about women entrepreneurs in Sub-Saharan Africa (Rooks, Klyver, & Sserwanga, 2016) (Kabede & Butterfield, 2009) (Meagher, 2010). The strong relationships between women are seen to have potential economic and social benefits, and are thus considered an asset. Yet while social capital has been theorized to underpin much of capacity of collective savings and credit groups, there is research to suggest that this form of capital may be decreasing in SSA communities (Hyden, 2001) (Kamga, 2011). Section 2.3 elaborated on two forms of collaborative savings and credit associations, ROSCAs and micro-credit group lending. Through examination of these forms of organization, the social capital that exists within existing social networks emerged as a common element necessary for the creation and maintenance of both types of groups. Interestingly, just as international interest in social capital in the Global South is increasing, the actual presence of this elusive mechanism has been shown to be decreasing, leading to the creation of social capital through intervention as a contemporary topic of research (Vajja & White, 2008).

Three Approaches to Social Capital: Bourdieu, Coleman, and Putnam. It is clear that social capital is considered an important resource for the study population,
but what social capital is, and how it should be defined, are subjects of considerable attention. Social capital as a concept has seen a dramatic increase in popularity since the late 1980’s until the present day, when mentions of the word in academic research in 2008 topped 15,000 (Woolcock, 2010). However, the history of social capital as a concept can be found well before that time. Lydia Hanifan’s use of the concept in 1916 in reference to using schools as community centers is considered the first usage of a distinct idea of social capital (Farr, 2004), but even his idea can be traced further back to Dewey’s concept of social pragmatism, or critical pragmatism (Kaldec, 2006). With the understanding that democratic institutions such as public schools or neighborhood associations that form a community were resources from which individuals could draw, critical pragmatism rejected the obstruction to the democratic resources generated therein, namely sympathy and cooperation (Farr, 2004).

Bourdieu’s social capital, considered the first major iteration of the contemporary understanding of this concept, also takes a critical approach to address the potential impacts of class on an individual’s access to resources (Farr, 2004). Bourdieu, whose interest in social capital was in its relation to the reproduction on inequality, conceptualized social capital as one of four forms of capital, namely: social, economic, cultural, and symbolic capital. As such, his work did not focus as singularly on social capital as Coleman and Putnam later did. One of his major contributions to the study of this concept was through his placement of the four forms of capital within the context of social space, called fields. These fields provide a context to the interactions between people that generate social capital, which is considered vital in securing economic or
cultural capital. In this way, he recognized the significance of networks in the formation of social capital, but also the way that differential access to this resource impacts an actor’s ability to obtain other forms of capital, namely economic and cultural. That is to say, the way that a social network facilitates or blocks an individual’s access to resources is influenced by their social capital, which Bourdieu saw as a mechanism for reproducing structures of inequality. He defines social capital as:

“the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition. (Bourdieu & Wacquant, 1992: 119)”

Bourdieu’s conceptualization of social capital serves to underscore the exclusionary potential of social relationships; that social networks can be used to insulate groups and continue inequalities (Gauntlett, 2011).

Coleman’s conceptualization of social capital moved away from Bourdeau’s critical, egocentric model to a more normative, sociocentric conceptualization (Adam & Roncevic, 2013). His approach to social capital involved three forms: (a) expectation, which is comprised of both obligation and trust (b) social norms, those such as neighbors looking out for one another’s’ children and (c) information channels, those relationships that facilitate the flow of information to the individual (Coleman, 1988).

Coleman approaches social capital from a structural functionalist perspective, focusing on groups and organizations, and views it as being held within structures rather than by individuals (Farr, 2004). Social capital is a public good, and individuals are able
to benefit based on their differential ability to access it. This idea of individual agency is an important development in Coleman’s approach. Even so, Coleman assumes that membership of a social structure is synonymous with having social capital, and downplays the importance of the individual actor.

Putnam approach to social capital drew heavily from Coleman’s conceptualization. Rather than focusing on individuals, like Bourdieu, or on social structures, like Coleman, Putnam’s social capital focuses on the ties between individual actors – social capital is created in the relationships between people. An integral element of Putnam’s approach is the norm reciprocity within communities. This reciprocity between members of a group, you scratch my back and I’ll scratch yours, is an underlying necessity for the mutual aid expectation inherent in social capital. If reciprocity is not required, the system would fall apart. The reciprocity of positive actions between people contributes to the idea of generalized trust, which is the basic assumption of good intent between members of a group. Trust is an important element of Putnam’s social capital, and can be further defined via thin trust and thick trust. Thin trust is tied to the generalized trust within a community, whereas thick trust relates to the strong relationships built between individuals, such as family members or good friends (Putnam, 2000).

The relationships between individuals itself is further categorized into either bonding or bridging capital. Bonding capital refers to those resources made available via relationships in a close network characterized by thick trust, such as a family. Bridging capital refers to the resources an individual may access based on ties outside of a close
network, such as a friend of a friend who owns a bank. Putnam further outlines functions of social capital, two of which are of particular interest to this study:

- Social capital reduces the complexity of solving shared problems
- Social capital allows the creation of a common consciousness that individual experiences are in fact connected to one another

Of the three major theorists presented here, Putnam’s model is the only one to have been rigorously and positively evaluated with regard to its applicability to Guinean women. Putnam’s theory of social capital is more appropriate for this inquiry for several reasons. Because of his framework of social network analysis, Putnam’s model instead looks at social capital as a resource to be generated, held, and dispensed across relationships in groups. This group oriented conceptualization is more responsive to the African Worldview, which places “we” above “I” (Carroll, 2014). This turns the focus onto relationships, which resonates with the worldview of the study population (Traore, 2008).

While Putnam’s initial application of this idea was to the perceived decline of civic engagement, it is nonetheless an important and appropriate divergence from the previous theories. In her research on the applicability of social capital theory to Guinean women’s networks, Fatoumata Traore (2008) again highlights that Putnam changed the focus social capital from an individual resource to a resource embedded in the ties between individuals. His emphasis on the participation in voluntary groups as a vehicle for promoting social capital reflects the Guinean emphasis on communalism and trust in one’s social network. Because of these reasons, this study uses Putnam’s concept
definition of social capital in this inquiry: “Social capital is features of social organization such as networks, norms, and trust that facilitate action and cooperation for mutual benefit (1993, p. 35).”

**Network contributions to social capital theory.** Because of the emphasis on social networks as the context for the creation, storage, and use of social capital, social network analysis has yielded several important advancements to this area. Granovetter’s (1973) concept of the strength of weak ties was able to empirically illustrate the way that bridging capital is able to link individuals to beneficial resources that lie outside of their close networks. Burt’s (1992) work on structural holes in social networks lead to the idea that individuals who serve as a bridge between two densely connected networks are at a structurally advantageous position. These two ideas served to illustrate that the concepts of social capital could be demonstrated through the study of social networks. Lin’s work (1999) (2001) (Lin & Erickson, 2008) on social capital and social networks has continued this empirical examination, and supports the idea that social capital is generated and held in relationships between people rather than by the individuals themselves.

“A theory of social capital, therefore, focuses on the production and returns of social capital and explicates how individual and collective actors invest in social relations through which they gain access to diverse and rich resources for expected returns (Lin & Erickson, 2008, p. 4).”

The continued exploration of social capital through network analysis serves to test, illustrate, and expand upon the theories of social capital.
Measuring Social Capital. A continuously pertinent topic in social capital research is how to measure such an elusive construct. Criticisms of social capital stem from the perceived insufficient detailing of how this concept is defined in terms of units of analysis, relationship with inequality, and potential for negative consequences (Jones & Woolcock, 2010). In writing about the ambiguities in social capital theory, Woolcock (2010) equates it to an essentially contested concept, writing:

“...I claim that social capital belongs to the category of ‘essentially contested concepts’ in social science, in company with such concepts as culture, power, and the rule of law ...That is, its coherence and usefulness rest not on a clear consensus regarding its definition and measurement, but on its capacity to draw attention to salient features of the social and political world ...that are of significance in their own right and play a role in valued aspects of everyday life ...

(p.470).”

If social capital is indeed an essentially contested concept, there will be no complete agreement on what it is, and thus no agreement on how it should be measured. In order to address the conceptual abstruseness in the measurement of social capital, a multi-dimensional model of social capital is preferable (Claridge, 2004). By measuring social capital along the multiple domains by which it is conceptualized (such as Putnam’s trust, or Coleman’s information channels), there is a higher likelihood that analysis of the resulting data can address social capital from several perspectives.

Multidimensional social capital model. In their work on measurement of social capital, the World Bank has developed six domains that are meant to cover aspects of
social capital and are meant to be used in an international context (Grootaert & van Bastelar, 2001). This model does not indicate specifically how social capital should be measured, but instead provides important domains that relate specifically to the operationalization of social capital. The six domains in this model are included in Table 1.

6 Domain Model of Social Capital

<table>
<thead>
<tr>
<th>Domain #</th>
<th>World Bank Labels</th>
<th>Study Labels</th>
<th>Related Theory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domain 1</td>
<td>Groups and Networks</td>
<td>Access to Resources</td>
<td>Bourdieu</td>
</tr>
<tr>
<td>Domain 2</td>
<td>Trust and Solidarity</td>
<td>Trust</td>
<td>Putnam</td>
</tr>
<tr>
<td>Domain 3</td>
<td>Collective Action and Cooperation</td>
<td>Cooperation</td>
<td>Putnam</td>
</tr>
<tr>
<td>Domain 4</td>
<td>Information and Communication</td>
<td>Communication</td>
<td>Coleman</td>
</tr>
<tr>
<td>Domain 5</td>
<td>Social Cohesion and Inclusion</td>
<td>Social Cohesion</td>
<td>Lin</td>
</tr>
<tr>
<td>Domain 6</td>
<td>Empowerment and Political Action</td>
<td>Empowerment</td>
<td>Coleman</td>
</tr>
</tbody>
</table>

Table 1: Interpretation of World Banks six domain model of social capital

Each of the domains included in this multi-dimensional model relate directly to the major theorists’ conceptualizations of social capital. Groups and Networks is a structural concept which considers an individual’s access to resources through their membership in groups and connections with others. This relates to Bourdieu’s idea that an individual’s social network determines their access to resources. The second domain, Trust and Solidarity, is equated to Putnam’s emphasis on trust, both thick and thin, as a necessary element of social capital creation and use. Collective Action and Cooperation are included in this model as the main ways that social capital operates. This ties directly
to Putnam’s perspective that social capital serves to facilitate cooperation in groups which can facilitate solving common problems. Coleman’s social capital theory is also included in this multi-dimensional framework with the Information and Communication domain. His view of role of social capital in facilitating beneficial information channels is represented in communication. The fifth domain, Social Cohesion and Inclusion can be seen as a representation of the network approach to social capital in that it allows for the measurement of ties between actors. By then analyzing these ties, the degree of social cohesion in groups can signal the presence of other network structures that may influence social capital in the group. The Empowerment and Political Action domain most directly relates to Coleman based on the definition of empowerment detailed in section 2.5 below. In brief, empowerment is the process whereby an individual uses their own agency to access resources within a given context. The ideas of agency and structure (context) are present in Coleman’s conceptualization of social capital.

This study uses Putnam’s theory of social capital due to its focus on the ties between individuals and their importance in creating groups within communities. Lin’s social network approach to social capital is also incorporated, as a means to empirically examine social capital in the groups in this study. The six domain model of social capital is used as a multi-dimensional model to measure social capital, with the domains each incorporating aspects of the dominant social capital theories as a way to increase the potential for the data to describe social capital satisfactorily.
2.5 Feminisms and Empowerment

Throughout the literature on microfinance, micro-credit is considered by many to be a vehicle to promote women’s empowerment (Accion, 2016) (Brac, 2017) (Grameen Foundation, 2017), however the concept of empowerment can be conceptually tricky to define. When exploring Guinean women’s collective financial groups, this idea of cooperative economics as an empowering agent is thought-provoking. What would it mean for a group to be empowering, and by whose definition? In this section, the idea of empowerment is explored using a resources, agency, and achievements model for conceptual precision. Following this, a cursory look at African feminisms is included, which presents an understandings of how feminism is interpreted from an African-centered perspective.

**Empowerment as a process.** An important aspect in defining empowerment is to conceive it not as a state but as a process (Malhotra, Schuler, & Boender, 2002). A person can be empowered to do something as a result of the process, but s/he does not end up in a state of empowerment because of this. This process approach to empowerment compounds the difficulties in defining and measuring it because since it has no steady or tangible qualities, validated proxy measures are the closest one can get to quantify the concept. In reviewing the literature in this area, resources, agency, and achievements are repeated as the main components of this empowerment process (ibid.). Resources, defined broadly to include material as well as social or intellectual, are viewed as catalysts for empowerment and yet are not guarantees in themselves. Resources such as education or income are often used as proxy indicators for empowerment but in fact do
not represent actual empowerment (Kabeer, 1999). This is one source of the problems with operationalizing empowerment. Even if women’s income rises, it is not evidence of empowerment, merely evidence that circumstances that promote empowerment are present (Oxaal & Baden, 1997). An additional issue with using resources as proxy indicators is that simply measuring income levels does not determine whether a woman has control of those resources or merely access to them (Charmes & Wieringa, 2003).

Access to resources describes the ability to gain use of the resources, whereas control of resources is the ability to decide how those resources are used. In terms of empowerment, control of resources is a much stronger catalyst than merely access. The idea of control of resources leads to the idea of agency, another component of the empowerment equation. Agency is the word that gets to the heart of what the empowerment process entails. Agency can be described as “the ability to formulate and control strategic choices and decisions that affect important life outcomes” (Malhotra, Schuler, & Boender, 2002:9). This concept of women’s agency is central to the understanding of the empowerment equation, simplified as:

\[
\text{social context (resources + agency)} = \text{achievements}
\]

But understanding this mechanism that allows an individual or group to create the ability to utilize resources to control meaningful choices in their life/lives is so context specific that measuring agency empirically is not often pursued. Research into empowerment still does not have a good understanding of a universal mechanism or set of circumstances that leads one woman to successful mobilization while another remains in the same oppressed patterns (Permanyer, 2010).
The definition of women’s empowerment, while initially conceived of as an internal, personal transformation, should be understood across all three levels at which it can be expressed: individual, community, and structural (Oxaal & Baden, 1997). Individual empowerment as it relates to women’s empowerment is a contextual process that follows the same idea of resources and agency providing an avenue to achievements. Klasen (2006) differentiates between first order choice and second order choice when assessing the actual impact decision making capacity has on a woman’s life. First order choice refers to decisions that have potentially life altering consequences, such as whom to marry or where to live. Second order choice refers to decisions that are less consequential, such as if she will go to the market un-chaperoned. Though agency in making second order choice may both promote empowerment in an individual and set the stage for first order choice in the future, the effects are not as significant or long lasting during her lifespan.

Although regarding the process of empowerment on an individual level, akin to development of autonomy, is useful for understanding the process of change, this also reflects the Western ideological bias in parts of the literature (Charmes & Wieringa, 2002). In fact, the French translation of empowerment is literally l’autonomisation, the process of gaining autonomy. Research has shown that many populations of women in the global South think of empowerment as a group process (ibid.). Malhotra, Schuler, and Boender (2002) write that “autonomy implies independence whereas empowerment may well be achieved through interdependence.” This group or community level of empowerment is very valuable when looking at opportunities for actual structural change,
as there is only so much any individually empowered woman can do within the unchanged social structure where she lives. Community level empowerment, for example in the form of well organized women’s cooperatives or organizations, can provide the crucial link between individual actions and change in policies or social context that will support those individuals’ agency in the future (Beteta, 2006).

One of the major goals of micro-credit has been to support women in reaching their goals, and the phrase “empowering women” is often used. Per the definition here, women may be empowered to achieve by using the resource of micro-finance to reach her goals. While the ROSCAs do not explicitly have “women’s empowerment” as their major goal, nonetheless the groups are relying on women’s initiative to plan, organize, and execute a group that uses resources, both financial and social, to attain stated goals. While these goals may not be to start a business, they are the members’ own goals. Under the social context (resources+agency) = achievements framework, ROSCAs too can be considered when exploring the idea of an empowering organization.

African feminisms. In his chapter on feminism and Africa, Taiwo (2003, p. 62) writes that “taking Africa seriously means listening well to what African women themselves have to say.” Further, Nnaemeka (1998) proposes that African feminism should be understood on its own terms, rather than in comparison to or as a binary of Western feminism. Maloba (2007) stresses that there is a Western domination in scholarship on women in Africa. In order to both hear African voices and appreciate the expertise of African scholars in the discussion on African feminism, this section of the literature review relies heavily on sources created by scholars from Africa and the
African diaspora. By concentrating on the voices of African scholars, it is hoped that African feminism in this paper can be understood as the product of African’s emic reflection rather than the etic lens of the Western anthropological or developmental perspective.

Africa has been recognized by its own feminist scholars as a home of feminist principles (Steady F. C., 1981). While waves of destructive foreign influence, including the transatlantic slave trade and the processes of European colonization, have significantly impacted the way that gender roles are conceived (Oyewumi, 2003), Africa is still home to a diversity of social organization systems, which include matrilineal societies. Gender roles, rather than polarized, can be seen as complementary, both parallel and asymmetrical (Badejo, 1998). One of the ways this manifests itself is the refusal to exclude men from “women’s issues” in an African context (Nnaemeka, 1998). Rather, they are community issues. This is in part due to the inextricability of African women’s specific gender oppression from other forms of oppression such as economic or political (Steady, 2006). Indeed, these same oppressive forces have impacted African men, supporting African feminists’ position of men as allies in feminist struggles.

These organizational systems and indeed African feminism itself must be understood as related to a broader African worldview, yet for the most part they remain either under-researched or un-researched (Taiwo, 2003). The Encyclopedia of Black Studies (Asante & Mazam, 2005) defines the African Worldview as:

“a combination of the classical and contemporary, continental and diasporic African overarching outlook on human experience and the natural and
phenomenal world…African peoples' beliefs about God, nature, and major life rituals—such as birth, puberty, adulthood, marriage, elderhood, and death—exhibit enough commonalities to warrant being called an African worldview.”

Due to the diversity found in African cultures, academic discussion has been generated over the appropriateness of applying a generic worldview to such a large geographic area. In general, the similarities found across African cultures as well as the precedent for identifying a “European” or “Asian” worldview have made the application of an African Worldview acceptable as a conceptual tool. For example, Dumisani’s (2008, p. 237) paper on African Worldview and social work practice supports this conclusion and lists these as its main principles:

“the interconnectedness of all things; the spiritual nature of human beings; collective individual identity; the collective/inclusive nature of family structure; the oneness of mind, body and spirit; and the value of interpersonal relationships. This worldview has important implications for social work practice with Africans and all people of African descent.”

The collectivity and interconnectedness inherent in the broadly defined African ontology is reflected in the African perspective on feminism. Rather than a focus on individual autonomy African feminism instead emphasizes community well-being, and is characterized as socio-centric, collective, and humanistic (Badejo, 1998) (Steady, 2006). Moreover, the community aspect of African feminism promotes the association of individuals with intent (Oyewumi, 2003). Main tenets of African feminism include (a) the promotion of networks to support women’s self-reliance and (b) the cooperative
development of survival strategies (Terborg-Penn, 1995).

African feminists have been seen as leaders in the international women’s movement, and this can be seen through the longstanding insight into the ways history and intersectionality impact women’s experiences, that “women never experience their oppression in the same ways (Taiwo, 2003, p. 53).” The essentialization of gender, where the female experience is considered monolithic and homogenous (Harris, 1997) is characteristic of second wave Western feminism, which has been critiqued for its focus on White heterosexual women’s experiences as representational of multicultural societies. This essentialization has not been as predominant in African conceptualization. Rather, the intersectionality inherent in women’s lived experiences is accepted, which has thus contributed to post-modernist vision of global feminism (Steady, 2006). Part of this understanding of intersectionality in African feminism is due to the hierarchy of female relationships in many communities. The term “sisterarchy,” was used by Nkiru Nzegwu to pay homage to the ways that individuals’ place in a social structure creates hierarchies among women. This understanding of the heterogeneity of experiences of individuals in a group led to the rejection of the Western feminist “sisterhood” metaphor (Oyewumi, 2003).

The community level, action focused approach that characterizes African feminism creates a context whereby a process of empowerment can be enacted. If resources and agency are combined on a group level, there is the potential to generate positive achievements, together. In this way, African feminism can be viewed as a
theoretical crucible for community level change, able to generate collective action necessary to obtain social transformation.

2.6 The Guinean Context.

While microfinance as a social development intervention originated in South Asia (Khandakar, 2004), these services went through an incredible geographic and economic expansion in the 2000s, with an annual growth rate of 39% per year from 2004-2008 (Herrera & Poisson, 2016). While this initial period of expansion did not hinge on Sub-Saharan Africa, in the 2010s funders have turned to this region due to recent developments such as advances in mobile technology. The expansion of microfinance in Sub-Saharan Africa is expected to continue in the next three years, with an anticipated growth rate of 15%-20% (Herger, Hug, & Jannet, 2016).

However, Guinea has not seen the same increase in MF involvement as other Sub-Saharan African countries, such as Nigeria, Kenya, and South Africa (ResponsAbility, 2014). Much of this has to do with the relative underdevelopment of Guinea’s financial infrastructure as well as the instability of the last decade. This instability began with the death of longtime President Lansana Conte in 2008 and the subsequent military coup of the country (McGeal, 2008). His administration had been in power since 1984, and his passing signaled an opportunity for Guinea to more fully engage in the democratic process. Two years of volatility culminated in the 2010 democratic election of President Alpha Conde, who won re-election in 2015 (Al Jazeera, 2015). President Conde also led Guinea through the tragic Ebola epidemic from 2014 to 2016, which killed more than 11,000 people (CDC, 2016). Currently, with a stronger democratic process and the threat
of Ebola neutralized, Guinea’s stability may provide the opportunity for an increased presence of MFIs in the country.

The total population of the country is approximately 12 million, with 1.6 million people living in the capital city of Guinea (Geohive, 2015). 45% of the population is younger than 15, with 55% over the age of 15. Guinea is considered a low income country, with a GNI per capita of US$460 per year (World Bank, 2016). Over 50% of the country’s population lives in extreme poverty - 65% in rural areas, 35% in urban areas (Manlan & Diagne, 2015). A map of Conakry is included in Appendix B.

Women in Guinea and Conakry, while 85% Muslim, do not face issues with restricted movement or access to public spaces (Manlan & Diagne, 2015). They are actively involved in economic activities across the country (Traore, 2008). While their civic engagement and public presence is documented, Guinean women as a group are among the least literate in the world. The overall adult literacy rate is 25%, and women in Guinea have a mean of 1.4 years of formal schooling (UNDP, 2016). These rates are somewhat higher in urban areas, however it still paints a picture of a largely illiterate population. As such, participants were not expected to read or write during the study.

The World Bank’s data on financial inclusion is the most current for Guinea, and the following statistics are taken from the Global Findex, which collects financial inclusion data (World Bank, 2014). Guineans by and large do not engage with formal financial institutions. Only 4.1% of women over 15 had a formal bank account, with men over 15 at a higher rate of 9.8%. This illustrates that formal banking is not widespread in this population. However, 45% of women saved money in the last year, but only 2.08%
did so with a savings account at a financial institution. More popular were savings clubs, with 22.6% of women saving money using a savings club outside of the family.

The need for loans was documented, with over 50% of Guineans reported having borrowed money in the last year, but only 1.8% of women and 2.1% of men reported borrowing from a financial institution. Guinean women more likely to report borrowing from family and friends (39.1%). Often, the amount borrowed was to start, operate, or expand a business (14.3%). When reporting on outstanding loans, 11.6% of women had balances on loans for school fees, 18% for weddings or funerals, and 32.4% on loans taken out for health or emergency expenses. This high percentage of outstanding loans for emergencies is further explained by only 0.25% of women reporting having paid for health insurance in the past 12 months. Further, 70% of Guinean women responded that coming up with emergency funds would be either not very or not at all possible. These statistics paint a picture of a country where saving and lending are widespread activities, but done informally rather than through formal financial institutions.

Conclusion

In this chapter a trio of macro-level theories, globalization, world systems, and neoliberalism, was used to illustrate the larger forces that combine to create the context within which Guinean women organize and operate cooperative financial groups. Following this, the area of financial inclusion was discussed with emphasis on the growth of microfinance and the contrasting perspectives used in relation to this sector. Social capital was introduced as a concept, and Bourdieu, Coleman, and Putnam’s conceptualizations were examined. Putnam’s approach to social capital was identified as
most representational of the perspective of the study population. A six domain model of social capital was chosen to represent the multi-dimensional nature of social capital, and the case was made for this approach. Empowerment, as an often anticipated outcome of microfinance programs, was defined and related to African ideas of feminism. Finally, the Guinean context was elaborated, and information about Guinean women’s use of financial services was communicated.
Chapter 3: Methods

3.1 Methodology

In this study I chose to use a mixed-methods design, utilizing methods from both Qualitative Interviewing (QI) and Social Network Analysis (SNA). These two methodologies, while distinct in their genesis, nevertheless are able to blend together to create a novel approach, both rigorous and culturally grounded, to explore the phenomena of interest. In the following section I present the rationale for combining these methodologies in this specific study, further outlining the theoretical underpinnings of QI and SNA and how this combination of methods is best able to address the research questions for this study.

Combining multiple methodologies. On doing research with communities, Gujit and Shah (1998, p. 15) advocate that researchers “Seek methodological complementarity and effective sequences of methods, and ensure that knowledge is built up systematically and sensitively by thinking carefully about the sequence of methods.” Following this entreaty, I intentionally chose research methodologies for this study based on their ability to be responsive to local contexts and ways of thinking. The two approaches, Qualitative Interviewing and Social Network Analysis, each hold distinctive assumptions about the nature of knowledge and the world, yet can be combined to triangulate findings and provide a contextualized subjectivity in this study design.
I took dialectical stance where combining multiple methodologies, as the differences in paradigm between QI and SNA are important, and useful for developing a deeper understanding of the meaning of the phenomena of this inquiry. Rather than a component design, where contrasting methods are applied separately, I chose to create an integrated mixed method design (Greene & Caracelli, 1997). I used aspects of several sub-models within the category of integrated mixed method design, with the goal of blending multiple methods into a comprehensive set of tools for furthering knowledge about this social phenomenon. The study is iterative in that the methods are integrated throughout the research design. This allows for a “progressive reconfiguration of substantive finding and interpretations in pattern of increasing insight and sophistication (ibid, p. 23).” This study design can also be seen to be embedded, where SNA is a method of data collection used in the QI generation of themes and categories. Third, the study design is holistic, emphasizing the ways in which each method contributes to a deeper and more complex understanding of social phenomena.

**Qualitative methods: developing theory grounded in data, not history.** As evidenced in the literature review, there is insufficient social research in Guinea, and rigorous inquiry with women’s groups in this geographic area is even scarcer. Because the literature base about this population is not well developed, it was necessary to conduct an exploratory study to advance the depth of knowledge and engage in hypothesis generating research rather than consider hypothesis testing methods which would be premature at this time given the lack of existing research with this population (Creswell & Plano Clark, 2011). In depth qualitative interviewing was the most
appropriate method in this case, as it allows the researcher to work with participants to generate new perspectives and ideas that heretofore may not have been included in the academic canon (Padgett, 2008).

There are multiple perspectives within the field of qualitative research, any one of which can provide a meaningful framework for this approach. Due to the subject of this study I chose to use a constructivist perspective, understanding that the knowledge in this study is co-created between the researcher and the participants, embedded in the specific time and context within which it is created (Charmaz, 2014). This interpretivist paradigm acknowledges that the researcher is not value free, and that the reflexive development of a shared reality through the iterative process of meaning building in qualitative research must also be balanced with the researcher’s transparency of assumptions and beliefs. I found the flexibility of this relativistic approach to incorporating diverse experiences of reality preferable to a stricter positivist ontology due to its ability to react and change when confronted with unexpected results or contrasting belief systems, as was expected to occur when conducting cross-cultural social research.

African academics as well as scholars in African studies point out that in much of the scholarship about African women, social constructs and theories are imported from Western scientific traditions and applied in an African context without enough modification (Bryceson, 1995) (Chauraya, 2012). By using a qualitative methodology in this study, there is an opportunity to co-create new knowledge about Guinean women’s experiences and participation in savings and credit groups based on empirical data rather
than solely on historical theory. In addition, social development programs containing gendered aspects are often implemented without sufficient investigation into local concepts of gender or gendered roles. In her paper on gender and development in Africa, Chauraya wrote:

...[U]nless thorough research into the African lifeworld is contacted before crafting and implementation of the gender policies and programs to understand the African psyche, and establish a gender communicative interchange between the African and the Western views on gender, ills of ineffectiveness will continue to be witnessed regardless of how grand the gender projects of the West may be (2012, p. 252).

Because of this, it is vital that research is done in Africa with African women, which amplifies their voices to be heard above any outside conversation of sociological constructs about their lives. I propose that qualitative methods, including semi-structured interviews, are able to approach this goal more ethically than solely quantitative research methodologies. One reason for this is that this method acknowledges that the researcher, in this instance from the Western scientific tradition, brings their own dominant ontology to the project when knowledge is being constructed. Research methods with an assumption of neutrality in this context would be ignoring the grievous historical imbalance in power and access to resources, both tangible and intellectual, in the globalized world system (Maloba, 2007). Generating a deeper understanding of collective financial groups in this population will contribute to knowledge based in data that is fully situated in the lived experiences of research participants, rather than merely confirming
ill-fitting theories to this population that were generated in elsewhere and unreasonably generalized to an African context (Chauraya, 2012) (Lerpold, 2012). Using this as a warning, it is thus vital to be responsive to African centered social theories rather than exporting Western theories and expecting them to apply in a Guinean context. Of the approaches available, qualitative interviewing conducted from a constructivist perspective best embody this kind of responsiveness.

**Social network analysis: applying network methods in context.** Network theory distinguishes itself from other forms of inquiry by its ability to explore the relationships between actors rather than each individual’s characteristics. Otherwise stated that “the axiom of every network approach is that reality should be primarily conceived and investigated from the view of the properties of relations between and within units instead of the properties of these units themselves. It is a relational approach. (University of Twente, 2016)” Components of network theory are present in micro-credit and ROSCAs. Both types of organizations rely on the relationships between members to maintain group function and boundaries. In this sense the relationships between the members are of interest rather than only the members themselves.

Research into small groups using sociocentric network analysis has the potential to yield important information about Guinean women’s use of social capital in cooperative groups. The current state of the literature on small groups, especially in regard to development programs in the Global South, has not been explored fully (Kadushin, 2012). There is ample room for research that looks at how these basic units of human organization function, and ROSCA and micro-credit groups as relationship driven,
specifically bounded human groups are an ideal place to invest more time and research. In their systematic review of health and social development research in LDICs using sociocentric models, Perkins, Subramanian, and Christakis (2015) found that by and large network analysis in development programs was limited to basic measures of centrality or density. In addition, while many studies used multiple name generator instruments, they did not use the data gathered for more complex analyses. For example, several studies examined measured seven or more kinds of ties but reported only one or two.

In this study I employ social network analysis as a way to explore the different types of collective savings and credit groups of interest. Although using SNA with women’s savings groups has not been fully utilized, Hiwatari’s (2010) study of ROSCA leaders’ networks in rural Kyrgyzstan demonstrates the potential for these models to yield new and thought provoking information about relationships in small group networks, which can then be used to inform the creation and implementation of social development programs.

**Synergies of the combined methodologies.** In addition to each method’s individual appropriateness for this research topic, combining them also leads to further synergies. As outlined further in this section, when used in tandem these dual methods served to triangulate one another, thereby increasing the methodological rigor of the study. Sociocentric network analysis allows for the delineation of the specific context within which the social constructions, described in qualitative analysis, are created. While systems theory posits that multiple layers of context influence individual behavior (Creswell & Plano Clark, 2011), the specificity allowed through SNA to understand an
actor’s position within a certain context, the savings and credit group, to provide additional perspective to the data generated via qualitative interviews in this study. Further, actors located in different structural spaces within a network have different perspectives of the social space and the meanings embedded within it. This speaks to the uneven positioning of individuals within groups that may seem homogenous and horizontally stratified from outside observation, like a women’s savings group. By analyzing both their structural position (SNA) as well as their experiences and perspectives of the group (QI), a multidimensional understanding of a phenomenon can be produced. This research design also incorporates participants’ evaluation of the researcher’s creation and analysis of the groups’ social networks during the semi-structured interviews that follow the preliminary analysis of the group networks. This added level of interpretation provides a member-check on the researcher’s understanding of the structure and meaning of the context within which the phenomena were co-produced.

**Ethical research approaches.** As a Western researcher considering potential best practices in researching the phenomena outlined above, it was vital to review work done by African scholars that addresses the subject of international research between the Global North and the Global South. In a paper on social work in Africa, Thabede Dumisani (2008) outlines a plan for approaches to social work practice and research with regard to an Afrocentric worldview. Dumisani calls for researchers “to accommodate the Afrocentric perspectives as a significant part of the knowledge base and practice alongside current Eurocentric intervention theories and practices (234).” Within the
African Worldview, as described by African scholars and applied broadly across cultures, individual identity and meaning is perceived to be constructed through relationships with others. A version of this theory has been popularized internationally through the Zulu concept of “Ubuntu,” loosely into English as “a person is a person through other people.” Michael Onyebuchi Eze further defines this concept thus:

*It is a demand for a creative intersubjective formation in which the ‘other’ becomes a mirror (but only a mirror) for my subjectivity. ... We create each other and need to sustain this otherness creation. And if we belong to each other, we participate in our creations: we are because you are, and since you are, definitely I am. The ‘I am’ is not a rigid subject, but a dynamic self-constitution dependent on this otherness creation of relation and distance (Eze, 2010, p. 190). Further, that personhood is “something that is acquired or gained through successful integration in the community (Eze, 2012, p. 248).”*

While the specific philosophical tenets accorded to Ubuntu are not indigenous to Guinea, it is a useful construct with which to approach the non-Western communalism found in this region. In his article on African communalism and Ubuntu, Kimmerle (2006) writes that the twin concepts of intersubjectivity and communalism are present in West Africa, specifically citing Senegalese President and philosopher Leopold Senghor’s use of this idea during colonial resistance and independence as a way to distinguish the African worldview. West African independence leaders Kwame Nkrumah of Ghana and Sekou Toure of Guinea also advocated an African specific socialism, highlighting the idea of “communitarianism,” or the interdependence among members within a
community (Praeg, 2008). While philosophical debate on the use and definition of the concepts of “communitarianism” and “Ubuntu” exists (Matolino, 2008), using them as sensitizing concepts at the genesis of exploratory research served to move my perspective away from purely Western concepts of personhood and community towards an more African centered ontology.

There is meaningful overlap between the African communalism and the dual methods proposed in this study: Qualitative Interviewing and Social Network Analysis. Of paramount importance is that they have the capacity to focus on the relationships between people rather than the actors themselves: they focus on “we” rather than “I”. In qualitative inquiry, the primal question is “What is happening here?” with a focus on processes that occur between people that create social phenomena (Stern & Porr, 2011). Social Constructivism, which underlies my epistemological stance, views knowledge as co-constructed through social processes (Vygotsky, 1978). As applied to the proposed study, this context-specific co-construction of knowledge can be understood to occur at two places: (a) between the researcher and the participants and (b) between the participants within the collective savings and credit groups. Again, the focus is on the relationships between actors. Social Network Theory has the same capacity to focus on relationships between individuals that make up a group or community. By using whole networks and analyzing data about the ties between actors in the network, relationships within a defined community context become visible. These relationships can be understood as the intersubjective experiences of the members of the communal group. These methods are responsive to the appeal for social work research methods more

A useful approach for researchers working in international contexts is the Anti-Oppressive Framework, or AOP. In her book on the subject Dominelli (2002, p. 39) writes that while “...challenging established truths about identity, anti-oppressive practice seeks to subvert the stability of universalized biological representations of social division to both validate diversity and enhance solidarity based on celebrating difference amongst peoples." AOP challenges researchers to examine the power dynamics inherent in their work, and to reflect upon how research can serve to reify existing power imbalances. Because social work in particular values social justice and human rights, the AOP framework allows for open examination of how the researcher can recognize oppression and work against the systems that reproduce it. The choice of methods for this study was influenced by AOP, as methods were chosen that allowed for the voices and experiences of participants to assist in the creation of knowledge.

3.2 Conceptual Framework and Sensitizing Concepts

After conducting the interdisciplinary literature review presented in Chapter 2 of this paper, I became aware of the paucity of peer reviewed research from social work on West Africa in general and on Guinea specifically. Of that literature, much of it was not written by African scholars, but instead by researchers from the Global North. Because of this, my review of the literature became more critical, and I focused on drawing from interdisciplinary sources relating to the phenomenon of interest, both academic and organizational (Grant & Booth, 2009). In order to more accurately reflect the current state
of knowledge I found it necessary to privilege the writing of African scholars in my literature search. By being intentional when including African voices in the literature I endeavored to work against the hegemonic dominance of English language, Global North research, and instead present a review of the literature that was inclusive of multiple traditions and perspectives.

In order to increase my transparency as the researcher-as-instrument, it was necessary for me to understand with clarity my own underlying assumptions about the layers of systems within which the study population was situated. To resolve this tension, I combined the most prominent concepts underlying this inquiry into a conceptual framework to guide the study design. This also allowed me to consider how Guinean women’s groups and financial inclusion might overlap in purpose. This conceptual framework situates the proposed research within prior theory as well as illustrating the ways in which key constructs might interact. Sensitizing concepts were used to design this framework which provided a set of ideas from extant literature in relevant topic areas. Because of the exploratory strategy of inquiry, aspects of these concepts were expected to be explored, modified, and potentially discarded in light of data and results from the analysis (Bowen, 2006). In using sensitizing concepts in qualitative inquiry, Charmaz (2003, p. 259) writes: “Sensitizing concepts offer ways of seeing, organizing, and understanding experience… we may use sensitizing concepts only as points of departure from which to study the data.” Applying this idea to this study, the concepts included in this framework combined to form a landing pad from which to launch data collection and analysis. Blumer (1954, p. 7) delineates the difference between using
concepts in quantitative and qualitative research by writing: “whereas definitive concepts provide prescriptions of what to see, sensitizing concepts merely suggest where to look.” In this study, these concepts informed where to look but not what to see.

The conceptual framework shown below in figure 2 illustrates the theories and constructs used to situate the proposed study prior to engagement with the study participants. It consists of a series of ovals which depict an overlapping systems perspective. These ovals are shown as overlapping because there are multiple areas in which they have similar ideas, intents, and understandings of the phenomenon of interest.
The largest oval, “globalization, neoliberalism, and world systems theory,” provides an overarching theoretical context within which the phenomena of interest exist. The outer ovals of the conceptual framework represent that both types of groups exist within a shared globalized context, and that dominant political and economic ideas affect all players in this system, albeit in different ways. Inside of this oval, there is a set of smaller overlapping ovals, Financial Inclusion and African Worldview, which represent disparate foundational theoretical stances that have influenced the creation of financial
services to meet the needs of the population of interest in this study. The tenets of Financial Inclusion support and inform financial services such as micro-credit group lending. The perspective found in African Worldview, including collective identity and the value of family and relationships, underlies the formation of ROSCAs. The third level in the framework consists of the overlapping ovals of “Micro-Credit” and “Tontine.” These represent the two types of financial services of interest in this study: Micro-Credit as a socio-economic intervention adheres to the perspective of financial inclusion. Tontines are a ROSCA type financial service, locally created and administered, and borne from the African Worldview perspective. In the center of the framework are: empowerment, feminism, social capital, and network theory. These are aspects of each financial tool (micro-credit and tontines) that may underlie their operation. This framework, created prior to engagement with the research population, allowed me to conceptualize how the ideas behind each kind of savings group might be related and to clearly communicate my assumptions about these relationships.

3.3 Research Design

Sampling. All research sites for this study were located in Conakry, the capital city of Guinea in West Africa. The sampling frame included adult women members and key informants (leaders or administrators) of collective savings and credit groups located in urban Conakry, Guinea. This study considers these individuals and dyads nested within a group as the sampling unit. The groups themselves are viewed as a type of community.

When considering how people related to one another in a group, this word “community” is used, especially in terms of social work and social justice. When it is
used synonymously with harmony, homogeneity, or cooperation, this leads to an unnecessarily flat description of “community.” However, if carefully applied, community is a useful level of analysis for research in Africa. Because African worldview places importance on communal wellbeing, stressing “we” over “I” (Carroll, 2014), studying individuals outside of their group context has the potential to use an unnecessarily Western individualistic lens of inquiry. But it is equally as important to note that “we” in this instance is not necessarily equated with “same” or “equal.” Indeed, the hierarchical power relations that exist in women’s networks, the “Sisterarchy” (Oyewumi, 2003) is a source of great inequality in community. In their book, The Myth of Community, Gujit and Shah (1998) warn against an overly romanticized and normative use of the term “community.” Rather than being an easily defined physical place or a specific group of people, it is an intensely subjective and dynamic construct, which can lead to conceptual confusion if it is applied without a cautious definition.

In her exploration of the ways in which community is described, Liepins (2000) draws attention to the performative nature of “community,” conceptualizing it as co-created social construct. Using her words, community in this study is defined as a “temporally and locationally specific terrains of power and discourse (Liepins, 2000, p. 30).” That is to say, it is dynamic and specific to context. In addition, members of a community will have different perceptions of what it means. Through members’ social participation or challenge, meaning, practices, and spaces are continually redefined. This approach to community resonates with the constructivist perspective used in this research.
and is thus an effective conceptualization of the ways that communities (groups) function in this sample.

**Qualitative sampling.** The qualitative sampling frame included adult Guinean women members of cooperative financial groups. Because there is, to date, no comprehensive literature that describes Guinean women’s savings groups, further specification was not warranted. Random sampling and large sample sizes were inappropriate parameters for sampling in this case, because qualitative research does not aim for strong external validity. Instead, the goal is to enhance the understanding of a phenomena (Marshall, 1996). In order to capture the greatest breadth of information, I used purposeful sampling of women’s groups with a goal of capturing maximum variation within my sampling frame (Morse, 2012). My sampling technique consisted of actively seeking out the greatest possible heterogeneity of groups based on (a) ethnicity; (b) geographic area of the city; (c) level of formality; (d) purpose of the group; (e) duration of the group. The methods of sampling were intended to support the exploratory goal of the study; to collect data that represents the broadest expression of the phenomena of interest so that I could better understand how social capital is experienced by an array of participants. By recruiting participation from a range of groups, there was an increased potential for variation in participant experiences and the structures of the groups in the sample.

The major ethnic groups in Guinea have distinct cultures, languages, and social structures. In order to capture this variation, it was important to ensure that all major ethnic groups, Soussou, Malinke, and Foula, were included in the study. Because the
groups included in this study were mixed ethnically, this variation was captured throughout the dataset. All three major ethnic groups were included in the sample.

The neighborhoods within Conakry have differential access to systems of support based on their location, as well as varying contact with organizations or expert consultants. Because of this, there was variation in groups attributable to geographic location. Groups in six areas of Conakry are included in the dataset, representing an array of locations.

Although these groups share some common characteristics, there are also many ways in which they differ. Some groups are self-started and self-governing, with little outside influence. Others are created by an organization, or have significant assistance to create it such as education or expert consultation. In addition the terms of the group, such as payment schedule or purpose, will also vary. By recruiting participation from an array of groups, there is an increased potential for variation in participant experience and the network structure of the group.

Women’s groups are used in many contexts for different purposes. Literature on ROSCAs and micro-credit groups in other countries shows that cooperative groups can be used for purposes such as production of goods and agriculture (Bryceson, 1995) (Ardener & Burman, 1995). By including groups across a breadth of purposes, the sample’s increased diversity allowed for a richer corpus of data.

Social capital is understood to be created over time. Thus, the social capital in newer groups may be different than the social capital in more established, older groups. Because of this, groups of carrying durations were targeted for inclusion in the sample.
The youngest group was six months old, while the oldest group was established and operating continuously since 1988. This large difference in duration of groups further triangulates the sample for inquiry.

Qualitative methods require that interviews continue until saturation of concepts is reached, rather than a specific number of participants (Padgett, 2008). Due to the heterogeneity of the sample, and the inability to interview participants more than once, the sample for qualitative analysis was larger than otherwise anticipated. However, saturation of key concepts was attained during data collection, and indicates that the sample size was adequate for generating trustworthy results about the phenomena of interests.

Social network sampling. The research questions addressed by SNA are concerned with typical structure and function of social capital within participants’ cooperative financial groups rather than the breadth of experience across those groups. Because of this, sampling for heterogeneity was not appropriate, and a more focused sampling frame was applied. While I had originally expected to sample tontines, after a brief analysis of initial key informant interviews I chose to concentrate on the type of cooperative group that emerged early on as the generator of social capital across all types of groups: the sèrè. By limiting my sample to sèrès, I directed analysis to the “engine” that generated social capital for the diversity of groups in the qualitative sample.

Boundary specification is necessary when describing the sampling strategy for sociometric network analysis that uses whole groups as units of analysis. In this study I used a realist approach to defining system boundaries, whereby I define the network
using the criteria of the group members who have consciously created it. In this case, active members of an identified sèrè. However, some women were officially on the roster of sèrè yet had not participated fully. In order to address this, a reputational approach was used when deciding which of the members was considered “active,” as the judgement of key informants during initial qualitative interviews was used to determine which participants were considered active sèrè members (Laumann, Marsden, & Prensky, 1992).

Sociometric network analysis requires that all members of a whole network be included, rather than a specified number of participants (Borgatti, 2006). I based the sample size on the average reported sizes of women’s cooperative savings groups in neighboring West African countries (Ardener & Burman, 1995). This provided a ballpark estimate of how many participants would be present in each group. It is important to underscore that power analyses based on assumptions of normality are not appropriate for the determination of sample sizes in the SNA portion of this study, because the methods of analysis are focused on structural features of the networks rather than methods of inferential statistics using node attribute data. The network analysis plan does, however, compare across groups. Therefore it was necessary to collect information about multiple groups in order to establish potential common features of the whole networks.

**Retention.** Retention throughout the iterative data collection and analysis process was designed with the understanding that participant mortality due to disinterest or inability to attend may occur. Two mechanisms were used to increase retention rates during the study. First, participants received cash incentives at each sub-section of the
research. While the incentives were modest enough to reduce any risk of coercion, they at minimum compensated them for their time. The receipt of an incentive has been shown to increase the duration of participation (Rubin & Babbie, 2011, p. 285).

Secondly, generating positive relationships with the gatekeepers of each group during recruitment has been shown enhance the likelihood that participants will decide to remain in the study (Creswell & Plano Clark, 2011). Although there was a high likelihood of some attrition during the study period, the research methodologies chosen are able to adapt to this and thus reduce potential negative effects of participant mortality.

First, the social network instrument is limited to six questions that request accessible information from the participant about their relationships with fellow group members. The brevity of this instrument is designed to decrease participant burden, so that participants are not taxed mentally to provide copious amounts of data about hard to recall events or relationships. Otherwise stated, participants are able to provide reliable information for fewer questions rather than unreliable information from a longer set of questions (Krysik & Finn, 2013, p. 293). Secondly, the nature of qualitative methods are such that the participants do not have to be the same throughout the study. Indeed, the preference for theoretical sampling at the later stages of the study indicates that interviews be targeted towards those individuals that may provide information to further develop emergent theory or theoretical categories (Bryant & Charmaz, 2007).

**Ethics Board Approval.** In this study, I requested and received ethics board approval from The Ohio State University’s Behavioral and Social Sciences IRB. This approval allowed me to collect data from up to 180 participants in up to 12 groups. A
copy of the ethics board approval letter is included in Appendix C. There is not a comparable ethics board in Guinea for social research, therefore I was intentional in my efforts to communicate my research with both university professors and government ministries during this study. In this way, I sought out the informal supervision of Guinean officials during data collection.

**Informed consent procedures.** The consent forms for the study were translated by the researcher from English into French and include details of the study, its purpose and objectives. A copy of these form are included in Appendices H, I, J, and K. The consent forms reiterate that participation in the study is voluntary and respondents can terminate participation at any point if they did not wish to continue. Respondents were told that the information they provided is to be kept confidential and no identifying information about them is to be used in the manuscripts and documents that emerge from the research. For the qualitative semi-structured interviews, the duration of each interview was tentative and varied from case to case, but participants were told to expect it to last between 1 to 1.5 hours. Informed consent scripts communicated that the social network instrument was expected to approximately 30-40 minutes to administer. Each participant was reimbursed with 10,000 Guinean Francs for participating in a section in the study. The reimbursement amounts were decided after discussions with professionals and researchers in Conakry who have conducted research with Guinean participants. Each respondent was asked for permission to be audio taped prior to the interview. Only those respondents who consented were audio taped during the semi-structured interviews.
Research questions. The research questions, outlined in depth in Chapter 1, are included in Table 2 which links each question with the methods used to address it. These questions serve to guide the trajectory of the research throughout the study period for this exploratory research.

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Method(s) Used to Answer This Question</th>
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<tbody>
<tr>
<td>1. What are Guinean women’s experiences as members of collective savings and credit groups?</td>
<td>Qualitative Semi-Structured Interviews</td>
</tr>
<tr>
<td>2. How is social capital structured in collective savings and credit groups?</td>
<td>Social Network Analysis</td>
</tr>
<tr>
<td>3. How do the social networks of collective savings and credit groups function?</td>
<td>Social Network Analysis</td>
</tr>
<tr>
<td>4. How are the experiences of participants at diverse structural locations within a social capital network characterized?</td>
<td>Social Network Analysis Qualitative Semi-Structured Interviews</td>
</tr>
</tbody>
</table>

Table 2: Research questions and associated methodologies

The following sections outline the specific steps taken in this study to answer the research questions listed above. Both the qualitative and network instruments are described, followed by the elaboration of a five phase research design of data collection and analysis that was used in this study.

Measurement/Instrumentation. While the use of validated and demonstrably successful research instruments is preferable when possible, this study endeavors to create new knowledge with a population with which no related instruments have been validated. Since existing instruments are not available, I produced two instruments used to collect the data for this study. Each of these instruments was created with two main questions in mind: First, what are current best practices in data collection using the
methods in this study? Secondly, how can the construct validity of the social capital model be maintained throughout the study? And Third, how can these instruments be made as culturally grounded as possible to reflect the realities of the research participants? This section outlines this process and its outcomes for both the qualitative and network instruments used in this study.

**Qualitative semi-structured interview guide.** I created a guide for the in-depth semi-structured qualitative interviews with two sections of open ended questions. Both the English and French version of this guide are included in their entirety in Appendices D and E. Section one of the interview guide includes questions about the participant’s experience and participation with collective savings and credit groups. This section was designed to gather data to answer the research question, What are Guinean women’s experiences as members of collective savings and credit groups? Section two includes questions to explore social capital in the group, and used the six domain World Bank model of social capital (Grootaert & van Bastelar, 2001) as a framework to guide the interview. Each domain of this model is associated with a question in section two of the interview guide. This section was designed to elicit responses to provide data to answer the research questions: How is social capital structured in collective savings and credit groups, and how do the social networks of collective savings and credit groups function?

A first draft of these questions was submitted to faculty mentors at OSU’s College of Social Work and to Guinean collaborating faculty for review. Based on feedback from these sources, the questions were edited for conceptual clarity and cultural relevance. Once this feedback was incorporated, I translated the interview guide into French. The
translation was read by three Guinean native French speakers and edited for idiomatic accuracy for the French spoken by the research population.

**Social network instrument.** Significant work studying social capital embedded in social networks has been completed using position generators. These position generators measure ego’s relationships with individuals of different positions (Lin & Erickson, 2008). While this approach has yielded significant knowledge on social capital, I did not deem it an appropriate instrument to answer the research questions in this study. Conceptually, this study is focused on the bounded savings groups within which social capital is thought to be created. Thus the unit of interest is the group rather than the individual, which is the focus of the position generator. Additionally, the kinds of questions used in existing position generator instruments are not culturally grounded for this population (Lin & Erickson, 2008). Because of this, the name generator approach was most suitable. Name generators use information about social relationships with and demographic information about a specific set of actors. This study focuses on small, densely connected groups of known individuals making this method apposite to answer the research questions.

In order to answer the research questions - How is social capital structured in collective savings and credit groups, and how do the social networks of collective savings and credit groups function - it was necessary to create an instrument to gather whole network data from all participants of consenting groups. I based this instrument on the chosen six domain model of social capital, necessitating questions to cover each of the six areas associated with social capital. My intention was to create a question about each domain that asked for easily
accessible information from the participant, about concrete social situations rather than conceptual categories such as “trust” or “empowerment.” The interpretation of ambiguous concepts can negatively affect results as can be interpreted differently by each participant (Jackson, Kirkland, Jackson, & Bimler, 2005). When considering cross cultural research, these terms can be open to drastic cultural interpretation, and potential misinterpretation. The six domains and their associated culturally appropriate social network questions are included in Table 3. In order to accomplish this, I met with two Guinean women living in the United States, and discussed what the six social capital domains might looks like during the lived experiences of women in urban Conakry, Guinea. Based on this discussion, I created six questions, one for each domain in the World Bank model. I translated the questions into French, and had a native French speaker from Guinea edit them for idiomatic accuracy. The questions were then sent to three sociology professors in Guinea supporting this study, who each looked over these questions and certified that they were, in fact, accurate cultural translations of the social capital domains I was endeavoring to measure. The social network instrument in its entirety is included in both English and French in Appendices F and G.
<table>
<thead>
<tr>
<th>World Bank’s Social Capital Domains</th>
<th>SNA Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Resources</td>
<td>Who do you borrow chairs from when there’s a ceremony like a wedding or baptism?</td>
</tr>
<tr>
<td>Trust</td>
<td>If you got up to dance at a gathering, who would you most likely leave your purse and money with?</td>
</tr>
<tr>
<td>Cooperation</td>
<td>Who would you want to work with to buy merchandise (bulk goods) for resale?</td>
</tr>
<tr>
<td>Communication</td>
<td>Who does you gossip with?</td>
</tr>
<tr>
<td>Social Cohesion</td>
<td>Who are your closest friends?</td>
</tr>
<tr>
<td>Empowerment</td>
<td>Who does you see as a powerful woman in this group?</td>
</tr>
</tbody>
</table>

*Table 3: Culturally translated domains of social capital*

**Research phases.** The data collection and analysis in this study were organized into a five phase model, which used an iterative knowledge generation process. A graphic representation of this process is included below as Figure 3. Each of these phases is outlined, including the objectives of the phase and the activities carried out to meet those objectives.
The data collection and preliminary analysis for each group was conducted in the first four phases. The phases across the groups overlapped with one another depending on when the groups’ monthly meetings were held. For example, if Group A’s monthly meeting was on May 14th, Phase I occurred prior to May 14th, Phase II occurred on May 14th, and Phases 3 & 4 occurred after May 14th. Further, if Group B’s monthly meeting...
was on May 12th, Phase I occurred prior to May 12th, Phase II occurred on May 12th, and Phases 3 & 4 occurred after May 12th. A diagram depicting how the dates of the phases were staggered by group is shown below in Figure 4.

**Phase I: Interview with key informants/gatekeepers.** Establishing contact and rapport with group leaders as well as creating a baseline of information was important prior to contact with the research population (Creswell & Plano Clark, 2011). In the first phase, I conducted interviews with group leaders or key stakeholders such as a micro-credit consultant working with a group. The interviews took between 30 minutes and one hour to complete and were held at locations that were convenient to the participant such as a groups’ meeting place or a micro-credit office. Participants in this phase were offered an incentive of 10,000 Guinean Francs (GF). During this interview I explained the research to participants, both the design and the objectives. I obtained informed consent from all participants. The leaders of these groups commonly keep a registry of all participants, as this is used to keep track of each members’ payments to the group. These registries from consenting groups were used to generate a name roster for the
social network instrument, using first names only. During these interviews I asked the participants questions from the first section of the qualitative instrument that explore how the group works and its purpose. These also included questions about their own experiences in cooperative savings and credit groups. The answers to these questions allowed me to generate a baseline understanding of each group prior to engagement with participants.

**Phase II: social network instrument administered at a group meeting.** During this phase, I visited the groups at their usual meeting place. I had made contact with the leaders of these groups through the Phase I interviews, and was thus able to know the time and place of the groups’ meeting. After the regular meeting, I introduced myself and informed the group about the research, following informed consent procedures. Upon obtaining consent, I used the network instrument to gather data individually from each member about the groups’ social capital network. Each of these interviews lasted approximately 20 minutes. Participants in this phase were offered a compensation of 10,000 GF. Group members were then asked if they were interested in scheduling individual semi-structured interviews for a subsequent day. This was commonly at the next weeks’ meeting at the groups’ meeting place.

**Phase III: preliminary data analysis.** During this preliminary analysis phase, the social network data collected in Phase II was entered into Excel to create network databases. Following this, the data was uploaded to Ucinet (Borgatti, Everett, & Freeman, 2002), creating matrices for initial analyses. Network diagrams of each participating group were created using NetDraw (Borgatti S. P., 2002), and printed out so that they
could be shared with group members at subsequent interviews.

Although I was unable to transcribe the key informant interviews during this phase, I listened to the recordings of each interview and created analytical memos that outlined my initial, broad understandings of the groups based on this data. These memos provided another layer of comprehension prior to my engagement in Phase IV.

**Phase IV: individual interviews with group members.** During this phase, I interviewed individual group members using the semi-structured interview guide. I explained the research clearly and thoroughly, and informed consent was obtained from all participants. The interviews varied drastically in length due to the qualitative process of continued interviewing of additional participants to reach deeper conceptual understanding. Thus, initial interviews took approximately an hour, while several interviews at the point of saturation took only fifteen minutes. All interviews were held at the same place that their group holds meetings. Participants in this phase were compensated with 10,000 GF. During these individual interviews with group members, I used both sections of the semi-structured interview guide to ask open and closed-ended questions about their experiences in cooperative savings and credit groups and to explore the six domains of social capital as they related to the participant’s experience in the group. For those groups that provided network data, I showed the network diagram I had created about their group during this phase. During the interviews, I shared the preliminary findings I had generated with the network data, and received both clarification and affirmation on these networks.
**Phase V: comprehensive analysis.** Phase five consisted of the comprehensive analysis of the data gathered for this study. First, the social network data was analyzed, identifying structural as well as descriptive characteristics. These analyses provided results to answer the research questions relating to social capital in the networks. Following this, the qualitative interviews were analyzed, generating new knowledge about the groups to answer the related research questions. Finally, both network and qualitative data were used in tandem to explore participants’ experiences of the groups based on their structural position within the groups’ network of social capital.

**3.4 Data Collection**

**Description of researcher-as-instrument: a researcher identity memo.** In undertaking a cross-cultural qualitative study, it is important that the motivations and prior experiences of the researcher-as-instrument are explored, to both situate the research for the reader as well as clarify potential biases for the researcher. In his book on qualitative research, Maxwell (2005) describes an approach for writing “researcher identity memo” as an exercise in reflexivity. Following this prompt, the ensuing passage details my prior engagement with the research population as well as my motives for conducting the current study.

My interest in Guinea began when I met a young Guinean man at a college in Michigan in 2000. Our friendship turned to romance, and several years later we were married. Through our relationship, I began to explore another perspective of the world, one that at times clashed with my own. With my marriage as an entrée, I developed relationships with both Guineans living in the US as well as with in-laws and friends
when we travelled to Conakry. For a period of ten years, I built up an experience with the Guinean community through the role of wife and mother. And by bonding with Guinean women family and friends through my identification with these roles, I began to know people that were resourceful, pragmatic, and entrepreneurial. I saw their efforts to sustain families and communities through difficult times and adverse circumstances, and reacted not with pity, but with admiration: these were powerful women. In pursuing my graduate education, first an MSW and then a PhD, I planned to pursue research with this population. I was interested in better understanding the complex and diverse lived experiences of women that academia has not yet thoroughly explored, but whose knowledge about building community and strength in the face of adversity are valuable to the study of social work.

Due to my educational background in both international development studies and business administration in the early 2000’s, I was acquainted with the concept of microfinance and was aware of the way that banking the poor was spreading beyond the confines of the NGO. In thinking about the ways that this kind of globalization impacts communities, my mind was drawn to my husband’s aunts and cousins, many of whom are pillars of their neighborhood communities. What would an influx of foreign capital and increased individual financing do the power structures of women’s communities? Because of the importance of relationships to women’s social standing and the necessity of social capital in many micro-credit schemes, the idea for this research was born: To explore the lived experiences of Guinean women through their creation of social capital in cooperative groups.
My perspective on this population is nuanced yet positive. I am well acquainted with the high barriers – personal and structural – that Guinean women face on a daily basis. And yet I cannot help but be optimistic as I see the incredible transformation in many African countries over the past ten years. There are change agents all over the continent with new ideas and incredible energy. I believe that Guinean women are a strong agent for positive change in their communities and will continue to play that role in the decades to come. I see my role as a researcher to (a) give voice to a population that is not regularly recognized in social work research (b) conduct rigorous research that builds scientific knowledge about a different way of doing and being and (c) use culturally grounded, collaboratively developed evidence to inform policy decisions and effective interventions.

I do not see myself as a spokesperson for the population I study. As a white woman from the American Midwest with multiple college degrees my life has been privileged in ways that preclude me from making that claim. Instead I see myself as an ally, one that has invested enormously in this community in terms of time, effort, and love. I am conscious of the ways that my identity distorts both my understanding of this population and their understanding of me. And yet I do not believe that this “noise” in our communication impedes the potential of developing innovative and useful knowledge. Approaching my relationship with the women in this study from a constructivist perspective, I see the knowledge that we have co-created in this study as something new altogether, situated in time and place, but also the coming together of multiple perspectives describing and interpreting a phenomena. And as a firm believer in
the strength of diversity in creating innovative solutions to our common problems, I see these multiple perspectives as a source of strength. The world is becoming more globalized every year – our problems span national borders – so too should our solutions.

**Developing partnerships.** I travelled to Conakry, Guinea during April and May of 2016, and data collection for this study occurred during this period. Due to this limited time available for data collection, forming collaborative relationships with partners in Guinea prior to my fieldwork was vital to the success of this project. Table 4 details the major stakeholders in this research as well as the valuable resources and knowledge each brought with them during the partnership. This research was possible only via the cooperation across these groups. By combining resources, knowledge, and access these groups provided context and triangulated data in the areas of interest.

**Gaining access to study population.** Prior to my arrival in Conakry, Guinea I had established relationships with several Guinean academics, including Dr. Ester Botta & Dr. Abdoulaye Wotem Sompare, Dean and Assistant Dean of the Socio-Anthropology program at Kofi Annan University in Conakry. Because of their experience with this research population I was able to establish with a strong degree of certainty that I would in fact be able to successfully engage with women’s groups in Conakry. Upon my arrival I met with both of them and communicated in depth about the prevalence and location of the kind of groups I was interested in working with. This provided me with more precision in where to locate potential participants. In order to locate and recruit research participants, it was necessary for me to use my own social network to establish connections with organizations that work with or support local women’s groups. I first
spoke with an academic contact, Dr. Kerfing Conde, the Associate Dean of Research in the College of Sociology and Anthropology at Universite de Sonfonia, a large public institution in Guinea. In his previous research with rural communities he had developed a

<table>
<thead>
<tr>
<th>Category</th>
<th>Name</th>
<th>Organization</th>
<th>Roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Researcher</td>
<td>Marissa Kaloga, MSW</td>
<td>Doctoral Candidate, Ohio State University College of Social Work</td>
<td>Primary Investigator, Project Planning and Management, Data analysis</td>
</tr>
<tr>
<td>Guinean Researchers</td>
<td>Dr. Abdoulaye Sompare</td>
<td>Dean and Asst. Dean of the College of Sociology at Kofi Annan University in Conakry, Guinea</td>
<td>Logistics and Planning, Historical Context, &amp; Content Expertise</td>
</tr>
<tr>
<td></td>
<td>Dr. Ester Botta</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dr. Kerfing Conde</td>
<td>Asst. Dean of Social Research, Sonfonia University</td>
<td></td>
</tr>
<tr>
<td>Micro Finance Institutions</td>
<td>Lamarana Saido Diallo</td>
<td>Director, Credit Rural Administrative &amp; Financial Head, Yete Mali</td>
<td>Expertise on Financial Inclusion, Access to Population</td>
</tr>
<tr>
<td></td>
<td>Mansare Mamadi</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government Institutions</td>
<td>Dalanda Diallo</td>
<td>Director for Women, Ministry of Agriculture</td>
<td>History &amp; Context, Access to Population</td>
</tr>
<tr>
<td></td>
<td>M. Conde</td>
<td>Director, Office of Assistance for Market Associations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mohamed Diaby</td>
<td>Deputy National Director, Ministry of Social Action for Women &amp; Children</td>
<td></td>
</tr>
<tr>
<td>Research Participants</td>
<td>Various</td>
<td>Member of with a savings and credit group</td>
<td>Partners in knowledge building, Experts in the phenomena</td>
</tr>
</tbody>
</table>

*Table 4: Partnership information*

relationship with Credit Rural, the largest non-profit supplier of micro-credit in Guinea, which operates throughout all areas of the country.
Dr. Conde provided an introduction to the Directeur Generale of Credit Rural. Through him, I was able to speak with several agents of the organization to further define the kinds of groups I would like to work with. As a result of these conversations, I met with Mme. Balia, a community organizer that works for Credit Rural. Over the course of two weeks, she shepherded my research assistant and I to multiple women’s groups located throughout Conakry. She provided a culturally appropriate introduction to each group, facilitating open communication with participants. I also approached the Guinean MFI Yete Mali for support in this research. I spoke with representatives at several MFI branches, and was directed to the headquarters in Dixinn to speak with M. Mamadi. He introduced me to M. Kamissoko, who provided an introduction to additional women’s groups.

In addition to the formalized groups, I was interested in looking at informal cooperative groups. In order to locate and engage a larger number of these groups, I turned again to my social network in Conakry. By openly announcing to my contacts that I was looking for informal groups at various stages of organization, I was able to locate several women’s groups, and through introductions along chains of acquaintances, was able to establish the rapport necessary to successfully engage with the groups.

3.5 Analysis

**Social network analysis of four informal groups.** Analysis of the social network data was completed in two phases. Phase one used a global social capital measure which encompassed all six domains of social capital, and phase two looked at each of the six
domains of social capital separately across the four groups. Each of these two phases is detailed below.

Preparation of the data. Data collected with the social network instrument was used to create matrices in Excel. Data for each group was entered to create a separate adjacency matrix for each of the six domains of social capital, as well as a table of attribute data. This data was then uploaded into Ucinet (Borgatti, Everett, & Freeman, 2002) to create symmetric adjacency matrices for analysis. In order to create a global measure of social capital that encompassed all six of the domains, the six separate matrices for these areas were joined to create a single, weighted, directed sociomatrix for each of the four groups. These four comprehensive networks were used for the first phase of social network analysis. The second phase of analysis used the individual six domain networks from each of the four groups. Prior to carrying out analyses, each of the networks listed in Table 5 was visualized using NetDraw software (Borgatti, 2002). Each network was created using the graph theoretic layout with spring embedding. This algorithm uses 100 iterations, starting with a random graph, to create a network visualization that places those nodes with the smallest path lengths closest to one another. The node repulsion option was also used to ensure enough separation between nodes to allow for observation of directional ties (Hanneman & Riddle, 2005). The resulting visualizations are presented with network analysis results in sections 4.1 and 4.3.
**Matrices Used for Analysis**

<table>
<thead>
<tr>
<th>Group #</th>
<th>Domain Level Matrices</th>
<th>Comprehensive Matrices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>Access to Resources</td>
<td>Global Measure of Social Capital</td>
</tr>
<tr>
<td></td>
<td>Trust, Cooperation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication, Empowerment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Cohesion &amp; Inclusion</td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>Access to Resources</td>
<td>Global Measure of Social Capital</td>
</tr>
<tr>
<td></td>
<td>Trust, Cooperation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication, Empowerment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Cohesion &amp; Inclusion</td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td>Access to Resources</td>
<td>Global Measure of Social Capital</td>
</tr>
<tr>
<td></td>
<td>Trust, Cooperation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication, Empowerment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Cohesion &amp; Inclusion</td>
<td></td>
</tr>
<tr>
<td>Group 4</td>
<td>Access to Resources</td>
<td>Global Measure of Social Capital</td>
</tr>
<tr>
<td></td>
<td>Trust, Cooperation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Communication, Empowerment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Social Cohesion &amp; Inclusion</td>
<td></td>
</tr>
</tbody>
</table>

*Table 5: List of Matrices Used*

**Phase 1.** The first phase of network analysis sought to answer the question, how is social capital structured in women’s collective financial groups? The major objective of this phase was to understand how social capital operates within an existing group. In order to do this, analyses were carried out at three levels in the group. First, analyses were carried out on the valued, directed sociomatrices of the global measure of social capital. These results served to provide a holistic understanding of the way social capital was structured in each network. Secondly, these networks were analyzed at a closer level for subgraphs, with the aim to reveal the internal structures of social capital within each group. Third, analyses of regular equivalence were applied to each of the four networks in order to
ascertain any structurally similar nodes within or across networks. Thus the structure of each of the four networks was assessed at the global, substructure, and node levels.

*Describing the network.* Luke (2015) proposes a Five Number Survey to provide an initial holistic look at a given network prior to any additional analysis. These five measures are size, density, components, diameter, and clustering. In addition to these five aspects, measures of centrality and reciprocity were also calculated. Each of these areas was explored with measures appropriate to both these specific matrices and the research questions. The number of active nodes – those with at least one tie to another node – constituted the size of the network. Density, which represents the proportion of ties present in a given network, is considered a key network property, as it is a good indicator of cohesion. The higher the network density (on a scale of 0 to 1, the closer it is to 1), the more cohesive it is expected to be (Borgatti, Everett, & Johnson, 2013). For the networks in this sample, all members are known to one another by virtue of their membership in the group, thus if a friendship network was created for this group it would likely be quite close to one. However, the networks in this study are created around social capital, thus the density measures in this study represented the social capital between participants. A preliminary analysis for major structural components, disconnected pieces of a graph, was carried out as part of the description of network properties using the components for valued graphs tool. Further refinement of these components was carried out in the subsequent subgraph analysis. Geodesic distances were calculated as a measure the diameter of the network, defined as the longest of the shortest paths that crosses every pair of nodes in the network. This is a measure of network efficiency, which considers
how efficiently information or resources can flow across a network (Kadushin, 2012). The final measure in Luke’s (2015) summary is clustering, or a network’s tendency to form closed triads. Transitivity, the networks proportion of closed triangles, was calculated as a measure of clustering. These five numbers: size, density, components, diameter, and clustering, provided an overview of each of the four graphs.

Measures of centrality provided additional information about each network, “the structural importance of a node” (Borgatti, 2012 p. 197). In order to capture this, three measures of centrality appropriate to a directed, valued graph were calculated: degree centrality and eigenvector centrality. Degree centrality, specifically in-degree centrality, measured the number of directed ties to a node and provided information about the importance of each node in the social capital network. Eigenvector centrality provided an added value of importance for each node. In this measure, a node’s centrality is calculated by the centrality of nodes which it is adjacent to. Thus a node with a high in-degree of low centrality nodes can potentially have a smaller Eigenvector centrality than a node with a lower in-degree of high centrality nodes.

Both dyadic and arc-based reciprocity were calculated for each of the networks. Dyadic reciprocity consists of number of reciprocal dyads in the network divided by the number of adjacent dyads. Arc based reciprocity consists of the number of reciprocal ties between nodes divided by the total number of ties in the network (Hanneman & Riddle, 2005). These measures of reciprocity provide additional information about the nature of the collaborative relationships between the members of the groups.
**Sub-graph analysis.** After characterizing the networks using the analyses outlined above, a sub-graph analysis was completed. This aimed to identify sub-structures within the sociomatrices as a way of understanding where social capital was located in the groups. The first step in the subgraph analysis, the identification of separate network components, was accomplished in the first round of foundational analyses. This section details the procedures used to examine these components for further structures. In their book on social network analysis, Borgatti, Everett, and Johnson (2013) outline a process for completing a comprehensive analysis for subgraphs within a whole network. This six step process, which guided the analysis for subgraphs, proceeded as follows: First, valued data was dichotomized, and all values greater or equal to 1 became 1. Second, because the graphs are directed the network components, both weak and strong, were established. Weak components are determined through identifying all nodes connected to one another, regardless of their direction. Strong components are identified using directional data, where subgraphs must have a directed path between all nodes. (Borgatti, 1998) Third, a clique analysis provided information on the cliques of three or more members in each group. Hierarchical clustering was also applied. Fourth, these sets of cliques were analyzed for patterns of overlap, which allowed some series cliques to be collapsed. Fifth, if further merging was necessary, the Girvan Newman algorithm was used to consolidate cliques. Sixth, if these analyses did not yield acceptable subgraphs, a factions approach was the next step used to partition each node into a group, creating subgroups.

**Regular equivalence.** Equivalence in networks is valuable as it provides a context for node characteristics or behaviors. For example, structurally equivalent nodes have
been shown to be similar in other areas, such as attitudes (Erickson, 1988). When examining a network for equivalence, structural equivalence is often used. Analyses for structural equivalence seek to identify nodes with the same set of ties to the same alters. Structural equivalence, or the less strict structural similarity, can be important tools for isolating important features of a specified network. However, regular equivalence was a more appropriate measure for this study, as it allowed for the identification of nodes that are similarly structured within a network, but not tied to the same set of alters. The identification of similarly structured nodes, not tied to a specific set of alters, supported the objective of this research to understand how social capital functions across multiple women’s groups. To identify regular equivalence, each network was analyzed using the Rege algorithm to profile similarity for regular equivalence. The results of the Rege were then further partitioned with clustering analyses to uncover equivalencies.

In each of the three networks of the global measure of social capital, the combination of network characteristics, sub-graph analysis, and identification of regular equivalencies were able to provide information about how social capital functions within these four groups.

**Phase 2.** Phase two of social network analysis unpacked each of the four groups’ joined sociomatrices of the global measure of social capital into the six separate social capital domains. By looking at each domain separately this phase of analysis sought to answer the question: How does social capital function in women’s collective financial groups? In order to answer this question, each of the six domains of social capital was compared across the four groups, with the objective to identify meaningful structural
patterns that characterize the domain. Due to the smaller number of ties in the domain matrices, the networks were first visualized to assess for overall structural patterns. Then, a series of network analyses were run on each of the domain networks to identify commonalities. These included measures of centrality, cohesion, distance, density, betweenness, equivalence and clustering. Upon identification of a meaningful pattern across groups within a shared domain, further analyses were completed to triangulate those findings. For example, the four group networks for Domain 1: Access to Resources were visualized. These visualizations showed a clear wheel structure with a central node in multiple group networks. Analyses including degree and eigenvector centrality were then run to test for centrality.

**Qualitative analysis of semi-structured interviews.** Analysis of qualitative data for all 12 groups in the sample began during data collection. After each day of conducting interviews, resulting in both hand written notes and recordings, I reviewed these materials, and wrote analytic memos to capture the emerging thematic areas resulting from data collection. These memos in turn informed the next day’s semi-structured interviews, allowing me to focus further data collection on those aspects of the phenomenon most prescient. With these memos, I was able to complete qualitative data collection with a list of general areas that would form the beginning of my coding process. The use of analytic memos allows for the documentation of the initial steps of inquiry, and captures important information about the researcher’s process of developing qualitative themes from the data (Saldana, 2016).

During data collection I was able to interview 84 women from 12 different
groups. This includes both women that only completed the qualitative interview and those that also completed the social network instrument. Of the 84 interviews, 71 were audio recorded, and 13 were recorded with detailed hand written notes. I transcribed the audio recordings verbatim, and then translated the documents into English. I then translated hand written notes from French into English for further analysis, as English is my first language. Several words were kept in French due to their colloquial usage by the research population, to preserve their distinct meanings: *la cotisation*, *le groupement*, and *le social*. These words are included in Table 6.

<table>
<thead>
<tr>
<th>English</th>
<th>French</th>
<th>Colloquial Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution</td>
<td><em>La Côtisation</em></td>
<td>Specifically refers to a contribution to a ROSCA type pool of money.</td>
</tr>
<tr>
<td>Group</td>
<td><em>Le Groupement</em></td>
<td>A cooperative association of women that is registered officially with the government</td>
</tr>
<tr>
<td>Social</td>
<td><em>Le Social</em></td>
<td>A usage of the term to mean specific kinds of social interactions and support that underlie Guinean community life.</td>
</tr>
</tbody>
</table>

*Table 6: Colloquial usage of key French terms*
Coding. Upon translation of all interviews into English, the resulting Word documents were uploaded into Atlas.ti 8 (Scientific Software Development, 2016). These transcripts then underwent multiple phases of coding using the Atlas.ti 8 software: provisional coding, initial coding using a code-recode strategy, code mapping, and focused coding. Each of these phases is outlined below.

The first phase of coding followed the areas identified by my in-field analytic memos created during data collection. Using provisional coding, I first identified these areas in the corpus of data. These areas, such as le social, types of groups, funding barriers, and ideas for growth, provided general guidance for the first read of the entire qualitative dataset. Following the provisional coding, the next phase was initial, or open, coding (Saldana, 2016). In this phase, I read and coded the data line by line, expanding my focus from the initial provisional areas to include all sections of the data. The initial coding resulted in 745 individual codes. These 745 codes were then organized into 25 code groups, or categories. Subsequently, these codes were collapsed due to similarities or spelling errors. For example, “friends,” “friend,” and “freinds” were collapsed into one code: “friends.” After this preliminary merging of codes, the codebook consisted of 720 individual codes in 25 categories.

Continuing the process of identifying prominent concepts in the data, these 720 resulting codes were further collapsed based on conceptual similarities. For example, “Brave,” “Fearless,” and “Courageous” were merged into a single code, “Courage.” Likewise, “Solidarity” and “Group Solidarity” were merged into a single code, “Group Solidarity.” Additionally, the 25 code groups, or categories, were also combined into
thematic areas. This process of conceptual merging resulted in a first phase codebook consisting of 584 individual codes in 25 categories.

(Saldana, 2016)

*Code Mapping.* Following the first phase of coding, I used the method of Code Mapping to organize these categories, sub-categories, and codes into a preliminary outline. This preliminary outline allowed me to begin the process of organizing codes and concepts in related categories. The resulting code map is illustrated in Figure 5.
Third Iteration of Coding: Recategorizing into Nine Thematic Areas

**Typology of Groups**
- Tontine
- Sèrè
- Association
- Groupement
- Cooperative

**Leadership Roles in Groups**
- President
- Vice President
- Treasurer
- Secretary
- Counselor
- Monitor

**Fluidity of Group Forms**
- Beginning something new
- Adding new members
- Expanding the group
- Formalizing the group

**Strategies for Decision Making and Problem Solving**
- Consensus building process
- Choosing leadership
- Open communication
- Who goes first?
- Public vs. private resolution of problems
- Late fees in groups
- Issues of non-payment

**Social Functions of Cooperative Groups**
- Le Social
- Social assistance funds as informal social welfare

**Participant Experiences**
- Motivation for participation
- Experiences of cooperation

**Barriers to Success**
- Financial barriers
  - Lack of access
  - Inappropriate financial options
  - High interest rates
  - Collateral needed
  - Inconsistent finances
- Social barriers
  - Illiteracy
  - Unemployment
- Environmental barriers
  - Climate
  - Health
- Political barriers
  - Red tape

**Focusing on the Future**
- Plans for the future
- Role of ideas in group success

*Figure 5: Mapping Thematic Areas*
Upon completion of the code map, the subsequent phase of coding began. In this phase I used the method of focused coding to further consolidate the codes into categories, with emphasis on the conceptual similarity across participants’ responses (Saldana, 2016) (Charmaz, 2014). This resulted in the following three tree diagrams, Figures 6, 7, and 8, which illustrate the coding families and the subsidiary categories within them.
Figure 6: Group Functioning Code Family
Figure 7: Barriers and Opportunities Code Family
Figure 8: Creating Social Capital Code Family
These three families, Group Functioning, Barriers, and Creating Social Capital are used to organize the results of this analysis, elaborated in Chapter 4, Section 2 of results.

**Combined qualitative and social network analysis.** This third section of analysis addressed the fourth research question, how are the experiences of participants at diverse structural locations within a social capital network characterized? This analysis used both the results of the social network analysis and the qualitative coding to provide additional perspective on the role of social capital these four groups.

Social structure itself is composed of cultural constructs. Because of this, research on social networks has to consider the interplay of structure and meaning. In their discussion on social networks and the significance of structures, Fuhse (2009, p. 59) writes that “the primary nature of meaning is neither subjective nor objective, but rather intersubjective – it only exists as incorporated in specific social structures between people.” The intersubjective structure of social capital can be illustrated using social network diagrams and analyses. However, in order to better capture the meaning of that structure, additional examination is needed. In this study, this was achieved by combining the transcripts from a node’s in-depth qualitative interview with her structural location at a characteristic location on a domain’s social network.

Six characteristic structural positions of interest were identified in the four groups, presented in Chapter 4 Section 1, Table 20. Members of the four groups in the social network sample also completed a semi-structured qualitative interview. Transcripts from participants who were identified in one of these structural positions and those who were not identified in one of these positions but occupied the same network, were compared.
across that domain of social capital. For example, the example below shows the graph for Group 3’s Access to Resources network.

![Network Diagram](image)

*Figure 9: Example of combined network and qualitative analysis*

Node 1, circled in red in Figure 9, was identified as have a characteristic “Central Leader” position in a Access to Resources network. This node was included in the qualitative transcript sample along with the other identified “Central Leaders.” The resulting sample for this domain across the four groups included n=4 “Central Leaders”, one from each group in the social network sample. In order to understand how each Central Leader experienced the “Access to Resources” domain of social capital, the sections of the participants’ transcripts relating to “Access to Resources” were selected and identified for further analysis. The codes generated for each participants through the iterative data coding in the prior qualitative analysis were further compared across the
four Central Leaders. These codes were then compared for similarities to the codes for members of the groups not in the Central Leader position. Codes that were emerged as distinct to the Central Leaders were identified and collapsed into the thematic categories presented in Chapter 4 Section 3. These categories provide a contextualized understanding of how members at specific structural locations of a network experience social capital. The same process was completed for all six social capital domains: Access to Resources, Trust, Communication, Cooperation, Cohesion, and Empowerment. The results of these comparisons are presented in Chapter 4 Section 3.

**Conclusion.** In this chapter, the study methodology was presented including rationale for the methods chosen and a conceptual framework that guided the inquiry. The research design was explained in detail using a five step comprehensive, mixed methods data collection and analysis research design. Data collection processes, including IRB approval, gaining access to the research population, and informed consent procedures were detailed as well. The chapter concluded with the delineation of the analyses used with the data collected to answer the four research questions in this study. In the subsequent chapter, the results of these analyses are presented.
Chapter 4: Results

The results of the analyses outlined in Chapter 3 Section 5 are presented in detail in Chapter 4. To begin, information about the sample, including size and description, is presented. Following this, the chapter is organized into three sections. Section 4.1 reports the results of the social network analysis, which focuses on a set of four informal groups called *sèrè*. These *sèrès* are the social structure that underlie cooperative groups’ creation of social capital, and are thus an appropriate social unit to study in order to begin to understand how social capital is structured within the groups. Further examination provides results on how this social capital functions in each network. Section 4.2 reports the results of qualitative analysis of the semi-structured interviews in three overarching thematic areas: (a) group functioning; (b) building social capital; (c) barriers and opportunities. This section of the results expands upon the basic network framework of social capital in Guinean women’s social structures communicated in section 4.1. The qualitative results provide a rich description of the lived experiences and social ideas that give meaning to the network characteristics. The final section of this chapter, 4.3, reports the results of the combined analysis of the social networks and semi-structured interviews. This section provides another layer of contextualized understanding of how
the networks of social capital intersect with the lived experiences of the research participants.

**Description of the Sample**

Data collection yielded a sample of 12 separate women’s groups. The data includes a total of 143 individual participants. Of these participants, 17 key stakeholders provided qualitative interviews, 84 group members provided qualitative interviews, and 72 group members provided social network data. Table 7 below shows these numbers. Of note, some participants provided both social network data and participated in a qualitative interview.

<table>
<thead>
<tr>
<th>Type of Data Collected</th>
<th>n=</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Informant Interviews</td>
<td>17</td>
</tr>
<tr>
<td>Social Network Data Only</td>
<td>42</td>
</tr>
<tr>
<td>Qualitative Interviews Only</td>
<td>54</td>
</tr>
<tr>
<td>1. Social Network Data and Qualitative Interviews</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Number of Participants</td>
<td>143</td>
</tr>
</tbody>
</table>

*Table 7: Sample sizes of each data type*

The participants in this research are divided into two categories. First are the 17 participants in key informant interviews. These individuals were administrative officials or community workers that worked directly with the populations of interest. Several had been members of women’s savings groups in the past but are not members of the savings groups in this sample. These participants provided context and background for the study.
The second category, of greater interest in this study, includes the members of the 12 women’s savings groups. Descriptive information for these 12 groups is included in Table 4. The groups were located in 6 neighborhoods, providing geographic diversity. The sizes of the groups ranged from 3 to 54. The groups were 50% formal and 50% informal, and ranged in duration from 6 months to 28 years. They varied in purpose between social, financial, production, material, and agricultural. All groups reported being of mixed ethnicity. Qualitative interviews were conducted with all 12 groups. Social network data was collected from members of four informal sèrè groups, listed as groups 1, 2, 3, and 4 in Table 8 below. Specific demographic data of participants who provided social network data is included in section 4.1 Results of social network analysis.
<table>
<thead>
<tr>
<th>Data Collected</th>
<th>Neighborhood</th>
<th>Type</th>
<th>Purpose</th>
<th>Formality</th>
<th>Duration</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SNA&amp; Qualitative</td>
<td>Kipe</td>
<td>Sère &amp; Tontine</td>
<td>Social, Financial, &amp; Material</td>
<td>Informal</td>
<td>13 years</td>
<td>25</td>
</tr>
<tr>
<td>2 SNA&amp; Qualitative</td>
<td>Sangoyah</td>
<td>Sère &amp; Tontine</td>
<td>Social, Financial</td>
<td>Informal</td>
<td>2 years</td>
<td>13</td>
</tr>
<tr>
<td>3 SNA&amp; Qualitative</td>
<td>Matoto</td>
<td>Sère &amp; Tontine</td>
<td>Social, Financial</td>
<td>Informal</td>
<td>6 months</td>
<td>10</td>
</tr>
<tr>
<td>4 SNA&amp; Qualitative</td>
<td>Tannerie</td>
<td>Sère &amp; Tontine</td>
<td>Social, Financial</td>
<td>Informal</td>
<td>1.5 years</td>
<td>24</td>
</tr>
<tr>
<td>5 Qualitative</td>
<td>Ratoma</td>
<td>Sère &amp; Tontine</td>
<td>Social, Financial</td>
<td>Informal</td>
<td>28 years</td>
<td>22</td>
</tr>
<tr>
<td>6 Qualitative</td>
<td>Kipe</td>
<td>Sère, Groupement, &amp; Association</td>
<td>Social, Production, Financial</td>
<td>Formal</td>
<td>7 years</td>
<td>35</td>
</tr>
<tr>
<td>7 Qualitative</td>
<td>Dixinn</td>
<td>Sère &amp; Tontine</td>
<td>Social, Financial</td>
<td>Informal</td>
<td>1 year</td>
<td>15</td>
</tr>
<tr>
<td>8 Qualitative</td>
<td>Tannerie</td>
<td>Groupement</td>
<td>Market, Financial, Social</td>
<td>Formal</td>
<td>6 years</td>
<td>22</td>
</tr>
<tr>
<td>9 Qualitative</td>
<td>Matoto</td>
<td>Groupement</td>
<td>Market, Financial, Social</td>
<td>Formal</td>
<td>6 years</td>
<td>19</td>
</tr>
<tr>
<td>10 Qualitative</td>
<td>Matoto</td>
<td>Groupement</td>
<td>Production, Financial, Social</td>
<td>Formal</td>
<td>11 years</td>
<td>20</td>
</tr>
<tr>
<td>11 Qualitative</td>
<td>Ratoma</td>
<td>Groupement</td>
<td>Agricultural, Financial, Social</td>
<td>Formal</td>
<td>6 years</td>
<td>3</td>
</tr>
<tr>
<td>12 Qualitative</td>
<td>Dixinn</td>
<td>Groupement</td>
<td>Production, Financial, Social</td>
<td>Formal</td>
<td>23 years</td>
<td>54</td>
</tr>
</tbody>
</table>

Table 8: Description of all twelve groups
4.1 Results of Social Network Analysis

This section begins with a description of the sample of four groups whose members provided the network data to create the sociometric networks examined here. Following this, results for each of the four groups is presented separately in two segments. First, the holistic measure of social capital created through the joining of all six domains into a weighted sociomatrix is examined for substructures and equivalence to address the research question: How is social capital structured in women’s collective financial groups? Secondly, each of the six domains of social capital is examined separately, and comparisons across the four groups provide characterizations of how each domain of social capital functions within the groups in this sample, which addresses the research question: How do the social capital networks of collective financial groups function?

Description of the subset of the sample for SNA. During field work, four complete sets of network data were collected from well-organized but officially informal sèrès, socially oriented women’s groups which include a ROSCA type financial component. A detailed explanation of this form of organization is included in section 4.2 of this chapter. Limited demographic information was collected from each participant, including marital status, occupation, literacy, and household size. The group averages of these attributes are presented in Table 9 to provide an overall understanding of each sèrè. Group 1 is distinguished by the 100% marriage rate of participants. In addition, participants are on average older and less literate than the other three groups. All Group 1 members work in the market, and on average have more children, and a larger
Group 2 has the lowest marital rate of 8%, and smallest household size of the four groups at four. Group 3 is the smallest group with only ten members, has the largest average number of adults in the home at six, and a larger household size. Group 4 has the highest literacy rate at 66%, as well as a lower number of biological children.

Participants’ reported occupations are representative of common kinds of work done by women in Conakry: Market, Seamstress, Salon, Housewife, and Student.

<table>
<thead>
<tr>
<th>Group</th>
<th>n=</th>
<th>Married</th>
<th>Literate</th>
<th>Age</th>
<th># bio kids</th>
<th># kids in home</th>
<th># adults in home</th>
<th>Household size</th>
<th>All Listed Occupations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>25</td>
<td>100%</td>
<td>26%</td>
<td>36</td>
<td>4</td>
<td>8</td>
<td>3</td>
<td>11</td>
<td>Market</td>
</tr>
<tr>
<td>Group 2</td>
<td>13</td>
<td>8%</td>
<td>62%</td>
<td>22</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>Student, Seamstress, Market, Salon</td>
</tr>
<tr>
<td>Group 3</td>
<td>10</td>
<td>30%</td>
<td>60%</td>
<td>25</td>
<td>2</td>
<td>6</td>
<td>6</td>
<td>11</td>
<td>Seamstress, Market, Salon, Housewife</td>
</tr>
<tr>
<td>Group 4</td>
<td>24</td>
<td>25%</td>
<td>66%</td>
<td>22</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>Student, Seamstress, Market, Salon, Unemployed</td>
</tr>
<tr>
<td>Total</td>
<td>72</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Table 9: Attribute data for four groups in SNA sample

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Guinean families often have non-biological children in a household. In addition, non-nuclear family members or non-relatives may be living in the same household. Thus, household size is a useful measure to capture the size of a participants’ household.
**Phase 1.** The first phase of social network analysis addresses the research question, how is social capital structured in collective financial groups? Analysis of each of the four groups’ sociocentric networks created with the global measure of social capital is presented below, which contains the results of the three levels of whole network analysis outlined in Chapter 3 Section 5.

**Group 1.**

*Whole network description.* The whole network description looks at the global features of the graph to provide a holistic understanding. Group 1 includes a total of 16 nodes, each representing an active member of the group. As has been shown to be typical, some members have dropped out of the group over time. These nodes were removed as isolates from this graph. The density of the graph, measuring the proportion of present ties from all possible ties, stands at 0.17. Most respondents in this group selected only one alter for each social network question, although this was not specified in the instructions. Therefore, the density reflects that participants chose at least one alter for each question, but often did not identify additional alters. There is one connected component for the global measure of social capital in Group 1, with all nodes connected to the component with at least one tie. Of note, nodes 15 and 25 are connected to the network through a single path, which is unique in this group. The average geodesic distance is 2.0, indicating that each node is able to reach any other node in the network via an average path of two. The final measure, transitivity, is 0.14. These results are presented in Table 10. Figure 10 illustrates the weighted, directed sociomatrix for this group.
Centrality measures were also carried out for all nodes in this network. Because the participants chose at least one alter for each of the six questions, and most chose only one, out-degree of the nodes is relatively homogenous. However, there is significant variance in the in-degree, which ranges from 0 to 21. This is a better indicator of the
centrality of the nodes, as it represents who actors are referencing for each SNA question. Eigenvector centrality, which measures the centrality of each of the alters a node is connected to, is also shown in Table 11. This measure provides an additional perspective on centrality, as a node may have more importance in the network if it is tied to popular alters, even if the ties are few. This is evidenced by the Eigenvectors of nodes 10, 11, and 12, which have similar Eigenvectors. However, node 10 has only three ties, yet has a higher Eigenvector (0.24) that nodes 11 and 12 who have higher in-degrees, but lower Eigenvectors (0.22). Overall, there were four nodes that stood out with the highest centrality scores: 2, 4, 5, and 13.

<table>
<thead>
<tr>
<th>Group</th>
<th>Node</th>
<th>Out Degree</th>
<th>In Degree</th>
<th>Eigenvector</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>10</td>
<td>18</td>
<td>0.44</td>
</tr>
<tr>
<td>1</td>
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<td>1</td>
<td>0.18</td>
</tr>
<tr>
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</tr>
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<td>0.22</td>
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<tr>
<td>1</td>
<td>25</td>
<td>6</td>
<td>7</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Table 11: Group 1 node centrality scores

Analysis for substructures. Having established the network characteristics of the whole network, analyses were then directed to identifying smaller substructures within
the network. Using an analysis for weak components, wherein all nodes are connected without regard to direction of the connection, the first step in analysis for substructures identified that all of the nodes were connected in one component. A core-periphery analysis then partitioned this component into two sections: the core and the periphery, with a correlation of 0.4287. Ucinet does not calculate a P value to support this coefficient. This analysis revealed that the core contained six nodes: 2, 4, 5, 11, 13, and 25. Of note, nodes 2, 4, 5, and 13 were identified as having the highest centrality scores. Thus nodes 11 and 25 are added to the core of the group in this step.

Correlation = 0.4287

Core/Periphery Class Memberships:

Core:  2 4 5 11 13 25
Periphery:  3 6 7 8 9 10 12 15 23 24

Figure 11: Group 1 core periphery class memberships

The core-periphery analysis partitions the group into two parts, and provides more information about the structure of social capital in the network – certain nodes are at the
center of the global measure of social capital, while others are more distal. In order to understand how social capital is structured in more detail, the network was analyzed for cliques. A series of clique analyses were executed, and twelve cliques were found in this first step, presented in Figures 11 and 12.

12 cliques found.

1:  2 4 5 10  
2:  2 3 5 24  
3:  2 5 23  
4:  2 7 12 13  
5:  2 3 7 13  
6:  2 7 23  
7:  2 4 11  
8:  2 11 13  
9:  2 4 12  
10:  6 7 12 13  
11:  4 5 8 10  
12:  5 8 9  

Figure 12: Group 1 results of analysis for cliques

A review of Figure 12 shows that there was considerable overlap of nodes across these twelve cliques, which can be most easily observed for node 2. In order to further define these cliques, an overlap matrix was created and used to create a hierarchical clustering of this overlap, resulting in the identification of two major cliques. These two cliques formed around nodes 4 and 2, as well as nodes 7 and 13. Additional nodes can be added to the clique depending on the level of clustering desired. It is important to underscore that there is a partitioning between these two cliques that bifurcates the group. The clique headed by 4 and 2 and the clique headed by 13 and 7 are distinct from level 0.167 onwards.
Regular Equivalence. The clique analysis identified two pairs of actors that lead two distinct cliques in this network. In order to better understand these sub-structures, regular equivalence was examined. The Rege algorithm was used to determine regular equivalence of nodes within the network. Using the customary three iterations, the following similarity matrix was created, shown in Figure 13. The numbers in this matrix represents the degree of equivalence between any two nodes. Thus, the diagonal shows 100, as each node is 100% similar to itself.
The raw scores from the similarity matrix were then submitted to a hierarchical clustering analysis, which clustered those nodes with similar equivalence together, shown in Figure 14.

**Figure 14: Group 1 REGE similarity matrix for regular equivalence**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
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<td>45</td>
<td>49</td>
<td>52</td>
</tr>
</tbody>
</table>

**Figure 15: Group 1 clustering of regular equivalencies**
The result of this clustering shows that there are no nodes with exact equivalence. However, there are several pairs of nodes that emerged as somewhat equivalent. Nodes 8 and 15 had the highest regular equivalence, at 86.9. Nodes 2 and 11 were similarly equivalent at 83.9. Following these pairs, nodes 10 and 12 and 1 and 3 also show some similarity. However, in comparing these equivalencies to the other analyses completed, it is apparent that the degree of similarity in equivalence is not strong enough to claim regular equivalence between these nodes.
Group 2

Group 2: Five Number Summary

<table>
<thead>
<tr>
<th>Network Characteristic</th>
<th>Measured by</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Number of Nodes</td>
<td>13</td>
</tr>
<tr>
<td>Density</td>
<td>Global Density</td>
<td>0.56</td>
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<tr>
<td>Components</td>
<td># Weak Components</td>
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<tr>
<td>Diameter</td>
<td>Avg. Geodesic Distance</td>
<td>1.8</td>
</tr>
<tr>
<td>Clustering</td>
<td>Network Transitivity</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Table 12: Group 2 whole network description

![Network Diagram](image.png)

Figure 16: Group 2 diagram of global social capital measure

Whole network description. Group 2 is comprised of 13 nodes, which combined to form one connected component. This network has a higher density that Group 1, at 0.56,
and it can be understood as the result of a higher average out-degree of this groups’ participants. They more often named more than one alter for each question. The average geodesic distance was 1.8, which is smaller than Group 1, and indicates a shorter path length between nodes. The network transitivity of Group 2 is 0.17.

Centrality measures show a wide range of in-degree, from 0 to 27. Again, Eigenvector values for Group 2 are strongest for those nodes with the highest in-degree centrality, but are more varied for those nodes with lower degree centrality. For example, nodes 8 and 9 have 7 out-degree and 0 in-degree and yet have a higher Eigenvector (0.23) than node 12 which has an 8 out-degree and 7 in-degree (0.14). This indicates that nodes 8 and 9 are connected to nodes with higher centrality scores, leading to a higher Eigenvector.

<table>
<thead>
<tr>
<th>Group</th>
<th>Node</th>
<th>Out Degree</th>
<th>In Degree</th>
<th>Eigenvector</th>
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<td>0.23</td>
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<td>0.12</td>
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</table>

Table 13: Group 2 node centrality scores

Analysis for substructures. Using an analysis for weak components, wherein all nodes are connected without regard to direction of the connection, the first step in analysis for substructures identified that all of the nodes were connected in one
component. A core-periphery analysis then partitioned this component into two sections: the core and the periphery. This analysis revealed that the core contained five nodes: 1, 2, 4, 6, and 12.

Correlation = 0.5786

Core/Periphery Class Memberships:

<table>
<thead>
<tr>
<th>Core</th>
<th>Periphery</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 4 6 12</td>
<td>3 5 7 8 9 10 11 13</td>
</tr>
</tbody>
</table>

| 1 1 | 1 4 1 1 1 | 1 1 1 |
| 2 2 | 3 1 3 | 1 1 |
| 6 6 | 3 1 | 3 |
| 4 4 | 1 5 4 | 2 |
| 12 12 | 2 1 | 1 4 |

| 5 5 | 4 1 1 | |
| 7 7 | 3 3 | 1 |
| 8 8 | 1 2 4 | 1 |
| 3 3 | 5 1 | 1 |
| 10 10 | 2 2 1 | 1 |
| 11 11 | 2 3 | 1 |
| 9 9 | 5 1 1 | 1 |
| 13 13 | 1 6 | |

Figure 17: Group 2 core periphery class memberships

In order to more fully understand the substructures in this network, a series of clique analyses was executed. Eleven cliques were found in this first step, presented in Figure 18.

11 cliques found.

1: 1 2 4 8
2: 1 2 4 9
3: 1 2 4 10
4: 1 2 5
5: 1 2 11
6: 1 2 13
7: 1 5 6
8: 1 6 7
9: 1 6 12
10: 1 12 13
11: 2 3 4

Figure 18: Group 2 results of analysis for cliques
Following the series of analyses outlined for Group 1, an overlap matrix was created and used to create a hierarchical clustering of this overlap. Two iterations of hierarchical clustering resulted in the identification of a strong clique, nodes 1, 2, and 3, showing in Figure 19. A weaker clique centering on nodes 7, 8, and 9 is also present in this analysis. Of note, a similar bifurcated clique structure shown in Group 1 is also present in this group, although less pronounced.

**Hierarchical Clustering of Overlap Matrix**

<table>
<thead>
<tr>
<th>Level</th>
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<th>1</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
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<td>XXXXXXXXX</td>
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</table>

*Figure 19: Group 2 clique clustering hierarchy*

Regular equivalence. Analyses for regular equivalence were carried out using the REGE algorithm, which after the customary three iterations produced a similarity matrix shown in Figure 20. This similarity matrix was then submitted to a hierarchical clustering which revealed several nodes with similar regular equivalence.

**REGE Similarities (3 iterations)**

<table>
<thead>
<tr>
<th></th>
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<th>5</th>
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<td>74</td>
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*Figure 20: Group 2 REGE similarity matrix*
### HIERARCHICAL CLUSTERING OF EQUIVALENCE MATRIX

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<td></td>
</tr>
</tbody>
</table>

*Figure 21: Group 2 clustering of regular equivalencies*

Of these pairs, nodes 6 and 7 have the highest equivalence, at 92.3. Two other sets of pairs (8 and 9, 10 and 11) also arise as similarly positioned in the network, as shown in Figure 21.
**Group 3**

*Group 3: Five Number Summary*

<table>
<thead>
<tr>
<th>Network Characteristic</th>
<th>Measured by</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>Number of Nodes</td>
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</tr>
<tr>
<td>Density</td>
<td>Global Density</td>
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<td>Components</td>
<td># Weak Components</td>
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<td>Avg. Geodesic Distance</td>
<td>1.8</td>
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<tr>
<td>Clustering</td>
<td>Network Transitivity</td>
<td>0.25</td>
</tr>
</tbody>
</table>

*Figure 22: Group 3 whole network description*

*Figure 23: Group 3 diagram of global social capital measure*

**Whole network description.** Group 3’s size is 10 nodes, with a higher density of 0.81. It is comprised of one component, where all nodes are connected with at least one tie. The average geodesic distance is the same as Group 2, at 1.8. The network transitivity
measure is somewhat higher than Group 1 and Group 2, at 0.25.

The in-degree centrality ranges from 0 to 26. Those nodes with the highest in-degrees also have the higher Eigenvectors. Similarly to Groups 1 and 2, the Eigenvector values for nodes with lower degree centrality are more influenced by the centrality of their ties to alters. The wheel shape of the graph in Figure 23 further illustrates the highly centralized structure of social capital in Group 3. Node 1 is by far the most central figure in the group, with an in-degree (26) twice that of the second most central figure (13).

<table>
<thead>
<tr>
<th>Group</th>
<th>Node</th>
<th>Out Degree</th>
<th>In Degree</th>
<th>Eigenvector</th>
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</thead>
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<tr>
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<td>10</td>
<td>7</td>
<td>2</td>
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Table 14: Group 3 node centrality scores

Analysis for substructures. Using an analysis for weak components, wherein all nodes are connected without regard to direction of the connection, the first step in analysis for substructures identified that all of the nodes were connected in one component. A core-periphery analysis then partitioned this component into two sections: the core and the periphery. This analysis revealed that the core contained four nodes: 1, 2, 3 and 7.
In order to more fully understand the substructures in this network, a series of clique analyses was executed. Six cliques were found in this first step, presented in Figure 25.

6 cliques found.

1: 1 2 3 7
2: 1 2 4
3: 1 2 9
4: 1 4 5 6
5: 1 5 8
6: 1 3 7 10

As was the case for Groups 1 and 2, there was considerable overlap in the cliques. Following the same series of analyses, the clique overlap was clustered, showing a strong substructure relating to nodes 1 and 2. This is somewhat different than the two strong cliques dividing the group as shown in Groups 1 and 2. Group 3, following the group
pattern of centralization around node 1, does not have a second strong clique within its network of social capital.

**HIERARCHICAL CLUSTERING OF OVERLAP MATRIX**

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<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level</th>
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<tr>
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</table>

**Figure 26: Group 3 clique clustering hierarchy**

*Regular equivalence.* The same analyses for regular equivalence using the Rege algorithm and hierarchical clustering of the resulting equivalence matrix were applied to Group 3’s network data.

**HIERARCHICAL CLUSTERING OF EQUIVALENCE MATRIX**

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**Figure 27: Group 3 clustering of regular equivalencies**
The results indicated that nodes 7 and 10 hold similarly equivalent positions in the network. Less pronounced similarities existed between nodes 8 and 9 as well as between nodes 1 and 3.

**Group 4**

**Group 4: Five Number Summary**

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</tr>
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<tr>
<td>Density</td>
<td>Global Density</td>
<td>0.30</td>
</tr>
<tr>
<td>Components</td>
<td># Weak Components</td>
<td>1</td>
</tr>
<tr>
<td>Diameter</td>
<td>Avg. Geodesic Distance</td>
<td>2.7</td>
</tr>
<tr>
<td>Clustering</td>
<td>Network Transitivity</td>
<td>0.21</td>
</tr>
</tbody>
</table>

*Table 15: Group 4 whole network description*

![Group 4 whole network description](image)

*Figure 28: Group 4 diagram of global social capital measure*

**Whole network summary.** The largest network in the dataset was Group 4, with 24
nodes. The network density was 0.30. Like the other networks in this study, it is comprised of one, connected component. Due to its larger size, the average geodesic distance is the highest of the four groups at 2.7. Transitivity rests at 0.21.

Following the pattern for Groups 1, 2, and 3, centrality measures indicate a wide range of in-degree centrality, from 0 to 33. In addition, several nodes, namely 1, 4, and 21, have markedly higher degree centrality than the other actors.

<table>
<thead>
<tr>
<th>Group</th>
<th>Node</th>
<th>Out Degree</th>
<th>In Degree</th>
<th>Eigenvector</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
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<td>9</td>
<td>32</td>
<td>0.43</td>
</tr>
<tr>
<td>4</td>
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<tr>
<td>4</td>
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<td>0.18</td>
</tr>
<tr>
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<td>4</td>
<td>14</td>
<td>33</td>
<td>0.49</td>
</tr>
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<td>6</td>
<td>8</td>
<td>5</td>
<td>0.12</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>5</td>
<td>1</td>
<td>0.11</td>
</tr>
<tr>
<td>4</td>
<td>8</td>
<td>7</td>
<td>2</td>
<td>0.15</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>6</td>
<td>7</td>
<td>0.18</td>
</tr>
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<td>0.27</td>
</tr>
<tr>
<td>4</td>
<td>11</td>
<td>7</td>
<td>5</td>
<td>0.27</td>
</tr>
<tr>
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</tr>
<tr>
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<td>6</td>
<td>1</td>
<td>0.06</td>
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<td>6</td>
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<td>0.13</td>
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<tr>
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<td>6</td>
<td>0</td>
<td>0.14</td>
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<tr>
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<td>7</td>
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<td>0.07</td>
</tr>
<tr>
<td>4</td>
<td>17</td>
<td>6</td>
<td>3</td>
<td>0.15</td>
</tr>
<tr>
<td>4</td>
<td>18</td>
<td>6</td>
<td>0</td>
<td>0.15</td>
</tr>
<tr>
<td>4</td>
<td>19</td>
<td>7</td>
<td>6</td>
<td>0.14</td>
</tr>
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<td>4</td>
<td>20</td>
<td>6</td>
<td>3</td>
<td>0.06</td>
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<td>21</td>
<td>7</td>
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<td>0.38</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>6</td>
<td>1</td>
<td>0.10</td>
</tr>
<tr>
<td>4</td>
<td>23</td>
<td>6</td>
<td>3</td>
<td>0.11</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
<td>8</td>
<td>9</td>
<td>0.16</td>
</tr>
</tbody>
</table>

Table 16: Group 4 node centrality scores
**Analysis for substructures.** The analysis for substructures confirms the centrality of these nodes through a core-periphery analysis that grouped nodes 1, 4, 10, and 21 as the core.

Correlation = 0.4623

Core/Periphery Class Memberships:

**Core:** 1 4 10 21  
**Periphery:** 2 3 5 6 7 8 9 11 12 13 14 15 16 17 18 19 20 22 23 24

---

Upon identification of the core-periphery structure in Group 4’s social capital network, the clique analyses were applied to this network. A total of 29 cliques were identified in the network.

---

*Figure 29: Group 4 core periphery class memberships*
29 cliques found.

1:  1 4 8 10
2:  1 4 10 21
3:  1 4 10 23
4:  1 2 4 11
5:  1 3 4
6:  1 4 11 21
7:  1 4 18
8:  1 2 5
9:  1 5 7
10:  1 5 22
11:  1 5 23
12:  1 6 11 21
13:  1 6 10 21
14:  1 7 21
15:  1 14 21
16:  1 15 21
17:  1 10 21 22
18:  2 4 9
19:  4 9 10
20:  2 5 9
21:  5 9 16
22:  5 7 16
23:  7 16 21
24:  11 17 21
25:  4 19 23
26:  6 10 21 24
27:  4 10 21 24
28:  10 21 22 24
29:  14 21 24

Figure 30: Group 4 results of analysis for cliques

Due to significant overlap between multiple cliques, the same steps were followed as in Groups 1, 2, and 3 to create an overlap matrix followed by a hierarchical clustering of cliques. This clustering showed that a strong clique (8.0) based on nodes 1 and 12 is evident in the group. Two other cliques are visible at a lower level (2.0), one involving nodes 2, 5, & 9, and the other comprised of nodes 7 and 16. From the data shown in all four networks, it is possible that the same bifurcating clique pattern is emerging here as well.
Regular equivalence. The Rege algorithm to uncover regular equivalence was applied to Group 4’s network data. The resulting equivalence matrix was submitted to the same hierarchical clustering and revealed a pair of nodes with a strong regular equivalence. Nodes 15 and 18 have a 97.3 equivalence, with node 3 similar at 89.3. There is some additional similarity between nodes 1 and 4 and nodes 20 and 24.
Comparison across groups. Having presented the results of the four groups’ structure of social capital independently, the measures for these groups is now approached comparatively. Table 17 presents a summary of all four groups’ network descriptions. All are a single connected component. The average geodesic distance, as is expected, rises with group size. The global density measure ranges from a minimum of 0.17 to a maximum of 0.81 reflecting a large variance in the density between groups. Global transitivity also showed some variance, from 0.14 to 0.25. None of the transitivity scores was out of a normal range for social networks. The low score for Group 1 may be a result of the number of members that had dropped out of the group.
As was related above, the centrality scores of the four networks followed a pattern. For each group there were several actors with significantly higher degree centrality than the other members of the group. These actors also had the higher Eigenvector centrality. They were also sorted into the core of the group during the core-periphery analysis.

Other members derived their Eigenvector centrality based on whether or not they were connected to these central figures in the groups. These central actors also had a tendency to be among the strongest members of cliques within the group, forming the focal nodes during the hierarchical clustering of cliques.
Further comparison across groups can be made using the results of both arc and dyad reciprocity. As stated in the analysis section of Chapter 3, dyad reciprocity represents the number of reciprocal dyads divided by the number of adjacent dyads. In this sample, dyad reciprocity ranges from 0.17 to 0.50, that is to say between 17% and 50% of the number of adjacent dyads in the networks are reciprocal. Arc reciprocity focuses on the ties between nodes, and is calculated by the number of reciprocated arcs divided by the total number of arcs in the network. This sample shows a range of 0.29 to 0.67, or a range of 29% to 67% of the total number of arcs in the networks are reciprocal.

Several aspects of these reciprocity numbers provide additional information about the nature of the networks. First, although there is some variation in the reciprocity numbers, the average arc reciprocity is 51%, and the average dyad reciprocity is 35%. These averages are represented fairly closely in Groups 1 and 2 in Table 19. It is important to understand these numbers in the context of the group structure in order to ascertain why such collaborative groups would not have higher reciprocity levels. The nature of the networks as dynamic, growing social structures means that while they are specifically bounded sociomatrices, they are also open systems with the ability to incorporate additional members. In order to do this, social capital ties between members

<table>
<thead>
<tr>
<th>Group</th>
<th>Arc Reciprocity</th>
<th>Dyad Reciprocity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1</td>
<td>0.52</td>
<td>0.35</td>
</tr>
<tr>
<td>Group 2</td>
<td>0.56</td>
<td>0.39</td>
</tr>
<tr>
<td>Group 3</td>
<td>0.67</td>
<td>0.50</td>
</tr>
<tr>
<td>Group 4</td>
<td>0.29</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Table 19: Group Reciprocity
may be directed to nodes than cannot yet reciprocate in order to create those new relationships, as in the case of new member recruitment.

**Phase 2: Results of six social capital domains across four networks.** This phase of social network analysis assesses the dataset to answer the research question, how does social capital function in women’s collective financial groups? Through the identification of characteristic patterns or structures in each domain, the way that social capital functions can be better understood. In the following section, each of the six domains of social capital included in the social network instrument is examined separately. The results presented here communicate how each domain is characterized based on the four groups in this dataset.

**Domain 1: access to resources.** Upon visual inspection of each of the network diagrams in this domain, the first and most prevalent characteristic of these networks is that they are highly centralized around and directed to a single actor. The Access to Resources network for each of the four groups is presented in Figures 33, 34, 35, and 46. Node in-degree centralization captures this aspect of the networks, representing how many members of the group names the focal node for the Access to Resources name generator question. For each of these networks, the focal node in the table is also the president of the group. Table 20 shows the in-degree centrality of each of these central nodes.
Domain 1: Access to Resources  
Characteristic: Centrality

<table>
<thead>
<tr>
<th>Group</th>
<th>Focal Node</th>
<th>In-Degree Centrality</th>
<th>nIn-Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5</td>
<td>9</td>
<td>0.375</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>7</td>
<td>0.583</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>8</td>
<td>0.889</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>6</td>
<td>0.261</td>
</tr>
</tbody>
</table>

Table 20: Focal nodes with centrality scores for four groups
Figure 33: Group 1 access to resources network

Figure 34: Group 2 access to resources network

Figure 35: Group 3 access to resources network
Figure 36: Group 4 access to resources network
**Domain 2: trust.** The structure of the trust networks was characterized by three specific aspects. First, the graphs for groups 1, 3, & 4 each show a network that is divided into large components, which are bridged by relationships between two nodes. These two nodes correspond to participants who occupy leadership positions within the group and who are among the original members of the organization. This relationship, a potential cutpoint for the group, joins the two sides of the trust network. A second characteristic of these networks are the existence of reciprocal dyads, separate from the main component of the graph. Third, these directed networks are again characterized overall by a flow from the periphery to the core of the group. This is shown in the Garvin-Newman partitions as shown in Figure 37.

![GIRVAN-NEWMAN PARTITIONS](image)

**Figure 37: Analysis for clustering in group 4’s trust network**
Figure 38: Group 1 trust network

Figure 39: Group 2 trust network
Figure 40: Group 3 trust network

Figure 41: Group 4 trust network
**Domain 3 cooperation:** In the cooperation networks, similar relationships bridges are present as in the Trust networks, and connect these graphs. For example, in Group 3, nodes 3, 1, & 5 form a bridge for the group in both the Trust and Cooperation networks. The other two characteristics of the Trust networks, detached reciprocal dyads and flow from periphery to core, are also present in the Cooperation network. In addition to this, the cooperation networks contain an additional feature, a dense clique within the graph. In Group 1, this can be seen in the clique containing 2,3,5,9,24. In Group 2, the cohesive subgroup of 1, 2, 4, 8, & 9 provides another example.

Group 2 N-Clique Analysis (N=2)

**Figure 42: Group 2 cooperation network clique identification**
Figure 43: Group 1 cooperation network

Figure 44: Group 2 cooperation network
Figure 45: Group 3 cooperation network

Figure 46: Group 4 cooperation network
**Domain 4: communication.** The communication networks, based on the question “Who do you gossip with?” were created to understand with whom group members communicate, thus capturing the flow of information through the network. Group leaders maintained a high level of centrality, for example node 1 in Group 3. In addition, similar cliques of actors appear in this graph, such as 2,3,4, & 8 in Group 2. This clique formed a separate subgraph in the Access to Resources network for this group. The main aspect that characterized the Communication networks was the presence of new central actors from group membership, not leadership. Also, as seen most clearly in Figures 47 (Group 1) and 48 (Group 2), these networks included longer path walks from periphery members to reach core members.

**Geodesic Distances**

<table>
<thead>
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<th>Freq</th>
<th>Prop</th>
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</thead>
<tbody>
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<td>14</td>
<td>0.023</td>
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<td>6</td>
<td>0.010</td>
</tr>
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<td>4</td>
<td>0.007</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>0.002</td>
</tr>
<tr>
<td>NA</td>
<td>548</td>
<td>0.913</td>
</tr>
</tbody>
</table>

7 rows, 2 columns, 1 levels.
Average: 2.4
Std Dev: 1.4
Figure 47: Group 1 communication network

Figure 48: Group 2 communication network
Figure 49: Group 3 communication network

Figure 50: Group 4 communication network
Domain 5: social cohesion. The social cohesion networks showed a structural pattern consisting of a denser center of the network and either a line of nodes extending from a center or multiple nodes with only one connection to a central actor.

Interestingly, in the four social cohesion networks, there are no separate reciprocated dyads. Any disconnected network components contain at least three actors.

Group 3 Categorical Core/Periphery Analysis

Correlation = 0.6254

Core/Periphery Class Memberships:

Core:  1 3 7
Periphery:  2 4 5 6 8 9 10

```
  1 7 3 4 5 6 2 8 9 0
  1 7 3 4 5 6 2 8 9 1
---------------------
  1 1 | 1 1 |               |
  7 7 | 1 1 |               |
  3 3 | 1 1 |             1 |
-------------------------
  4 4 | 1              | 1 |
  5 5 | 1              |
  6 6 | 1              |
  2 2 |               |
  8 8 | 1              |
  9 9 | 1              | 1 |
 10 10 | 1 1 |               |
------------------------
```

Figure 51: Group 3 social cohesion network core-periphery analysis
Figure 52: Group 1 social cohesion network

Figure 53: Group 2 social cohesion network
Figure 54: Group 3 social cohesion network

Figure 55: Group 4 social cohesion network
**Domain 6: empowerment.** The empowerment networks were created using the question “Who do you consider to be a powerful woman in the group?” During data collection, many participants chose to identify themselves as a powerful person, and thus there is a high level of self-referencing in these four graphs, as lone, disconnected nodes. Because of the tendency of participants to cite themselves for this question, the main components of these networks do not include all of the actors in the group.

In the empowerment networks for Groups 1, 3, & 4, the network structure reveals that when referencing members who they feel are powerful – able to get things done – cliques are formed with actors grouping around central nodes. In Group 1 this can be seen in the 5,9,24,25 clique, the 4, 5, 8,10, 12 clique and the 2,3,4,23 clique. Similar structures are present in Group 3, and Group 4. While these clique central nodes include leaders, they also include regular group members.

A bi-component analysis to identify cutpoints within a network provides a useful tool to illustrate how the network is clustered around certain actors. This analysis was run using Group 1’s Empowerment network, and identified nodes 2, 4, 5, and 7 as cutpoints that, if removed, would create a disconnected network.
### Articulation points

| CutPoint | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|----------|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|          | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|          | 1 | 1 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          | 2 | 2 | 1 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          | 3 | 3 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          | 4 | 4 | 1 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          | 5 | 5 | 1 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          | 6 | 6 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          | 7 | 7 | 1 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          | 8 | 8 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          | 9 | 9 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |10 |10 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |11 |11 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |12 |12 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |13 |13 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |14 |14 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |15 |15 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |16 |16 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |17 |17 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |18 |18 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |19 |19 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |20 |20 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |21 |21 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |22 |22 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |23 |23 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |24 |24 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|          |25 |25 | 0 |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

**Figure 56:** Group 1 empowerment network analysis for cutpoints

---

**Figure 57:** Group 1 empowerment network
Figure 58: Group 2 empowerment network

Figure 59: Group 3 empowerment network
Figure 60: Group 4 empowerment network
### Main Features of Each Network - 6 Domains of Social Capital

<table>
<thead>
<tr>
<th>Domain</th>
<th>Networks Characterized By</th>
<th>Structure of Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Resources</td>
<td>Highly centralized wheel structure, with group leader in the center</td>
<td>Flow of network from Periphery to Core</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Separate, reciprocated dyads</td>
</tr>
<tr>
<td>Trust</td>
<td>Larger components bridged by relationships between two members</td>
<td>Flow of network from periphery to core</td>
</tr>
<tr>
<td>Cooperation</td>
<td>Similar overall structure to Trust network</td>
<td>Additional dense cliques</td>
</tr>
<tr>
<td>Information &amp; Communication</td>
<td>Longer geodesic distances</td>
<td>Central actors from membership</td>
</tr>
<tr>
<td>Social Cohesion &amp; Inclusion</td>
<td>No disconnected reciprocal dyads</td>
<td>Distinct core/periphery structure</td>
</tr>
<tr>
<td>Empowerment</td>
<td>Self-referencing nodes</td>
<td>Multiple cliques referencing central nodes</td>
</tr>
</tbody>
</table>

Table 21: Characteristic network features

The two sections of social network analysis yielded results that inform the discussion of the research questions related to the structure of social capital networks in the groups and how these networks function across each of six domains. Section one showed a pattern of whole connected networks that each have a set of highly centralized
nodes that influence the structure of the system. Section two highlighted those aspects of each domain that, when compared across the four groups, show distinct characterizations and provide more information on how social capital functions in these networks. Table 21 summarizes these characteristic network features.

4.2 Results of Qualitative Analysis

The results of the qualitative analysis of the complete set of transcripts is presented below. The section begins with an overview of a typology of women’s cooperative groups that emerged during analysis. Following this, common leadership positions are outlined, with an overview of their roles in the groups. Analysis showed that groups were not static organizations, but rather would change in composition and purpose over time. A summary of this development of groups is then presented, including how they begin and expand in size and scope. To demonstrate these ideas, two fictional vignettes follow which illustrate typical pathways that groups can take, the first through a market based group and the second through a social organization. With this robust description of the groups, the section then turns toward the processes taken to operate the groups and to generate social capital within them. Strategies for decision making and problem solving are examined, focusing on building consensus, communication processes, and problem resolution. Examples of how these strategies are implemented are included. The social characteristics of the groups in this sample arose as paramount to participants’ experiences as members of a group. The social relationships between the members was best communicated through the Guinean concept of “le social.” This concept, translated into French from the word “djamakourou” in Malinke, is explained
with examples provided. Then, the social functions of the group are explained, including how social assistance funds support members during ceremonies or in the case of illness.

Participants communicated multiple categories of barriers to the success of their groups, as well as potential solutions to address them. Financial, social, environmental, and political barriers are explored through the experiences of group members. Although facing multiple barriers, participants were vociferous in their statements concerning future plans for their groups. Therefore, this section ends by presenting the participants’ ideas and plans for the future success of their cooperative groups.

**Family 1: Group Functioning.**

**Typology of Groups.** During fieldwork, I sought out a diverse set of groups using either MFI funding or a cooperative savings model, the ROSCA. Through the interviews with group members and later analysis, a typology of groups emerged. The following text will elaborate on the kinds of groups present in the sample as well as their characteristics and purposes. Due to the exploratory nature of this study, this list is comprehensive of the major types of groups in Guinea, but it is not meant to be exhaustive. Rather it serves as a foundational typology upon which additional group forms, purposes, and characteristics will likely be built with further inquiry.

**Tontine.** Reflective of the ROSCA-type rotating savings and credit associations utilized by women globally, the tontine is the process whereby each member of a defined group contributes an agreed upon amount to a communal fund at agreed upon regular intervals. This contribution can be given daily, weekly, bi-weekly, or monthly. Tontines tend to be time limited, so a tontine of 12 members that pays out to a member once a
month would last for 12 months. Group members take turns receiving the pooled funds. This can be in cash of any amount. However, the tontine can use other forms of currency, such as a clothing tontine or a cookware tontine. One participant shared that in addition to the established agricultural association she belongs to she also participates in a soap tontine:

_Some women and I do a tontine for soap. Every Monday each one of us comes with 15000FG. We contribute the 15000FG, and the president goes and buys soap for the group._

By itself a tontine is considered a form of cooperative savings, but does not carry with it any formalized social obligations between members, and they are often time limited. Creating _tontines_ was considered by participants to be an entrée into developing the relationships necessary to develop a more structured group, such as a _sèrè_ or association. When recounting how a successful formal group had begun, one of the founding members said:

_Before, we had organized ourselves in a “groupement” like you said, we organized into a daily “tontine” where everyone gave 5000, 5000, 5000. In the evening you give that same amount back to the tontine so that someone can buy more merchandise. The day after also, for someone else, that’s how we were doing it. When we resell, the evening, we’re doing the daily tontine. Each person puts in 5000, 5000. We give back that money, there, to a single person, who then buys firewood._
The participant continued to explain that by beginning with a low risk, low contribution tontine members are able to A. get to know the other members of the group and B. use a functioning tontine as an avenue to develop the trusting relationships that they believe underlie successful long term groups. Tontines can exist this way, independently with the potential to grow into a larger group. They can also be embedded within a more formal structure, such as a sèrè or a groupement, group types further detailed below. Members of these continuously operating groups may organize a tontine as an activity within the group. Tontines are a commonly understood way of self-organizing among participants, and are ubiquitous in Conakry.

Sèrè. A sèrè is foremost a social organization which serves multiple roles in the lives of participants, with both financial and social functions. Sèrè’s typically involve a tontine as a way to provide financial assistance for members. In addition to this, the sèrè also provides social support. This is done in two ways. During times of need or celebration, such as a death or the birth of a child, the sèrè will support a member both with their assistance and their physical presence. Also, the group will provide financial assistance at these times according to agreed-upon parameters. This social function is the basis for members’ interest in the sèrè. In this way it is both an asset and an obligation. A member of an established sèrè that also cooperatively produced soap said:

The Sèrè is very important in Guinea. Like when someone has a baby, she needs to have a baptism. I’m telling you it’s the Sèrè that can make that happen. The husband is there, but the Sèrè brings everything for the woman. Clothing, soap,
clothes for both the baby and the mother. This social assistance does everything.

Even preparing food – they participate. So it’s like that.

This illustrates the kinds of social roles a sèrè has in the lives of the group members. The role is social, with sèrè members supporting one another in times of need. However, the sèrè is considered distinct from a friendship or family group. As one participant noted:

The difference from friends? Friends ... know everyone in your family – your dad, your mom, even your husband – but with the Sèrè it’s “le social”. When we’re together is when I have a program, or a marriage or baptism. They come to my home. But my friend, anyway, she can come visit me, I can visit her. But the sèrè, it’s when I have ceremonies, or if I’m sick. It’s like that. We get together once a week – like that.

Another participant further delineated the difference between friendship groups and sèrès by contrasting the private confidences shared between friends to the public social support provided by a sèrè:

Friends are your confidantes. For example, her and I, I have things to tell her that I wouldn’t tell someone else. You can have a friend in the Sèrè. But with this friend, you don’t talk about all of your problems, all your secrets. But the Sèrè, it’s “le social” that evolves. When there’s an event of some sort – a baptism, a death, they come like that to help you. But your friend when you hang out it’s just : what’s up, you go to things together.
A sèrè is also differentiated from a groupement (defined below) by the specific social functions and relationships that form the basis of the sèrè. One member of both kinds of groups explains this difference:

*The difference with a Sèrè is that, for example, if I have something – like a baptism – if I’m in their sèrè, it’s the sèrè that will come to feed everyone at the party. That’s your sèrè. They’ll go and accompany you wherever you are. But a groupement, it’s something where everyone gets together at a market and say – ok let’s work together and do something.*

The original founding members of the sèrès in this sample all knew one another prior to forming the group. These relationships formed are the social underpinning of the group. One member of a sèrè described starting her group by gathering together “trusted friends.”

*You know, we were all in the same neighborhood. We were neighbors in the same area... When we started this Sèrè, we discussed it. And each one of us in the beginning, we each brought someone. Our trusted friends. They entered into the Sèrè. That’s how it happened.*

Several sèrès in this sample highlighted that the social needs of the members guided the financial functions of the group. This is illustrated by the way the groups decided the recipient order of the tontine payout. A participant relates that need is the main factor by stating:

*There’s not 1st, 2nd, 3rd. We don’t have that here. We don’t have that in our sèrè. Here, the person who receives first is the one who needs it. Such as for a*
marriage, a death, a baptism. At any rate, the member who has a need is in the first position to receive. She has priority... So we give to whomever needs it. But if there’s no one that has a need then... we just give it to whomever.

Well organized sèrès have written rules, a registry of participants, and a strict structure that dictates them. But while sèrès are systematically organized women’s groups that serve a financial function and can be established for decades, they are considered informal social groups in Guinea. Their main purpose is not to earn money, but to assist group members in fulfilling their social and financial obligations, as well as providing a support system in a country with little formal social welfare.

**Association.** An association is a group whose function is primarily economic. In this sample the associations were groups that pooled their money to produce and/or sell products in the market place. A participant who belonged to an association that did commerce in the market talked about starting the association:

*Since we were trying to evolve this association, we started to spread the word among friends. And like that some people were interested.*

The association is was considered by study participants to be a transitional step prior to becoming a formalized women’s cooperative organization, referred to as a *groupement*. Thus, the association is essentially a *groupement* without documentation or official status. One member of a market based association related how her group needed official documentation to secure funding to expand their soap production:

*Generally in Guinea, for associations, you have to have the official documents: rules and statutes, and the list of official members. Wherever you go, they ask for*
rules and statutes. If you don’t have that it really like you don’t have any options.

It’s not easy to find help. You have to have it. At this point, we’re getting to the point where we’re trying to grow this group. We will work on getting the rules and statutes squared away, then it’s a matter of looking for a loan.

Associations may be considered a mid-way point between an informal tontine and a formal groupement, but many associations are never formalized. Further detailed below, the steps necessary to receive official documentation are often too difficult for association members. Thus, participants related that associations may never turn into groupements, minimizing any chances for formal funding mechanisms.

Groupement. Though it translates to the word “group” in English, participants in this study used the word “groupement” only to specifically refer to a type of formalized cooperative group. Because of this, the word groupement is used throughout this study. Among participants in this sample, a groupement was the cooperative organizational form that most groups strove for. This group form uses the same cooperative financial model of the sèrè and the association, the ROSCA, but has formal government documentation of its rules, statutes, and members. A groupement is, essentially, a formalized association. Because the groupements are officially sanctioned groups, they are more able to approach MFIs, NGOs, and banks to fund their groups’ enterprises.

Membership groupement and a sèrè can overlap, but they are considered distinct from one another. When asked, “Can a sèrè become a groupement?” one participant stated:
Yes. Do you see those people over there? They’re part of a sèrè. When the groupement is there, there are some among them who are in the sèrè. You can do both.

The groupement can also have tontines operating within it, separate from the production or commercial ventures it engages in officially. One member communicated: 

_Do you see her? She started a weekly tontine with the other women in this groupement who are expecting. They contribute 15000 a week – it’s so they can use their payout for the birth and hospital expenses._

The overlapping of tontine, sèrè, and groupement forms are combined in multiple ways to address the needs of group members.

_Cooperative._ A formal cooperative is much larger than the groups included in this study. Therefore, no participants were current members of a cooperative. However, cooperatives are the largest related group form in Guinea. In an interview with a community organizer that works with women’s cooperatives, he related that in Guinea, cooperatives can involve more than 100 members, who work in smaller teams to accomplish larger projects. This is most commonly done for agricultural purposes, but can also be used in production of food or materials.

The groups forms outlined above range from informal tontines of several individuals to formalized cooperatives with more than a hundred members. In addition, their functions range from agriculture to commerce. This typology of groups is represented in Figure 61, which outlines level of formality, group forms, and group functions.
Strategies for decision making and problem solving. Strategies for decision making and problem solving emerged as important thematic areas during qualitative analysis. The groups acted cooperatively to address problems as they arose, to solve them, and to move on. One member of a formal groupement expressed it this way:

When a general problem comes up, the officers are informed. We call an assembly. Once everyone is gathered, we explain what’s going on. Once it’s been
explained, each person says what they know about this problem. After everyone has spoken, the officers will see who is of one side or the other. So then if one side surpasses the other side, we will go with that. But when the problem is between two people, they get together. So if it’s in the bean sector, there’s a small bean office. And there’s a counselor. So they come and get together, and together they put an end to it. So we don’t need to get external people involved, and it stays between us here. We don’t go to the soldiers or the police, or go get people’s families involved. It stays with us – we’re like a family here. So we have to resolve our problems ourselves, within the group.

In this excerpt the participant summarizes the three conceptual categories outlined below: consensus building, open communication, and public versus private resolution of problems.

*Consensus building processes: putting solidarity first.* One of the strongest ideas throughout the interviews was that the participants were better off together than separate, and because of this maintaining solidarity among group members was crucial to group success. One member of a *groupement* and *sèrè* explained how they began their weekly meetings:

*When we get together, the first thing we do is say, “Restons Unis!” Stay united. Socially, like a family, but above all, to take the development of this association and Sèrè seriously. We advise ourselves. It’s advice to raise our morale – Why we shouldn’t give up hope, how we should further develop our organization.*
This group quite literally puts solidarity first, announcing publicly to one another that their unity as a group is vital. Coming from the perspective that solidarity is to be maintained for the good of the group, the use of consensus building as a method of resolving problems becomes clear. Rather than a hierarchical system of managers who hold concentrated power, in the groups in this sample the president is a leader but not a boss. She facilitates the decision making process but herself holds only the influence she earns through her own perceived good character and dedication to the group. A member of a *groupement* explained in her interview how decisions are a group process facilitated by the president:

> It’s not a single person who decides. If there’s a change, the president explains the proposal. If the group judges that it’s useful to accept these changes, ok. And in the case of changes, each person puts forward their own ideas. And from this we will find the best solution. But we’ll never move forward with the ideas of just one person.

Members of groups were able to connect the consensus building process directly to the maintenance of solidarity. When discussing how changes to the amount of the *côtisation* are made in their *sèrè*, this participant explained:

> You know, really, we propose it. We ask the members if everyone is ok with it. And then we raise it. If they’re not ok with it, we go back to their level. Because we can’t ask for an amount that one or two people can’t accept - the group would fall part and that’s not good. We started by helping one other, and our goal is to stay on this path.
In this example, the participant reasoned that an increase in each members’ côteisation and thus each member’s payout from the tontine in their sèrè was only possible if all members agreed. Should one member not be able to pay an increased, she would have to drop out. Because solidarity is paramount to this group, remaining at a lower level of payment was preferable as it maintained the unity of the group – the glue that holds it together.

Choosing leadership. Methods of changing leadership in a group setting provides an illustration of how group members use consensus to make decisions. The following excerpt is from an interview with a member of a well-established groupement. During my interview with her I asked about changing leadership in the group. She explained to me their process of decision by consensus, not voting, this way:

Interviewer: How do you decide on leadership?

Participant: It’s not an election. We choose who is going to represent us. If we aren’t happy with them, it changes and we choose a new person.

Interviewer: What is the process for this?

Participant: There’s not an election for that, we just come together and decide on someone.

Interviewer: But how would you, for example, choose a new president? That could cause problems couldn’t it?

Participant: Here it’s not that hard, because we’re all growing together. We do the same things. Do you understand? If the person isn’t really representing us well, we change – nominate another person.

Interviewer: “we nominate” – what does that mean? It’s everyone at the same time?

Participant: It’s everyone at once. We have a meeting. Every Sunday we get together for a meeting. During these meetings we can bring up any problems we
have. And we resolve these problems right away. So if we see that the leader isn’t able to manage solving these problems we nominate someone else.

Interviewer: I would like to understand this better. How is this not an election? That someone is nominated and you decide all together. Isn’t that an election?

Participant: It’s not an election. We decide based on the nominee’s devotion to the group, character, temperament, and ability to negotiate for the group. Here we all know one another. She who is here knows everyone. When we go through problems here, we all know who is really devoted to the group, who is able to resolve our problems. So when the question about who will guide the group comes up, is us who designate that person. We decide who will be the manager. But we don’t vote – we designate. This is how we designate our leadership. We get everyone together in a group. Because “le social” is supreme in this group – above everything. So whoever feels they want to speaks in front of the group and gives a testimonial about someone they thing would be good for that position. She is devoted, she is good at negotiating, I am presenting her to be nominated. This person goes to all the ceremonies, this person always does cotisations to help other members, like that. So from these people we choose who will be in charge of the groupement. Any member can nominate someone, and any member can be nominated.

Interviewer: So if someone has a problem with who is nominated they can say something.

Participant: Yes.

Interviewer: But if everyone is ok with it, you choose that person.

Participant: Yes that’s it.

Interviewer: So are you voting with your silence then?

Participant: Not exactly. Because if someone supports someone, and I’m not ok with it, I just voice my opinion and tell the group why I feel that way. We continue like that for a while. Once everyone in the group is ok with the person then they’re designated as that role.

Interviewer: Ok ok- I think I understand better now. You know – I’m not from here – you have to explain things to me in detail or I’m afraid I won’t really understand. (laughter)
This passage illustrates how the group is able to build consensus around leaders who are selected based on their character and devotion to the group. Because universal support is necessary for leadership choices, solidarity can thus be maintained in the group.

*Open communication:* “we let everyone have a chance to speak.” Vital to the process of consensus building is open communication among group members. Needing to hear from everyone before making decisions and allowing each person a chance to speak was an idea that echoed from group to group. Without communication that allows for dissent and quiet voices to be heard alongside louder ones, groups could not know if true consensus had been reached. Indeed, the sharing of opinions and ideas by each member was considered by many to be obligatory. One member put it this way:

*Interviewer: Are people comfortable sharing their ideas?*

(large reaction: well of course!) Yes. Yes of course. I mean it’s obligatory. And furthermore – we’re here like friends and family. *There are no strangers here!*

Open communication also means that problems are aired out as soon as they arise.

*You see, it’s not like there aren’t ever any problems. Things will come up, no matter who’s in the group. But when there is even a hint of a problem we sit down and deal with it, as soon as possible. I call her, we talk, it’s over.*

By addressing problems immediately, members are able to focus on solutions rather than personal position or injury. Ownership of the problem and the solution is shared among group members, who resolve the situation together. As one member communicated:
When there’s a problem, we have a member who informs – “l’informateur” the informant. They call everyone. We get together, we meet up. The problem is posed. It’s exposed to everybody. Each person gives their opinion. We find a solution. That’s how we do it.

Who goes first? Deciding the order of payments

Deciding on which member receives their payout in which order in a tontine is an example of how open communication is used to address issues within a group. The president of a sèrè stated:

*There’s not 1st, 2nd, 3rd. We don’t have that here. We don’t have that in our Sèrè.*

*Here, the person who receives first is the one who needs it. Such as for a marriage, a death, a baptism. At any rate, the member who has the “cas social” (personal problem) is in the first position to receive. She has priority. If there is no one in the group that needs it – such as this week for example – Even then it’s not random... But the 15 active members here – there’s no problem. So we each explain if we have a problem in our lives and we give to whomever needs it. But if there’s no one that has a need then... we just give it to whomever.*

Through open communication about the problems they each faced and their individual goals and needs, the group was able to establish an order of payout from their tontine that attempted to meet the needs of all members.

*Public versus private resolution of problems.* The idea of who should be a party to which problem was itself an area of some complexity. In general, groups preferred to keep their issues within the group. One participant stated:
It’s solidarity. It’s welded between us. So instead of sharing this problem with others and asking them to intervene, as soon as there’s a problem we work to resolve it within our group.

Because women’s groups are a recognized social aspect of Guinean culture, the registry of participants who sign up to be part of a sèrè are considered to have an ethical and legal obligation to complete their payments to the group. Groups do have the option of regress both with formal police and with community hierarchies, however the groups in this sample preferred to not pursue these avenues.

In addition to the general aversion to approaching those outside of the group to resolve problems, there was also a dual approach to how issues were addressed internally. Some problems, such as individuals arriving late to meetings, were dealt with publically. This public admonition serves to underscore the punctuality norm in the group. However, other problems, such as personal inability to make payments, were considered private matters to be dealt with individually.

Late fees in groups. The treasurer of a long-time sèrè explained how late fees were assessed in her group:

*It could be 50,000FG. Before it was 10,000FG, but now we’ve raised it to 50,000FG. That’s how we avoid having the members of the Sèrè coming late.*

*When we say it’s this time, it’s this time! We come, we have a meeting. When you come outside of that time, now, there is a penalty that you pay. And so we avoid members coming here late. It works. It works! As SOON as you arrive, and you KNOW you’re late, well you yourself know, and you’re obliged to open your bag*
and take out the money for that fee... It’s immediate. And it doesn’t mean it’s part of your contribution for the month, either! That’s SEPARATE. That’s your penalty.

Arriving late to a meeting in this group means an immediate assessment of a fee. In establishing the punctuality norm, groups apply the same rules to each member regardless of their role. The secretary for another sèrè explained:

*I don’t know about other sèrès, but for this one that’s how it is. It’s like this.*

“Voila! vice president – you came late? You don’t have your contribution?” Even if you try to intervene, the Monitor will say “Hey!” Even the president. It’s the same. And when there’s a problem, we fix it right away, and in front of everyone.

You think we wait? No. Go into a private room? No. It’s democracy.

The rule is applied equitably in public, and each individual is required to immediately pay the same fee in front of the other members. This is an example of a problem that is solved publically, in front of the group.

*Issues of non-payment.* Other problems are resolved privately, such as dealing with a member who has missed a payment or who will not be able to make a payment.

One participant commented that:

*In the case of non-payment, the president and vice president take care of that. The members of the Sèrè don’t have any business in that. The president and vice president handle it. That’s between them.*

The role of the leadership in managing issues of non-payment was further detailed by another participant, who said:
It’s discrete between us. Me, I can come without – I don’t have money. I call the president, and we go behind the scenes. I say “President – please forgive me. I just don’t have it. I need you to cover me.” I talk with her. If she has the money, she helps. If she doesn’t, she can call the adjoint (vice president). They arrange it between themselves and they drop off the money. But that’s between you too.

The non-payment, as opposed to the issue of tardiness, is thus resolved privately and away from the other members of the group. Interestingly, the issues of late fees and private resolution of non-payment issues both work towards the social reproduction of the group. While the equitable public enforcement of late fees for tardiness helps to establish both equality and structure in the group, the private resolution of inability to make a payment supports group cohesion and solidarity. This is due to the fact that other members, specifically those that recruited that member, are then considered responsible to assist in making the payment.

**Leadership roles within groups.** Within each kind of group, there are leadership positions that support a functioning cooperative organization. As one participant put it:

*Here we are organized. There are leaders. Each leader has her own responsibilities.*

Those in leadership positions have important roles to play in the functioning of the group. The titles of these roles are presented in English, with Malinké translations in parentheses. Because these organizations are indigenous to Guinea, the Western position titles, such as President, are linguistic adoptions. The original position titles in
cooperative groups are thus presented also in Malinké, a language indigenous to Guinea and widely spoken.

![Figure 62: Leadership roles in Guinean women's groups](image)

**President (Mansa).** The president of the group is looked at as a leader rather than an authority figure. She is chosen either democratically or by consensus by group members, and can be replaced due to lack of confidence with another member by the group. She is considered to be the representative of the group, and is looked up to by members. She seeks out new opportunities and negotiates on behalf of the group. She leads meetings, problem solves, and mediates any conflicts that arise. Of note, the president in these groups is specifically not responsible for monitoring adherence to rules and statues. This responsibility is delegated to the Monitor, who enforces rules. The president may be the responsible party for the group bank account or pool of money. The president is expected to be the most devoted member, and should have positive character traits such as courage, wisdom, and hard work. One member communicated that:

*The president - really she works hard for us. It starts and it ends with her. She’s everything for us*
The president is expected to address problems in the group, and can be the subject of criticism because of this. A president of a successful sèrè explained that:

They’ll tell you you’re mean. So what. They say that about a president. The president puts up with everything. You can criticize her you know. I’m president and they critique me. But sometimes, the same ones that critique me come knock on my door to explain things.

In groups that have an overlapping forms, such as an association and a sèrè, there is a commonly a president for each. A member of such a group related that:

The Sèrè and the association are the same people. There are people in the association, and they’re in the Sèrè too. There are also people who are in the Sèrè but they are not in the association. There is a different president for the Sèrè.

A participant who has been involved in multiple cooperative groups provided an eloquent description of the qualities sought after in a president.

Because a president, you start with her and you end with her. It’s not because she’s imposing. It’s because she deals with a lot of things... You have to be a little light-handed. You shouldn’t be too abrupt. You have to be able to read the mood of the group. When serious things come, you are serious. When funny things come, you laugh. When you have a problem between two people, a conflict between two members of the sèrè, she is there to understand and talk reason to them. So you see, she has to be exemplary – so that she can be president. She is president because she has evolved – she brings the initiative, they built the sèrè, she is serious, she accepts everyone.
Vice President (Mansa Tatounna). The main role of the vice-president is the support the president and act as a surrogate to the other officers within the group. This is illustrated in an exchange with a groupement’s secretary.

Participant: The president, also is there. She can be absent, but the Vice-President – the two can’t be absent at the same time. The vice-president could be there.

Interviewer: Ok I think I get it. There are two people who can each function in the same position.

Participant: Aha. That’s why we have a vice-president. In case the president is absent, she is her direct agent. In case I am absent [secretary], she is also able to be here.

A vice-president can also be a signatory on a group’s bank account or loan. One vice-president of an association acted as the spokesperson of the group.

And me in the organization, like you’ve seen here, wherever we go I’m the spokesperson. Everything I say, everyone’s okay with it. With my age, when I give advice everyone is ready to respect it. That’s how we’ve evolved. And me too, in doing this work I pray to God that I am not guiding them down the wrong path. So we can keep evolving.

She was able to represent the interests of the group and was empowered to provide her wisdom in this manner based on both her position and her age.
Treasurer (Wodifamaralo). The main role of the treasurer is to safeguard the groups’ money and to maintain records of payments by members. Due to this responsibility, the treasurer was more likely to be fully literate than the other members of the groups in this sample. Additionally, in some groups she was a signatory on a collective bank account, and managed deposits and withdrawals. The treasurer was a central figure in many groups, as important as the president in her role tending the finances of their cooperative funds. One member of a groupement related the following:

Interviewer: Where does the group safeguard the money that is collected each meeting?

Participant: There is a treasurer who takes it to safeguard. Well first we count it, then she takes it to safeguard. If she can’t then the president or the vice president might do it.

Secretary (Social and Information) (Gebelila). Among the leadership roles in groups, the secretary’s role emerged as the most diverse. In some groups, she served as the person who maintained the registry of participants and any other documentation needed. One participant of an association said:

And the secretary, as you well heard, everything that comes in and goes out, where the money comes from, documents – it all goes through her. She’s a woman that works hard for us, and she’s very active. That’s about it.

The secretary in this group managed the paperwork for members, but did not have other roles. Contrasting this, in another association, the position was the secretary of
information. Her role was to inform other members of the news in the group. A member related that:

*When there is a problem, a “cas sociale,” They talk about it then. And if there’s a death, they inform the group. Like I said, there’s somebody - a secretary of information – who informs everyone.*

The additional role of the secretary as group informant was present in several other groups as well. When calling a meeting in one established sèrè, the secretary is responsible for informing group members:

*In my sèrè, I can call our secretary and say: we need to have a meeting. Tomorrow you will see everyone present. If I say: there’s a program that wants to meet with us, but it’s not our regular day to meet? Everyone comes.*

Thus the secretary is consistently the party responsible for maintaining the groups’ documents and records, but can also function as the person who informs group members of news or meetings.

*Counselor (Lalilila).* The role of counselor was present in many of the groups in this sample, but not all. However, the longer duration and more established groups utilized this role with more frequency. The counselor’s role was to (a) advise the group on best practices and (b) to mediate any problems that arise within the group as an agent of the president. The counselor is distinct from a consultant because she is a member of the group rather than an outside advisor. When asked to elaborate on the role of the counselor, one member of an association said the following:

*Interviewer: A counselor?*
Participant: Yes, in cases where there is a problem, she can give advice or counsel.

Interviewer: That’s an interesting role. Could you tell me a story about when that was useful?

Participant: The counselor, such as this woman here, she’s a counselor...She’s there in the group – she participates in a lot of meetings. She goes to see lot of groups – how they work. She goes out to see them. So, upon her return, she can give advice. Say – do it like this, do it like that, we’re going to do it like this. Because if we do it like that, we can develop as a group. So she gives wise advice to the group.

The counselor in this group attended multiple groups’ meetings to observe the different ways of managing a group, thus supplying herself with enough information to provide meaningful alternatives and advice to her own group when questions arise. In addition to the role of giving informed advice, the counselor addresses problems that arise within the group. In explaining problem resolution between members, one participant explained:

And there’s a counselor. So they come and get together, and together they put an end to it. So we don’t need to get external people involved, and it stays between us here.

Another stated:

As soon as there is a little problem you come, and you tell them, the person who is with you. Don’t say that. I don’t like that. You did this, you did that – and then it’s over. It’s forgotten.
Solidarity is considered highly important in maintaining a functioning group, and the counselor’s role supports this by addressing problems as they arise. Further exploration of the techniques used to do this are outlined later in this section.

Monitor (Kolo). Participants uniformly cite rules and structure in a group as being paramount to its success. However, the responsibility for enforcing these rules does not lie with the president or even the counselor. Instead, there is a group member, the monitor, who is directly responsible for maintaining order and enforcing rules. Like the counselor position, this role was present more often in well-established groups. One member of a successful groupement explained the role of the monitor like this:

There is one that is in charge of discipline. When there is a problem – when members don’t get along – she enforces the rules of the group. She says, here we are family – don’t screw around.

An example of how this role plays out in a group is through collecting late fees from members who arrive late to meetings. The monitor is in charge of managing this, and group member thus expect to submit their late fee immediately to the monitor upon late arrival. A member of a long-running sèrè explained:

Now there is also a woman, in case someone is running late - When we say the meeting’s at 1PM, and she doesn’t come at 1PM - she’s the one that will collect the fine. The late fee!

The monitor serves a distinct role in the group to enforce rules and monitor adherence to agreed-upon policies. This separation of the president from enforcement supports her function in the group as a leader who promotes solidarity and represents the interests of
each member equally. Similarly, the counselor’s role allows the president to function as a group figurehead rather than being involved in interpersonal conflicts on a regular basis.

These group roles: President, Vice-President, Treasurer, Secretary, Counselor, and Monitor, were evident throughout the different group types. While each group is unique, the roles of these officers remained similar. These positions can thus be considered to be typical of groups operating in a cooperative model in Conakry.

**Fluidity of Group Forms.** While the categories above outline the differences between the types of groups included in this study, it is important to highlight that there is a fluidity within this typology, running from smaller less formal groups to larger more formal groups. As one participant in a sèrè with a tontine related:

*If you have a Sèrè you can start something. Generally, the groupements are people, too, who started by forming a Sèrè, and afterwards they become a groupement. For example there’s one near La Tannerie. They’re a groupement but also a Sèrè. But they have their internal rules. In sh’a Allah – if God gives us the chance, and it works, one day we will be in a Groupement, or maybe an NGO.*

The group types are not static. In fact, all of the groups in this sample indicated a desire to build a larger group or expand its scope. This theme of starting a small group and over time building a successful organization is explored here, starting with beginning a group, and continuing through increasing in size and scope, and eventually to formalization of the organization.

**Beginning: “It’s Hard to Start Something New”.** Many participants communicated that starting a new group is difficult, and takes time. The groups in this
sample had varying origins, but many began by gathering together a group of women known to the organizers to decide together how to group will be created:

In this group, we got along already, so we looked to have, to form a group. The women who are available, the women who want to be in a group, they declare themselves – to make the group. When you make the group, we consult with one another on how we should get it going. Each one of us gives their ideas. Me, I would like it to be like this. I would like it to be like this. I would like it to be like this. Amongst these ideas we gather the best ideas to start with...Because we can’t start like that, we can’t come and just stand here and say to ourselves, ok good, it’s like this, all done – let’s start. No! You have to get organized. So we come up with an idea for an organization, to get off to a good start and to succeed in our objectives.

The idea that the original members decide cooperatively the terms of the group from the beginning is repeated throughout the interviews. This reflects that on all levels, building solidarity and focusing on group success rather than individual need is paramount in the groups in this sample. Recruiting trusted members is sufficient to start a socially focused sèrè, however the origins of market based associations also require start-up capital. A member of a soap-making groupement related how her group began:

Interviewer: So if I understand correctly, the first 10: they were in the same neighborhood and they started this group to make soap. But at the very beginning – how did they get this started? How do you start this with nothing?
Participant: Before we didn’t have any means. Instead of starting haphazardly – soap making requires a consistent capital – we started by doing a cotisation between ourselves. So each person was contributing 2,500, 2,500. We each bring 2,500, 2,500. So those that had start-up funds they started off with that.

Another member of this same group explained their strategy for building the group in this way:

We took an initiative. We asked around about starting a group like this. But at the beginning, we had nothing. Each person was obliged to do a cotisation. With this money, we mobilized these resources and we began to start making soap. Now when we would make soap, together we would cut it up into pieces, and share among the women. Each one of us sells our portion. Then, we would come back and tally up. The initial capital goes back into the group, but then each of us would take the profits from the day to use to feed our families. So the capital that comes back, we would take it to go buy materials again, because there was no one to help us. And because we had no help, that capital, we had to take it make it work for us.

Because the group was not officially recognized as a groupement, they were not able to access grants or lines of credit through an MFI. Thus, this member relates that they had to rely only on themselves to start up their association. Having start-up capital was as necessary to begin the group as recruiting trusted members. In addition to recruiting members and collecting capital for production, another step in establishing a successful group is drawing up rules and a registry. A member of a sérè related:
We collected everyone’s signatures at the beginning, so they signed the registry. They had to continue to pay it. But if it hadn’t been signed there’s really nothing you can do. In the end they paid. That’s why it was too exhausting in the beginning. We had to deal with a lot of problems, especially the secretary. But after all of that, we found it necessary to draw up a set of rules that would cover all of these issues. We have a list of the members attached, and each person has to sign it.

The members of this newer sèrè recognized soon after starting that having clear rules and guidelines were crucial to create accountability within the group.

The beginnings of a group consist of recruiting members, initiating a cotisation, and creating rules. In this sample, groups related that they continued in this way for some time to determine if the group was going to work out. After creating a baseline of success in the group, participants related that they then began to add additional members.

Adding new members. Who can and cannot be a member was explored during the interviews. The overarching message from participants was one of inclusion rather than exclusion. There was not a requirement to be related, a certain ethnicity, or of a specific class to be included. For social groups, existing members recruited new members based on their perceived good character. In these groups, existing members held responsibility for the behavior of new members, so they have an incentive to choose someone who will fulfill their obligations to the group. The treasurer of a sèrè explained:

If I say – look, I’ve brought this person, and she wants to join this sèrè. You have to ask: How did you meet her? Do you understand all of our rules? Yes. Are you
the one who’s bringing her? Yes. Because we don’t know how she behaves, but we want “le social,” we’re all Guinean. If someone wants to be in our sèrè, the person is welcome. But attention! You brought her. She must behave well, just as we want. We wish it. In case of poor behavior, look. We don’t see her mother, but we see you. You are responsible for her. That’s how it goes. In the sèrè, you have to be like that. Do you see?

For market groups, geographic position (being in the same neighborhood or market) and ability to abide by group regulations was indicative of those able to join an existing group. A member of an established groupement explained how they recruited members when they wanted to expand their group.

Interviewer: It seems like there are a lot of people in this market - How did you choose the members?

Participant: Well first we went out to raise awareness. We called for members, saying – listen – come - one person alone can’t do much. Come we associate and we can work together to figure out something that can benefit everyone. So then these women came. We talked a lot with each other and had meetings, and made suggestions. That’s how this group was formed.

Interviewer: So those people who were interested came and presented themselves here?

Participant: Yes – people who were interested came and presented themselves at a meeting. And then we began to expand this group.
The subtext of the stance towards inclusion however was that those people who could not maintain payments or adhere to group rules would self-select not to participate. The president of a sèrè explained in this way:

*Right now we’re in our third round, and each time there are some people who are dropping out. That’s why, for the third round now, we’ve decided to have more rules. And these rules? You are totally bound to respect them. We say this to everyone…If the person is really good fit, there’s not a problem.*

The equal application of clear rules in a group allowed leadership to add members but still maintain a criteria for continued participation that supported the long term success of the group. This is reiterated in this participant’s statement:

*If someone wanted to join your group, is there room for more members? That’s why there here (indicates two women nearby). You come. You explain yourself. You say – this Sèrè here, I really like it. You want to join in. They’re going to say “we want more members.” You aren’t rejected. They will be welcome. But watch out! The rules are the rules! If you accept it – you enter the group. If you don’t accept it, then you can bow out too. Like her she can invite someone into the group too. Like me, personally I can invite someone, so can she. But if she knows she’s not sure about this person, if she brought her here, in case of problems, she (the original member) is the one that will answer for them. She will answer for it.***

**Relationships between members.** The cooperative groups in this sample are created based upon relationships between members. But what characterizes those
relationships? Rather than predefined social relationships of family or ethnicity, the members of the groups base their relationships of trust, good character, and a dedication to the group. One groupement member explained:

*We’re not related. We ran into each other here, because it’s a busy area where there’s a lot of different activities. We’re actually from different villages, different ethnicities. This is how we decided to work together to make something happen. It’s like an area where people come to look for work.*

However, the theme of the group as a chosen family was repeated throughout the transcripts. This sentiment is expressed here:

*We live almost like a family. There are some that have been with us 10 or 15 years now. In this time we are together. When there is a problem in a family, everyone gets moving and goes there. Or if you have a problem, they will give you their hand and you’ll resolve it.*

The idea that as a created family the savings group is able to provide support during problems or times of trouble in members’ lives was prominent. A member of a market association gave this recounting of the relationships among group members:

*It’s like good luck came. First, the majority of women here – we weren’t originally all in this market. We were in other areas. The Good Lord blessed us. Do you see? But since we came to this market, we saw one another, we got to know one another. We said, we’re like children with the same father and mother. No matter if you’re Peuhl, Malinke, Sousou or whatever. We live here in*
friendship as a family. That’s why we found it useful to stay together even until now.

The idea that trust is an important aspect of relationships between group members is shown in this participant’s statement:

*You have to be sure before bringing someone to join the group. You have to be sure, and trusting, before integrating someone into this sèrè. They must all trust one another for our group to be successful.*

The relationships between members of the groups in this sample are characterized by individuals’ behavior rather than aspects of their ascribed identity. By focusing on demonstrated behavior, such as sharing ideas or following the rules, the group is able to function in an egalitarian manner without design to determine privilege based on family relations or ethnic affiliation.

*A negative case analysis in group development: a politically motivated agricultural groupement.* Eleven of the groups in the study followed the same pattern to start small with a core group of trusted members, and then to add members to this established group framework. However, one group did not follow this pattern. An agricultural group of only 3 members related the history of their group, which provides a valuable negative case when exploring how groups are created. This group was created when the ruling political party announced a call to action in 2010 for Guinean women to join together for the good of the country following the death of their president, Gen. Lansana Conte in 2008. Inspired by this request, more than 100 women created a group at public government owned farmland outside of Conakry. Over time the group began to
shrink from 100 to 50 to 25 members. I asked the leader of the group why she thought the group shrank so quickly, and she provided this response:

*It’s almost the occupation. Because it’s a lot of work. You can’t tell yourself, well I’ll do this and this and this and this and then come here. There’s not enough time. You have to tend the earth. It’s like having a baby for example. You have to nurture and raise it. You have to follow it from the day you plant the seed in the earth to the day it starts to produce… But some of the original members were involved in it mostly because of politics. But me – I stayed on. Because I was not as busy. Where I work I have a lot of extra time, so I can come here. I’m just not very busy so I can show up to work, work for a while and then end up over here. The other women didn’t have as much time. Because we had really important women in this group in the original groupement. But in the end they stayed home and I ended up over here.*

This response highlights two potential reasons for the loss of members in this group. First, the group members were motivated politically to join rather than through a social or financial need. Secondly, the participant points out that members did not have the time or inclination necessary to put in the hard work of maintain the group and its production activities. This echoes the idea that groups are hard work and each member must fulfill their obligations in order for the group to function. This group, starting with a large, loosely politically affiliated group of women, did not produce the solidarity and sense of social obligation present in the other groups.

*Expanding scope: we want to succeed.* Apart from increasing the size of
membership, groups also sought to expand the scope of the group. They hoped to scale up in order to increase payouts or profits for group members, increasing their incomes. This participant explains how groups rely on the bonds between members to form a strong foundation for growing a group into a larger, more formalized organization:

Here, “le social” is really evident. When we get together to meet, the first thing to do is create a structure to promote “le social.” Social, little savings groups, small associations in case you need money for a special occasion, like that. It’s this kind of sisterhood that pushes us, over time, to build a groupement like this. That’s how we develop it.

The president of a long running groupement explained how their group had expanded in size and scope over time, even to the point of acquiring larger loans for capital expenditures:

It’s grown a lot in fact. The loans have helped. We’ve bought some boats. If you come with me we can go round to see them. We bought these boats with the loan money. That’s how we’re able to gather large amounts of wood. Instead of giving money to people to go cut wood for us – before they would cut some wood, we’d pay them, then cut it into smaller pieces to sell. Before we would buy this wood from men that came to this port to sell. We’d buy it and cut it up. And we weren’t earning much. But we got a loan and had some boats built for us. So now we hire men to take these boats out, and we pay them based on how much wood they haul back.
In socially oriented sèrès, development of a group can mean increasing the size of the cotisation contributed by each member. This member of a sèrè explained how they were able to scale up their cotisation, thereby providing each member with a larger payout:

In fact, since we were just getting going, we didn’t have much money so we started with 25,000 FG. And that’s for each week. Each Friday we’re getting together, and each person would pay 25,000, and give it all to one person so that person can manage with that amount. It wasn’t a lot, because there were only 12 people in the group. But everything started like that. It’s like what Malinke say: little by little, the river fills up. Voila - So by managing like that, we give it to you. If we give you, for example, 100,000 FG. With those 100,000 FG, if you buy tomatoes, you can resell them and come out ahead. That’s how you evolve, little by little. Secondly, since we saw that everyone could do 25,000FG and manage it, little by little, we brought the amount up to 50,000FG.

Groups also related that they invested in their members as a way to promote development of a group. A market based groupement leveraged the human capital present in the group to train members in soap making and cloth dying. By sharing their skills, the group was able to expand the skills of its members, and subsequently the production capability of the group.

When we started making soap, we were giving programs. Like today it’s soap making for the group, everyone leaves what they’re doing, and they come for soap making. All these women here, they made soap, and they sold. They did cloth dying too. They just finished the cloth dying. Together they come – everyone
comes – it’s not like you can say – well I don’t do cloth dying so I’m not coming.

Because when you participate you’re learning too. So in this way there are a lot of apprenticeships for the women too. Whatever you know, you can teach others.

So together then, we can pull our efforts together and do cloth dying, for example.

The others will learn with us this way. The same goes for soap making. So we can get along without a problem.

The quotes provided here are indicative of the creative, collaborative strategies groups use, and they illustrate the different methods groups use to develop their capacity and increase production.

**Formalizing the group.** Because official, government recognized status as a groupement facilitated groups’ ability to apply for loans and other funding mechanisms, the process of formalizing a group was a recurring theme in the transcripts. One association member explained:

*Generally in Guinea, for associations, you have to have the official documents: rules and statutes, and the list of official members. Wherever you go, they ask for rules and statutes. If you don’t have that it really like you don’t have any options. It’s not easy to find help. You have to have it. At this point, we’re getting to the point where we’re trying to grow this group. We will work on getting the rules and statutes squared away, then it’s a matter of looking for a loan.*

Their group had grown to a functioning association, but they felt unable to expand further due to the inability to access a line of credit for the expansion of their activities. By formalizing the association into a groupement, they felt this would be facilitated. The
process of formalizing a group as a groupement necessitates further cooperation from a group, as all members must contribute to the required fees. A member of the same association related that it was worth the effort due to the possibilities that open up to an official group.

To have official documents there is a required fee. Now this fee isn’t something that only the president or treasurer pays. No. Every single member of the groupement – they all contribute. Each person has to come up with something. But it’s worth it because once you have those documents, you can say that this groupement is official – it’s authorized. So when a group is authorized, when there are opportunities that arise, they can present themselves. They can present their papers. When they call people it’s only for those who have statutes and interior regulations.

All of the groups in the sample with external credit were formal groupements with official documents from the government to support this status. However, some groupements with these documents were still unable to access the capital needed to expand their operations. This theme is discussed further in the section on barriers to success.

Outside support. A final theme that emerged relating to the groups’ processes of development was that participants felt institutional or government assistance was useful as they expanded and formalized their groups. The leader of the agricultural referenced in the negative case analysis above had this to say about how the government facilitated the creation of her organization:
Participant: Before Alpha (Conde) came into power, he told the women to organize into groupements. Here they constituted themselves into a group at the headquarters of the RPG. With Alpha’s regime, they could come to help women. And that was how we became a group. So we are a groupement with statues.

We’re not an association or sèrè. Nonono. It’s a groupement.

Interviewer: So that’s how you started?

Participant: Yes, directly. Like that.

She went on to explain that the assistance they have received was necessary to their growth as an organization.

We say, we work but really we can’t evolve alone. You have to have people, like good people who can, for example come to our aid. Like institutions for example in the government. Like here for example – that’s what happened. We are supported, for example, by our government. It’s the government that have us these machines for irrigation. Do you see? That’s how we’ve been able to grow, until that, we have an organization and some idea of what we want to do, we have an annual program, we have a plan, a manager, revenue management, human resources – because you absolutely have to talk about that. You can’t work without human resources. We’re looking for human resources. Women alone cannot work like that.

The secretary for a market based groupement commented that knowledge of institutional programs was useful to their group, explaining:
Each one of us knows that there are institutions that deal with this. Because it’s the intellectuals among us that know. Because we know that each embassy has an aid program. For example USAID here makes grants. There’s also FAO that does this. There’s even the embassy of Japan that gives us a grant – every time!

For the groupements that were involved with MFIs, technical assistance with managing their accounts and financial literacy was seen as an important aspect of institutional support. When asked if there were any issues in the group when they started borrowing on credit with an MFI, a group member stated:

Even then, no, because they taught us. How to balance accounts, to not just give money out like that. There were very small loans they would give us for 5 or 6 days, to learn how to balance these account, because at that time they were giving out loans based on the kind of business we were doing.

Another established groupement explained how the MFI consultants supervised their group to ensure that they were successful in their activities.

Now there were agents de credit that were there to supervise. Every week they would pass by to track how the activity was evolving. How is this activity working out? Up to what level are they? If there’s a problem, they help us to solve it together. That’s how they did it.

The group members expressed appreciation for the technical assistance the MFI consultants provided, and thought the information they communicated was helpful for the groups continued operation. The institutional support from both the government and MFIs was considered to be useful by participants. They expressed that institutional
support was necessary for continued expansion past a small *groupement* and believed more was needed to support women’s groups.

**Typical pathways of group development.** The typology of groups, roles within groups, and the process of development of groups have been presented in detail above. These thematic areas combine to communicate the fundamental mechanics of the groups in this study. In order to place this information into a more holistic context, two scenarios are presented below illustrating the overall processes of developing a group and the fluidity of types. These scenarios are based on real groups as well as “typical” trajectories of groups communicated in participant interviews, however they are not case studies or descriptions of a single group:

**Scenario 1: the market based tontine.** Four women who sell rice at the Matoto market get to know one another after working in the same area for several months. They buy a small amount of rice each morning at retail and sell it at a slightly higher rate during the day. They use the profit to pay for daily needs and reinvest the remained to buy rice again the next day. In order to be able to buy their rice at a lower wholesale rate, thereby increasing profits, they decide to set up a daily tontine. The four members recruit three other women they know in the market to participate in the tontine in order to increase the sum each person receives as a payout. Through discussion these seven women decide they will each contribute 5000 Guinean Francs (FG) each day. Each member will thus receive 35,000 FG, the daily pool of contributed funds, once weekly on their day. Each woman uses this larger amount to buy a greater quantity of rice at a lower wholesale rate, thereby increasing her profits. The seven member tontine functions well
over the next few months. The members each pay their daily contribution and are able to increase the money they earn overall. Through discussion they agree that they would like to both increase their payout, and so they decide to seek out additional members to create a more formalized organization: an association. They announce through word of mouth in the market that they would like to create an organization. Interested women attend a meeting where the terms of the organization, including rules and contributions, are discussed in detail. Those that are interested in the group and able to meet its obligations express their desire to join the group. Members are nominated and elected to the positions of President, Vice-President, Secretary, Treasurer, and Monitor. The association now has 30 members. These members agree to pool their money each week on Sundays, and to buy wholesale quantities of rice as a group. This rice is then portioned out to each member who has until the following Sunday to sell her quantity of rice. Each member will then re-submit the original capital amount and keep the profits she earned from selling her portion. Over time, five members are not able to keep up with the pace of the group and drop out. The remaining 25 members continue the association for several years, increasing the amount of the contribution so that they can buy larger wholesale quantities of rice. During a group meeting one Sunday, a member shares an idea to further formalize the group into a groupement. She communicates that a cousin told her that as a groupement they would be officially recognized by the government and able to apply for lines of credit. Another member informs the group that her relatives in Middle Guinea could supply unprocessed rice in larger quantities. The group discusses this new direction and decides through consensus that they are interested in pursuing official status
as a *groupement*. Over the next few weeks the leadership of the group draws up the necessary paperwork to submit, including official statutes, rules, and an official registry of members. Because they are not fully literate they pay someone to assist with this. They take a day off of work and travel downtown and successfully submit the paperwork and filing fee. After several months, a government official travels to the Matoto market and verifies the information contained in the documents. Several more months pass and finally they receive their documents: they are a *groupement* officially registered with the Guinean government. With this new status as a *groupement* they approach a microfinance institution (MFI) who offers them a small line of credit along with technical assistance in financial literacy and bookkeeping. Over time the MFI increases the line of credit. The *groupement* is able to pursue the plan to buy large quantities of unprocessed rice from Middle Guinea. The *groupement* processes the rice together and sells the rice as a group. Each of the 25 members now makes considerably more money per week as a part of this group than she could individually. The women in this *groupement* are funding better meals for their families, schooling for their children, and healthcare for themselves. They are also benefitting from the close social relationships between the members of the group. When the husband of one member becomes ill, the group members gather a *cotisation* – a contribution – and pay for his medicine and hospital stay. The group has progressed successfully through three different types of groups: tontine, association, and *groupement*.

**Scenario 2: the neighborhood based sèrè.** A group of six married women in their early 20s who know each other from the same neighborhood decide that they would like
to start a sèrè to assist them with their social and ceremonial obligations. They talk together and decide that they would like to do a *côtisation* in a ROSCA style organization to help with costs associated with events such as setting up a household, the birth of a child, baptisms, etc. The group uses discussion and consensus building to decide on their leadership: a President, a Treasurer, and a Secretary. The group meets each Saturday, rotating between members’ homes, and each member contributes 15,000FG to the cooperative pool of money, safeguarded by the Treasurer. The last Saturday of the month one member receives her payout of 360,000FG. They decide the order of receivers based primarily on need. For example, one member’s baby is due the next month so the group agrees she should receive her payout first. Another member is moving the following month so she requests to receive the second payout. The terms of the group are agreed to, and each member makes their mark on a written registry to signal assent. The group also agrees that any member that arrives late should contribute a 5000FG late fee immediately. They agree that these funds are to be kept as a social assistance fund to help out members facing difficult events. They decide that 15,000FG will be distributed to any member needing funds due to illness or a death in the family. They begin the sèrè, and it is going well. The first member receives her payout at the end of the first month. She uses the money to pay for a better hospital to deliver her baby. When the baby is born, the members of the sèrè come to her home and take care of her other responsibilities while she is recovering from childbirth. They bring her family food and are a strong presence in the household in the first few days of the baby’s life. The neighbors comment that she must be of good standing to have a group to come help her, which makes the new mother
happy. The group continues for two rounds, and the members continue to support one another financially and socially. They decide to grow the group, and each member is asked to recruit one or two women that she can vouch for to join the group. The group has now grown to 15 members. The monthly payout from the cash tontine has grown to 900,000FG. The sèrè continues like this for another year. During a meeting, a member proposes that they expand their sèrè into a groupement. Other members are also interested, and suggest that they could pool their resources to start a soap making groupement, as several of the members know how to do this and offer to teach others. Twelve of the sèrè members agree to pursue this idea, while three of the members prefer to participate only in the sèrè. This is acceptable to the group. The leadership team writes up the required registry, rules and statutes. They file this paperwork with the government. While they are waiting for their official status the 12 members interested in soap making begin making soap and selling it wholesale to people who then sell it in the market. They have created a production based association. The paperwork for the groupement takes over a year to process. During this time the group continues to operate the sèrè which provides a cash tontine, social support, and a social assistance fund to all 15 members. The group of 12 members interested in soap making are also producing and selling soap as an association. Over time, they recruit four other women to join the soap making association. These four new recruits are not a part of the sèrè. Finally the official documents arrive which changes the association branch of the group into an official groupement. The soap making groupement is now able to approach MFI’s for funding as well as be considered for any government programs that may arise. This group started as
a sèrè which contained a cash tontine. Some members then added a soap making association, which then changed into a groupement upon receipt of official status with the government. Figure 63 uses a Venn diagram to graphically represent the membership in the sèrè and the groupement. The circle on the left represents the groupement, and the circle on the right represents the sèrè. Each X represents one person. There are 15 members of the sèrè and 16 members of the groupement. Four groupement members are not a part of the sèrè and three sèrè members are not a part of the groupement.

![Venn Diagram](image)

*Figure 63: Overlapping Membership in Different Functional Groups*
Family 2: Building Social Capital

The social functions of cooperative women’s groups.

Le social as a concept (Djamakourou). During interviews with the diverse sample of women’s groups, the concept of Le social, or Djamakourou in Malinké, was consistently mentioned. This is a compound word made up of djama, meaning people, and kourou meaning group. Because it emerged during in-field preliminary analysis I was able to pursue this concept in subsequent interviews. One participant communicated that:

*In Guinea “le social” is everywhere. Friday through Sunday, wherever you go you’ll see people sitting together – “le social”.*

Djamakourou was considered to be the result of actions taken to support others’ socially in a time of need. This could be by assisting another woman with her newborn baby by cooking meals or washing clothes. Or it could mean organizing a cotisation for a woman whose mother is in the hospital. However, Djamakourou can also be created solely by one’s presence rather than material or financial support. Participants clearly communicated that, for those who are not able to share resources, being present at a ceremony or social gathering in and of itself has value and is appreciated by others. One participant described a small tontine she belonged to in this way:

*When for example, at my place, right now each person pays 25,000 FG. And that 25,000, really it can’t provide even the amount you need even for medication for one person, but it can do something. It’s purely “le social”. That’s why we say that “le social” counts a lot. Even if you don’t have anything to give. Simply your presence – it really counts a lot.*
The participants in this study communicated that they desired to be known as someone who is social, who has *Djamakourou*.

*You have neighbors there. Your friends come ... if I have a baptism or a marriage, they see everybody behind me ... they will respect me. “This person is social. Look how she brought all these people to her home. She’s really social.”*  
*It’s very important. It gives you value. It enhances a person.*

Even in groups whose overt purpose is clearly financial, members of these groups placed more value on the social functions than the financial functions of the group. For them, *Djamakourou* was of primary importance. Put succinctly by one member of a *groupement*:

*Le social is number one. Money is number two maybe. Money comes after le social.*

She further illustrated by continuing that:

*If I say right now I have 100K francs, and my friend doesn’t have 100K, she will be forced to quit, and that’s not the objective here.*

Again, preserving group solidarity is privileged over immediate financial gains, as was previously presented in the Open Communication section.

Among study participants, *Djamakourou* was considered to be a vital ingredient for group success. Acknowledging that developing her recently established *sèrè* would be challenging, one member said:

*We want this group to grow. It’s the Guinean value: Le social. It can help us to overcome so many things. So many.*
Djamakourou is thus considered by members across the different types of groups to be integral to the success of their objectives, be they social or financial.

Social assistance funds as informal social welfare. The social aspect of the groups in this study was also evident in the existence of the “caisse sociale,” a kind of social assistance fund. What needs this fund services is decided by the group. In this sample generally it is used to address unexpected needs such as an illness or injury, or cultural obligations such as a baptism or marriage. These funds are developed through the contributions of groups members through either a specific contribution or through the allocation of money collected from late attendance fees. When asked how this money was her group used this kind of fund one member of a sèrè explained:

At the very beginning. As soon as you get together. When we were planning for 2016, we said – for this year, whoever wants to enter, first she pays – contributes – 500,000FG. Do you understand? So that’s an internal rule. Secondly, when you come late you have to pay the late fee. That’s 2. You understand? Third, In case of sickness, or even death, we will send a certain amount. Even when the fund is full. You see we vote for a specific amount. For social cases. In the case of death, for example, its 100,000FG. You understand? The baptism is 50,000FG. It’s really the group that decides that.

The group decides together how much will be contributed as well as how much will be paid out should it be needed by a member. A member of an agricultural groupement explained how her group uses the social assistance fund in this way:
We have a “caisse sociale.” Each end of the month – you see the groupements pay quotas – at harvest. They pay quotas. And when someone is sick we’ll give them something to pay for their medications.

Because the harvest quotas are an expense outside of members’ tight weekly budgets, they use the social assistance funds to be able to pay them.

The social assistance funds also support members who have a family tragedy. Through this support they are also further facilitating Djamakourou: le social, by allowing members to be present at important family ceremonies. A member of a sèrè explains how she benefited from the “caisse sociale” when her brother passed away:

The Sèrè gave me money for transport to my village (after a death). Because death waits for no one, so if it happens, and you don’t have anything – if there isn’t assistance you can’t do anything. So it’s the Sèrè that helped me go and come back from my village. To help me be able to go do the traditional ceremonies for my brother, and then brought me back. And when I was travelling, my children that are here - the Sèrè also watched my children until my return. I am in this Sèrè because of this.

The availability of the social assistance funds was considered a type of insurance by the members of the groups. The social relationships created by the group were considered to be a guarantee for future returns on their investment in other members in the group. They paid towards the needs of others in the anticipation of reciprocal assistance. Developing le social, Djamakourou, in the group contributed to this
confidence that each person would in turn help the other. As the president of a
groupement stated:

   Our groupement is based on “le social.” So here, when there is a death or a
baptism or a marriage, or when there’s a problem we get together and we do a cotisation
and we help out.

   The social assistance funds were an equitable vehicle to mobilize member funds
towards supporting one another in times of need, and thus for further generation of
Djamakourou – the social glue that holds the group together.

Experiences of Participation.

   Shared burdens: “we have a common problem”. Although there were several
themes about members’ motivations for participation in a particular group, participants
related that they felt other members’ life problems were primarily the same as theirs. A
member of a successful groupement explained:

   In general we have a common problem. We’re the ones that pay expenses, clothe
our children, when they’re sick who make them well again, etc. etc. We do pretty
much all the things a man would do. So mostly our problems are the same, just
different details.

Thus, while individual motivations were somewhat different, they were overall
responding to similar life circumstances and barriers. The necessity of working together
with other women in a group to solve these common problems was a strong theme
throughout the transcripts. Many women in the groups did not report having discretionary
earnings. As one participant stated:
What I get here – my share of the profits – that’s what feeds my children. My husband passed away, and he was the one that took care of the family. So now it’s just me who can do this, and the money I earn here is what feeds us.

Numerous participants mentioned being the primary earner in their family, with the responsibility for household expenses.

The women you see here, in this groupement, practically all of us are the heads of our households. We manage the money, we pay the expenses, we are the ones who solve problems when they arise.

A member of a groupement and sèrè related her motivation for being in the group this way:

I was pregnant. I had lost my husband. But they take care of me, so I can take care of myself. That helped me enormously. It helped my two children. These children will finish their studies. Those days I was trying to figure out how I could get more money, and I became a part of this. Now, always when I earn, instead of just spending the money, or safeguarding it somewhere, I prefer to put it back into the Sèrè. It comforts me a lot. That’s why I take part in this Sèrè.

Again, this participant illustrates how the financial and social aspects of being in a group are intertwined. She earns more money to support her family, and is at the same time comforted by her membership in the sèrè. Apart from the social support members provide internally, participants communicated that the support of the group followed them to other locations. One participant related that:
When my daughter’s marriage came, they went all the way to Kindia. Not only this travelling, but “le social.” They all went to attend. My mother passed away. The whole group went by foot. They brought a sack of rice, and the “Prix de Defunt.” ... They greeted all of the neighbors that were there. To really show that I was good, that I was in a good association. Above all it was that which I liked. That’s why I’m in this Sèrè.

This idea is summed up by a member of a sèrè, who communicated her motivation for belonging to a group by saying:

*When you have a problem, it’s their problem. They come everywhere – financially and morally.*

This statement gets to the heart of many participants’ reason for group membership. It is the moral and financial sharing of problems, be they social or economic. Through working cooperatively members share one another’s burden, and are able to use their solidarity to advance together.

*Meaningful Relationships: “Like a Family”.* This idea was further expressed through the idea of the group being “like a family,” a phrase that was used repeatedly by participants.

*Look already. Here where we are. It’s like a family... If I see her when I am out in the market - Me, when I run into her, she starts shouting like “Wow! Hey! Look! It’s you!”*

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3 “Le Prix de Defunt,” - translated loosely to “money for the deceased” - is a term in Guinea used to refer to money traditionally given to the family of a deceased relative or friend. This money is intended to be used to help in the purchase of animals, such as a cow or goat, which are then slaughtered for meat to feed those gathered to mourn the deceased person.
The concept of a participant’s group being a type of family was used throughout the transcripts. The relationships between members were said to be like those of related family members. One member of a sèrè used family terms to describe her relationships with other members of her group:

*I am part of this Sèrè first and foremost because it is filled with my sisters and my mothers [figuratively]. I think of it like that... So now, when I have a ceremony, it’s the Sèrè that helps me. When there is a death in my family, the Sèrè that helps me with that as well. So almost everywhere I have a need, the Sèrè is there beside me.*

The idea of the sèrè being the social unit to meet a members’ needs further exemplifies the stated role of the sèrè as a kind of family outside of kindship relations.

*Cooperation: “One Person Cannot Do Everything”.* The idea of a group as a kind of family is expanded upon in the idea of cooperation between members. There is the shared belief among participants in this sample that an individual person cannot accomplish as much as a group of people together. When asked why she participates in a sèrè, one member related:

*We have to call everyone so we can do something. Because one person cannot do everything. You have to call all your friends so you can give each other some ideas to accomplish something.*

A member of an agricultural *groupement* provides an example of how the group supports members cooperatively, thereby creating something more:
If I’m here, each evening I have to go home, even if my land didn’t produce. But I have a neighbor next to me who will give me herbs, ingredients, so when I get home I can make a good sauce for dinner. So there are more benefits here than there were before.

Participants clearly stated the belief that through cooperation and solidarity, they would be able to accomplish goals together that they could not alone. As a president of an association remarked when asked why she was part of a market group:

*But if we’re not united, we can’t get there. We have to work as a group to really know how things can be.*

Cooperation in the group is considered the groundwork for future success.

**Commitment:** “*I will be in this sèrè until I die*”. Another in vivo code that was used prolifically when asking participants about their participation was, “I will be in this sèrè until I die.” This language communicated the depth of obligation and commitment to the group. One participant explained what she had been able to accomplish as a member of her sèrè & groupement.

*I will be in this Sèrè until I die – that’s me. I know that with this Sèrè I have built a building. Because every time that we have a tontine, where we contribute 5million, 10million FG, I keep it. And I’ve kept it, I’ve saved, and I’ve bought myself some land. I’ve cleared the earth – I’ve created the sub-basement, and I’ve started construction, all because of this Sèrè.*

While the social aspect underlies most members’ participation, they reported other motivations for participation in their group. Here, her considerable achievement in
constructing a building was attributed to the sèrè, which was the social vehicle for the tontine which provided the capital for her project. This kind of financial support was evident as a motivating factor for participation for others as well, as one member of a groupement explained:

Ok, so financially it helps us too. If there is a baptism, right now in this Sèrè, they will try to do a côtisation. Right now it's 500,000FG per month, and right now there are 13 or 14 people who contribute that. Calculate that: 500,000FG by 13 people. It's up to 6 or 7 million. For me, for example – that's going to help me a lot. I can start new projects with that.

Political motivation. Political motivation for members was also evident for some participants. Several of the groups in this sample began in 2010 when the government, during a contentious period after the death of the Guinean president, called on women to come together in groups to support the country. This political or patriotic motivation was explained by a member of an agricultural groupement when she spoke about the creation of her group:

Interviewer: So it was before [current president] Alpha Conde?

Participant: Yes, but after the death of [Lansana] Conte that we made these groupements. ... But in my party, the ideology was to work the earth. I belonged to the PDG party – the party of [Sekou] Toure. He promoted the agricultural sector. I think a lot about that. So all the women – the women we call “rainbow” – we got together and we asked the state to give us the authorization to create these groupements. So we had the approval and we created these groups.
While few participants mentioned political parties by name, out of the 12 groups, three (25%) were created in response to the government call for women to mobilize in cooperative groups. Thus, while political motivation was not related as a primary motivating factor for participation or a primary experience of group membership, it was the impetus for the initial formulation of some groups.

**Family 3: Barriers and Opportunities.** Throughout the interview process, participants consistently brought up the barriers that they faced in achieving their group’s objectives. As one participant put it:

*So until now we’ve been doing this, but there have been obstacles we’ve had to overcome. Because things don’t happen just like that.*

Although this was not a central idea of the initial semi-structured interview guide, based on the frequency with which participants volunteered the information, further iterations of interviews included questions to elicit information on the barriers that participants face. These barriers are included here, further delineated into the four categories that emerged during analysis of the transcripts: financial, social, environmental, and political.

**Financial barriers.**

*Lack of access to sufficient startup capital: “money problems”*. Of the barriers that participants related, the lack of sufficient capital to expand into new areas or to scale up existing operations was a prevalent concern. A member of a market-based *groupement* explained the dilemma like this:

*If we had capital we could be doing cloth dying or soap making. I mean, that’s why you see so many people on the street doing small commerce. Maybe they*
don’t want to be doing that – they know how to grow vegetables for example –
they are there to feed their family. If we had capital we could be producing soap
or dying cloth. We wouldn’t be in our shops doing commerce.

She expressed that for many women, their current activities were not the limit of their
capacity, only the limit of their capital. Because they did not have sufficient capital –
though often the sums required were rather small - they could not expand into new areas
or enter into production rather than retail. However, the sentiment across groups was one
of rewarding merit rather than an expectation of charity. As a groupement member stated:

It’s not like you should give money to everyone. But you know who works hard. In
life, you could be anyone, but money problems are money problems. We are in
this market here. For example I know her. I know all these people who are here. I
know she sells beans. I can tell you, if she had 10 million, what that could do for
her. And if she only had 50 million, I know how that 50 million would work hard
in her hands. When you know someone’s character, you have less problems. So
the groupement is here to get to know these people. Who can manage what? Like
that.

In this passage, the participant brought in the idea of how social relationships in
groups relates to the deservedness of funds. She underlined that in the groups, women
know one another well, and are thus expertly placed to know who is a good candidate for
credit. However, when groups are able to access credit, it is often too small based on the
size of the group. Partially due to the inflation of the Guinean Franc combined with
increasing commodity prices in the country, many participants found themselves unable
to access enough capital to actually expand their ventures in a meaningful way. In addition, due to the way the group operates, monies received were expected to be evenly distributed, continuing the pattern of equitable solidarity. The president of a groupement with 30 members put it this way:

So they [microfinance institution] want to give us 30 million FG for the group.
But the group is 30 people. If you say now we have to share this among our group, so that everyone has a little, what is 1 million? That’s what we call “manger.” Grocery money!

In the case of the agricultural groupement, they were unable to continue expanding due to a limited water supply. When asked, If they could resolve the water issues, one member replied:

Yes – if we had the funds to do so. I mean, the water is really close – we just have to bring it up here.

This response illustrates the responses of multiple participants, who felt blocked from continuing to develop their group’s enterprises due to inability to secure sufficient capital.

Inappropriate financial options. It is important to note that there are some financial options available to official, government registered groupements. For example, one of the groupments in this study has been receiving loans and expanding their enterprise for more than 20 years through the Yete Mali MFI. However, many of the groups in this sample were unable to successfully engage with these financial services.

One of the reasons is echoed above: that group loans aren’t large enough to be
divided amongst group members:

“If they give a loan to the group, it isn’t enough to be able to divide it up for the members. It’s only enough for one or two wholesale purchases, then more people are left out.”

Because solidarity is key to the sustainability of the groups in this sample, leaving members out is not considered a viable plan. But in addition to this, there are several other terms that were considered untenable barriers by participants.

**Interest rates too high.** Groupements who had approached banks or MFIs for a loan often reported that the interest rates on the loan were too high. Because many participants bought small wholesale lots and sold retail on a very tight margin, percentage rates on loans were the difference between profitable and unprofitable; dinner or no dinner. They were not able to consider a risky loan that they did not believe they could make a profit on. In the following exchange, the participant explains the difference between what is offered and what is needed.

*Interviewer: What is the percentage?*

*Participant: It depends. It depends on the bank. Some banks lend at 4%, some are at 7%. It depends. It’s a lot. What we need is a bank that can give a large amount to the groupement – or a sèrè – with an acceptable rate. Something affordable.*

*Interviewer: What would be affordable?*

*Participant: 1% or something very very low. We could work with that. We’d be able to pay the loan back easily – without a problem.*
Additionally, some members felt trepidation about taking out loans when they were not certain of their ability to repay. One member of a newer groupement said:

*What’s best, since we’re just at the beginning, we just don’t know how much capital we will have - if the loan big or little, it’s better if the interest rate is the minimum. For example 1%. Even better than 0% is 1%. So no one can say that they’ve given us the money.*

She states clearly here that she prefers a loan to charity. This speaks to the focus of the groups in this sample on growing their enterprise. Participants in associations and groupements related that they were interested in establishing credit, because their objective was to develop the group long term and not on short term returns.

*Collateral needed, bank account.* In addition to needing to be officially registered with the Guinean government, a bank account with a minimum balance is a necessary requirement to be eligibility for credit. However, many participants reported being unable to fulfill this requirement. As one participant said:

*We have to get a bank account as well. It’s one of the first questions a microfinance is going to ask us. Do you have a bank account? Yes. May I see your savings book? Yes. The bank will give you a booklet to show them. And they’ll ask, how much is in this account?*

The requirement of opening a bank account and maintaining a specified minimum balance proved unattractive to participants. First, participants were unfamiliar with banking institutions and most had never had a bank account. Secondly, members
preferred to reinvest any gains back into their group rather than place it in a savings account. This was stressed by one member of an association who stated:

*I prefer to keep my money in the association – having a bank account is not something I find necessary. Why keep my money in savings when I can make it work for me here?*

Her words are logical when one considers the dual financial and social roles the groups play in women’s lives. A formal savings account is meant to save for large future purchases or be available for emergency needs. The groups in this study used the *tontine* to facilitate savings for future purchases, and a social assistance fund to security for unforeseen expenses. An additional perk is that the money is not set aside in an association, but continually available for reinvestment.

*Inconsistent finances.* In addition to the financial barriers relating to lack of access to capital and inappropriate financial options, the inconsistency in earnings also construed an obstacle for participants. Many women did not feel able to confidently estimate future earnings, partially due to fluctuating costs. One member of a *groupement* described her thought process when trying to predict profitability:

*Ok, I’ll tell you about the problem of rice. I will buy 3 tons of rice. In the forest region. Or even here. And rice costs a lot. There’s not a lot of profit, but if it sells quickly I prefer that. When someone gives you 30 million FG, is that enough? No it’s not. My three tons of rice comes to between 5 and 10 million FG already. With all the extra costs – the expenditures – transport. Beans too come from far away – like in Kankan. The transport costs alone are expensive. Beans, cola nuts*
too. Palm oil too. All of these things are expensive. And they’re from far away. If you don’t have a voucher – like a government voucher – it just doesn’t work out financially sometimes.

The government voucher, to the participant, provides additional security that she will not lose money on a large investment of capital. Without this assurance, as she said succinctly: “…it just doesn’t work out financially sometimes.”

Social Barriers. While it is certain that additional social barriers exist for women’s groups in the Guinean context, two specific barriers presented themselves during this analysis: Illiteracy and unemployment.

Illiteracy. Illiteracy contributed to the barriers faced by women’s cooperative groups. Although the groups in this sample all contained at least several literate members, the majority of women in Guinea are not fully literate. For example, completing paperwork for official registration of a group requires literacy and the ability to navigate paperwork. A participant explained:

*When it’s a groupement where there aren’t intellectual members, they have to hire people who specialize in putting the papers together. So that person who is hired to fill out these papers will get the whole group together, and the group will tell them – we want it like this, and we want it like this. And they write it all down for the group. And then with this information they take them down to the ministry. It’s not free.*

In addition to being a barrier to completing paperwork, illiteracy of members’ also impacted the groups’ ability to be informed of potential funding opportunities. When
asked how she would go about looking for group financing, one member of an association stated:

_Maybe an MFI? I’m not sure. Her cousin’s group got a grant from one of the embassies, but we don’t know about those. That would be an option, but we don’t know about how that works. I suppose I could go down there and talk to someone, but I don’t have the time._

Illiteracy of members fundamentally limited the groups’ collective ability to stay abreast of the funding opportunities available to groups, thereby limiting their potential for acquiring additional capital through grants or loans.

_Under-employment._ The term underemployment refers to the condition of being employed in jobs that are inadequate for one’s economic needs, or that fall below one’s level of training. In this study, some participants communicated that they had a regular wage-earning position but that it was insufficient to meet their economic needs. One participant communicated her experience by saying:

_I do some commerce and I also have a professional job. But the Guinean salary is so small that it can’t fill all the gaps⁴. So when I get my 6million, I will add it to the small amount I have for my commerce and try to grow my little business a bit. My husband passed away and I live with my children. I have responsibilities._

Another group member summarized this by stating:

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⁴ This statement reflects a recent politically motivated change to the salaries of Guinea’s civil servants. The Conde administration cut government workers’ salaries significantly. The result has been that these workers have had to look for additional ways to meet household needs, and many have taken up informal market work.
Even the public officials are doing commerce! There’s no other way to pay for your expenses!

This inability to meet household expenses, even with a professional position, had spurred many participants to become involved with a cooperative group. In addition to members’ own underemployment as a barrier to achieving group objectives, the employment status of other members’ of the household was also important. Some members were supporting both husbands and grown children who were unable to find steady or wage-earning employment. One member of a sèrè explained:

*Among us, some have husbands that don’t work. He’s there, but he doesn’t have the means to meet the needs of the family. There are some like me that have children that have finished school – university even– They are there but there are no jobs. So, I am supporting these grown children, I am feeding this family, I support the social needs too. So I’m here. This Sèrè provides this, and I use it for all of these needs. That’s why I’m in this Sèrè.*

Market work was considered another avenue for women in wage employment to earn additional funds to meet their household expenses and to support their families. Yet rather than engaged independently in market activities, women worked together to make more from less. A member of a groupement shared her perception of how women work with men to support families in this passage:

*Because when the wife works, and the husband works, the children for example will go to school, they won’t have the same problems. The wife can, for example, help her husband to purchase the schoolbooks, buy the school uniforms. And the*
husband, what he can do is provide the money for the household expenses. But there are also husbands who don’t work. So all of the responsibility falls directly onto the wife. But what must one do to help this husband? You say to yourself, let’s take one another’s hands and we will make a groupement, we will work together, and the income we will sell at the market and we will help our husbands – we will help our country.

Rather than each woman helping her own husband, the sentiment communicated by multiple participants was that together they would combat lack of funds due to low wages by helping one another, and thus as a group help their families and their communities.

*Environmental barriers.*

*Climate (agricultural).* In Guinea, it is traditional for women to work the land and cultivate food crops. Indeed, as was initially communicated in the literature review section, women’s cooperative groups are theorized to have begun through cooperative farming activities (Bryceson, 1995). This involvement in agriculture has continued until the present, and many of the women in this study are engaged in either growing, processing, or selling food. In the interviews, the climate emerged as a barrier to groups reaching their objectives. On agricultural group member explained that the rain was not enough to keep seedlings alive during drought, and that the nearby water was not available to them because they could not carry sufficient amounts to their fields. She continued:
It would be a huge blessing for us to have funding to bring water up here. If we had water here we could work 12 months of the year. It’s water that’s holding us back. All around here you see arable land, but without water we can’t do anything with it.

Another member of an association that bought and sold rice explained:

We can’t be sure of the price of rice from one year to the next. Maybe there will be rain, maybe there will be drought. All of this influences the price. And how can we know how to plan with our money? We just have to go day by day, and that’s not the best idea, is it?

She communicates that the fluctuation in prices, responding to crop yields which are in turn impacted by the amount of rain, inhibits her ability to project future earnings.5

Health (Ebola). The interviews for this study were conducted just months after the Ebola epidemic in Guinea had been declared over. Due to this, it was mentioned by multiple participants, and the effect of Ebola on the groups emerged as a barrier during analysis of the transcripts. Each group reacted differently to the epidemic. One group ceased operating due to this crisis:

During the time of Ebola we stopped completely. Everyone was scared of each other. Of contamination. Due to contact. We had to stop for 6 months.

Other groups used creative ways to communicate with one another rather than in face to face meetings. The secretary of a groupement explained it in this way:

5 In Guinea, the price of rice in particular has varied widely in the past decade. Although the weather has impacted this, much of the rice consumed in Guinea is actually imported from China. Even so, because rice is a staple of the Guinean diet, prices of this commodity highly influence the fiscal well-being of individual families. Drastic fluctuation in rice prices is a subject of concern for many Guineans.
When Ebola came. You see, we have one another’s phone numbers, so we didn’t meet, but we can talk from a distance, right? But our activities were very diminished. But we were talking to each other every day. We would give each other ideas, and when there was something – you know even ceremonies – during that time people were fleeing Conakry. We just weren’t doing them at all. When there would be a baptism and you’re with your family, you give nothing. No food, no contact, nothing. It’s just lately that we have a reprieve. Very recently.

Another group followed strict hygiene protocol to keep members safe:

It didn’t continue normally. Not during Ebola... Well each one of us, when we come here we don’t greet each other. We say “hi – hi” Do you understand? So we had to have health security ... So everywhere there are washing areas. When you enter, you can’t say hello unless you’ve really washed your hands. So it didn’t really prevent our meetings. And thank God not one of us, or one of our relatives got it. God really saved us from this. And so it didn’t prevent our meetings.

A participant from another group explained that they had not ceased the hygiene protocol yet:

We have a washing station still set up back there. We’re still using it. There’s no Ebola but we’re all still washing our hands.

A group that received loans from an MFI explained that their financial institution gave them leniency during this tragic period.

Participant: The economy was very bad during Ebola, and there were some groups that weren’t able to continue paying because there wasn’t enough
business... Some groups couldn’t pay – that’s right. So there was a moratorium on payments until the market activities started up again. But we continued to pay. We didn’t have these difficulties.

Interviewer: I can see that – you always need wood to cook don’t you?

Participant: Yes. Exactly. So we didn’t feel these problems so deeply. Business did slow down a lot so we were a little slower on our payments, but there wasn’t a month that went by that we didn’t make our payment.

All of the groups in this study reported their activities being affected by the Ebola epidemic. This environmental barrier either slowed or halted their activities. Since so many of the women are primary income earners providing meals with their daily earnings, the effects of decreasing their income even slightly has tremendous impact not only on them but on their families.

**Political barriers.**

*Lack of comprehensive policy.* Before presenting the barriers faced due to political factors, it is important to also note that there is relatively little government oversight or support for the women in this study. Guinea does not have a comprehensive social welfare system, although there are currently efforts through social ministries to develop these supports for the Guinean population (M. Diaby, personal communication, May 2016). Because of this, some potential “barriers” could also be interpreted to include

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6 In a meeting with an under-secretary for the ministry on social affairs, M. Diaby related that, due to the recent epidemic of Ebola exposing gaps in social supports, the government had used funds from USAID and other organizations to begin developing and expanding some systems of social welfare to address the unmet needs of vulnerable populations such as children with developmental disabilities or the elderly. M. Conde was forthright in admitting that current social welfare was not adequate, and that the professionalization of social work was an area of interest for the government.
those systems not in place to support the women’s groups. This is expressed in the transcripts through the frustration of women over the under-developed infrastructure to travel to the interior of the country, or the fluctuating commodities prices not controlled by the government. One participant expressed this sentiment particularly adeptly by saying:

Guinee Forestier [another region in the country] isn’t even that far, but it still takes the trucks a day to get there. Then we have to stay overnight, and come back the next day. All of this is increased prices: price for gas, price for food, price for accommodations – all of this makes it more difficult to make a profit on whatever we buy.

By having to navigate the interior on dirt roads rather than highways, the participant was not able to use her capital efficiently, which resulted in lower overall earnings.

Another area of discontent for the study participants was the length of time it took to acquire official government documentation for their group. One participant explained why some groups did not have documents by saying:

I’ve been waiting for this question. It takes much too long. Sometimes it takes more than a year! There is way too much work to deal with this. That’s why often there will be really great groups, but who don’t have official statutes. But a really great groups!

The lack of documentation, however, bars these groups from receiving government funds or applying for MFI loans. Another member gave further clarity on why the documents took so long to be finalized:
You can’t go down there today and have your statutes tomorrow. There has to be time for them to read through it all. They have to determine if what is written in the application is real, if it’s true. They could get up and come right here to see the groupement. To make sure the groupement actually exists. Everything has to be checked before handing out those official documents. It’s not good to put your signature and your stamp on something that you’ve never seen, right?

Even with this understanding of the process, participants communicated a deep frustration with the process, as it entailed taking days off of work to travel to the government office to personally submit the application and papers.

“I am so full of ideas”: focusing on future. Although multiple barriers to groups’ stated objectives emerged through analysis, other thematic areas related to group strengths also became apparent. Groups related a firm focus on the future development of their activities, and hope for meeting their objectives. Participants communicated that as individuals they felt unable to create positive change, but through the group anything was possible. One participant stated:

*The will is there. And the courage, too. And the organization, too. One person by themselves, what can they do? But in a group. We can do it as a group.*

Multiple participants across groups related that, should they be able to acquire sufficient financing, their group would be able to expand successfully.

*We have as many ideas as possible. I am so full of ideas. The startup capital is what’s missing. But when we do get financing, there will be a big change. When you come back to see us, we will have grown a lot. You will see.*
This hope for future growth was back up by a plethora of ideas and opportunities participants communicated with one another and during individual interviews for this study.

*Plans for the future.* During the individual semi-structured interviews, the question that elicited the most excited response from participants was “If you had sufficient capital, what would you like to do in your group?” This was a topic of great interest, and participants had complex, fully developed ideas ready to share, such as this member from an agricultural group:

*If you look over there, you can see – it’s almost a large lake. There’s water that passes by there. And during the rainy season, the fish can come up to here. When there’s a large rain and it’s flooded, they can come all the way up here. When I came, I observed that my group, as well as others, could raise these fish. And in my head I thought that, if we can do that, we can have our own farm for ourselves. And if we had our own agricultural farm, we could have a place to grow corn. And corn is the base of the food given to chickens. If we have corn, we have fish – the rest will not be difficult for us. Because the chickens will give us fertilizer. That will be pure – not chemical. And it would work very well. Everyone said yes, this is a good thing.*

Her idea, like many others shared during these interviews, was supported by her group, but not viable due to lack of start-up capital. Another participant, the president of a *sèrè*, communicated that the current small size and scope of her group was not due to lack of ideas, but lack of financial support:
Yes, well we have ideas. We’re not trying to be shy. We have ideas of things to do, but we don’t have the funds to do them yet.

Even in groups without external financing, members used their lump sum payout from a tontine to develop small projects:

_We all have projects. Everyone has projects and small businesses. Some do commerce, others do construction, some want to redo their house, or invest in their children. There are a lot of things. Everyone has either an idea or a project._

These individual projects, financed through the ROSCA function of the tontine, took multiple forms. One member related:

_I sell palm oil. I can take some capital and buy palm oil. Send it here, sell it both wholesale and retail in the market. I can quickly sell it to a wholesaler._

Another said:

_I have a construction project that I’m working on. When I get my sum, I’m planning to make some investments in it._

Finally, another participant shared:

_I do a lot of business in the market, so my sum will be buying merchandise at wholesale so I can get better profits on what I sell._

These short statements are a fraction of the copious, creative, and discerning responses provided by participants to share their plans for future payouts from the tontine.

However, participants of associations, groupements, and sèrèś were also quick to note that their long term objective was to further develop their group; that the surest path to success was through their cooperative efforts. Many acknowledged the human capital that
resided in the group network, saying that with sufficient financing the group had the skills to expand into new, potentially more lucrative areas:

*If we had financing – among our group there are those who do cloth dying. Her, and her, and her. There are others that specialize in soap making. Over there. Also, we can – we want to do – vegetable cultivation. Mangoes at least, but we can’t bring them now. When we have financing, we can develop all of these activities to become so much more than what we have today. That’s what it is.*

Members’ assurance in the ability of the unified group to develop and expand was evident across interviews. The secretary of a sèrè, when asked what she thought the group would be doing in five years’ time, responded:

*One day, maybe, it could happen that we become an NGO. That we create something. Maybe soap making. Cloth dying, sewing, It’s all possible here.*

It was clear throughout the interviews that participants were confident that the organized, cooperative women’s groups they participated in were sufficient to establish and grow an enterprise. Further, participants communicated that they needed external capital, not outside organization or facilitation, to expand their ideas and scale up their activities. This was put succinctly by the president of a *groupement* who said:

*If you want to help the groupements, you have to meet the women where they are. And fund them in what they’re doing now.*

Participants were clear that they faced significant challenges in growing their groups, but remained committed to continuing their activities and expanding their work. The following passage is a response from a group member to the final question of the semi-
structured interview guide, “Is there anything else you would like to share that I did not ask you about?”

I came with an idea today that I want to share. Life in Guinea today is very hard. We are going through a crisis. Even though we have a little merchandise, there’s just not much money. What I think is, we should continue doing commerce, but we need to expand into other activities too, like market gardening. Or even cultivating rice – we could do that as well. But honestly, when we don’t have funds we can’t do any of these ideas. So with this little commerce that we do, and when we can diversify our activities. If one thing isn’t working then we can depend on something else. But right now, with just one activity, it’s not easy. But even if the financing doesn’t come, we know that God is here. And that we will find financing somewhere else... We are sitting in this, we sleep with this, we dream of this. So right now, I think it’s the banks or NGOs that can help us with some capital. This was what I wanted to say today.

Each participant communicated a plan for the future, predicated on the continued success of the group. Individually, they described difficult personal life circumstances: low wages, few opportunities, and the deaths of loved ones. However, in describing their groups, the women in this study painted a picture of supportive, cohesive networks of people with the same objective: to work together towards the objective of developing the group, with the aim to create something to benefit everyone. Something financial, but also something social – the support necessary to navigate cultural and social obligations in an unpredictable world.
Increasing trustworthiness in qualitative research. Throughout the qualitative inquiry process, methods were incorporated to enhance the scientific rigor of the results. The accepted tenets of rigor in quantitative research, internal validity, external validity, reliability, and objectivity, are inappropriate for qualitative inquiry (Guba & Lincoln, Competing paradigms in qualitative research, 1994). Thus I followed Lincoln and Guba’s (1985) framework designed specifically to evaluate rigor in qualitative research. Qualitative researchers seek to enhance credibility (rather than internal validity), transferability (rather than external validity), dependability (rather than reliability), and confirmability (rather than objectivity.) Lincoln and Guba’s (ibid.) framework is a broadly accepted set of criteria used to evaluate qualitative work, and is the most appropriate for this piece of the study. The following section will address each of these four areas, and will include the strategies employed to enhance overall rigor.

Credibility (in preference to internal validity); truth value. Credibility is considered perhaps the most foundational aspect of rigor in qualitative research (Lincoln & Guba, 1985). Rather than internal validity, which seeks to confirm that what is measured is what is intended to be measured, credibility instead seeks to determine the degree to which study results actually reflect reality. I used several strategies to increase the credibility of this study, namely: developing a cultural familiarity, triangulation of informants, ensuring honesty of responses, member checks, peer debriefing, and negative case analysis.

Previously elaborated in my researcher self-disclosure section, I have a long exposure to the Guinean culture through my 17 year relationship with my partner, a
Guinean who moved to the United States in the late 1990s. Travelling to Guinea as well as being a part of the Guinean immigrant community in the US has allowed me to become intimately acquainted with Guinean culture. Because there is scant literature available on Guinean women’s ROSCAs, I prepared for this study by speaking in depth with friends and family members about their knowledge of women’s cooperative savings groups. This general information allowed me to develop a familiarity with the potential areas of interest in studying these particular groups.

Shenton (2004) recommends that the triangulation of informants can enhance the credibility of a study, as it allows for a larger diversity of perspective and experience on the phenomena of interest. I employed this strategy during the data collection process, and was able to engage with multiple sets of stakeholders interested in women’s cooperative savings groups. These key informants in government, business, and academia were able to share diverse perspectives on the history and context surrounding these groups. These interviews provided a strong triangulation to the information I was hearing from the individual participants in the groups, as well as providing interesting disconnects in information between funding organizations and their potential customers.

In order to ensure the most forthcoming responses to my questions during semi-structured interviews, it was necessary for me to establish credibility with the research participants. I did this in three ways. First, my research design incorporates contact with a group leader prior to engagement with group participants. Because the leadership role of the president in these groups is strong, her consent and interest in participation facilitated forthcoming responses from participants. Secondly, while the power differential in my
identity as a white American researcher created barriers to open communication, many participants changed both their answers and their demeanor upon learning that I am married to a Guinean man. Upon realizing this, I deliberately self-disclosed this information when introducing myself, which I observed lead to a more relaxed atmosphere in interviews. The third strategy I used to encourage open dialogue with participants was to use iterative questioning. This was particularly useful when asking questions about problems that arise in the group, as many group members, as a function of their strong solidarity, did not like to disclose internal problems in the group.

Researcher: Can you tell me about a time there was a disagreement between members in this group?

Participant: We don’t have problems like that here. We get along very well. We are like a family.

Researcher: There are no disagreements in a group of 25 people? That’s impressive! But even in a family people disagree sometimes.

Participant: Yes, but here we solve our problems quickly.

Researcher: I’d like to know more about that. Can you tell me about a time you solved a problem?

Participant: Oh we do that a lot. We have something we discussed today even...

By using iterative questioning and reframing the question in a solution focused manner, I was able to ask the question in a way that the participant sustained the group solidarity and felt comfortable talking about a problem in the group.
I employed member-checking of my research as a way to enhance credibility. During data collection, I continuously re-examined the conclusions and emerging thematic areas developing with research participants. In one example, I spoke with individuals for several days who communicated that *le social* was the most important aspect of their participation in a group whose overt purpose was financial. Further interviews built upon this idea, asking participants member-checking questions such as: “I’m hearing from other women’s groups that *le social* is first and foremost, even more important than money. Is this your experience?” In this way I iteratively built on my understanding of concepts by validating my perceptions with group members.

The process of member checking went in tandem with peer debriefings throughout data collection and into data analysis. During my fieldwork, I met with my academic contacts in Guinea to discuss the emergent thematic areas and my strategies on how to develop these lines of inquiry. Because these contacts have considerable qualitative expertise they were able to both validate the theoretical soundness of my analysis and suggest ways to interpret data informed by their lived experiences as Guineans.

*Transferability (in preference to external validity/generalisability); applicability.*

Transferability in qualitative research refers to the extent to which the results of a given study are representative of other groups in other contexts. While qualitative inquiry is, by its very nature, not intended to have strong external validity – indeed, its strength lies in its ability to look within rather than without of a given population – I was nonetheless very interested in capturing as much as possible the breadth of expression of
women’s cooperative groups in Conakry. The purposive sampling techniques used to intentionally gather a diverse data set has contributed to the transferability of the study results to other urban contexts in Guinea. The sample includes women’s groups with a variety of ethnicities, neighborhoods, durations, purposes, and levels of formality. The data collected in this sample thus reflects a broad array of types of groups, with common themes running throughout the corpus of data, such as the idea of *le social* being integral to the creation and sustainability of groups. This supports the idea that the results generated from this research may apply across multiple kinds of groups in Guinea, as the groups used to generate these concepts were themselves quite varied.

**Dependability (in preference to reliability); consistency.** In order to maintain an audit trail of the coding process, analytic memos were employed throughout the processes of data collection and analysis. Use of these memos served to document my “progressive subjectivity;” to self-monitor the development of concepts and thematic categories throughout the qualitative inquiry process (Guba & Lincoln, 1989). During the data collection process, these memos consisted of field notes as well as observations of the directions in which the days interviews were guiding the qualitative inquiry. After data collection and during the data analysis process, I maintained a journal of analytic memos that catalogued my developing understanding of the ideas emerging from the data through analysis. An excerpt from one of these memos is included below:

*I have completed the “recoding” phase of the code-recode strategy, and have gone through all of the transcripts, completing the second cycle of initial coding. It’s very interesting to note which codes I actually retained as I read through the data. Some participants’ answers are really quite adept at capturing, for example, the ways that the group supports them socially or emotionally. The concept of “*le social*” comes up in quite a few interviews, and will be very interesting to*
continue through second cycle coding methods and really deconstruct and reconstruct the meaning and purpose “le social” in the groups. It’s in informal to formal groups, cross purposes. Interestingly, the translation into English is a snag. There’s not really a noun “the social” in English, so I’m planning on using either the French “le social” to distinguish this more specific meaning. I’ve written to my contacts in Guinea to ask them if there is a better word to use in the major indigenous languages, as my hunch is this is a translation from Malinke or Susu into French.

During the phase of initial coding, I employed a code re-code strategy (mentioned above) to increase the dependability of the resulting codebook. I read all interviews line by line, coding transcripts in their entirety. Following this, I stepped away from qualitative analysis for two weeks. I replicated my coding process a second time after this hiatus, coding the transcripts in their entirety using the same initial coding processes. By comparing the two codebooks I was able to observe overlapping codes as well as several codes that were unique in either the first or second round of initial coding.

**Confirmability (in preference to objectivity). neutrality.** Confirmability in qualitative inquiry has a corollary of Objectivity in quantitative research. However these two terms, while seeming to address similar issues, do not overlap in their applicability. Objectivity aims to remove the researcher from the research. Confirmability, rather than solely claim that a researcher can be removed from her work, instead can aim to define and identify what voice in the research is the researcher, and what is the voice of the participants. In particular, constructivist approaches, such as those employed in this study, assume the co-creation of knowledge between the researcher and the participants. Because this approach values both voices, removing the researcher from the results is thus neither possible nor preferable.
However, being deliberate and clear about what possible biases and cultural lenses the researcher brings to the project is exceedingly important. This need is even more apparent when conducting cross-cultural research. Because the researcher and the participants do not share common cultures, there is the potential for misinterpretation or complete missing of concepts. While at first glance this may seem like a large barrier to credibility, I propose that engaging in research from an etic standpoint also has the potential to provide a unique perspective on the phenomenon of interest. Culture, like identities, is neither monolithic nor homogeneous, but rather incredibly intersectional. Within countries, ethnicities, or even cities, individuals experience and perceive reality in vastly different ways. The assumption that individuals sharing a nationality also have a shared culture is premature. When engaging in qualitative inquiry, the assumption should always be that both the researcher and the participant have unique lived experiences which should be fully explored without resting on assumed shared assumptions of culture, language, or identity.

There is potential for a unique blending of multiple cultures in constructivist informed qualitative research, but the processes for extracting this potential must be clearly elucidated to enhance confirmability of results. One way to do this is through the researcher’s transparent reflexivity throughout the research (Miles & Huberman, 1994). One way that I have attempted to weave reflexivity into this research is through the deliberate incorporation of anti-oppressive practice (AOP) principles to this research. AOP provides a framework for me to continuously examine how power differences and structural oppressions influence both the phenomena of interest, but also the research
process itself. As part of my efforts to provide clarity and increase transparency, I included a self-disclosure statement in this document that provides information about my own identity, relationship to the study population, and reasons for wanting to undertake this particular study.

The preceding text provided the strategies used in this study to enhance the trustworthiness, or rigor, of the results. Efforts to enhance credibility, transferability, dependability, and confirmability were both included in the research design and executed during the research process.

4.3 Combining Social Network Analysis with Qualitative Interviewing

The third section of analysis combines the characteristic social network structures and positions identified in the Chapter 4 Section 1 with portions of the qualitative dataset. As described in Chapter 3 Section 5, nodes occupying these specific locations in each social capital domain were identified, and related passages in their semi-structured interview transcripts were analyzed for commonalities. In order to ascertain which commonalities were distinct to the identified network positions, a comparison group of other nodes’ transcripts were then analyzed. The resulting thematic categories specific to each identified characteristic network position are presented here. Table 22 reiterates the structures of interest identified during the second section of social network analysis. The structures of interest highlighted in boldface type are further examined in this analysis.
### Main Features of Each Network - 6 Domains of Social Capital

<table>
<thead>
<tr>
<th>Domain</th>
<th>Networks Characterized By</th>
<th>Structure of Interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Resources</td>
<td>Highly centralized wheel structure, with group leader in the center</td>
<td>Flow of network from Periphery to Core</td>
</tr>
<tr>
<td>Trust</td>
<td>Larger components bridged by relationships between two members</td>
<td>Separate, reciprocated dyads</td>
</tr>
<tr>
<td>Cooperation</td>
<td>Similar overall structure to Trust network</td>
<td>Additional dense cliques</td>
</tr>
<tr>
<td>Communication</td>
<td>Longer geodesic distances</td>
<td>Central actors from membership</td>
</tr>
<tr>
<td>Social Cohesion</td>
<td>No disconnected reciprocal dyads</td>
<td>Distinct core/periphery structure</td>
</tr>
<tr>
<td>Empowerment</td>
<td>Self-referencing nodes</td>
<td>Multiple cliques referencing central nodes</td>
</tr>
</tbody>
</table>

*Table 22: Selected characteristic network properties*

As was elaborated in Chapter 3, characteristic positions and structures were identified during the social network analysis of the six domains of social capital. Of these, six positions were chosen for further study based on their potential to provide additional contextualization for the role of social capital in the groups. Table 23 includes information of each of these characteristic positions, which include a label that relates to
the role of the nodes in those specific network positions. In addition, the specific nodes included in both the sample group and the comparison group are identified in Table 23. Finally, this table lists the thematic categories developed through this section of analysis.

### Results of Combined SNA and Qualitative Analysis of Characteristic Network Positions

<table>
<thead>
<tr>
<th>Label</th>
<th>Characteristic Position</th>
<th>Sample Nodes</th>
<th>Comparison Nodes</th>
<th>Thematic Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Leader</td>
<td>Central Node in Access to Resources Network</td>
<td>n=4 Group1: 5 Group3: 1 Group4: 1</td>
<td>n=4 Group1: 7 Group2: 9 Group3: 8 Group4: 7</td>
<td>“All kinds of people” Finding opportunities</td>
</tr>
<tr>
<td>Power Couple</td>
<td>Structural Bridge in a Trust Network</td>
<td>n=4 Group1: 2 Group3: 3</td>
<td>n=2 Group1: 24 Group3: 4</td>
<td>Grit &amp; Perseverance Group Solidarity</td>
</tr>
<tr>
<td>Cousins</td>
<td>Disconnected Reciprocal Dyad in a Trust Network</td>
<td>n=8 Group1: 25 Group2: 7 Group3: 9 Group4: 1</td>
<td>n=4 Group1: 9 Group2: 9</td>
<td>“Like a family”</td>
</tr>
<tr>
<td>Market Cohort</td>
<td>Clique members in a Cooperation Network</td>
<td>n=20 Group1: 24, 3, 5, 9, 2 Group2: 1, 2, 4, 8, 9 Group3: 1, 2, 3, 5, 6, 9 Group4: 1, 4, 11, 21</td>
<td>n=4 Group1: 8 Group2: 3 Group3: 10 Group4: 20</td>
<td>Scaling up</td>
</tr>
<tr>
<td>Emancipated Woman</td>
<td>Isolate Nodes in an Empowerment Network</td>
<td>n=3 Group1: 11 Group2: 1 Group3: 7</td>
<td>n=3 Group1: 5 Group2: 7 Group4: 19</td>
<td>Head of household Setting an example</td>
</tr>
</tbody>
</table>

*Table 23: Results of combined SNA and qualitative interviewing*
The following text provides visual examples of these characteristic network positions and communicates the thematic categories associated with them.

**The Central Leader: high in-degree centrality in an access to resource network.**

![Diagram of network with node 1 highlighted in red](image)

*Figure 64: Group 3's central leader*

The nodes that occupied the Central Leader position were each in a chosen leadership role within their group. Group 3’s Central Leader is represented in Figure 64, and is characterized by its position in a wheel structure, and high in-degree centrality without reciprocal ties. The leaders who occupied this position had two areas of thematic overlap in their qualitative transcripts.

“All kinds of people”. This set of Central Leaders each spoke about the diversity in their groups. One participant described how she manages conflict in her group by explaining that discipline is meted out equitably by stating:
there are Sousous, Peuhls, Malinkes. They’re all mixed in. We give them all
advice. But tell them to leave? Nonono. We counsel them – we give them advice.
They will change. We don’t reject them.

Participants did not all mention the ethnic diversity in relation to conflict. Another
Central Leader spoke about it this way:

*We have all kinds of people in this group: Peuhls, Malinkes, Sousous – we don’t
say to you ‘hey – you’re not Malinke so we don’t have room.’ No – if you have a
good character and you want to work hard there is always a place.*

*Finding opportunities.* The other category that emerged from the Central Leaders’
transcripts was the search for group opportunities.

*We know that if we can find the right price for something, like pineapples, that we
can make our capital increase by reselling at a profit. It’s about locating these
prospects – you have to always keep your ears open.*

Another participant further elaborated on her role in finding opportunities for her group:

*To make this work we have to be ready. She might say to me, “I’ve heard about a
grant at the embassy.” Then me, I should find out about this, right? To know if
it’s something that can help the group.*

Her words provide an illustrative example of how the role within the Access to Resources
network impacts with her experience as the Central Leader. Members orient themselves
to this specific actor who interfaces with potential resources. For this participant, this
means that she will work on behalf of her group to scope out potential funding.
**The Power Couple: central nodes forming a structural bridge in a trust network.**

![Diagram](image)

**Figure 65: Group 4’s power couple**

Nodes 1 and 4 in this network, circled in red, provide a visual representation of the structural bridge relationships characteristic of the Trust networks, as well as in several other social capital domains. These actors were generally leaders within the network, and their relationship acted to connect the two branching sets of nodes. Analysis of the transcripts of participants who occupied this structural position yielded the following thematic categories.

*Grit and perseverance.* The concept of perseverance in the face of adversity was prevalent in each Power Couple. These participants related that through hard work and determination, they would be able to accomplish their objectives. One member of a Power Couple explained:
At the beginning, really it wasn’t easy. We had a lot of worries and problems... You have to fight. You have to submit yourself (to the will of God). You can’t just get something without working for it.

Her corollary related a similar sentiment, saying:

We’ve each of us faced hardship in our lives, but we don’t give up – we can’t give up. I’m not saying this [growing the group] is going to be easy, but by working together and working hard we can really do something about our situation.

These two sèrè members in leadership roles communicated their understanding of the difficulty found in building a group, yet both spoke determinedly about how success was possible with hard work.

Group solidarity. Solidarity of the group was another concept present in each of the Power Couples’ transcripts. Maintaining the solidarity of members was a primary goal of one element of a Power Couple, who stated:

If there is someone who is not happy and we do not address her problem, what will happen? We have to remain united in our objective... It won’t work out if even one or two of us is not in agreement.

Another participant’s transcript echoed the importance of solidarity in maintaining a cohesive group, saying succinctly:

In this sèrè we are one.

Both the focus on perseverance and solidarity can be viewed in conjunction with the participants’ role as a Power Couple that joins two components of the groups’ Trust networks. These women’s network role is a structural bridge, which they are performing
socially through their emphasis on solidarity. Secondly, the focus on perseverance gains additional meaning in that these two actors are holding the Trust network together. Thus, should these focal nodes lose their resolve, this may result in a cut-point that bifurcates the groups’ Trust network.

*The New Recruit: a distal node in a communication network.*

![Diagram of communication network]

*Figure 66: The new recruit in group 2's communication network*

Node 13 in this communication network lies distal to the group and has a longer path to the central node 1, the president of the group. None of the New Recruits held leadership positions in the Communication networks. They are referred to as New Recruits due to their distal relationship to the core of the network. As communicated in section 4.2, groups are built through existing members’ recruitment of trusted additional members. These New Recruits reside in the network position corresponding to that role.
Analysis of transcripts for participants with characteristically longer geodesic distances like node 13 produced two thematic categories, Adherence to Rules and Importance of Status.

**Adherence to Rules.** Each of the participants identified as occupying the New Recruit location in a communication network referred to following the groups’ rules and as being vital to group functioning. One New Recruit stated:

*That’s why, for the third round now, we’ve decided to have more rules. And these rules? You are totally bound to respect them.*

This emphasis on the rules of the group can be understood in conjunction with their position as a newer member of a sèrè, located on the outside of the Communication network. In order to integrate as a cohesive member, the New Recruits must abide by the rules put in place by group leadership.

**Importance of Status.** References to status were also prevalent in New Recruits’ transcripts. One participant combined both rigor and status by saying:

*When you have rigor in a sèrè it can become something very big, very nice. With important women in the group.*

Another New Recruit referenced status in the group in this way:

*Right now you see our group, and it’s rather small and our cotisation is small too, maybe not so important. But we can grow this group and become important – even the neighbors will notice this when we meet.*
Both participants emphasize being important as a desirable outcome of group success. Again, when the participants’ position as a distal, poorly connected member of a group is applied with this thematic area, the importance placed on status can be better understood.

**The Cousins: A reciprocal disconnected dyad in a trust network.**

![Diagram of trust network](image)

*Figure 67: The cousins in group 3’s trust network*

The reciprocal disconnected dyad was a feature of several social capital domain networks. In the Trust networks, it was especially prevalent. Nodes 9 and 2 in this Trust network form a disconnected reciprocal dyad, circled above in red. This dyad forms a separate component unconnected to the main network component. The name for this characteristic network structure comes from the fact that several of these dyads contain
participants that are related to one another in cousin relationships. Transcripts from four pairs of dyads yielded the following distinctive thematic category: Friends in a sèrè.

Friends in a sèrè. Analysis of Cousins’ transcripts showed a common thematic category relating to friendships in a sèrè. One member of a Cousins dyad explained her relationship with other group members in this way:

Now me, I came here with my friend over there from Kankan. She’s my relative.

And her over there – she’s a friend of her (pointing).

The relative she referenced in this passage was the other member of the Cousins dyad, and also spoke about friendship:

You can be in a sèrè and do a côtisation, and you can also do something extra for your friend. That’s allowed. Like her – I can give her a gift, but that’s just between us.

This is illustrative of the emergence of friendship in the sèrè as an important element for members of a Cousins dyad. Friendship, when considered alongside the reciprocal disconnected dyad in the Trust network, highlights the way that multiplex relationships between members of a sèrè may influence social capital. The relationships between these two participants consists of at least friends, relatives, and sèrè members. Separate components in the networks, such as The Cousins, may evidence that existing relationships serve to disconnect networks of social capital in sèrès when members contain trust between them rather than as a shared resource with the group.
Cooperation networks were characterized by a similar overall structure to Trust networks, but with additional ties forming new cliques. In the network above, nodes 1, 2, 4, 8, and 9 form a dense clique, representing those participants who identified one another as potential partners in market activities. Analysis of the transcripts from participants in Market Cohorts showed one major thematic area, Scaling Up.
Scaling Up. In reviewing the codes shared by members of Market Cohort groups, like the one shown in Figure 68, the idea of increasing the size of participants’ economic activities arose often. As one member of a clique stated:

*We are working on establishing the sèrè now, but there are possibilities, possibilities. For more. We can work together to – this is what a lot of sèrè do – we can become a groupement and start doing business in the market. Buying wholesale or even making soap – some know how to do that.*

The idea of developing the group that is evident in the passage above was echoed by other members of Market Cohorts, such as this participant:

*This group is just getting started, so the contributions are small, and the payouts can’t help that much. But that’s not why we join. There’s the social aspect – the support – and also this group will grow and our payouts will be larger. It takes time. You can’t just start without thinking everything through.*

Being a member of a clique in the Cooperation networks of the four groups in this sample meant that the participant had a cluster of alters with which cooperative endeavors could be embarked. These participants’ perception of the group as open to cooperation may be influenced by their own ability to identify a group of alters with which they could cooperate.
The Emancipated Woman: An isolate node in an empowerment network.

Figure 69: Isolate nodes in group 4's empowerment network

In many of the groups, when asked the question representing the Empowerment domain of social capital, “Who do you consider to be a powerful woman in this group?” participants referenced themselves. They are thus shown as isolates in this empowerment network. This characteristic position is referenced as The Emancipated Woman. This label was chosen due to Guinean women’s preference for this term - translated from the French la femme emancipé - rather than the idea of an empowered woman. There were similarities in the transcripts of the isolates, resulting in two thematic categories, Head of Household and Setting an Example.

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7 Part of this preference has to do with the way that French language conceptualizes empowerment. The word translates to l’autonomisation, which has the connotation of independence. Because Guinean women value an interdependent social environment, l’autonomisation does not reflect their objectives. Rather the idea of emancipation, closely related to liberation, resonates with women confronting multiple barriers to their goals, viewing the solution as being located in cooperative rather than independent action.
Head of household. The Emancipated Women in the Empowerment networks each communicated that she was the head of her household, and had primary financial responsibility. One participant communicated:

It’s me – I am the only one that can take care of the monthly expenses. I used to be the manager of the home, but now I’m the director!

Another participant represented as an isolate in the Empowerment network added onto the idea of being in charge of a household, stating:

We’ve been active for many years. I’ve used my payouts to buy land, then to install a foundation. Little by little – each time I was adding on to my building.
And eventually I moved in. Now I’m there with my children, my sister, and her children. Do you see? It’s through this group that I can support us.

Both participants reference themselves as being able to support their families.

Setting an example. The code “setting an example” appeared in each of the three Emancipated Women in this sub-sample. One participant shared her thoughts by saying:

You asked me about empowerment – if this group empowers women? Well yes, I think it does. Because young women – they see us here every week. And this group helps a lot. I think maybe they will see us and be inspired to create a group like ours.

Rather than considering the sèrè empowering for herself, she considered herself as setting a positive example through her group membership. Another Emancipated Woman added another dimension to the idea of setting an example by explaining:
We can’t wait for someone to help us, because that might never happen. But listen – we can help each other. And through helping each other we help ourselves.

That’s what I think we can do in this group – show other woman that this kind of group can make a difference. It has really made a difference in my life.

Again, the idea of setting an example for other women is apparent. When looking at both the network characteristic of the isolated node with the ideas of being a head of household and setting an example for others, further relationships can be explored. The heads of household in this study often lost a husband or did not have family members to support them, necessitating their identification of the head of household. It is possible that this demonstration of successful self-reliance has a relationship with their tendency to self-identify as a powerful woman in the group.

**Conclusion.** Results of each of the three methods of analyses were presented, which included: three families of codes generated from the analysis of transcripts from the qualitative interviews, the examination of the global measure of social capital which highlighted structural features of the groups’ networks, the separate analysis of each domain of social capital which identified key characteristic network features, and the combination of identified domain network features with qualitative transcripts which provided additional depth to the experiences of participants located at those structural positions.
Chapter 5: Discussion

Throughout this paper, social capital has been explored across its many facets: as a branch of social theory, as it pertains to research methodology, as an ingredient in financial inclusion interventions, as the genesis of community. This multi-faceted exploratory approach has generated new information about how social capital is created, used, grown, and sustained cooperatively in Guinean women’s groups. In this chapter, the results of each section of analysis will be discussed vis à vis their ability to address the four research questions identified for this study. Following this, a synthesis of the major findings of this study are presented, as well as implications of this study for social work intervention and public policy. This chapter concludes by identifying both the limitations of the study as well as pathways for future research.

5.1 Research Question 1: What are Guinean women’s perceptions and experiences as members of collective savings and credit groups?

The results of the qualitative analysis of individual semi-structured interviews in the thematic area of Group Functioning provided a rich contextual understanding of the mechanisms used to sustain the groups. Across the continuum of group forms, and through the use of social relationships, consensus building, and the judicious application
of discipline groups were able to develop social capital and maintain the solidarity necessary to be sustainable and work towards group objectives.

**Typology of Groups.** In the Typology of Groups, a continuum of fluid group forms was elaborated, highlighting the ways that groups can change and develop over time. Of particular interest was the overlap between the social groups (*sèrè*) and financial groups (*tontines*, associations, and *groupements*). In each case the social group was considered simultaneously separate as well as foundational to the economic activities of group members.

Within each of the groups, there were elected leadership roles including President, Vice President, Secretary, and Treasurer. In addition, the Counselor mediated internal disagreements, and the Monitor was charged with enforcing the rules of the group. Members who filled these roles were expected to have demonstrated both good character, as evidenced by hard work and dedication to the group, and be able to represent the group externally.

**Promoting solidarity.** Several group mechanisms promoted solidarity, and were active deterrents to group imbalance. First, the separation of powers among group leaders meant that one person could not be responsible for the money, the leadership, and the discipline of the group. This manifested itself in the application of the “late fee” for late arrival at a group meeting. If someone came late, the Monitor was charged with collecting the fee, but it would then be passed to the Treasurer for safekeeping. This late fee was assessed equally to all, from new members to the group’s President. This public enforcement constituted a social performance that promoted two norms within the group:
(a) this is a group that values rules, punctuality being among them, and (b) these rules are applied equally to all members, even those who serve as leaders. This process is contrasted with the private resolution of inability to meet financial payments to the group. In this case, the member arranges privately with group leadership or the person who recruited her to help make her payments. While this is resolved privately, it accomplishes the same goal: to promote equality and solidarity in the group. Each member is able to make the groups’ cotisation for that meeting, and no one is singled out for non-payment.

Group mechanisms that promoted solidarity through equality were also apparent in the groups’ decision making and problem solving processes. Throughout participants’ responses in these areas, the goal of problem solving was clear: maintaining group solidarity. Rather than a focus on individual benefit or even justice, participants saw problem solving as a means to bring members back together. All members were expected to participate, to share, and to communicate. The phrase “everyone gets a chance to speak” was reiterated by multiple participants. This idea is that, not only is everyone allowed a chance to share their idea, but each person is expected to do so. This again furthers the ability of the group to maintain their solidarity by (a) bringing members closer and (b) promoting open communication and cooperation between members.

Creating social capital. Group functioning was directly related to the ways in which the groups in this study built and maintained social capital. Most prominent was the concept of Djamakourou, or Le Social. Participants emphasized that Djamakourou was the foundation of their groups; that it was a prerequisite to the development of a successful cooperative economic endeavor. It was built from positive and public social
interactions between individuals, and constituted the glue that held groups together as they pursued economic projects. This concept of *Djamakourou* brings together the literature about Pan-African ontologies and Western theories of social capital. The communal focus of the African worldview hinges on intersubjectivity of individuals. This refutes the solipsistic notion that people exist separately, and instead considers a person to exist through their relations with others. From this perspective, then, *Djamakourou* is the result of a conscious effort to promote intersubjectivity through social interaction.

Through the creation of shared experiences and meanings, group members further develop solidarity and shared purpose. The constructivist approach used in this study aligns well with these participants’ approach due to its emphasis on the creation of shared meaning through dialogue.

Social capital, resources embedded in social networks, is most concretely visible in this population through the social assistance funds created to address group members’ unexpected expenses due to a death, illness, or other need. African feminists have written about the value of “survival planning” amidst precarious social and financial conditions. The social assistance funds, as innovative community based resources, serve this function.

**Barriers to success.** Although participants in this study were each part of a functioning cooperative financial group, many expressed frustration with their inability to expand the scope of their group. The women in this study shared the barriers they faced in the social, environmental, financial, and political spheres. These sets of barriers can be interpreted using the feminist political economy perspective, wherein an individual – or
in this case a small group – is influenced by multiple social, economic, and political structural factors. Participants in this study were simultaneously affected by the oppressions inherent in their vulnerable position, and actively contesting them through their collective action as members of a cooperative group (Mutari, 2000).

The environmental factors identified by participants affected their ability to engage in productive work. For some participants this took the form of a lack of irrigation for crops. For others this was the Ebola epidemic which inhibited the groups from holding meetings or communicating effectively. These environmental factors can also be seen as the result of the absence of policies and infrastructure to address environmental issues, which exacerbated their effects. For example, the lack of organized quarantine protocol or facilities impacted the severity of the Ebola epidemic (CDC, 2016) which then impacted groups’ ability to meet and function normally. Even in these circumstances, participants contested their disadvantaged position, and many of the groups continued to meet or communicate during the Ebola crisis, albeit with enhanced caution.

The social factors identified were also barriers with which participants had to contend. Guinean women have a comparatively low rate of literacy, at 22% (World Bank, 2014) and study participants saw this as a barrier to accessing information that could provide opportunities for their group. Additionally, the lack of employment opportunities for their families meant that participants were often supporting multiple adult family members in addition to the children in their households. While the study sample had a higher literacy rate than the overall Guinean female population, they still struggled
financially with most participants working at the market or elsewhere in the informal sector. Again, the creation of cooperative groups is a contestation of these pressures, and participants were able to collectively advance their own objectives within a difficult system.

Multiple financial barriers were identified, much of which related to the unsuitability of current financial products to this potential client base. Participants lamented the necessity of having a savings account with a minimum balance, which meant that the money in the bank could not be “working for me” through buying goods and selling them at a profit. Secondly, the amounts of the loans were considered too small for the groupements in this study. The equitable sharing of resources underlies the model that sèrèş and groupements use. Because of this, loan amounts for the group cannot go to only three or four people – they must go equally to all. Thus, a loan amount that may seem sufficient to begin a small enterprise is instead much too small to do anything profitable when split 30 ways. Furthermore, the interest rates on the loans were considered too high. This was specifically because participants did not anticipate they could buy or produce goods in large enough quantities to negotiate a lower price. This in turn could lead to a lower profit margin, sometimes lower than the interest on the loan. Thus, groups could not guarantee they could pay back the loan and did not pursue it. This is especially important because of the instability of the Guinean market, which has seen commodities prices inflate significantly in the past decade (World Bank, 2014).

In addition to these issues, many participants communicated that the process of registering as an official, government recognized groupement was (a) required in order to
be eligible for MFI funds and (b) an intensive, inconvenient, and lengthy process that could take up to a year. Participants related overall that they understood the need to have official documentation, but felt that the process could be altered to allow a quicker and easier acquisition of these necessary documents.

The results of the qualitative analysis together illustrate the way that participants worked cooperatively to create an organization through their shared resources that one member could not do individually. These experiences can be viewed using an African feminist perspective of empowerment. Women in this study worked together to address common problems using networked resources. This use of agency, the capacity to identify and make strategic choices (Malhotra, Schuler, & Boender, 2002), to create innovative solutions is an example of the process of empowerment emanating from cooperative action. The empowerment equation presented in chapter two is included here:

\[
\text{social context (resources + agency) = achievements}
\]

Of note, the social context within which participants created their groups was socially supportive but the resources at their disposal were minimal. Following this model, an increase in resources may lead to a higher level of achievements.

5.2 Research Question 2: How are the social networks of collective savings and credit groups structured?

Through the analysis of the global measure of social capital for each of the four sèrèṣ in the sample, several structural features of the social networks were identified across each of the groups. These are most easily recognized in the trust network of Group 3, included in Figure 70.
There were several key features of the global measure of social capital networks in this sample. First, all of the networks were single components. Each of the members had at least one connection with another member, and there were no isolates. This reflects the intentional interconnectedness of the groups, which participants valued as solidarity. Overall the structure of the networks reflects the way that they were built, with original members recruiting additional members that they trust to join the group. These members in turn recruit other members that they trust and the group becomes larger. This results in a social capital network with the following tendencies:

**Flow of social capital.** The overall directed flow of social capital was from the periphery nodes to the core of the group. This pattern of inward facing connections between members is illustrative of the value participants gave to the integrity of the
group, and the important role it plays in their economic and social lives. These dynamic socio-economic micro-systems are able to self-sustain due to their ability to direct resources, both tangible and intangible towards the nexus of the group. It is important to note that these groups operate in an environment of scarce resources and significant instability. By directing the flow of social capital towards a strong core, the groups are able to consolidate their meagre resources to attain goals that individuals would not be able to do without the cooperative structure of the group.

**Clustering in the groups.** Within each of the networks there was a degree of clustering into cliques, but also overlap between those cliques. When looking at the network as a whole, there were patterns of overall bifurcation that followed specific leaders within the groups. For example, there was a tendency for clustering around the president as well as the treasurer. Although the clusters around the president each overlapped, the president-centered clusters did not overlap with the treasurer-centered clusters. This highlights two aspects of the groups. First, there is multiplexity and density in the relationships between groups’ members. Secondly, those characteristics are associated with specific members within the group, meaning that while there are strong connections between group members, the group’s connectivity is dependent on the continued relationships between key figures in the networks.

**Key members as structural bridges.** These key members are often located at a cutpoint that bridges two dense areas of the social capital graph. These individuals were leaders in their groups, often in the role of president, vice president, or treasurer. Their network position as a structural bridge underscores the importance of strong, resilient
relationships between these key members. Their relationship was the drawing together of their own networks, and is crucial to the sustainability of a cohesive group.

**Branching recruitment.** Throughout the social capital networks there is a branching pattern than reflects participant recruitment. The networks in this study align with the accepted theory about the formation of small groups, whereby initial close relationships form an inner circle and additional members are added on to this foundational social structure (Kadushin, 2012). This recruitment, bringing in trusted contacts to form ever larger concentric circles around the core, was the key mechanism with which groups were able to grow and develop, allowing for larger lump sum payouts or larger purchases of wholesale goods.

**5.3 Research Question 3: How does social capital function in these groups?**

Upon identification of the general structure of the social capital networks for the four groups in this sample, each of the six domains of social capital were assessed individually to uncover any potential insight into how social capital functions within the groups. In the Access to Resources networks, a wheel structure with a sèrè president as the focal node was characteristic. This suggests that the president of the group is seen as a gateway to resources outside of the group. This coincides with the way that group members spoke about the president, saying “she works hard for us” or that “she represents us.” The Trust networks were the most indicative of the overall structure of the global measure of social capital, as they showed the pattern of a pair of highly central group leaders who bridged an otherwise bifurcated, branched network. The Trust networks show a similar directed pattern of the periphery to the core. However, these
networks also showed another interesting feature: reciprocated, disconnected dyads, two nodes connected to one another but not any other nodes. This is further explored in the discussion of research question four in Section 4 of this chapter.

The communication networks showed new pathways between nodes, many of which lead to longer geodesic distances than in other domain networks. These additional routes for information reflect the channels that information communication passes through in the network. The question used to solicit the data for this domain, “Who do you gossip with?” was intentionally meant to capture the information communication network rather than the less interesting but more efficient formal communication network consisting of the groups’ Secretary and her cell phone. The characteristic increased distances between nodes in these communication network suggests that the informal communication happens in strings rather than stars. This could be problematic in communication, as messages can become distorted when passed through long channels.

The cooperation networks yielded several new, more densely connected cliques. In looking at these networks, it is apparent that while there are mechanisms in place to promote equality and solidarity among group members, there are also clusters of relationships within the groups. This is a reflection of the hierarchies that exist within groups, and supports the idea that communities, no matter how small, are social sites of immense complexity. The dynamic nature of these systems means that there is a tension held in the ties between members.

The social cohesion networks were not as distinct as the other domains. Of note was that there were not reciprocated disconnected dyads in these networks, which look at
friendships in the group. The empowerment networks showed two distinctive features. First, several women in the network were the site of new clusters not seen in other networks. These women were not all in leadership positions, but were considered by their fellow group members to be powerful women, able to accomplish their goals. The president was not the only center of a clique in the empowerment networks, suggesting that empowerment in the group is more homogenously distributed than are the other dimensions of social capital, such as Trust or Access to Resources.

Of these six domains, the overall structure of the network was best described by access to resources, trust, and cooperation. Communication and Inclusion did not yield representative graphs, and the empowerment graphs had significant self-referencing. This may suggest that friendship type relationships are distinct from the relationships between members of a sèrè as was indicated in the interviews. Communication (who do you gossip with) and Inclusion (Who is your friend?) are more measures of friendship than solidarity or trust.

Participants’ experiences are influenced by their social position in the group, and their access to the resources – both tangible and intangible - embedded in the networks differs as well. Social capital in a group mimics the nature of a community per Liepins (2000): “temporally and locationally specific terrains of power and discourse.” Ability to access the social capital embedded in the relationships in social networks depends on one’s own characteristics but also ones social position in relation to others. Those who are more central to the group have a stronger commitment and receive greater benefits
from the social capital also have more responsibility to provide benefits. This reflects the current understand of the role of leadership positions in networks (Kadushin, 2012).

In considering the theories that underlie each of domains used in the multi-dimensional model of social capital, Putnam’s conceptualization of social capital as based highly on trust and cooperation was borne out in the results of this study. In both the qualitative and network results, these two domains were consistently emphasized. This supports the work of Traore (2008), which suggested that Putnam’s social capital was most appropriate for use with Guinean women. In addition to Putnam’s approach, Bourdieu’s conception of social capital as a means to access resources has merit with this study population. This study clearly shows that social capital was intentionally developed between groups members in order to gain access to potential economic, cultural and human capital resources. Thus, both Putnam (2000) and Bourdieus (1986) approaches to social capital can be used to understand both the use and function of social capital developed by women members of collaborative savings and credit groups in Conakry.

The occurrence of several characteristic network positions and structures was unexpected, given the small sample size of four groups. While generalizing these findings across a larger population is premature, the presence of characteristic elements in the domain networks is nonetheless suggestive of potential social capital structures that may be more broadly applied given further research in this area.
5.4 Research Question 4: How do the experiences of participants at characteristic structural locations within a social capital network differ?

The results from the combined qualitative and social network analysis provided a set of shared experiences by members occupying characteristic positions across the six domain social capital networks. The identification of similar experiences at different network positions supports the idea of the heterogeneity of social capital resulting from the differential access members had to it. Otherwise stated, there is meaning in an individual’s location in a given social network (Fuhse, 2009).

The themes that emerged from analysis in this phase provided a triangulation on the positional information provided through the social network analysis. It also allowed the participants voices to be heard alongside their position in the social capital network. For example, the New Recruits, or distal nodes on the social capital network, voiced a need to prove their merit by following rules and an awareness of their status in the group. This information provides added depth to the network position of having few ties in a social capital network. Another example is the way that family relationships have the potential to interrupt the tree shaped network of the group through the creation of Cousins, or reciprocal disconnected dyads. Because of their inherently strong familial connection, relatives within a group may be more tied to one another than the core members due to their multiplex relationships. This alters the flow of social capital from outside in to a reciprocal island, and disconnects those members from the network. There is a risk to the recruitment that integration may not occur, leading to linear, non-integrated chains of recruits.
5.5 Synthesis

The results of this study contribute to the knowledge about social capital in Guinean women’s collaborative financial groups. First, this study provides a comprehensive look at the array of collective financial groups that women use in Conakry, Guinea. Approximately one third of Guineans live in the Conakry metro area, making the urban experience of economic cooperation salient for a considerable proportion of the population. Through the rich description of the types of groups and their processes for creating social capital and promoting solidarity, more is known about how social capital is created, developed, and sustained by this population.

Generating the Social Glue: strategies for building solidarity in groups. In Guinea, women create social capital by developing reciprocal trusting relationships in socio-financial groups. The social capital, characterized by trust and solidarity, is considered as necessary as financial capital in the growth and maintenance of the groups. For Guinean women in this study, the social function is more important than the financial function of the groups. If social capital is conceptualized as resources embedded in networks, then the development of Djamakourou in these groups can be considered a driving factor for the loosening of these resources from their possessors. Through the creation of solidarity, responsibility, trust, and mutual interest, group members mobilize their social capital – their resources – within this dense network, concentrating their meager resources and thus becoming able to build something from very little initial capital.
Contextualized Social Capital. Social capital, like the networks within which it is embedded, is not evenly distributed. Liepins’ (2000) definition of community as ‘temporally and locationally specific terrains of power and discourse” applies to the way social capital is experienced in groups. It is useful to consider a person’s position within a social network as an aspect of intersectionality, both influenced by and influencing other facets of their identity. The idea that social capital is experienced different by members of groups is not a new (Lin & Erickson, 2008). However, this study provides evidence for the necessity to conceptualize social capital in this way for Guinean women’s groups.

Building a life raft: how social capital is expressed in Guinean women’s groups. The Guinean concept of Djamakourou, or Le Social, contributes to the overall knowledge based around social capital, especially as it relates to West African communalism. Through Djamakourou, participants established that their social relationships, and accompanying cultural performance through public attendance at members’ ceremonies, had value beyond what they could provide monetarily in their group. By focusing primarily on maintaining solidarity through social support and equality of members, groups were then able to rely on the safety created by the group. This allowed them to then pursue financially motivated actions, selling in a market or growing vegetables, without the perceived instability of their individual lives. The groups are like life rafts on a rough sea. This relates back to the idea of empowerment being emancipation – freedom from constraint. When considering Guinean women’s lack of health insurance and high outstanding debts for emergency loans, these life rafts are an attempt to create a safety net for themselves. Again, broader context is important to
address here, as the unpredictable future and high risks produce additional vulnerabilities for women in Conakry.

5.6 Implications

Currently Guinea is not at the forefront of the expansion of microfinance in Sub-Saharan Africa. However, given the unprecedented growth of financial inclusion programs in the region, there is the potential that Guinea may soon be a target market for these services, especially in light of the political stability seen in recent years. How then, can the results of this study serve to inform future interventions that aim to provide financial services to the population of Guinea?

What can financial inclusion look like in Guinea? As of 2017, the vast majority of Guineans are unbanked, and without access to credit. However, Guinea is at a crossroads in its financial sector, with opportunities for growth both through foreign investment and the expansion of domestically based institutions (personal communication, M. Conde, May 15, 2016). International financial institutions are investing across Africa (Bonorchis, 2017), but have yet to enter the Guinean economy in a dominant way. Full financial inclusion would see the fulfillment of the following five goals:

- Access to a full suite of financial services
- Services are provided with quality
- These services are available to everyone who can use them
- Clientele are sufficiently capable to make informed decisions with finances
- These services are delivered in a competitive and diverse marketplace
As of 2017, these goals remain elusive, however what embodiment these goals might take in the future is largely dependent on the demands of the client markets they seek to engage with. In Guinea, women’s groupements are a willing target market, as they are actively seeking additional funding for their enterprises. How then can knowledge about the way that social capital is built and maintained in Guinean women’s cooperative financial groups impact the future of financial services in Guinea?

Importantly, the Guinean government has historically been supportive of women’s groups, and sees them as an asset in the country. The fact that they have not been adequately supported has more to do with competing priorities than lack of appreciation. This is important because when considering microfinance supporting women’s microenterprise development, it must be understood that it originated in a very different environment, where women’s gender roles did not traditionally include public commerce, and women’s cooperatives were not considered a national asset (Khandakar, 2004). In Guinea, there is the political will to engage in a broader, state sponsored support system for women’s cooperative groups. This runs counter to the neoliberal foundation of microfinance institutions, which are private organizations that promote neoliberal goals.

The ethical tension that arises from this concerns which path that Guinea can best take to promote full financial inclusion of its citizens, and hopefully increased economic prosperity. For example, the French owned company Orange has become increasingly popular in the past decade as a telecommunications supplier. Most recently, they have leveraged their extensive infrastructure to include money transfers as a client service.
This has somewhat supplanted the Guinean owned Credit Rural who had previously dominated in the money transfer sector. Should Guineans have the choice to use the services of foreign owned companies, or should protections be allowed while Guinean financial institutions increase their competitiveness? Due to the free market restrictions placed on governments to borrow development funds from IMF and Worldbank, this kind of protectionism is not a viable strategy for Guinea. However, it does place in stark relief the ways that neo-liberal economic policies shape options that Guinea has to respond to both the needs of women’s collaborative financial groups and the value that Guinean culture places on them. Broad political and economic support of women’s groups from the Guinean government, while culturally endorsed, may face challenges from larger economic contexts.

**Implications for microfinance.** Literature on micro-finance shows that social capital is a necessity for the successful functioning of many programs. This study has been able to contribute knowledge to better understand what that social capital looks like in groups. This study illustrates that Guinean women’s groups grow social capital from the inside out, initially testing relationships between core group members, and eventually recruiting others to be added in peripheral layers around the initial members. By detailing the groups, this study provides a blueprint to inform programs that seek to create cooperative groups.

Critiques of microfinance assert that it creates an artificially heavily supply side product without addressing the necessary demand side to meet it. It is thought that this leads to long term negative outcomes for microfinance clientele. In Guinea, however,
much of the weeding out of bad ventures is done before groups approach MFIs for funding. Because tontines and sèrès form the basis of the group, and these only attain formal status after they have shown success, there is less of a risk that MFIs are funding extemporaneous or unnecessary enterprises.

**Building appropriate financial structures.** It must be again underscored that women’s collaborative financial organizations already exist in Conakry, with thick trust between members in dense social capital networks. Rather than a need to create social space for women in markets or to create social structures to support commerce, what is needed in Guinea is capital and technical support. Metaphorically, the women in the study built a car, but they need gasoline to make it run, and a road to drive it on. The dilemma then, is that a 1% interest rate they identified as preferable is not high enough for banks to make a profit on small loans. However, it is what is stated as needed to provide startup capital by groupements who are ready to expand their scope past what they are able to sustain with their own cotisations. How then can this be resolved? While this study does not provide the answer, it does begin to paint a picture showing that initial loans at low interest rates may be a necessary stepping stone for women’s groups to get over the initial barriers to scaling up their enterprises. Should small, well organized groups be afforded the opportunity to establish credit and scale up their operations, they may then be in the position to take out larger loans at slightly higher rates. This supports a combined approach to MFIs, whereby an NGO approach may be needed initially as a stepping stone, but that ultimately the more sustainable creative capital approach may be able to serve the needs of more developed groups. This mimics a business incubator
model, where nascent businesses are supported until they are able to attract investment funding to expand their operations.

Another area to explore is the idea that because of their immediate need to support families, the women clientele of MFIs are not able to consider risky ventures. Should a system of support exist, echoing the social assistance funds in a sèrè, that provides security for daily needs in the face of a riskier transaction, women may be more willing to reach higher and further than they have been.

**Bringing funders and clients together.** When discussing lack of access to capital, one area that did not come up in the interviews but that became apparent through this study was that (a) there are some programs and services available to women’s groups but (b) there is a significant lack of communication between supply and demand. Government ministries, NGOs, and MFIs all communicated that they had funds to lend to women. However, the majority of the women’s groups in this study were not aware of these funding opportunities. For example, when I spoke with a community organizer for Yete Mali I asked how they recruited groups or informed women of opportunities. His response was that they sent people out on motorbikes to spread the word mouth by mouth. This suggests that one of the primary avenues for supporting the development of women’s cooperative groups in Guinea is to address the communication issues between the funders and their desired clientele.

A major need identified through this study is enhanced communication between women’s groups and potential funders. In the last decade, cell phones and wireless internet have become widespread through the availability of the prior mentioned
telecommunications company, Orange. All of the groups in the study had access to cell phones, suggesting that this may be the case for most groups in the city. There is an opportunity then to use cell phones as a conduit between funders and women’s groups. As of 2014, women’s use of cell phones for financial transactions was very low (World Bank, 2014). However there is the potential for this to be a widespread opportunity.

5.7 Areas for future research.

This exploratory study has only just begun to examine the social structure of Guinean women’s cooperative social structures. While this research has made a new contribution to knowledge, it has also provided multiple new avenues that invite further inquiry.

How does social capital grow? One of the main limitations to this research is that it is cross sectional in design, collecting data at only one point in time. Social capital has been acknowledged as being crucial for group financing, and has also been identified in the groups in this study. Yet while its importance has been verified, described, and emphasized here, its creation is not thoroughly understood. In this paper the proposed means by which groups grow and change form are the products of participants’ recalled narratives rather than direct observation. In order to better understand how social capital is created and developed in groups, a longitudinal design that brings in the temporal dimension will be necessary. In addition, the network analysis in this study focuses on global network measures to describe social capital in the groups, and does not apply attribute data other than participants’ roles of leader or member. Further study is needed to examine which aspects of the participants’ identities might influence their position in
the group or their access to the social capital – the resources embedded in the group network. Third, social capital, when considered in the context of a cooperative financial group, is the means to an end, hopefully being positive growth and economic success for members. Further study needs to be directed towards understanding what aspects of social capital might contribute to the success or failure of a group, and to negative or positive outcomes to group members. To address these suggested expansions to this line of inquiry I propose a longitudinal, panel study of recently created sèrès. This study would follow these groups from their initiation, through growth, and potentially through failure. By collecting social network data as well as detailed attribute data, over time this study would be able to provide additional data to address the areas described above.

**What is djamakourou?** The qualitative analysis in this study proffered that the concept of *Djamakourou* is important in Guinean social life, and underlies the participants’ desire to create the social structures to support cooperative financial activities. As such, there is significant opportunity to further understand and define the meaning and role of *Djamakourou* in the creation of social capital and beyond. To address this, a more in depth qualitative inquiry using Grounded Theory methodology, specifically focused on *Djamakourou*, is needed. By using these methods in an extended engagement context this important concept can be fully explored.

A third area of future research is to address the barriers this population faces in acquiring funding, an area that was of considerable importance for participants in this study. In order to more fully understand the process, a case study design is appropriate. By following a group through the process of writing their statutes and regulations as
required, travelling to the downtown government offices to submit these papers, getting official documentation, finding an MFI to finance them, and eventually receive or not receive funding, barriers will be better documented and more widely understood. From this, appropriate policies or interventions to address these barriers can be better informed.

5.8 Limitations

As is the case with every scientific endeavor, there are limitations that accompany each research design and analysis strategy. Limitations related to the linguistic and cultural differences between the researcher and participants is presented first. Following this, the limitations of the research design relating to temporality and external validity concerns are explained.

**Linguistic.** The primary linguistic limitation stems from the use of French as the primary language in this study. This construes a limitation because of language’s important role in creating and interpreting meaning in the symbolic interactionism that underlies Constructivist influenced qualitative interviewing and analysis. Children in Guinea first learn the indigenous languages, primarily Susu, Malinke, and Pulaar, from their families in the home. While at the onset of political independence from France, then President Sekou Toure did implement the indigenous languages into primary school, this did not continue after he left power. French is now the language of education, and a language that many children only learn once they enter formal schooling. Because the majority of women in Guinea do not complete a primary education (World Bank, 2014), this means that many of them either do not speak French at all, or are not as comfortable communicating in French as they are with their mother tongues. My IRB application was
approved only for French speaking participants, and thus my data is collected only from groups of women who spoke French well enough to be able to answer in depth questions about their social experiences. I believe that this may have biased my sample towards women that may be more educated than the Guinean population at large. The ability to speak French may indicate either (a) a higher level of education than many Guinean women or (b) proximity to more highly educated people, allowing for the opportunity to become conversant in French. Because my sample is drawn from a dense, urban environment, participants may be more able to pick up conversational French in a market setting, but this is conjecture. Suffice to say that there is most likely a linguistic bias as ability to speak and understand French would allow a Guinean woman more access to some formalized support and financial services only available in French.

Identity as a Western researcher. My identity as a white, Western researcher undoubtedly influenced both my ability to collect data and analyze it. The role of researcher as instrument in qualitative inquiry was a limitation in this study. Because the researcher is a white, middle class Western academic, her interactions with research participants may be contaminated by structural inequalities and power dynamics (Brown, Boulton, Lewis, & Webster, 2004). This can partially be mitigated through developing positive trusting relationships with the participants and reflexive practices in the data analysis process. However, these issues cannot be removed entirely. While my Guinean spouse and family connections were able to open doors and initiate conversations, my nationality and race were an obvious part of the dynamic between myself and the research participants.
Cross-sectional design, limited time. The results of this research suggest that less formal groups, over time, may grow into larger more formalized groups that expand in both size and scope. The cross sectional nature of the social network data constitutes a limitation of the study design, because it does not allow for measurement of the dynamic nature of social networks (Snijders, 2005). In addition, measuring the network after it has already formed loses out on potentially valuable information about the role of social capital may play in network formation. While measuring multiple networks and comparing them may offer a potential solution, it is not ideal. In addition, the multiple observations inherent in longitudinal design helps to overcome participant bias in the process of alter identification (Carrington, Scott, & Wasserman, 2005). However, during the qualitative interviews participants were able to describe the history of their groups and future plans, which indicated that groups do change significantly over time. Therefore, further longitudinal research is needed to follow groups for several years to determine if and how groups are able to grow over time, as well as what characteristics of those groups leads to success or failure in their pursuits. This information would provide useful best practices for both groups seeking to expand, and financial institutions seeking groups in which to invest.

The cross-sectional design of this study is itself a product of the specific time frame in which the data was collected. Because the researcher was in Conakry during April and May of 2016, a research design aimed at exploring the phenomena had to be competently implementable within that time span. A longitudinal design would not have been possible.
**Limited generalizability / transferability.** Qualitative methods are appropriate for those phenomena about which not enough is known to create data-driven, testable hypotheses (Denzin & Lincoln, 1994). Due to the limited information available about women’s groups in Guinea, I chose a mixed-methods approach that aimed to create a new pool of knowledge rather than to test hypotheses created from data about other countries and applied in this context. The results of this endeavor are culturally grounded and rooted in the voices of the study participants. They are not, however, transferable across all women’s groups in Conakry or in Guinea. While it is evident that new concepts and new information have been generated with this study, it is equally evident that additional research is necessary to further explore the phenomena described above. To this end, I propose two specific studies that could extend this inquiry to more solid conclusions. First, the concept of “le social” is intriguing but not adequately defined in this study. A grounded-theory study, with prolonged engagement, that adequately addresses this concept would be able to expand upon the work started here and develop knowledge of “le social” to a point where it could be incorporated into the academic canon on social theories. Secondly, this study explored the diversity of women’s groups. Further inquiry must look more specifically at a single type, such as market-based *groupements*, and gather data about how a specific type of group operates and engages financially.

**5.9 Conclusion**

Following the projected growth rate of the microfinance funding, total MF investment capital will surpass 100 billion USD in the next decade. This enormous market relies in large degree on some of the most primordial resources available to
function, namely the social reciprocity and trust embedded in the relationships between members of a social group – its social capital. Yet while social capital is a rudimentary human resource in groups, both a glue that binds us and an oil that facilitates social interaction, there was a lack of knowledge about how it operates in women’s collaborative financial groups.

This study focused on the spectrum of collaborative savings and credit groups that women utilize to meet their social and economic needs in Conakry, Guinea. Through a culturally appropriate mixed methodology of qualitative interviews and the creation of social capital networks, I was able to develop knowledge about the groups themselves, and the role social capital plays in their structure and function.

Foremost, social capital – conceptualized in Guinea as the importance of the formation of social relationships in groups, or djamakourou - was considered by participants to be the cornerstone of any successful cooperative financial endeavor. Through the creation, development, and maintenance of their groups, participants used solidarity enhancing techniques such as the balance of powers, consensus building, open communication, and solution focused problem solving to construct groups that were able to sustain themselves within a volatile environmental context. This social capital, though developed in a group focused on solidarity, is not distributed equally to all members. Instead, those at the core of the group are the beneficiaries of increased social capital across multiple domains such as trust, communication, and access to resources. Participants at different locations within a social capital network had different experiences of the group, reflecting a heterogeneity of experiences among members.
There are important implications of the role of social capital in Guinean women’s groups on the future direction of financial inclusion in Guinea. Women’s collaborative groups enjoy broad social and political support, and are recognized as a community asset at the heart of Guinean culture. The possibility is there for structural support of women’s groups, and yet there is a tension with the predicted increased involvement of private MFI’s, supported by foreign capital flows, that may substantially alter the set of options that Guineans have in financing their enterprises. Can Guineans develop a more open and inclusive financial system that includes women’s strategies of cooperative organizing as key features? This remains to be seen.

Nonetheless, it is time for a women-centric mode of organizing to achieve mutual goals through cooperation to rise to the forefront of financial inclusion in the Global South, not simply as a tool of microfinance, but in its own right as a women owned and operated system that promotes solidarity rather than competition, and pragmatic results for communities rather than academic discussions about them. These systems have been in use by women for centuries, creating sustainable communities around the world. And yet, their value was not recognized until it was able to be harnessed for financial gain in the neoliberal world system. Ironically, this system itself values the social connections it sustains above any economic value it creates. It is time to consider the ethical ramifications of continuing to offer credit to poor women in the Global South to increase the investment portfolios of male dominated financial systems in the Global North.

Financial inclusion as a goal cannot be realized until the needs, both social and economic, of women are considered paramount. There is the potential for a mutually
beneficial model of microfinance, but it cannot be created without fully understanding the ways that women generate community, by way of social capital, throughout the Global South. Guinea is but one distinct country in the tapestry of human cultures, yet it serves as an example of how indigenously created systems have value, and should be recognized not as antiquated anthropological curiosities but as systems of organization that should be engaged with, not commodified.

Whether it is market supported or state supported, the financial infrastructure in Guinea has a large growth potential due to the extremely low current levels of saturation (World Bank, 2014). Whichever direction is taken, Guinean women’s needs must be considered due to their influential role in both commerce and community organizing. Social capital as a resource has been shown to be vital to the success of Guinean women’s collaborative groups, and should be considered a cornerstone of any program of savings or credit the country entertains.

By better understanding these groups and how they develop relationships and social capital, the needs of women like the participants in this study can be brought to the forefront. With this knowledge, systems can be designed that support, rather than supplant, the development of sustainable, socially focused cooperative enterprises that have the potential to be the engines of prosperity in their communities.
References


Jones, M. H. (2014). *The beginning translator's workbook: Or the ABCs of French to English translation*. UPA.


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Appendix A: Acronyms and Foreign Terms

Abbreviations

FG: Guinean Franc (currency)
SSA: Sub-Saharan Africa
MC: Microcredit
MF: Microfinance
MFI: Microfinance Institution
ROSCA: Rotating Savings and Credit Association

Foreign Terms

Cotisation: A specified contribution made to a cooperative savings fund
Groupement: A cooperative enterprise officially registered with the government
Tontine: A financial ROSCA in West Africa
Sèrè: A cooperative social group whose main function is to generate Djamakourou
Le Social: French translation for Djamakourou
Djamakourou: Malinke word that literally means « group of people » but whose conceptual meaning is the value in generating social relationships
Appendix B : Map of Conakry, Guinea
Appendix C: Ethics Board Approval

IRB Submission Accepted
Buck-IRB <irbinfo@osu.edu>

Sat 5/7/2016 5:38 PM
To: Lee.355@osu.edu <Lee.355@osu.edu>
Cc: kaloga.2@osu.edu <kaloga.2@osu.edu>

Your IRB submission has been fully endorsed and submitted to ORRP for review.

- PI: Mo-Yee Lee, Lee.355@osu.edu
- Title: Mapping, Exploring, Relating: An Exploratory Look at Guinean Women’s Cooperative Financial Networks
- Submission Type: Initial Submission Response
- Related Protocol: 2016B0141
- Submitted Files:
  - Interviews Recruitment Markup and SNS Cover Letter Markup Track Changes Corrected.pdf
  - May 6th Modification Cover Letter.docx

You can contact the ORRP main office line of (614) 688-8457 with any questions regarding your submission.

-- Buck-IRB
Appendix D: Semi-Structured Interview Guide, English

Interview Guide for Semi-Structured Interviews with Key Informants and Group Members

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<th>Participant Name (Pseudonym)</th>
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Verbal Script to introduce the survey:
“Thank you for taking the time to talk with me. I am going to ask you some questions about this tontine/savings group/micro-credit group. Please answer the questions as best you can. If you don’t know the answer, or do not want to answer the question that is fine. You may stop this interview at any time if you do not wish to continue. Also, if there is anything that I am missing, please let me know. I am new here and would like to learn about this kind of organization.”

Section I: Participant’s Experience and Participation with Collective Savings and Credit Groups

Q1. I would like to get to know you better. Can you tell me about yourself?
*Probes:*
- Family
- Employment
- Education
- Ethnicity

Q2. How did you learn about this group?
*Probes:*
- Were you recruited? By Whom?
If you know, tell me about the person/people that organized this group.

Q3. What kinds of groups do you know about that provide savings and credit?
*Probes:*
   - To women?

Q4. Tell me about your participation in this group
*Probes:*
   - What benefits are there?
   - Are there any bad things about participating?
   - Can you explain them to me?

Q5. Do you participate in other savings and credit groups?
*Probes:*
   - If so, which ones?
   - Now, or in the past?
   - Tell me a little about those groups

Q6. What do you like about participating in this group?
*Probes:*
   - What do you dislike?

Q7. Describe a typical meeting
*Probes:*
   - What happens first? Then?
   - What is your role?
   - Are there any things besides saving and/or credit that happen in this group?

Section II: Exploring Social Capital in Collective Savings and Credit Groups

The following questions are reflective of the 6 domains of social capital included as sensitizing concepts for this study. Responses in these areas may emerge from the initial 7 questions. If they do not, the interviewer will use these open ended questions and probes to explore these topics.

Groups and Networks:
Q8. What kind of savings and credit groups are available for you to join?
*Probes:*
   - How would someone go about finding and joining a group?
What kinds of people usually start a group like this?

Trust and Solidarity:
Q9. You depend on this group to be responsible with your money. How do you know you can trust them?

Collective Action and Cooperation
Q10. How do members in this kind of group work together?
Probes:
- Can you remember a specific time when they did?
- What happened?

Information and Communication
Q11. Tell me about a time when a member shared useful information with you?
Probes:
- How did you use this information?
- How do group members communicate with one another?
- How do group members share information?

Social Cohesion and Inclusion
Q 12. Would you say that all members of this group are friends?
Probes:
- How do you know?
- What does that mean?
- Who is allowed to join this group?
  - How does this get decided?

Empowerment and Political Action
Q 13. It is popular for NGOs to say that women are empowered by their participation in this kind of group. What do you think about that?
Probes:
- What does empowerment mean to you?
- How would you recognize empowerment?
- How have group members worked together towards a goal?

Q14. Thank you for taking the time to speak with me today. Is there anything that you think is important that I have not asked you?
Appendix E: Semi-Structured Interview Guide, French

Guide d’Entrevue Semi-Structurée

Nom du participant (faux nom)

Numéro de groupe

Type de groupe

Emplacement de l’Entrevue

Date de l’Entrevue

Scripte verbale pour introduire l’entrevue:

“Merci d’avoir pris le temps de parler avec moi. Je vous demanderai quelques questions au sujet de cette tontine/groupe de micro-crédit. S’il vous plait, veuillez répondre de votre mieux aux questions. Si vous ne savez pas la réponse, ou vous ne voulez pas répondre à une question, ce n’est pas un problème. Vous pouvez arrêter l’entrevue n’importe quand si vous ne désirez plus continuer. Aussi, si je rate quelque chose d’important, s’il vous plait laissez-moi savoir. Je suis étrangère ici, et je suis là pour apprendre d’avantage sur ce type d’association.”

Section I: Expérience et participation avec les groupes collectifs de crédit et de l’épargne

Q1. Je voudrais mieux vous connaître. Pouvez-vous me parler de vous?

Questions approfondies :

- Famille
- Emploi
- Education
- Ethnicité
Q2. Comment avez-vous entendu parler de ce groupe ?
*Questions approfondies :*
- Avez-vous été recruté ? Par qui ?
- Si vous le savez, parlez-moi de la personne / des personnes qui ont organisé ce groupe.

Q3. Quels types de groupes savez-vous qui fournissent des services d'épargne et de crédit ?
*Questions approfondies :*
- Aux femmes

Q4. Parlez-moi de votre participation à ce groupe
*Questions approfondies :*
- Quels sont les avantages?
- Y a-t-il des mauvaises choses sur la participation?
- Pouvez-vous me les expliquer?

Q5. Participez-vous à d'autres groupes d'épargne et de crédit ?
*Questions approfondies :*
- Si oui, lesquels ?
- Actuellement ou dans le passé ?
- Dites-moi un peu de ces groupes

Q6. Qu'est-ce que vous aimez sur la participation à ce groupe ?
*Questions approfondies :*
- Qu'est-ce que vous n'aimez pas ?

Q7. Décrivez une réunion typique
*Questions approfondies :*
- Qu'est-ce qui se passe premièremen t ? Et après ?
- Quel est votre rôle ?
- Y a-t-il des choses en dehors de l'épargne et / ou de crédit qui se produisent dans ce groupe ?

**Section II: Exploration de capital social dans les groupes collectifs de crédit et de l'épargne**

*Les questions suivantes reflètent les 6 domaines du capital social inclus comme concepts de sensibilisation pour cette étude. Les réponses dans ces domaines peuvent émerger des 7 premières questions. Si elles ne le font pas, l'intervieweur utilisera ces questions pour explorer ces sujets.*

**Groupes et Réseaux:**
Q8. Quel genre de groupes d'épargne et de crédit sont disponibles pour vous de
Questions approfondies :
- Comment quelqu'un peut trouver et intégrer un groupe?
- Quels types de gens commencent habituellement un groupe comme celui-ci ?

Confiance et solidarité:
Q9. Vous dépendez de ce groupe d'être responsable avec votre argent. Comment savez-vous que vous pouvez leur faire confiance?

Action Collective et Coopération
Q10. Comment est-ce que les membres dans ce groupe travaillent ensemble?
Questions approfondies :
- Souvenez-vous d’un temps précis quand ils travaillaient ensemble?
- Qu’est ce qui s’est passé?

Information et Communication
Q11. Parlez-moi d’un moment où un membre a partagé des informations utiles avec vous ?
Questions approfondies :
- Comment avez-vous utilisé cette information?
- Comment les membres du groupe communiquent entre eux?
- Comment les membres du groupe se partagent les informations?

Cohésion Sociale et Inclusion
Q12. Diriez-vous que tous les membres de ce groupe sont des amis?
Questions approfondies :
- Comment le saviez-vous?
- Qu’est-ce que ça veut dire ?
- Qui est autorisé à joindre ce groupe?

Autonomisation et Action Politique
Q13. Il est populaire pour les ONG de dire que les femmes sont habilitées par leur participation à ce genre de groupe. Que pensez-vous de cela?
Questions approfondies :
- Qu'est-ce que l'autonomisation signifie pour vous?
- Comment reconnaissez-vous l'autonomisation?
- Comment est-ce que les membres du groupe ont travaillé ensemble pour atteindre un objectif?

Q14. Merci d'avoir pris le temps de parler avec moi aujourd'hui. Y a-t-il quelque chose que vous pensez est important que je ne vous ai pas demandé?
Appendix F: Social Network Instrument, English

Sociocentric Network Instrument:
Measuring Social Capital in Collective Savings and Credit Groups

Instructions:
The tables in this survey must be adapted to include the roster of names gathered from during the key informant interview for this group. The (name #) fields must be edited to include the first names of the members of the group. Group members are listed in rows. Mark each box in the row with an “X” if the respondent indicates “yes” for that member for that question. Leave the box blank if the respondent does not indicate that group member for that question.

Participant Number

Group Number

Type of Group

Location of Interview

Date of Interview

Thank you for taking the time to talk with me. I am going to ask you some questions about the relationships between the members of this tontine/micro-credit group. I will use this information to create a “network map” of the people in this group. This will help me to understand how your group works. I will begin by asking you some questions to get to know you better. Then, I have 6 questions to ask you about yourself and each of the members of this group. Please answer the questions as best you can. If you don’t understand something or it is confusing, please let me know – I am happy to explain. If you don’t know the answer, or do not want to answer the question that is fine. Also, if there is anything that I am missing, please let me know. I am new here and would like to learn about this kind of organization.
Demographic Data:

Age

Education Level

Literacy

Marital Status

Number of Biological Children

Number of Children in Home

Number of Adults in Home

Employment/Market Activity

Network Data

Measurement: Access to resources

_Q. Who does (name) borrow chairs from when there’s a ceremony like a wedding or baptism?_

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Measurement: Trust

_Q. If you got up to dance at a gathering, who would you most likely leave your purse and money with?_

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Measurement: Collective Action

**Q.** Who would (name) want to work with to buy merchandise (bulk goods) for resale?

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Measurement: Communication

**Q.** Who does (name) gossip with?

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Measurement: Social Cohesion

**Q.** Who are (name’s) closest friends?

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Measurement: Empowerment

**Q.** Who does (name) see as a powerful woman in this group?

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Appendix G : Social Network Instrument, French

Instrument des Réseaux Sociaux:
Mesure de Capital Social dans les Groupes de Crédit et de l’Epargne

Instructions (en anglais):
The tables in this survey must be adapted to include the roster of names gathered from during the key informant interview for this group. The (name #) fields must be edited to include the first names of the members of the group. Rows/Columns shall be added or subtracted depending on the number of group members. Group members are listed in rows. Mark each box in the row with an “X” if the respondent indicates “yes” for that member for that question. Leave the box blank if the respondent does not indicate that group member for that question.

Numéro de Participant

Numéro de Groupe

Type de Groupe

Emplacement de l’Entrevue

Date de l’Entrevue

Merci d’avoir pris le temps de parler avec moi. Je vous demanderai quelques questions sur le sujet des rapports entre les membres de cette tontine/groupe de micro-crédit. Je vais utiliser ces informations pour créer une “carte réseau” des personnes dans ce groupe. Cela va m’aider à comprendre comment fonctionne votre groupe. Je commencerai par vous demander quelques questions pour mieux vous connaître. Ensuite, j’ai 6 questions à vous demander de vous-même et de chaque membre de ce groupe. S’il vous plaît, veuillez répondre de votre mieux aux questions.

S’il y a quelque chose que vous ne comprenez pas, ou si vous êtes confus, informez moi – C’est mon plaisir d’expliquer. Si vous ne savez pas la réponse, ou vous ne voulez pas répondre à une question, ce n’est pas un problème. Aussi, si je rate quelque chose d’important, s’il vous plaît laissez-moi savoir. Je suis étrangère ici, et je suis là pour apprendre d’avantage sur ce type d’association.
### Données Démographique

**Âge**

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**Niveau d’Education**

---

**Alphabétisation**

---

**Statut Marital**

---

**Nombre d’enfants biologique**

---

**Nombre d’enfants chez vous**

---

**Nombre d’adultes chez vous**

---

**Emploi/Activité aux Marchés**

---

### Données des Réseaux

**Mesure:** L’Accès aux Ressources

**Q. De qui emprunteriez-vous/(nom) les chaises si vous organisez une cérémonie comme un mariage ou un baptême ?**

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**Mesure:** La Confiance

**Q. Si vous-vous/(nom) levez pour danser dans une fête, avec qui vous confierez votre sac à main pleine d’argent?**

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Mesure: L’Action Collective

*Q. Avec qui voudriez-vous/(nom) travailler pour acheter les marchandises à revendre au marché?*

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Mesure: La Communication

*Q. Avec qui est-ce que vous/(nom) bavarez?*

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Mesure: La Cohesion Social

*Q. Qui sont vos/(nom) amies les plus proches?*

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Mesure: L’Autonomisation

*Q. Dans ce groupe, qui est-ce vous/(nom) considérez être une femme puissante?*

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Appendix H: Informed Consent for Semi-Structured Interview, English

We are conducting a study on collective savings and credit groups available to women in Conakry, Guinea. We are from the College of Social Work, The Ohio State University, USA. We are doing this project as a part of our research. This study seeks to understand the kinds of cooperative financial groups Guinean women participate in. This study seeks to improve the kinds of financial programs available to women in Guinea.

Your participation in this research will consist of an interview where we ask you questions. It will take place at a location that is both convenient and safe for you. The interview is long and will last about 1 to 1 1/2 hours. The interview includes questions about your experiences and participation in savings groups. I want to assure you that the information you provide here today will be kept confidential. The audio recordings will be destroyed once the interviews are transcribed and information you provide will be kept locked in an office in the College of Social Work, The Ohio State University. Your participation in this study is very valuable and sharing your experiences and thoughts will be very helpful to us and other researchers and organizations committed to improving women’s financial options.

You have the right to refuse to participate in this interview. You also have the right to refuse to answer specific questions or stop the interview completely, even after the interview begins. You can say ‘no’ at any time before, during or after the interview if you do not wish to participate. Your participation in this interview is voluntary.

With your permission, we would like to audio record the interview. We will inform you when we begin audiotaping. We will begin audiotaping just prior to the interview and will stop audiotaping after the interview is over. However, if you do not wish to be audio taped we will not use the tape recorder and will conduct the interview without audio taping. There are some risks involved in participating in this study. The interview may cause minor discomfort because you will be sharing information about your personal experiences. Also, there are no immediate benefits for participating in the study.

You will be given 10,000 Guinean Francs for participating in this section of the study.
We will be reporting findings from the completed interviews in research papers. However, your name and identity will not be included in these summaries. We will ask you to pick a false name for yourself which will be used when we interview you and in the analysis of data. This report will be available at the College of Social Work, The Ohio State University, for all to read. If you think you may have been injured from being in this study, please call Marissa Kaloga at ++224.664.26.30.13. Marissa Kaloga can be reached at this number 24-hours a day.

If you have any questions, complaints, or if you feel you have been harmed by this research please contact Marissa Kaloga, College of Social Work, The Ohio State University, at +224.664.26.30.13.

Contact the Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. The IRB is an organization whose purpose is to look out for the well-being of research participants. Also, contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with the researchers. The Ohio State University IRB may be reached by phone at +1.614.688.4792 or by e-mail at hsconcerns@osu.edu.

By taking part in this interview, you are giving your consent to participate.

Are you at least 18 years old or older and agree to take part in the research?

Thank you for agreeing to participate in this research study.
Appendix I: Informed Consent for Semi-Structured Interview, French

THE OHIO STATE UNIVERSITY

Lettre de Consentement Entrevues Semi-Structurées:
Les groupes collectifs d'épargne et de crédit à Conakry, Guinée

Nous menons une étude sur des groupes collective de crédit et de l'épargne qui sont disponibles pour les femmes à Conakry. Nous travaillons à la Faculté de Travail Sociale, à l'Université Ohio State aux États Unis. Nous faisons ce projet comme partie de notre recherche. Cette étude cherche à comprendre dans quels types de groupes de financement coopératifs les femmes guinéennes participent. Cette étude cherche à améliorer les types de programmes de financement offerts aux femmes en Guinée.

Votre participation à cette recherche consistera d'une entrevue où nous vous poserons des questions. Nous effectuerons une entrevue dans un endroit qui est à la fois pratique et sûr pour vous. L'entrevue sera longue et durera au environ d'une heure à une heure et demie. L'entretien consiste des questions sur vos expériences à la participation des groupes d'épargne, comme la tontine ou le micro-crédit. Nous tenons à vous assurer que les informations que vous fournissez pendant l'entretien seront confidentielles. Les enregistrements audio seront détruits dès que les entrevues sont transrites et les informations que vous fournissez seront fermées à clé dans un bureau dans la Faculté de Travail Social et à l'Université Ohio State.

Votre participation à cette étude est très précieuse et le partage de vos expériences et pensées seront très utile pour nous et d'autres chercheurs et organisations engagés à améliorer les options de financement pour les femmes.

Vous avez le droit de refuser de participer à cette entrevue. Vous avez également le droit de refuser de répondre à des questions spécifiques ou d'arrêter l'interview complètement, même après le début de l'entrevue. Vous pouvez dire «non» à tout moment avant, pendant ou après l'entrevue si vous ne souhaitez pas participer. Votre participation à cette entrevue est volontaire.

Avec votre permission, nous aimerions enregistrer de l'audio de l'entrevue. Nous vous informerons quand nous commençons à enregistrer sur bande audio. Nous allons commencer l'enregistrement audio juste avant l'entretien et nous arrêterons l'enregistrement audio dès que l'entretien soit terminée. Toutefois, si vous ne souhaitez pas être enregistrées sur bande audio, nous n'allons pas utiliser le magnétophone et nous procéderons à l'entrevue sans enregistrement audio. Il existe certes risques liés à la participation à cette étude. L'entretien peut causer un léger inconfort social parce que vous allez partager des informations sur vos expériences personnelles. En outre, il n'y a pas de bénéfices immédiats pour participer à l'étude. Vous serez donnée 10 000 Francs Guinéens pour participer à cette partie de l'étude.

Nous ferons rapport des résultats des entrevues réalisées dans des documents de recherche. Cependant, votre nom et votre identité ne seront pas inclus dans ces résumés. Nous vous demanderons de choisir un
faux nom pour vous-même qui sera utilisé quand nous vous interrogeons et dans l’analyse des données. Ce rapport sera disponible au Faculté de Travail Sociale, à l'Université Ohio State, pour tous à lire. Si vous pensez que vous avez été blessé d’être dans cette étude, s’il vous plaît appeler Marissa Kaloga au +224.664.26.30.13 Marissa Kaloga peut être atteint à ce numéro 24 heures par jour.

Si vous avez des questions, plaintes, ou si vous sentez que vous avez été lésés par cette recherche s’il vous plaît contacter Marissa Kaloga, à la Faculté de Travail Sociale, à l'Université Ohio State, au +224.664.26.30.13.

Contactez le Comité d’Ethique de la Recherche (CER), en anglais <<IRB : Institutional Review Board>>, si vous avez des questions concernant vos droits comme participante à la recherche. Le CER est un organisme qui sauvegarde le bien-être des participants à la recherche. En outre, communiquer avec le CER si vous avez des questions, des plaintes ou des préoccupations que vous ne vous sentez pas confortable à discuter avec les chercheurs. Vous pouvez joindre le CER de l’Université Ohio State par téléphone au +1.614.688.4792 or par e-mail à hsconcerns@osu.edu.

En prenant part à cette entrevue, vous donnez votre consentement à participer.

Avez-vous au moins 18 ans ou plus et acceptez-vous de prendre part à la recherche?

Nous vous remercions d’avoir accepté de participer à cette étude de recherche.
Appendix J: Informed Consent for Social Network Analysis Instrument, English

Consent Cover Letter, Social Network Survey

Collective Savings and Credit Groups in Conakry, Guinea

We are conducting a study on collective savings and credit groups available to women in Conakry, Guinea. We are from the College of Social Work, The Ohio State University, USA. We are doing this project as a part of our research. This study seeks to understand the kinds of cooperative financial groups Guinean women participate in. This study seeks to improve the kinds of financial programs available to women in Guinea.

Your participation in this research will consist of a survey where we ask you questions. It will take place at a location that is both convenient and safe for you. The interview is long and will last about 30-40 minutes. The interview includes questions about yourself and your relationships with other group members. For example, we will ask who your closest friends are in this group. I want to assure you that the information you provide here today will be kept confidential. Information you provide will be kept locked in an office in the College of Social Work, The Ohio State University. Your participation in this study is very valuable and sharing your experiences and thoughts will be very helpful to us and other researchers and organizations committed to improving women’s financial options.

You have the right to refuse to participate in this interview. You also have the right to refuse to answer specific questions or stop the interview completely, even after the interview begins. You can say ‘no’ at any time before, during or after the interview if you do not wish to participate. Your participation in this interview is voluntary.

There are some risks involved in participating in this study. The interview may cause minor discomfort because you will be sharing information about your personal experiences. Also, there are no immediate benefits for participating in the study.

You will be given 10,000 Guinean Francs for participating in this section of the study.

We will be reporting findings from the completed interviews in research papers. However, your name and identity will not be included in these summaries. We will ask you to pick a false name for yourself which will be used when we ask you questions and in the analysis of data. This report will be available at the College of Social Work, The Ohio State University, for all to read. If you think you may have been injured...
from being in this study, please call Marissa Kaloga at +224.664.26.30.13. Marissa Kaloga can be reached at this number 24-hours a day.

If you have any questions, complaints, or if you feel you have been harmed by this research please contact Marissa Kaloga, College of Social Work, The Ohio State University, at +224.664.26.30.13.

Contact the Institutional Review Board (IRB) if you have questions regarding your rights as a research participant. The IRB is an organization whose purpose is to look out for the well-being of research participants. Also, contact the IRB if you have questions, complaints or concerns which you do not feel you can discuss with the researchers. The Ohio State University IRB may be reached by phone at +1.614.688.4792 or by e-mail at hsconcerns@osu.edu.

By taking part in this interview, you are giving your consent to participate.

Are you at least 18 years old or older and agree to take part in the research?

Thank you for agreeing to participate in this research study.
Nous menons une étude sur des groupes collectifs d'épargne et de crédit à Conakry, Guinée. Nous travaillons à la Faculté de Travail Sociale, à l'Université Ohio State aux États-Unis. Nous faisons ce projet comme partie de notre recherche. Cette étude cherche à comprendre dans quels types de groupes de financement coopératifs les femmes guinéennes participent. Cette étude cherche à améliorer les types de programmes de financement offerts aux femmes en Guinée.

Votre participation à cette recherche consistera d'une entrevue où nous vous poserons des questions. Nous effectuerons une entrevue dans un endroit qui est à la fois pratique et sûr pour vous. L'entrevue sera longue et durera au environ de trente à quarante minutes. L'entrevue consiste des questions sur vos rapports avec les autres membres du groupe. Par exemple, nous vous demanderons qui sont vos amis les plus proches dans le groupe. Nous tenons à vous assurer que les informations que vous fournissez pendant l'entretien seront confidentielles. Les informations que vous fournissez seront fermées à clé dans un bureau dans la Faculté de Travail Sociale à l'Université Ohio State. Votre participation à cette étude est très précieuse et le partage de vos expériences et pensées seront très utile pour nous et d'autres chercheurs et organisations engagés à améliorer les options de financement pour les femmes.

Vous avez le droit de refuser de participer à cette entrevue. Vous avez également le droit de refuser de répondre à des questions spécifiques ou d'arrêter l'entretien complètement, même après le début de l'entrevue. Vous pouvez dire «non» à tout moment avant, pendant ou après l'entrevue si vous ne souhaitez pas participer. Votre participation à cette entrevue est volontaire.

Il existe certains risques liés à la participation à cette étude. L'entretien peut causer un léger inconfort social parce que vous allez partager des informations sur vos expériences personnelles. En outre, il n'y a pas de bénéfices immédiats pour participer à l'étude.

Vous serez donné 10 000 Francs Guinéens pour participer à cette partie de l'étude.

Nous ferons rapport des résultats des entrevues réalisées dans des documents de recherche. Cependant, votre nom et votre identité ne seront pas inclus dans ces résumés. Nous vous demanderons de choisir un faux nom pour vous-même qui sera utilisé quand nous vous demandons des questions, et dans l'analyse des données. Ce rapport sera disponible au Faculté de Travail Sociale, à l'Université Ohio State, pour tous à lire. Si vous pensez que vous avez été blessé d'être dans cette étude, s'il vous plaît appeler Marissa Kaloga au +224.664.26.30.13 Marissa Kaloga peut être atteint à ce numéro 24 heures par jour.
Si vous avez des questions, plaintes, ou si vous sentez que vous avez été lésés par cette recherche s'il vous plaît contacter Marissa Kaloga, à la Faculté de Travail Sociale, à l'Université Ohio State, au +224.664.26.30.13.

Contactez le Comité d’Ethique de la Recherche (CER), en anglais <<IRB : Institutional Review Board>>, si vous avez des questions concernant vos droits comme participante à la recherche. Le CER est un organisme qui sauvegarde le bien-être des participants à la recherche. En outre, communiquer avec le CER si vous avez des questions, des plaintes ou des préoccupations que vous ne vous sentez pas confortable à discuter avec les chercheurs. Vous pouvez joindre le CER de l’Université Ohio State par téléphone au +1.614.688.4792or par e-mail à hsconcerns@osu.edu.

En prenant part à cette entrevue, vous donnez votre consentement à participer.

Avez-vous au moins 18 ans ou plus et acceptez-vous de prendre part à la recherche?

Nous vous remercions d'avoir accepté de participer à cette étude de recherche.