SUBSISTENCE URBAN MARKETS AND IN-COUNTRY REMITTANCES: A SOCIAL NETWORK ANALYSIS OF URBAN STREET VENDORS IN GHANA AND THE TRANSFER OF RESOURCES TO RURAL VILLAGES

Sandy Zook

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ABSTRACT

SUBSISTENCE URBAN MARKETS AND IN-COUNTRY REMITTANCES: A SOCIAL NETWORK ANALYSIS OF URBAN STREET VENDORS IN GHANA AND THE TRANSFER OF RESOURCES TO RURAL VILLAGES

By

SANDY DAWN ZOOK

AUGUST 2017

Committee Chair: Dr. Janelle Kerlin

Major Department: Public Management and Policy

This dissertation uses a mixed method approach to examine the determinants of internal remittances that are connected to the social networks of urban migrant street vendors. Urban street markets are a point of entry for many migrants moving from rural areas to cities in the Global South. The qualitative portion of the dissertation uses an ethnographic approach including participant observation, interviews and focus groups to examine the social networks of street vendors in a market in the municipality of Madina, Ghana. The quantitative analysis codes data from the ethnography in order to conduct a social network analysis using quadratic assignment procedure and logistic regression quadratic assignment procedure to analyze the relationship between attributes of street vendors and remittance behavior. Findings lead to several policy recommendations for the international community, as well as locally based non-governmental organizations, microfinance organizations, national and local governments providing funding or designing interventions affecting street markets or working with individual street vendors.

INDEX WORDS: International development, Migration, Remittance, Street vendors, Subsistence markets
SUBSISTENCE URBAN MARKETS AND IN-COUNTRY REMITTANCES: A SOCIAL NETWORK ANALYSIS OF URBAN STREET VENDORS IN GHANA AND THE TRANSFER OF RESOURCES TO RURAL VILLAGES

BY

SANDY ZOOK

A Dissertation Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy in the Andrew Young School of Policy Studies of Georgia State University

GEORGIA STATE UNIVERSITY
2017
ACCEPTANCE

This dissertation was prepared under the direction of Sandy D. Zook’s Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Public Policy in the Andrew Young School of Policy Studies of Georgia State University.

Dissertation Chair: Dr. Janelle A. Kerlin

Committee: Dr. Justice Nyigmah Bawole
Dr. Steven Black
Dr. Ann-Margaret Esnard
Dr. Dennis R. Young

Electronic Version Approved:

Sally Wallace, Dean
Andrew Young School of Policy Studies
Georgia State University
August, 2017
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CHAPTER 1. INTRODUCTION

More people are migrating today than at any point in history. Consequently, diasporas and international remittances have increasingly gained the attention of governments, international development groups and researchers, both as a remediation for poverty, and a mechanism to improve political and economic stability in the Global South. While there is a worldwide focus on international migration, within country migration is three times as high as international migration (Lee & Guadagno, 2015). Despite a widespread focus on international remittances as a remediation for poverty, a growing body of evidence finds that across the Global South, internal remittances occur in higher volumes and target lower income households more so than international remittances (Acosta, Fajnzylber & Lopez, 2007; Adams, 1991; Adams, Cuecuecha & Page, 2008; Barham & Boucher, 1998; McKay & Deshingkar, 2014). Thus, internal remittances are not only an important consideration for public policy, but for international organizations seeking to provide interventions to economically vulnerable populations.

In the Global South, internal migrants largely move from rural villages to larger cities, and the surrounding suburbs. Similar to international migrants, internal migrants move in search of economic opportunity, primarily finding work in the informal sector of the economy, but can also be motivated by social, environmental or political reasons (Lee & Guadagno, 2015; Schaeffer, 2003). Migrants use social networks to access capital for migration, as well as find

---

1 A location-based term used to describe countries with lower Human Development Indices (HDI) or lower GDP, which are predominantly located in the Southern Hemisphere in Africa, Asia, Middle East and Latin America. Conversely, high HDI and GDP countries, predominantly located in the Northern Hemisphere are referred to as the West or Global North.
lodging and work upon arrival in urban centers, typically as street vendors, selling goods in the street markets or along the busy urban streets (Awumbila, Owusu & Teye, 2014).

Once established, migrants may remit money back to their location of origin (Awumbila, Owusu & Teye, 2014; Acosta, Fajnzylber & Lopez, 2007; Castaldo, Deshingkar & McKay, 2012; McKay & Deshingkar, 2014). In the remittance literature, the effect or influence of internal remittances can be minimized, and even overlooked, due to the small amounts sent by individuals in comparison to international remitters (Adams, 1991; Adams, Cuecuecha & Page, 2008; Pellow, 2011). However, a growing body of research finds that when aggregated, internal remittances occur in a larger volume as compared to international remittances (Acosta, Fajnzylber & Lopez, 2007; Castaldo, Deshingkar & McKay, 2012; McKay & Deshingkar, 2014).

The context in which street vendors operate is more complex than the terms “informal sector” and “subsistence markets” imply (Adom, 2014; Awumbila, Owusu & Teye, 2014; Castaldo, Deshingkar & McKay, 2012; Chu, Kara & Benzing, 2008; Hackett, 2010; Minard, 2009; Viswanathan, Rosa & Ruth, 2010; Viswanathan, Sridharan & Richie, 2010; Williams, 2008a, 2008b; Williams & Nadin, 2010, 2011, 2013). The terms informal and subsistence suggest that market spaces are ad hoc and unorganized, with limited resources. However, market places are not just locations for business transactions, but cultural hubs, pervasive with social networks used to pass information and build entrepreneurial aptitude and skills (Viswanathan, Gajendiran & Venkatesan, 2008a, 2008b; Viswanathan, Sridharan & Ritchie, 2010). Social networks result in and from rules, norms, rituals and hierarchies developed within the markets over time to organize the markets and govern behavior of market actors (Awumbila, Owusu & Teye, 2014; Castaldo, Deshingkar & McKay, 2012; Chu, Kara & Benzing, 2008; Hackett, 2010; Minard, 2009).
Three primary (and interrelated) factors contribute to the current gap for understanding the size and scope of internal migration and remittances in international development. First, technological advances in international remittances make them easier to track than internal remittances. Over the last decade, advances in money transfer technology and the reach of this technology has made tracking international (i.e. North-South) remittances easier (McKay & Deshingkar, 2014). While advances in wire transfer and mobile phone banking have also occurred in the Global South (i.e. South-South), transfers are still dominated by cash exchanges. Related to the challenges of tracking internal remittances, the second factor is a dearth of data on internal remittances by individual countries, and consequently, the lack of a multi-national dataset of internal remittances (Castaldo, Deshingkar & McKay, 2012; McKay & Deshingkar, 2014). Thirdly, internal migrants are predominantly viewed as low skilled, subsistence workers, earning only enough to support themselves and their immediate families (International Labour Organization, 2009; World Bank, n.d.). Emergent research, however, demonstrates that contrary to this traditional view, migrants and workers in the informal sector of the economy send remittances to the rural areas for household maintenance, assistance in accessing goods and services, such as health care or primary education, and for broader community support and improvement (Awumbila, Owusu & Teye, 2014; Castaldo, Deshingkar & McKay, 2012; McKay & Deshingkar, 2014; Zoogah, 2015).

Research on internal migrants and remittances has primarily focused on either the mechanisms of internal migration, the institutional context of subsistence markets, business strategies of market actors, or on internal remittances, but there is a dearth of literature examining migration and remittances as an interconnected rural-urban-rural phenomenon. This dissertation combines research on subsistence markets, migration, new institutionalism, social
network theory and ethnography to better understand the link between urban markets and remittances. Using an ethnographic approach allows me to become immersed in the complex social structure of a street market in Ghana. This method captures detailed information on the social networks, remittance behavior and migration status of street vendors, as well as the social structures, rules and norms in the urban street market. Information on social networks, social structures, rules and norms are captured through participant observation, unstructured and semi-structured interviews to understand the relationship between urban street vendors and their remittance behavior. To triangulate the research and provide a broader understanding of a street market, I also undertook interviews with government officials and document review of official government documents related to the market. The dissertation contributes to literature on subsistence markets by exploring the link between migration, social networks and remittances. It also extends the application of social network analysis in many different fields, including subsistence markets and international development by using a whole network approach. The whole network approach allows for both ego-centric and group-level analysis of street vendors.

To capture the relationship between social networks of street vendors and their remittances, this dissertation uses social network theory and ethnography to explore the central question: what are the determinants of internal remittances that are connected to the social networks of urban migrant street vendors? Social network theory allows for examination of how and in what ways individuals, groups and organizations are connected within a socially defined space. Social networks are often an underlying assumption in theories of migration (Awumbila, Owusu & Teye, 2014; Heering, Van Der Erf, Van Wissen, 2004), market interactions in subsistence markets (Viswanathan, Gahendiran & Venkatesan, 2008a, 2008b; Viswanathan, Sridharan & Ritchie, 2010) and entrepreneurship (Busch, 2014; De Bruin, Brush & Welter,
2006; Littlewood & Holt, 2015; Zahra, 2007). Despite this underlying assumption of the importance of social networks to internal migration and remittances, there is not a strong understanding of the context in which workers in the informal economy operate (Zoogah, Peng & Woldu, 2015). Thus, while it is recognized that migrants use social networks and remit money, there is not an established link between urban networks and rural remittances. I use a holistic approach to examine street markets, given emergent trends in viewing and understanding the informal sector of the economy as an interconnected environment of people, places and formal and informal institutions. This approach offers a frame focused on the social networks, rather than on the individual entrepreneurs (ego-centric perspective) or formal institutions (i.e. government, international community, microfinance, rule of law) (Bhatt, 2006; Harper, Iyer & Rosser, 2011; Konadu-Agyemang, 2001; Schildkrout, 1978), but also allows for ego-centric analysis of street vendors.

As highlighted in Figure 1.1 below, the cycle of rural to urban migration, and urban remittances to rural areas are embedded in social networks. Networks can help migrants afford migration, as well as provide support in finding employment and housing (Acosta, Fajnzylber & Lopez, 2007). In turn, migrants may remit money back to the rural areas, thus benefiting their social network. Social networks permeate and influence migration and remittance choices.
In order to help answer the research question and explore the determinants of remittances by street vendors, I drew on previous market observations in Ghana during four academic trips from 2014 to 2016 that took place before the dissertation fieldwork. During the initial academic trips, I had discussions with street vendors when purchasing goods as a private citizen which made it evident that street vendors work within social networks to procure products and sell goods. Going to the market with my host family in 2015, the mother was purchasing melon at the market and asked the melon vendor where to buy tomatoes. Rather than showing her the person nearby that sold tomatoes, the melon vendor walked us over to another section of the market to purchase tomatoes from her friend she had met through church after moving to Accra. Also, in observing and talking to the street vendors, some asserted that their location choice for their booth had to do with the friendship or kinship ties they had before entering the market. That is, their business location choice was tied to their social network. These examples demonstrate the complexity of social ties in the market. Social ties can pre-date entry into the market, thus
assisting potential vendors in determining a migration destination and assisting with market entry. Ties can also be established after market entry, influencing sales and profit, as demonstrated in the second example with the melon and tomato vendors.

Street markets have hierarchies, as well as rules and norms of behavior that vary across marketplaces. During my observations, I also learned many markets in Ghana have product associations. These associations vary in size, scope and rules both within a market and across different market locations. Some associations control where and who can sell certain goods and set prices for selling goods, but can also provide social support and protection for members. Vendors may also rely on their market, social and/or kinship networks, as well as customer word of mouth, to attract customers.

Within marketplaces rules, norms, rituals and hierarchies develop over time to organize the market space and govern market actor behavior (Awumbila, Owusu & Teye, 2014; Castaldo, Deshingkar & McKay, 2012; Chu, Kara & Benzing, 2008; Hackett, 2010; Minard, 2009). Informal rules, norms and acceptable behavior also vary across markets, with some common themes, such as market leaders. Market leaders are those in the market with the greatest social capital who have gained the respect of other vendors and are elected or appointed to leadership roles by their peers. In some markets these positions have set term limits, in other markets, they can be lifetime appointments.

These initial observations guided my literature review by providing evidence of the use of social networks and informal rules and norms governing market actor behavior. Table 1.1 outlines the three categories of social networks I subsequently identified in the markets based on my participant observation and literature review. These networks include: business associations, kinship networks and friendship networks. Business associations include both formal and
informal groups associations, such as membership organizations, selling associations for vendors and savings groups, as well as business agreements among street vendors, such as a shopkeeper subletting space in their storefront for a smaller vendor. This can include collective action that leads to procurement of product with the aim to reduce the cost of procurement for all members of the group or mutual aid agreements with the objective of reciprocal support to bolster sales or attract new clients. Business associations also include the market hierarchies, or structures for electing or appointing market leaders that coordinate the market, enforce commonly accepted rules and norms and disseminate information throughout the market. For example, product associations elect King or Queen Mothers. The product Kings and Queens form a leadership group that then elects a King or Queen to oversee and coordinate the whole market. Both the whole market and various associations within the market may have rules and norms, with enforcement mechanisms for ensuring certain behavior from street vendors. This will be discussed in greater detail in Chapter 3. The kinship network is everyone the vendor is related to in the market, while friendship networks are interactions that constitute more than a business relationship with other market vendors that are not blood relatives.
Table 1.1 Network Definitions and Classification in the Markets

<table>
<thead>
<tr>
<th>Network Type</th>
<th>Definition</th>
</tr>
</thead>
</table>
| Business Associations | Ties between vendors that assist vendors with the carrying out of their work. These can range from loose, informal ties to highly formalized organizations, including:  
  • Product Associations- membership organizations, where vendors pay a fee to receive benefits  
  • Savings Groups- INGO, microfinance, or self-directed groups of women collectively saving money  
  • Informal or formal arrangements among vendors for carrying out selling. This includes rental of space, or business partnerships.  
  • Collective action that leads to procurement of product with the aim to reduce the cost of procurement for all members of the group\(^2\)  
  • Market Hierarchies- Organizational structures in the market, including accepted rules and norms commonly recognized by street vendors and market leadership for organizing and disseminating information. |
| Kinship Network     | Blood Relative; Actor recognizes another actor as a family member                                                                         |
| Friendship Network  | Actors not related, but that have more than a business relationship. Are engaged socially outside of the market networks identified above.       |

I observed that linkages exist between the business association, kinship networks and friendship networks. For example, two street vendors that are blood relatives and sell the same product will be part of a kinship network, as well as the same business network because they are both members of the same product association. Each of these identified networks assist the street vendor with integrating into the market and successfully selling goods, which in turn influence the ability of a vendor to earn profit and potentially remit money. Particularly, kinship networks may additionally influence or assist vendors’ remittance choices, as vendors from the same kinship group will remit to the same family group or village.

\(^2\) It should be noted, that the integration of product associations and product procurement is specific to Madina. In other markets, supply-chains networks could be important depending on the presence and structure of other networks, including product associations, in that market.
In order to answer the research question and collect data, this dissertation draws on an ethnographic approach. Ethnography is both a theory and a methodology. It is a systematic approach using inductive and deductive reasoning to organize qualitative data into concepts and themes (Corbin & Strauss, 1990; Glaser & Strauss, 1967; Strauss & Corbin, 1994). Social network theory and new institutionalism are used as sensitizing concepts that help frame the problem and create a starting point for this research (Bowen, 2006; Charmaz, 2003; Gilgun & Abrams, 2002; Glaser, 1978, Padgett, 2004). I collected qualitative data using participant observation, informal unstructured and semi-structured interviews and focus groups. Because of the complexity and dynamic nature of the networks, an ethnography allows for observation and interaction over a specified period, as opposed to a one-time interview, which may only collect aspects or attributes of a network at a specific point in time and rely on the respondent’s interpretation of the questions. Ethnography also allows for observation of reciprocity within a network; whereas, survey methodology only captures the respondent’s perception of their network at a point in time.

The fieldwork for this dissertation was conducted in Madina market, located in the municipality of Madina, in the district of Greater Accra, Ghana. Greater Accra is one of ten districts in Ghana and is located on Ghana’s southern coast, and named for the capital city of Accra that falls within its borders. Accra is Ghana’s largest city and the country’s capital. Madina approximately 12 kilometers northeast of the city center of Accra. Madina is well known for its large market that sells a wide variety of goods and services ranging from trade occupations to electronics, home goods, clothing, and food products. Municipal officials reported the street markets are central to the local economy and an important supply of own-source revenue for the
city (Interviews, 2016). The Madina market has been a mainstay and draw for the community since before Ghana gained independence from Britain in 1957 (Interviews, 2016).

The data collection and analysis proceeded in three phases, including participant observation, unstructured and semi-structured interviews, then focus groups and finally data coding and analysis. The process and methods for the ethnography and social network analysis are outlined in greater detail in Chapter 3. On-going during the fieldwork in Ghana, I was transcribing and coding interviews to analyze and begin sorting data gathered from the unstructured and semi-structured interviews into categories and themes. This on-going analysis and coding informed the topics addressed in the focus groups. Focus groups allow for clarification of concepts and participant observation with specific sub-groups identified in the market. The third phase of the analysis initiated upon my return to the United States and involved finalizing data coding and conducting the social network analysis. The social network analysis comprised interviews with 54 street vendors in two distinct social network clusters within the Madina market, as well as 9 interviews with actors that support various activities associated with the market, including savings activities, religious groups and government officials. Five focus groups with four participants in each group were also conducted to gather more particular information on product associations, remittances and opportunities for savings of earnings.

Analysis of the data found a rich and interconnected system of social networks that included kinship, friendship and business associations. Within this sample, there was a demonstrated rural-urban-rural connection demonstrated through strong kinship ties, reciprocity within the social network, differences in remittance patterns among different generations of migrants, and the importance of the source of start-up capital in remittance behavior. The social
network analysis found that first generation migrants were the most likely to remit, with remittances decreasing among second and third generation migrants. This aligns with literature on international remittances. Also, married street vendors and vendors who received start-up capital for their business from family were more likely to remit than unmarried street vendors and street vendors that received start-up capital from other sources, respectively. This has important implications for NGOs and INGOs seeking to assist potential street vendors with microfinance services, as it may influence remittance behavior of recipients. Overall, findings also provide insights for future research and policy implications for governments working with street markets. Street markets not only support migrants coming to urban centers in search of employment, but also provide to support to rural areas, which are often underserved in the provision of public goods by government within the context of the Global South. When governments, NGOs and the international community are designing interventions affecting street markets or working with individual street vendors, considerations of these rural-urban-rural ties should be accounted for. Chapters 5 and 6 contains a full discussion of these findings and conclusions.

1.1 DEFINING KEY TERMS

Street vendors work in the informal sector of the economy. The informal sector, as defined by the International Labour Organization (2009) and World Bank (n.d.) includes all workers and firms operating outside the framework of government regulation. This does not mean that workers work illegally. The informal sector emerges because governments either do not have laws in place to regulate the market and/or may not have the resources to enforce regulations and ensure worker protections (International Labour Organization, 2009; World
Approximately two-thirds of the world’s employees work in the informal sector (African Development Bank Group, 2013). In Sub-Saharan Africa alone, it is estimated that the informal sector comprises 55 percent of the Gross Domestic Product (GDP) and employs over 80 percent of the total workforce, including 70 percent of the non-agricultural workforce (African Development Bank, 2013). The African Development Bank (2012) reports 93 percent of all new employment in Africa is in the informal sector, making it the fastest growing sector and primary means of employment. Thus, the informal economy provides employment opportunities for populations unable to find work in the small formal economy of less developed countries (African Development Bank, 2009, 2013; International Labour Organization, 2009).

There are a variety of terms to describe people selling goods on the street or in marketplaces in the Global South, some of these terms include subsistence workers, market sellers, market vendors, street vendors, hawkers, informal entrepreneurs or market actors. I will use the term street vendor, but am referring to individuals who acquire or produce goods and sell them in a public market. There are a variety of both formal and informal actors interacting with or providing services to street vendors and active within the marketplaces, including international nongovernmental organizations (INGOs), local government(s), as well as both formal and informal locally-based NGOs, trade organizations and associations, religious groups, private businesses and microfinance organizations.

1.2 ORGANIZATION OF THE DISSERTATION

Chapter 1 provided an overview of the research question, motivation, methods and findings from the dissertation. Because of the complexity and contradictions within the literature and international community regarding the scope and purpose of the informal sector of the
economy, Chapter 2 provides context to the dissertation before the literature review in Chapter 3. Therefore, Chapter 2 begins with a background of the informal sector of the economy, with particular attention to street markets in order to provide a frame for the application of the theories in the dissertation. Chapter 3 outlines the use of ethnography as a theory and social network theory. The second half of the chapter draws together interdisciplinary, but distinct, streams of research addressing the informal sector, including perspectives from socio-cultural anthropology, international development, entrepreneurship, new institutionalism and subsistence markets literature on migration, street markets and remittances. The methodology and procedures used to gather data and processes for the social network analysis are presented in Chapter 4. Chapter 5 provides descriptive statistics of the surveyed sample and is focused on narratives from the interview subjects and focus groups, as well as the social network analysis used to test the hypotheses presented at the end of Chapter 3. Chapter 6 summarizes the dissertation findings, and provides recommendations and directions for future research.
Chapter 2 traces the historical perspectives on the informal sector of the economy, because the informal sector of the economy has a long and controversial history, particularly as it relates to Western interventions throughout the Global South. This achieves three purposes: first, to situate the dissertation within a vast literature, often with conflicting accounts as it relates to the informal sector; second, to provide a clear framework for the literature review in Chapter 3; and third, to highlight differences in the development of the informal sector of the economy across institutional contexts. The informal sector, and more specifically, street markets, are shaped by their institutional environment, including government type, culture, international aid/support and historical context. Thus, street markets may operate very differently across continents, countries and even localities within countries, or within the same city.

In this chapter, attention is given to how governments and the international community, including organizations such as the World Bank and IMF, have come to define and view the economic contribution (and perceived lack thereof) of the informal sector. This includes a description of programs and policies that frame the relationship between government and the informal sector throughout the Global South, as well as the role of international aid organizations. To further contextualize this discussion and ground it in the context of the dissertation, I focus on the informal economy in Ghana, and more specifically the Madina street market, where the data collection for this dissertation takes place.
2.1 TRACING HISTORICAL PERSPECTIVES OF THE INFORMAL SECTOR


Traditionally, street vending is dominated by women in many countries and cultures, particularly West Africa (Hart, 1973; Moran, 1990; Dumett, 2013; Konadu-Agyemang, 2001). Moran (1990) provides one of the most descriptive treatments of female street vendors in a marketplace in Liberia, West Africa. In Moran’s (1990) sample, market sellers were more likely to be single than the general population and lacked formal education. Approximately 50 percent lived in a two-income household, while 30 percent of the sample relied solely on the market income to support their household. Approximately half of the women used family networks to
receive start-up capital to enter the market, earning $1-3 dollars per day. Furthermore, new entrants often began with lower cost goods, accumulating capital over time to purchase goods with a higher rate of return on investment, demonstrating an informal hierarchy (Moran, 1990). Despite the lack of formal education among market women, Moran (1990) and Mintz (1971) reported women using their earnings to pay school fees for their children. Similarly, a nationwide survey of market women in Liberia (Kaba, 1982) reported 90 percent wanted their children to attend school, and only 14 percent wanted their children, specifically their daughters, to become street vendors. Rather, 86 percent hoped their daughters would enter work in the formal economy. Although this data does not evidence upward mobility, it demonstrates a belief by street vendors, or workers in the informal economy more generally, that education is an avenue to intergenerational mobility, which can be achieved by their children through their market earnings.

Since these early works, emergence of a post-colonial, capitalistic view of the informal sector in the 1980s and 1990s describes street vendors as subsistence workers entering the informal sector out of necessity, selling enough to sustain themselves and their immediate family, but not able to build wealth over time (Bhowmik, 2005, 2012; International Labour Organization, 1993; Meagher, 2007, 2010; Meagher & Yunusa, 1996; Timalsina, 2011). Meagher (2007; 2010) argues the emergence of this view and acceptance by macro-institutions, led to an “apparent forgetfulness of early theoretical advances” (pg. 405).

2.1.1 Defining the Informal Sector

The post-colonial, capitalistic shift is evidenced by definitions of the informal sector that describe workers as deviants who work in the informal sector to avoid paying taxes (Azarya &
While the definition concedes the informal sector provides an outlet for workers who cannot find work in the limited formal sector, it implies that individuals choose the informal sector to avoid tax payment and to subvert the rule of law. Contrary to this view, Mitullah (2003) conducted case studies in six African countries and found that while a few street vendors were aware of the laws related to street vending, “but choose to ignore them” (pg. 11), most street vendors were not aware of laws related to street vending. Moreover, interviews of workers in the informal sector find workers are motivated by more than subsistence survival or avoiding taxes, but by a chance to escape poverty, a desire for independence and the opportunity for personal growth and autonomy (Adom, 2014; Chu, Kara & Benzing, 2008). Hilson and Potter (2005) and Overa (2007) found a lack of formal sector employment options provide low skill workers few alternatives than to turn to employment in the urban informal economy. Handwerker (1973) observed that women enter street vending due to uncertainty in the formal economy or with traditional male labor fields to supplement household income. Thus, the informal sector provides employment opportunities for low skilled, low income populations unable to find work in the
small formal economy (Bhowmik, 2005; Chu, Kara & Benzing, 2008; Sparks & Barnett, 2010). Similar observations were reported throughout the Global South during the structural adjustment programs in the 1980s and 1990s discussed in the next section (Konadu-Agyemang, 2001; also see Hansen-Kuhn, 1995a, 1995b; Heredia & Purcell, 1995; Sachikonye, 1993).

2.1.2 Structural Adjustment Programs and the Informal Sector of the Economy

The structural adjustment programs, launched by the IMF and World Bank, tied loans for less developed economies to policies meant to restructure the economy. Between 1983 and 1992, as a result of these programs, countries throughout the Global South cut public sector and service sector jobs with the goal of improving the efficiency of government spending (Konadu-Agyemang, 2001; also see Hansen-Kuhn, 1995a, 1995b; Heredia & Purcell, 1995; Sachikonye, 1993). The structural adjustments were intended to create short term losses for greater long term gains and efficiency, but has largely been considered a failure, with long-term gains yet to be realized (Konadu-Agyemang, 2001; Hansen-Kuhn, 1995a, 1995b; Heredia & Purcell, 1995; Sachikonye, 1993).

Structural adjustment programs presented major challenges to governments in the Global South. Cuts in the formal economy led to growth of the informal economy as displaced workers sought alternative employment solutions (Dumett, 2013; Konadu-Agyemang, 2001). In Africa, structural adjustment programs served to constrain the formal sector and government jobs, forcing people into employment in the informal sector (Konadu-Agyemang, 2001; Meagher & Yunusa, 1996; Overà, 2007; Sachikonye, 1993). Konadu-Agyemang (2001) reported that during the structural adjustment period, the informal sector employment in Ghana was expanding at a rate of 6.5 percent annually, while the formal sector only expanded at a rate of 1 percent. This
also led to a socio-cultural breakdown of traditional views of the informal economy as a female sector, forcing men who had lost their incomes in the formal sector to seek work in the informal sector (Konadu-Agyemang, 2001; Hansen-Kuhn, 1995a; ). Many Sub-Saharan African countries have not recovered from the structural adjustment programs as the informal sector continues to be the fastest growing sector of the economy (African Development Bank, 2012; 2013). Moreover, the growth in the informal sector has exacerbated strains at both the macro- and micro-levels between the international community and governments in the Global South, as well as governments in the Global South and their informal sectors.

2.2 RELATIONSHIPS BETWEEN GOVERNMENT AND THE INFORMAL SECTOR

Central and local governments face external pressure from the international community, such as the World Bank or ILO, as demonstrated in the World Bank definition of the informal economy and top down policies, such as the Structural Adjustment Programs. This places pressure on governments to try to regulate street markets in order to extract tax income and creates tension for local governments between urban spaces traditionally used by street vendors and the potential to use those spaces for formal economic development (International Labor Organization, 1993, 2009; Lawanson, 2014; Timalsina, 2011).

The size of the informal sector creates challenges from two perspectives: first, as discussed in the previous section, the informal sector demonstrates the difficulty of extracting revenue in the form of taxes from the informal economy (International Labor Office, 2009; World Bank, n.d.). Secondly, there is a concern for worker health and well-being due to a lack of regulation and enforcement (Evers & Seale, 2014).
2.2.1 Registration of Street Vendors & Workers Rights

A primary concern for central and local governments is that street vendors often do not register their business with government, even acquiring their goods from the informal sector through informal means, thus operating entirely outside the regulation and reporting necessary for governments to collect income and/or sales taxes (Bhowmik, 2005, 2012; Evers & Seale, 2014; Lawanson, 2014; Noronha, 2005; Timalsina, 2011). Some countries have more antagonistic relationships between the informal economy and regulatory agencies, such as law enforcement. Police may harass the street vendors, forcing them to pay fines or bribes and local governments will address health concerns by demolishing markets in favor of formal sector economic development (Bhowmik, 2005; Lawanson, 2014; Steel, Ujoranyi & Owusu, 2014; Timalsina, 2011). In South Korea, the government hires gangsters to intimidate street vendors and Indian street vendors face harassment for bribes from both government and gangsters or street thugs (Bhowmik, 2005). However, these strategies do not improve relations between the large informal sector and government, nor do they mitigate future outbreaks of disease, or improve worker conditions.

Contrary to the World Bank assertion that workers enter the informal sector to subvert tax systems, Chu, Kara and Benzing (2008) and Elkan (1988) found that complicated tax and business registration systems made it prohibitive for workers to file paperwork. In many cases, governments of the Global South lack capacity to enforce regulations that are in place even with registered businesses (Meagher & Yunusa, 1996). Mitullah (2003) conducted case studies in six African countries, including Ghana, and found that while tax revenue was collected from street vendors, vendors were not consulted by government in creating policies related to street vending or included in planning economic development of designated market sites. This demonstrates a
marginalization of the rights of street vendors by government. Thus, even when informal sector workers participate in registration and/or tax payment, they operate outside the guaranteed protections against non-payment of earnings by employers or mandatory overtime, access to health care or other benefits, such as sick days or pensions, and work in unsafe, even dangerous, work conditions (International Labour Organization, 2009; Meagher & Yunusa, 1996).

Some governments have fared better than others in forging relationships with the informal sector. For example, Singapore has a “Hawkers Department” that registers street vendors and works to improve conditions through initiatives such as providing stalls that have food, water and refuse removal (Bhowmik, 2005). Similarly, Kuala Lumpur has a government department designated with overseeing street vendor activities, assisting street vendors with setting up shops in approved locations and providing vendors with access to credit and training programs (Bhowmik, 2005). India used advisory committees to write and recently codify the Street Vendors Protection of Livelihood and Regulation of Street Vending law (Graaff and Ha, 2015). Several other countries, including Ghana, Philippines, and South Africa have also instituted advisory councils to improve relations between street vendors and government, but with varying levels of success (Tinker, 2003; Steel, Ujoranyi & Owusu, 2014).

2.2.2 Health, Well-Being and Working Conditions

Regarding health and well-being, a lack of building regulation and enforcement mechanisms to ensure workers’ rights and safety, leads to unsafe and unsanitary working conditions. Street markets often lack electricity, sanitation, refuse removal or access to clean water (Evers & Seale, 2014). These market places can be a maze of wooden structures which are prone to flash floods, fire or collapsing. Compounding the lack of enforcement of building
regulations, a lack of sanitation rules, training on sanitation and rule enforcement by government, leads food vendors to set up along open gutters or next to piles of refuse. This causes contamination of food, outbreaks of illness and disease and promulgates the unsanitary conditions. Preventable disease or illness, such as cholera and food poisoning, can quickly sweep through marketplaces due to a lack of regulation and sanitary conditions (Evers & Seale, 2014; Mensah, Owusu-Darko & Abordey, 2002; Sobel et al., 1998; Tauxe, Mintz & Quick, 1995). In response to outbreaks of disease and to prevent future outbreaks, local governments will come in and demolish the markets (Steel, Ujoranyi & Owusu, 2014). However, often vendors return, rebuild and continue the unsanitary practices (Evers & Seale, 2014; Steel, Ujoranyi & Owusu, 2014).

2.2.3 The Ghanaian Context

Ghana has a strained, but not overtly contentious relationship with street vendors. At the central government level, it is not as friendly as the Singapore and Kuala Lumpur examples, but not as violent or subversive as the India and South Korean examples. Although many of the markets in Ghana are built fully, or in part, by government or through public-private partnerships, vendors have no recourse for losses incurred as a result of negligence by government, such as unmaintained infrastructure or building the market in a floodplain (Dwomoh, 2015). In Ghana, street vendors have not been successful in advocating local or central government, despite paying taxes (Mitullah, 2003). Mitullah’s (2003) work was reflective of my observations in the marketplace during the fieldwork, which took place in Madina.
In the last five years in Accra alone, there have been more than a dozen major market fires, including Timber, Makola, Market Circle, Kotokoraba and Kejetia markets (My Joy, 2014). Evaluation of a recent fire incident in the Accra Central Market found inadequate electrical infrastructure for commercial purposes, a lack of access to fire response tools for market vendors and that the government had no fire management plan for the market (Dwomoh, 2015). One street vendor reported losing her savings in a fire caused by the AMA’s demolition of the neighboring slums where the market vendors lived (McTernan, 2014). The demolition destroyed her savings book and following the demolition, the microfinance organization abandoned the site (McTernan, 2014). The AMA has also been accused of using cholera outbreaks as an excuse to demolish street markets and slums to make way for the land to be used for formal commercial development (Falt, 2015; McTernan, 2014; RecyHub, 2015). This destruction of street markets, and the slums where the street vendors live, represents a disruption in the business practices and social networks necessary to maintain a livelihood (Falt, 2015), as well as a disruption of remittances to rural households that are either wholly or partially dependent on earnings flowing from the urban markets (Falt, 2015; Awumbila, Owusu & Teye, 2014).

In order to situate the context of the dissertation fieldwork the next two sections will highlight the location, demographics and history of the Madina municipality and market, where the fieldwork was conducted.

2.2.3.1 Madina Municipality, Greater Accra Region, Ghana

In the 1950s, as Ghana transitioned to independence from colonial rule, Madina experienced a major population boom. To this day, Madina is a migrant community. Migrants
are drawn to the economic opportunities of working in the street market at Madina, which has continued to grow with each census. According to the most recent census, 65.7 percent of the over 100,000 residents of Madina are migrants; approximately 71 percent of which Ghanaians coming from regions outside of Greater Accra (Ghanaian Statistical Services, 2010). Ghana is divided into 10 regions with the Central, Eastern and Volta bordering the Greater Accra Region where Madina is located. Most migrants to Madina come from bordering regions, including the Eastern (31.1 percent), Volta (27.4 percent) and Ashanti region (14.1 percent). Only approximately two percent of migrants in Madina come from outside of Ghana.

In Madina, 69.7 percent of the total population reported working in the informal sector of the economy, including 78.8 percent of women. The largest employment activity of residents in Madina is sales or service occupation (35.5 percent), again with higher proportions of women claiming this form of employment (51.8 percent) (Ghana Statistical Services, 2014). When walking through the Madina market, women make up the majority of the workforce, particularly in the sale of food products and produce. According to the Ghana Statistical Service (2014), a majority of women (55 percent) working in Madina were working in petty trade as self-employed, with no employees. The study also asserted that women were more likely to find employment in the informal sector as street traders or vendors due to their lower levels of formal education and literacy (Ghana Statistical Service, 2014).

2.2.3.2 History of the Madina Market

The current Madina market structure was built by the local government in 1999, although the market’s history reaches well into Ghana’s colonial period and before. Before 1999 the market was an open-air market consisting of informal structures made from scrap materials
including wood and metal. These structures snaked among the empty lots, between buildings and along the streets. In 1999, the local municipality funded a project to build a designated market space for street vendors. When the current structure was in progress of being built, it required a massive relocation of street vendors to another location one mile away. According to an interview with a Madina government official (2016), the purpose of building a dedicated market space was to organize the market, improve conditions for the street vendors, including access to water and electricity, and improve registration and collection of fees and taxes owed by street vendors to the municipality. The current market has large concrete walls with stalls in rows that vendors may rent. Some of the stalls are open so that vendors bring their own furniture, others are sheds that can be closed and locked when the market day is over.

Government officials did not consult with the street vendors on location or layout for the new marketplace, nor the temporary relocation (Interview, 2016). During the building of the Madina market, the construction continued to draw new vendors to the area. This created pressure on the municipality to complete the construction of the market to alleviate crowding and provide space for the displaced vendors. To date, the Madina market construction is incomplete, while at the same time, a lack of maintenance is causing flooding and deterioration of the structure.

Each day in the Madina market, I observed government officials walking through collecting 50 pesewes (equivalent to $.12) from the vendors. Despite this daily collection, the market construction was never completed by government and due to lack of maintenance, already shows signs of severe wear. In the rain, the roofing is inadequate to protect vendors and their goods. The aisles flood, creating running and standing water throughout the market, with dirty pools of water measuring meters wide stagnating for days. The conditions create an uneasy
relationship between the vendors and government, although not outwardly hostile. A8 stated “it is not good. They [government] take and take, but do not give.” Another market vendor stated “the electrical is no good. They [government] do not care. We are nothing to them” (Interview, 2016). Many of the interviewees expressed concerns with small electrical fires that had recently broken out, but had been contained. There was fear if not addressed, it would lead to a more dangerous incident.

Government officials admit the marketplace provides an important source of local revenue for the municipality, but conceded that due to large migration influxes to the area, there is not enough revenue to take care of all the city’s needs (Interview, 2016). According to the 2015 budget for the La-Nkwantanang Madina Municipal Assembly, 75 percent of the annual budget is collected from taxes on goods and services, mostly from the informal sector. Although not all of this is from the market, it demonstrates the reliance of the local government on the market and informal sector. Despite the GHANA₵33.5 million in tax revenue from goods and services, only GH₵255,000 were allocated for the FY2015 to be spent on market maintenance and improvement (GH₵100,000 of which was designated for fumigation of the market).

Today, the Madina market is one of the largest suburban markets in Accra and is often compared in scale and products sold to the Makola Market, which is the considered the largest and primary market located in downtown Accra (Interview, 2016). With growth, the market drew more vendors to the area, such that the market has continued to sprawl out into the surrounding community. Currently, the market stretches over a mile in every direction, with at least 1,000 street vendors on any given day. The Madina municipality estimates thousands of shoppers passing through daily, with tens of thousands on the market days of Wednesday and Saturday.
(Interview, 2016). with the streets surrounding the market filled with vendors and shops, both built and ad hoc.

Compared to the Accra Municipal Assembly (ACA), the Madina municipality has a more positive relationship between government and street vendors. The ACA has fallen under criticism for handling of the urban markets. A report by the Ghana Auditor General found the markets in Accra had “not been given the necessary attention as evidenced by collapsing market stalls, leaking roofs, blocked drains…” and that “these conditions developed because essential maintenance work had not been undertaken” (Agyeman, 2004, pg. x).
CHAPTER 3. THEORY AND LITERATURE REVIEW

This Chapter outlines the theories that frame the data collection: ethnography, social network theory and new institutionalism. Within policy studies, ethnography is often viewed as a methodology, but within the social sciences more broadly, it is a theory and way of viewing the world through a socio-cultural lens (Berger, 2012; Nader, 2011). Ethnography allows for deep understanding of people and culture (Nader, 2011; Wilson & Chaddah, 2010). Social network theory examines social interactions among actors and group identity. New institutionalism is focused on the formal and informal structures that influence and are thus influenced by rules, norms and behaviors of actors (North, 1990; March & Olsen, 1983; Ostrom, 2007). Together, this provides a theoretical frame that guides the fieldwork in order to answer the research question. This chapter outlines the use of ethnography, social network theory and new institutionalism, then provides a discussion of previous applied research using these theories within the context of migration, subsistence markets and remittances.

Given the similarities between social network theory and ethnography, these theories are an ideal theoretical pairing for answering the research question posed in this dissertation. The structure of street markets are embedded in socio-cultural contexts unique to the location, members and member attributes, which necessitates emersion in the street market to gain understanding from its members. Within the street market, vendors are embedded in multiple layers of social networks that are both formal and informal which lead to rules and norms in the street market. The rules and norms also create formal and informal institutions that structure interactions among actors, pass resources, and enforce shared rules and norms. This leads to the next section on new institutionalism, which examines formal and informal institutions within a
society (Ostrom, 2007). New institutionalism provided a way to organize and understand the structure of the market, as there are both formal (i.e., government) and informal (i.e., associations) that influence actor behavior and provide structure to the marketplace.

3.1 ETHNOGRAPHY AS A THEORY

As an interpretivist approach, ethnography has both ontological and epistemological assumptions that guide scientific inquiry (Fettersman, 2010; Hammersley, 2013; Wilson & Chaddah, 2010). Ontologically, ethnography views reality as socially constructed through the viewpoints of the members of a group, thus reality is not one thing, or definite, it is constantly changing (Creswell & Poth, 2017; Hammersley, 2013). Epistemologically, ethnography asserts that knowledge is subjective, thus researchers should not be distanced from the subjects (Creswell & Poth, 2017). Thus, for ethnography, it is only through a deep immersion with the subjects of the research that knowledge and understanding can be gained (Pettigrew, 2000).

Ethnography is used for the testing or validation of existing theory, theory extension and the creation of new theories (Wilson & Chaddah, 2010). Drawing from the ontological and epistemological assumptions, ethnography is particularly useful in deriving meaning from a shared experience (Bowen, 2006; Morse & Field, 1995). Methodologically, ethnography is operationalized, typically through participant observation, as well as other qualitative methods, but can also be paired with quantitative analysis, as it is with this dissertation (Whitehead, 2004). This immersion is used to both test and extend theory in new contexts, and the development of new theory (Wilson & Chaddah, 2010).

There are several assumptions that frame ethnographic inquiry. First, culture and socio-cultural phenomenon are not constant, they are always changing and flexible (Whitehead, 2004).
Individuals within a group may have different perspectives that together shape the observed and/or understood rules, norms and behaviors, or provide a shared meaning for the members of the group (Hammersley, 2013; Whitehead, 2004; Wilson & Chaddah, 2010). Culture is more than what is observable or related through statements, it also can implicitly shape a person’s understanding of the world or behavior (Whitehead, 2004). Thus, in ethnographic inquiry, participants may have ideas or statements that do not match with behavior. Culture is reproducible, that is it is understood within a group, as well as passed across generations (Hammersley, 2013). Culture is not just applied to the study of countries, ethnic groups, neighborhoods, but has been expanded to include a variety of other types of group identities, for example a business or office has a culture, or set of shared values and beliefs that shape employee behavior. Thus, individuals can be embedded in multiple group identities.

Ethnography is similar to grounded theory, in that it is an interpretivist approach rooted in an iterative approach to the data, as opposed to a positivistic approach that tests the applicability of theory to a specific context (Corbin & Strauss, 1990; Glaser & Strauss, 1967; Pettigrew, 2000; Strauss & Corbin, 1994; Wilson & Chaddah, 2010). The purpose of ethnography and grounded theory are not to act and collect data void of theory or concepts to be studied. Rather, ethnography is paired with other theories in what is termed “sensitizing concepts” at the onset of the research to frame the problem and create a starting point for the research (Bowen, 2006; Charmaz, 2003; Gilgun & Abrams, 2002; Glaser, 1978, Padgett, 2004). In exploratory research, sensitizing concepts are developed through initial literature reviews and field experience (Bowen, 2006), but it should also be noted that sensitizing concepts can also distract researchers from important phenomena observed (Gilgun & Abrams, 2002).
Analysis is continual throughout the data collection process, necessitating systematic data collection in order to identify patterns, then categories and finally themes through the inductive process (Bowen, 2006). It also allows for reflexivity of the researcher, that is, for the researcher to reflect upon his/her position previous to the fieldwork. This was important for this dissertation’s fieldwork, as the context and structures of markets vary across institutional contexts. While I came to the fieldwork with preconceived notions of the levels and types of social networks I would find, not all of them were present and I discovered networks I did not anticipate. Thus, the reflexivity allowed for a more robust understanding of the context of the Madina street market.³

One of the assumptions of ethnography is that people are embedded, or connected through shared experiences (Fetterman, 2010; Hammersley, 2013; Whitehead, 2004; Wilson & Chaddah, 2010). As such, ethnography is often combined with social network theory to understand how people are connected and how the structure of those connections form shared beliefs, rules and norms (Bott, 1971; Galaskiewicz & Wasserman, 1993; Johnson, 1994; Sanjek, 1978; Pasternak, 1976; Faust & Wasserman, 1993). The next section will discuss social network theory and its application within the context of the dissertation.

3.2 SOCIAL NETWORK THEORY

Social network theory considers the interactions of actors within a defined sample or space and how those interactions affect information exchanges and collaboration (Adam & Kriesi, 2007). Similar to ethnography, social network theory assumes interconnectedness of actors, but does not assume social cohesion (Carrington, Scott & Wasserman, 2005; Robbins,

³ A discussion of ethics as it relates to reflexivity is included in Chapter 4: Methodology.
Rather, it uses methods to uncover how actors are connected, which then leads to groupings.

There are four assumptions of social network theory from Galaskiewicz and Wasserman (1994). First, actors are interrelated, not independent. Second, actors use ties to transfer resources. Resources can be both physical or informational in nature. Third, network structures provide both opportunity and constraint for actors operating within a defined network. And fourth, the relationships among actors are enduring, have patterns and are defined by the structure of the network. One critique of social network theory is that it does not fully account for individual agency, by unduly constraining individuals within the structure of a network.

Similar to ethnography, which is interested in the socio-cultural context, social network analysis is interested in process and structures that frame human interaction. Both theories are interested in providing a deep understanding of how people provide meaning through shared rules and norms, which subsequently influence behavior. These theories also seek to explain and understand variation both within and across various contexts. Social network theory, however, is more interested in how this leads to institutions and structures that shape interactions among actors.

In social network theory, ties between actors can be evaluated in a variety of ways. Borgatti, Mehra, Brass and Labianca (2009) outline four categories of interactions which include similarities among actors, social relations, interactions, and flows of knowledge or information. Similarities can include location (ie, neighborhoods, online community), membership (ie, event attendance, supporter of an organization or cause, employee of a company) or attributes (ie, gender, beliefs). Social relations are classified in many ways, kinship, affective relations (ie political affiliation, similarities in beliefs), cognitive relations (ie perceptions of reality,
knowing/not knowing), or other roles (ie, friendship, same profession, managers within a certain field). Interactions, for example, with a certain person, object or service are another way of grouping people, as are knowledge or information flows, such as an organization’s job chart. For this dissertation, street vendors are all located in the same street market, thus sharing a similarity in location. While the locational similarity provides the sampling frame for the fieldwork, I am also interested in uncovering social relations, interactions and flows that help uncover the context in which these vendors operate and how their relationships with each other are structured. This is then used for two types of social network analysis. The first examines if the structure of the social network (ie, the number of ties, or strength) or position of the actor within the network (centrality) influence remittance behavior. The second part is interested in if similarities among street vendors within the network (ie age, migration generation, education, product sold) influences remittance behavior.

3.2.1 Operationalizing Social Network Theory

Social networks analysis draws on social network theory to operationalize the attributes of a social network (Marsden, 1990; Scott, 2012; Wasserman & Faust, 1994). The basic unit of social network analysis is a node or ego. Each individual interviewed is a node. Networks model the connections between nodes, as dyads and triads (Carrington, Scott & Wasserman, 2005; Wasserman & Faust, 1994). Dyads and triads combine to create a larger network structure. Networks are constructed to understand ties associated with observed data, to determine if these substructures (dyads and triads) occur by chance, determine whether effects are structural or occurring at the node level, determine measures of networks (i.e. density, closeness, centrality) and to understand the distribution within networks (Robbins, Pattinson, Kalish & Lusher, 2007).
The basic components of social network analysis are including embeddedness, cohesiveness and strength of network ties. Social network analysis assesses how central or integrated into a network (embeddedness) a node is; the frequency of interactions and how homogenous the actors are within these networks (cohesiveness); as well as how often and how long these interactions have been occurring (strength). It also examines the number of actors in each network (degree), strength of the network ties (density), and the ability of a network to pass information within the network and the information paths between actors (centrality).

Degree is the number of contacts a node has with the other actors in the network. The larger the number of actors, the higher and more complex degree becomes. Density addresses the proportion of an actor’s contacts that know each other. This provides information on the ability of the network to pass information from one actor to another; a higher density number indicates a more interconnected network. Dense networks in Figure 3.1 are “strong tie” relationships and improve credibility and trust resulting in reciprocity over time, including shared interests and norms and reduced information and bargaining costs, but only for actors within the dense cluster of the network (Granovetter, 1973; Scholz, Berardo & Kile, 2008). Dense networks, however, do not always lead to greater collaboration, as demonstrated in Figure 3.1. Figure 3.1 illustrates a high density network where four of the five nodes overlap, but Node B is isolated from the rest of the network, marginalizing Node B and limiting opportunities for collaboration with this node (Adam & Kriesi, 2007).
On the other hand, high centrality networks, in Figure 3.2, are “weak tie” relationships that lower search and information costs, because information is gathered and provided by one actor for the entire network and actors are united by common interests or goals and governed by shared values through the central actor (Granovetter, 1973). Centrality indicates the proportion of shortest information paths between any two stakeholders. This demonstrates how integrated the actors within a network are with each other. The higher the centrality score for an actor, the more reliant other actors are on that actor to gain information through the network. As represented in Figure 3.2, Node E has a high centrality score which improves credibility, but that node is the only actor providing information. While no actor is left out, because all are connected to the central actor, the central actor gains informational power over the other actors (Scholz, Berardo, & Kile, 2008).
As a part of the dissertation, reciprocity in the network is of interest, given that the dissertation is interested in the role of social networks and the connections between rural and urban places in remittance behavior. Thus, three types of dyads may be observed: mutual, asymmetric or null (Holland & Leinhardt, 1975). Mutual is a two-way relationship between two nodes. Asymmetric is a one-way relationship and would occur if Node A names Node B, but Node B does not name Node A. Null means there is no relationship between two nodes. It is hypothesized that the network will have a high degree of reciprocity. To measure reciprocity, in-degree and out-degree will be used. In-degree is the number of incoming ties to a node. Out-degree is the number of outgoing ties. In a highly reciprocal network, in-degree and out-degree will be close in number.

This section provided a brief summary of the terms common to social network analysis as it relates to this dissertation. A more detailed explanation of the social network analysis methods used to analyze the data collected from the fieldwork is covered in Chapter 4.

3.3 NEW INSTITUTIONALISM

Traditionally, institutionalism is used to describe the formal rules and structures of organizations within a society and to assign meaning to interactions among institutions (March & Olsen, 1983; Kiser & Ostrom, 1982). New institutionalism, however, incorporates sociological and anthropological traditions to expand the definition of institutions to include both formal and informal rituals, rules and norms within a society (North, 1990; March & Olsen, 1983; Ostrom, 2007). On initial observation, the markets appeared ad hoc, but on closer observation and integration, the markets are well organized and complex. There are informal hierarchies within the markets, including market leaders and informal associations or association-like interactions.
among vendors selling similar items. Thus, new institutionalism is particularly useful in the markets where repeated interactions over time have led to informal rules and norms of behavior eventually forming embedded levels of institutions, including informal hierarchies, informal and formal institutions, rules, norms and influencing social networks. Thus, I draw on new institutionalism to better understand and explain the formal and informal institutions developed over time through rules and norms of repeated interactions.

Within marketplaces rules, norms, rituals and hierarchies develop over time to organize the market space and govern market actor behavior (Awumbila, Owusu & Teye, 2014; Castaldo, Deshingkar & McKay, 2012; Chu, Kara & Benzing, 2008; Hackett, 2010; Minard, 2009). Research on the Global South has focused on the role of formal institutions, particularly government and the international community in regulating the informal economy (Zoogah, Peng & Woldu, 2015). Meagher (2005) examined social networks in the informal economy and found that without an understanding of the history of institutions, it was difficult to understand the development of networks in relation to society and government.

Formal institutions and resultant rules and norms certainly influence street vendor behavior. The formal sector however, is a small sector of the economy in much of the Global South. Informal institutions, such as the “hidden clusters” addressed in Williams’ (2008, 2010, 2011, 2012), as well as the informal rules, norms and customs resulting from these informal arrangements may have equally or more important explanatory power and insights to behaviors of the social networks (Zoogah, Peng & Woldu, 2015). For example, Little (2002) found that social relations and not sales drove market participation by Mayan vendors in Guatemala and Mexico. Focusing on the formal institutions alone, would not have captured this important finding regarding street vendor behavior.
In total, social network theory and ethnography both provide approaches to understanding the world using an iterative process of induction and deduction to test and extend theory as it relates to a street market in Ghana. Both social network theory and new institutionalism provided frames to organize the observations and information collected from the fieldwork. Using these frames to structure the information collected allowed me to reflect on the information gathered iteratively. I then incorporated these insights into the data collection process throughout the fieldwork to generate a deeper understanding of the perspective and context of the street vendors in the marketplace.

The remainder of this chapter will examine the application in the literature of ethnography and social network analysis to migration, street markets and remittances. Within the literature new institutionalism is primarily used as a sensitizing concept, thus it will be discussed in the context of the concepts above. The chapter concludes with hypotheses for the social network analysis based on the interviews collected during the dissertation fieldwork.

3.4 MIGRATION & REMITTANCES IN THE GLOBAL SOUTH

While Sub-Saharan Africa is not the fastest urbanizing region of the globe, urbanization has been occurring at a steady rate of 3.5 percent over the last two decades. According to the African Development Bank (2012), Africa’s urban population will increase from 36 percent in 2010 to 50 percent by 2030. In a study of internal migration in 51 less developed economies that included Africa (n=15), Asia (n=13) and Latin America (n=23), Ghana ranked in the top 10 for highest migration intensity (Ackah & Medvedev, 2010). This intensity places pressure on government for basic services and infrastructure, while at the same time, governments in the Global South lack resources and institutional capacity to collect taxes and regulate development.
(African Development Bank, 2012; Brueckner & Lall, 2014). Sub-Saharan Africa also has the largest informal sector workforce in the world. The combination of these factors makes the study of internal migration and remittances an important and relevant policy concern both now and in the long-term future.

Similar to international migrants, internal migrants are primarily motivated by the prospect of greater economic opportunity in the urban cores of the Global South, but can also be motivated by social, environmental and political reasons to migrate. Unlike international migrants, internal migrants tend to come from the lower income brackets and migrate internally because of a lack of capital, or network connections needed to leave the country (Bhowmik, 2005, 2013; Hajdu et al., 2013; Inkpen, 2014; Lee & Guadagno, 2015). And, similar to out-migration, internal migrants keep ties with their village of origin (Awumbila, Owusu & Teye, 2014; Hart, 1973; Schildkrout, 1978).

Contrary to the subsistence view of informal workers, emergent research over the last decade demonstrates that urban street vendors send remittances to an extended network of individuals, including relatives and neighbors, in the rural areas for household maintenance and to gain access to goods and services, such as health care or primary education (Awumbila, Owusu & Teye, 2014; Castaldo, Deshingkar & McKay, 2012; Zoogah, 2015). Moreover, this growing body of evidence finds that internal remittances target lower income households more than international remittances (Acosta, Fajnzylber & Lopez, 2007; Adams, 1991; Adams, Cuecuecha & Page, 2008; Barham & Boucher, 1998; McKay & Deshingkar, 2014).

A survey of two slums in Accra, Ghana found that over three-fourths of the population sends remittances to family in rural Ghana, with about the same percent employed in the informal economy (Awumbila, Owusu, Teye, 2014). Castaldo, Deshingkar and McKay (2012)
used census data from Ghana and India to estimate international and internal remittances, finding the volume of internal remittances larger than international remittances.

Internal remittances are generally smaller than international remittances, but support rural households in ways that reduce poverty and provide access to basic goods and services (Ackah & Medvedev, 2010; Lucas, 2015; Wouterse, 2010). While research has been mixed on the effect of international remittances in the remediation of poverty, a mounting body of research finds that international remittances increase income inequality because they are received by wealthier households in the Global South (Ackah & Medvedev, 2010; Acosta, Fajnzylber & Lopez, 2007; Adams, 1991; Adams, Cuecuecha & Page, 2008; Barham & Boucher, 1998). Adams, Cuecuecha and Page (2008) compared international and internal remittances and found that international remittances reduce poverty more than internal remittances at the household level, but increases income inequality at the national level because international remittances are targeted to wealthier households. Correspondingly, internal remittances were more directed to households in the lowest expenditure bracket (by both predicted per capita household expenditures and observed expenditures), as well as more targeted to households in the lowest five deciles than were international remittances (Adams, Cuecuecha & Page, 2008).

These findings raise an interesting question of the interplay between international and internal remittances. To account for it in interviews, I ask if street vendors were recipients of internal or international remittances in order to fund their migration to the urban area, or for start-up capital for their business. Along this line of inquiry, Kaba (1982) found that in Liberia, some female street vendors, once established in the market, were beneficiaries of wealthier individuals who provided loans for the women to scale up their business or purchase more expensive products to sell for greater profit.
While research on internal remittances is comparatively sparse (McKay & Deshingkar, 2014), there is an emergent focus on how and for what purposes internal remittances are used. Similar to the findings above, Ackah and Medvedev (2010) focused on internal migration and found that even after controlling for the decision to migrate, rural households receiving remittances from an internal migrant to an urban area were better off than households with no migrant or a migrant to another rural area. Internal remittances also support community services, like primary school fees, health services and rural workforce development (African Development Bank, 2009; Awumbila, Owusu & Teye, 2014; Castaldo, Deshingkar & McKay, 2012; Zoogah, 2015). This places the role of the informal economy as central to providing access to public goods and services, particularly when contrasted with developed economies where such services are subsidized by government through taxes.

Lucas and Stark (1985) found families may employ strategies that result in migratory remittances. For example, investing in a child to move to an urban area and eventually remit home, or to assist in repayment of a loan (Ilahi & Jafarey, 1999; Lucas & Stark, 1985). Migration may also result due to a lack of access to capital markets for financing rural agricultural (Katz & Stark, 1986; Lall, Selod & Shalizi, 2006). Migrants may feel a sense of obligation or duty to family or their community of origin, but remittances can also be altruistic in nature (Azam & Gubert, 2002; Cox, Eser & Jiminex, 1998; De la Briere et al., 2002; Gubert, 2002; Rapoport & Docquier, 2005).

South Africa has one of the more transparent internal remittance markets in Sub-Saharan Africa, due to a comparatively higher level of infrastructure development (TechnoServe, 2016; World Bank, 2017). It is estimated that two-thirds of the population either remit, receive or both remit and receive internal remittances (TechnoServe, 2016). Similarly, in Kenya, which has
developed mobile transfer technology called the M-PESA, with approximately two-thirds of cell
phone users using this service (Appiah-Gyamerah & Amoah, 2014). Despite greater access to
mobile phone based transfers in Africa, challenges in developing infrastructure, high transfer
fees and a lack of awareness has slowed acceptance of these technologies (Appiah-Gyamerah &
Amoah, 2014).

3.5 SOCIAL NETWORK ANALYSIS: APPLICATIONS IN THE INFORMAL ECONOMY

Social networks have been discussed throughout the first two chapters. This section will
unify the discussion and highlight the development of social network literature from an ego-
centric approach focused on the individual to a whole network approach emphasizing the context
in which entrepreneurs operate. This discussion prefaces Chapter 3, which provides greater detail
on how the whole network approach is applied to the data collection and analysis in this
dissertation.

Similar to the post-colonial, capitalistic views on street vendors, social networks in the
Global South are traditionally portrayed as suppressing innovation, wealth creation and
economic development (Meagher, 2005; Minard, 2009; Obeng & Anderson, 2010; Thornton,
Ribeiro-Soriano & Urbano, 2011; Thorsen, 2013). Recent shifts in the subsistence market and
entrepreneurship literature on how workers in the informal sector are perceived, however, find
social networks facilitate employment and even support wealth creation (Meagher, 2005;
Minard, 2009; Thornton, Ribeiro-Soriano & Urbano, 2011; Thorsen, 2013; Viswanathan,
Gajendiran & Venkatesan, 2008a, 2008b; Viswanathan, Sridharan & Ritchie, 2010; Walther,
2014; Williams, 2008). Social networks connect entrepreneurs with resources and capital
necessary to carry out their ventures (Awumbila, Owusu & Teye, 2014; Castillo, Jurado & Allen,
2008; Meagher, 2005; Minard, 2009; Williams, 2008), improve economic performance and aptitude (Berrou & Combarnous, 2012; Viswanathan, Gajendiran & Venkatesan, 2008a, 2008b; Viswanathan, Sridharan & Ritchie, 2010) and make entrepreneurs more adaptable over time (Walther, 2014).

In the business entrepreneurship literature, Williams (2008) conducted surveys in Ukraine and Russia, two countries with transitional economies, and found 51 percent and 96 percent of all entrepreneurs, respectively, were not operating in the formal economy. Over a series of papers Williams (2008a, 2008b) and Williams and Nadin (2010; 2011; 2012) determined that informal entrepreneurs operate within “hidden clusters” of networks defined by strong ties through family groups and religion due to lack of institutional support or trust. Similarly, Buame (1996) reported that lack of institutional support in Ghana led small business owners to rely on social networks.

Similar to these debates, another stream of emergent international research is coalesced around social enterprise and social entrepreneurship, broadly defined as using market-based solutions to also provide a social impact (Kerlin, 2013). Within this social enterprise and social entrepreneurship literature, debates have emerged as to whether street vendors and workers in the informal economy are entrepreneurial (Karanda & Toledano, 2012; Minard, 2009; Quaye & Acheampong, 2013), whether social entrepreneurship can reduce poverty (Bhatt, 2006; Fotheringham & Saunders, 2014; Hackett, 2010) and what social enterprise is across different institutional contexts (Kerlin, 2013). In turn, these debates have led to discussions on the importance of context when considering issues of poverty remediation, entrepreneurship and social purpose in both the formal and informal sectors (Karanda & Toledano, 2012; Kerlin, 2009,
While debates on institutional context and the role of social networks are emergent in the subsistence market and social enterprise fields, ethnographic research has long argued the importance of context, particularly socio-cultural influences, which include the formal and informal institutions that influence actors and their networks (Berrou & Combarnous, 2012; Hajdu et al., 2013; Neves & du Toit, 2013). In the 1960s and 1970s, social network theory was applied to examine the role of entrepreneurship in economic development and social change (Cochran, 1965; Firth, 1967; Greenfield & Strickton, 1979; Stewart, 1991). Despite interests in the use of social networks by entrepreneurs, early work viewed an entrepreneur as the central actor within their network (Bailey, 1969; Stewart, 1991). However, developments from sociology, including Granovetter’s (1973; 1885) seminal work began shifting the focus from the individual entrepreneur to the structure of the networks and relationships among actors within a defined network.

Despite this long history of pairing ethnography with social network analysis, only since the beginning of the 21st century has social network theory begun to receive interdisciplinary attention in the entrepreneurship and economic development literature (Berrou & Combarnous, 2012; Jack, Rose & Johnston, 2009; Stewart, 1990, 1991; Thornton, Ribeiro-Soriano & Urbano, 2011). This is surprising because by its nature, social network theory is interdisciplinary drawing together sociological, institutional, anthropological and behavioral traditions (Boissevain & Mitchell, 1973; Mitchell, 1969; Noble, 1973). While the shift to using social network theory has led to new theoretical developments and understandings of context in emergent economies, the field is still dominated by a focus on rural villages and ego-centric networks (Obeng &
Anderson, 2010; Neves & Du Toit, 2013; Walther, 2014). This is a significant oversight of the urban experience given the rapid urbanization occurring in the Global South (Cohen, 2006; Henderson, 2002). Ghana’s urban population, for example, has more than tripled in the last three decades, and Ghana continues to urbanize at a consistent rate (Crookes & Ijjasz-Vasquez, 2015). Moreover, rural villages are often networks embedded over generations, while urban areas create newer conglomerations of migrants from different demographic backgrounds, including ethnicity and religion.

Recent exploratory research in rural North Ghana found entrepreneurs in the informal sector use profits to support employment, education and wealth creation, such as supporting local primary schools in an area that lacks central government funding (Zoogah, 2015). Furthermore, Zoogah (2015) found some of these entrepreneurial ventures played an additional social purpose by redirecting waste into reusable material. For example, one entrepreneur became a shoemaker turning old tires into traditional sandals. The informal sector also provides an important role specific to the extractive nature of the Sub-Saharan Africa economy. The region is predominantly a resource-based economy that exports raw materials such as oil, minerals, cocoa and timber to be processed abroad (Boakye, Dessus, Foday & Oppong, 2012). These finished products, such as chocolate and aluminum, are imported back into the country with significant price mark-ups (Boakye, Dessus, Foday & Oppong, 2012). By keeping locally produced goods local, entrepreneurs play an important role in the local economy.

As discussed throughout the dissertation, improving the well-being and economic standing of street vendors has become a dominant focus of international development actors, such as international non-governmental organizations (INGOs), local nonprofit organizations and multi-lateral actors, including the United Nations, International Monetary Fund (IMF) or World
Bank and Western governments sending aid to the Global South. In this pursuit, a dominant paradigm, both in terms of research and practice, has emerged which treats the individual street vendor as the unit of analysis for interventions. This is problematic as these street vendors do not operate in isolation, rather vendors are embedded in complex layers of social networks that have developed over time into both formal and informal institutions with rules, norms and values that influence individual behavior.

Urban studies of the informal sector are dominated by a focus on formal macro-institutions, such as government, rule of law and the international community (particularly through microfinance organizations or international NGOs) influencing or attempting to intervene in the street markets of the informal sector (Konadu-Agyemang, 2001; Bhowmik, 2005, 2012; Dumett, 2013; Evers & Seale, 2014; Lawanson, 2014; Noronha, 2005; Timalsina, 2011), or at the individual-level by analyzing the individual (Viswanathan, Gajendiran & Venkatesan, 2008a, 2008b; Viswanathan, Sridharan & Ritchie, 2010; Viswanathan, Rosa & Ruth, 2010; Viswanathan, Sridharan & Richie, 2010). These studies either use small-n random sampling or convenience sampling techniques to survey workers receiving specific interventions, such as microfinance assistance, or focus on a specific subset of the population, such as women or youth (Bhatt, 2006; Fotheringham & Saunders, 2013; Hajdu et al., 2013; Harper, Iyer & Rosser, 2011; Moran, 1990; Thorsen, 2013).

While these studies provide an important perspective of how an individual perceives their environment, it tests Western theories of economic action and behavior in non-Western contexts (Obeng & Anderson, 2010; Hackett, 2010; Meagher, 2007). Moreover, studies measuring the impact of these interventions often focus only on economic impact and rely on metrics from the formal economy, or assume that all of the impact measured is generated by the external
intervention (Hackett, 2010; Minard, 2009). However, a growing body of literature finds that social networks in less developed economies provide grassroots community-based support, not just for entry into the informal economy, but for informal entrepreneurial activity (Meagher, 2005; Minard, 2009; Thornton, Ribeiro-Soriano & Urbano, 2011; Thorsen, 2013; Walther, 2014; Williams, 2008). Little (2002) even found that for Mayan street vendors in Guatemala, it was the social connections and not sales that drove participation in street vending.

A lack of longitudinal data and low reliability of existing data has limited quantitative exploration of the role of street vendors. Instead, researchers have used surveys or structured interviews. In social network analysis, these tools are considered ego-centric approaches and only provide information on the individual’s perspective of their environment and network (Hackett, 2010; Marsden, 2005; Robson, Haugh & Obeng, 2009; Schensul et al, 1999). While this offers insight into why an actor may operate a certain way within an institutional context, it takes for granted the role of social networks in influencing actor’s decisions and does not allow for examination of social interactions, how social networks are structured and operate and how social networks influence actors within the network.

The ego-centric approach neglects the role of reciprocity within these networks and cannot map network structures from a multi-actor perspective. This oversight is problematic in cultural contexts, such as the street market I observed in Ghana. Within this context, the social networks were in part dependent on the individual’s own agency, but also, the honor, trust, reputation and reciprocity of that person, as perceived by other members of the group. Surveys and structured interviews do not provide researchers or respondents opportunity for clarification. Moreover, research has found important differences across cultural contexts in how individuals within different societies process questions and approach responding (Ji, Zhang & Nisbett, 2004;
Another issue with a focus on the individual is that it disconnects the vendor’s location, opportunity identification and other marketplace or economic decisions from their social networks. Awumbila, Owusu & Teye (2014) found from interviews within the slums of Ghana that work location, opportunity identification and other marketplace decisions are interconnected with an individual’s social networks.

This dissertation seeks to explore the spectrum, depth and penetration of social networks within an urban marketplace as it relates to migration and remittances. Within marketplaces, rules, norms, rituals and hierarchies develop over time to organize the market space and govern market actor behavior (Awumbila, Owusu & Teye, 2014; Castaldo, Deshingkar & McKay, 2012; Chu, Kara & Benzing, 2008; Hackett, 2010; Minard, 2009). I use a holistic approach to examine street markets, given emergent trends in viewing and understanding the informal sector of the economy as an interconnected environment of people, places and formal and informal institutions. This approach offers a frame focused on the social networks, rather than on the individual entrepreneurs (ego-centric perspective) or formal institutions (i.e. government, international community, microfinance, rule of law) (Bhatt, 2006; Harper, Iyer & Rosser, 2011; Konadu-Agyemang, 2001; Schildkrout, 1978), but it also still allows for the traditional ego-centric analysis of street vendors.

In pursuing this research, I do not claim that every street vendor is entrepreneurial, nor that each street vendor remits money to relatives or has a social aspect. Rather, street vendors fall along a continuum between subsistence, remitting to family and broader community support. Some are subsistence workers supporting themselves and perhaps their immediate family, while others have means to grow their business and may choose to remit or support others in their network. The dissertation explores this continuum, using a social network approach. The aim of
3.6 SOCIAL NETWORK ANALYSIS HYPOTHESES

Based on the literature, several hypotheses related to the influence of social networks on street vendor behavior emerge, which are highlighted in Table 3.1 below. The first hypothesis has to do with network attributes, including the number of ties an actor has, the density of network ties and interconnectedness of an actor to all other actors (i.e., Betweenness, Density, Degree, and Closeness). In line with social network theory, actors with more ties that are more connected, could have more power and be more successful at gathering information and resources from his/her environment than actors with fewer ties. In this context, a street vendor with more ties may be more successful with their business indicating he/she has more income to send as remittances.

The international migrant literature finds that first generation migrants are more like to remit, while second and third generation migrants are less tied to their location of origin and thus, less likely to remit. Therefore, the second hypothesis is that first generation migrants are more likely to remit than second and third generation migrants.

The third hypothesis is related to education and draws on the post-colonial capitalistic definition of informal sector workers as low-skilled, low-education populations. Provided this definition, education may be negatively correlated with remittances. Education may also indicate higher socio-economic status, as these two variables are often linked in migration literature (Adams, 1991; Adams, Cuecuecha & Page, 2008; World Bank, 2017), and indicate informal
workers choosing to enter the sector to avoid tax payment and increase profit. Also in line with
the international remittance literature, education may be an intervening variable between migrant
generation and remittances, where subsequent generations are more educated, with fewer strong
ties to the location of origin and thus less likely to remit.

Fourth, married street vendors may have dual incomes and multiple responsibilities to
family, therefore more likely to remit that unmarried street vendors. Finally, receiving start-up
capital from family may increase remittances through a sense of obligation to the family, or as a
part of the family strategy in sending a family member to an urban area for work, as discussed
above.

<table>
<thead>
<tr>
<th>Table 3.1: Hypotheses</th>
<th>Relationship to Remittances</th>
</tr>
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<tbody>
<tr>
<td>Network Attributes (Betweenness, Density, Degree (in- &amp; out-) and Closeness (in- &amp; out-))</td>
<td>(+)</td>
</tr>
<tr>
<td>Migrant Generation:</td>
<td></td>
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<tr>
<td>-First Generation Migrant</td>
<td>(+)</td>
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<tr>
<td>-Second Generation Migrant (compared to first generation)</td>
<td>(-)</td>
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<tr>
<td>-Third Generation Migrant (compared to first generation)</td>
<td>(-)</td>
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<tr>
<td>Education</td>
<td>(-)</td>
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<tr>
<td>Marital Status</td>
<td>(+)</td>
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<tr>
<td>Family Start-Up</td>
<td>(+)</td>
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</tbody>
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3.7 IN SUMMARY

Networks can help migrants afford migration, as well as provide support in finding
employment and housing (Acosta, Fajnzylber & Lopez, 2007). In turn, migrants may remit
money back to the rural areas, thus benefiting their social network. Social networks permeate and
influence migration and remittance choices. The next chapter outlines the methods used to
answer the research question and test the hypotheses above. The initial fieldwork provides a background and narrative of street vendors in the Madina market. Focus groups allow for a deep dive into understanding the context of the street vendors as it relates to remitting and market mechanisms. These interviews with street vendors are then coded to conduct a social network analysis of the street vendors as it relates to remittance behavior. It is important to note, that the hypotheses outlined above frame the social network analysis portion of the data analysis in the dissertation. The social network analysis examines the relationship between remittances and social network attributes, as well as remittances and similarities among street vendors in the sample.
CHAPTER 4. METHODOLOGY

This Chapter describes two approaches within the dissertation: qualitative and quantitative. The qualitative approach, draws on ethnography as a method to conduct participant observation, interviews and focus groups to provide a deep understanding of the context of street vendors and their social networks. The chapter begins with a discussion of the qualitative methodology by taking the ethnography theory discussions in Chapter 3 and expanding it to describe the use of ethnography as a qualitative methodology for the fieldwork.

The nature of this inquiry includes collecting data on sensitive information of street vendors, including remittances and profits. Thus, I take an interpretivist approach using purposive sampling combined with rolling or snowballing to maximize my saturation within a selected street market. The purposive part of the sampling comes from my local contacts in Ghana. I then used a rolling sample technique to gather additional informants (Bernard, 2002). An ethnographic approach allows a researcher to build trust with the research subjects over time, which will improve the credibility of the data collected (Bernard, 2002; Denzin & Lincoln, 1994; Bowen, 2006). Data was collected over a four-month period from July to October 2016 in a suburban market outside of Accra, Ghana in West Africa.

The second half of the chapter is focused on the quantitative analysis, by taking the individual street vendor narratives from the qualitative interviews and coding the individual narratives into quantitative data. The qualitative data collection highlighted concepts that are used to code the interview narratives into numerical data. For example, remittance behavior captured in the qualitative interviews is coded into two variables, one is a dichotomous variable of if the street vendor remitted or not and the second is the frequency of remittances by that street
vendor. The coded observations are then used in the social network analysis. Specifically, logistic regression quadratic assignment procedure (LRQAP), with specific attention to the benefits and constraints as compared with logistic regression. The Chapter concludes with a discussion on challenges and limitations.

4.1 QUALITATIVE METHODS

Framed by theory, the ethnographic methodology is used to gain insight into the social networks of street vendors and the relationship between migration, social networks and remittances. To collect information from street vendors I utilized participant observation, informal unstructured and semi-structured interviews and focus groups. Throughout the process of data collection, an inductive approach identified relationships and patterns in the observed behavior, including analysis of responses and phrases used by street vendors interviewed.

Participant observation and interviews allow for exploration of how vendors work within their networks, and ask questions or make observations that are difficult to obtain through a formal survey or single structured interview. This includes understanding how they define their families and community, how they interact with other vendors, and how stable these interactions are over time through both observation and direct questions. By using the market as the sampling frame and mapping the infrastructure of a marketplace, it will allow for improved understanding of the complexities and embedded nature of the social networks within a market. Due to the complexity of relationships in these markets in procuring goods, selling goods and obtaining profits and remitting them, combined with the demographic diversity, a street vendor is potentially embedded in a variety of complex and overlapping networks. Thus, while the data
The first three weeks focused on interviewing municipal officials, market leaders and conducting participant observation to better understand the flow and structure of the market. During this initial period, I observed that the market structure of long aisles, containing approximately a dozen booths on each side of the aisle. The booths varied in size, served as a space for market vendors to display and sell their goods, but also restricted movement and socialization of the vendors. During slow periods in the market, vendors cluster at the end of the aisles to socialize and discuss business. I also visited three other markets in Greater Accra, including Makola market in Central Accra to examine the flow and structure. Madina was comparable to Makola in size, but larger than the other two suburban markets near Achimota, a suburb north of Accra. Makola had several researchers present examining various aspects of market life. In Madina and the other two markets though, there was not a noticed presence of researchers. Market vendors in Madina were not accustomed to researchers in the market and there was not a presence of nongovernmental organizations (NGOs), unlike the Makola market.

As market vendors became more accustomed to my presence, I began recruiting participants and conducting interviews. I concentrated the ethnography on three contiguous aisles within the government-built Madina marketspace, with two points of entry. The three aisles were bordered by the outside wall on three sides, creating a natural barrier and the next aisle over was empty, and used for storage creating a natural boundary.

The first point of entry was a plantain seller and the second point of entry was a fish vendor and her mother who owns a shop across the aisle from her. I was introduced to the street vendors by a local contact I had from previous academic visits, who regularly shops at the
Madina market. She introduced me to two street vendors she purchases goods from regularly. From this entry point, I used a purposive, rolling (or snowball) sampling technique. New participants were recruited from existing contacts. No person named by a participant that wanted to participate was excluded, as long as they had a booth or sold goods within the government-built Madina marketspace.

This technique was selected rather than a random sampling technique that would canvas the market speaking to every “n
th” street vendor. Thus, each of the participants in the ethnography was connected to at least one other participant. This created a social network map that allowed for the examination of reciprocity and social network structure from a multi-actor perspective.

4.1.1 Participant Observation

Participant observation can vary in degree and methods associated with collecting the data (Fetterman, 2010; Bernard, 2002). Researchers may choose to be a complete observer, participant observer or a complete participant. For this fieldwork, I took a role primarily as a participant observer. I immersed myself in the language and daily rituals of the market. This placed me as a participant observer, inserting myself into the daily lives of the vendors, not merely following them around observing their behavior, nor as a complete participant entering a group without informing the vendors I am there to do research (Bernard, 2002). “Many research problems simply cannot be addressed adequately by anything except participant observation” (Bernard, 2002, pg 335). A formal survey or one time meeting and interview is inappropriate given the cultural context and would greatly reduce the validity of the information collected, as discussed in the next paragraph.
The primary benefit of participant observation is validity (Bernard, 2002). This methodology allows a researcher to gain familiarity and trust with the street vendors to collect data on their social networks and personal views. Having a presence in the market each day is another benefit to participant observation in that it builds trust, lowers reactivity by the informants, and provides a researcher with a more intuitive understanding of the data through experience (Creswell & Poth, 2017; Hammersley, 2013).

4.1.2 Informal Unstructured and Semi-Structured Interviews

I used informal unstructured interviews when initiating contact with a new participant. Due to the nature of the research, initial contact focused on gathering basic background information. The first day I interacted with a vendor, I did not ask specific questions related to the research, but learned about them and their background. This provided information on their demographics, religion and family, which are appropriate topics for an initial conversation and useful to the research. During initial introductions and participant observation the conversation remained friendly and light, learning about the person’s family and background, as is customary in Ghana. Once a rapport was established, I asked basic questions regarding the vendor’s demographics, general interests, migration and role or entry into the market that were not answered in the introductory period. I then transitioned to more nuanced questions regarding the social networks. The other benefit of semi-structured interviews is that since these are repeated interactions, if I found I was missing information as I coded and transcribed interviews, I could go back and collect it later. This reduces the limitation of the semi-structured if a research misses questions or topics (Whooley, Hatry & Newcomer, 2010). Semi-structured interviews facilitate
free flowing conversation, elicit true opinions and allow the street vendors a sense of control over the direction of the discussion (Bernard, 2002; Wholey, Hatry & Newcomer, 2010).

The questions and pace of the interviews progressed differently based on my relationship with each vendor. Appendix A provides a list of questions and topics. In Appendix A, I separate out associational life and market rituals and customs, although they are recognizably related to the market network questions, as they pertain to the informal rules, norms and culture that influence actor behavior.

4.1.3 Focus Groups

Focus groups probed small groups on a particular topic. The focus groups required more structure than the informal or semi-structured interviews with the individual street vendors. The topics of the focus groups resulted in part from the information collected during the individual interviews. The themes that emerged from the data analysis of the individual interviews framed the topics of the focus groups. It allowed me to go more in depth on why respondents feel a certain way, or prod further on questions from the semi-structured individual interviews that needed a deeper perspective (Bernard, 2002, Wholey, Hatry & Newcomer, 2010).

Focus groups were conducted in the market during slow periods in the market, rather than a laboratory or office building, among participants already acquainted with each other. This provided convenience to the street vendors, allowing them to converse near their stations and in an atmosphere familiar to them. Focus group participants were recruited from subjects included in the participant observation and interviews. Care was taken that focus group participants knew at least one other member in the group casually through business association or friendship, but not kinship ties. This reduced apprehension from participating. This was important in the cultural
context I experienced in Ghana, as have previous researchers (see Coe, 2008; Coe, 2011; Pellow, 2011), where Ghanaians may be reserved in unfamiliar group settings. Focus group members also varied in age, products sold and length of experience in the Madina market.

4.1.4 Data

A total of 78 individuals involved in various aspects of the Madina market were interviewed. For the social network analysis, fifty-four interviews were conducted with street vendors in two social network clusters within the Madina marketplace. Four interviews were conducted with local government officials, including a city planner and tax collector. Two interviews with susus. Susu is the local Ghanaian term for individuals that act as an intermediary between market vendors and banks. A susu collects money from market vendors interested in saving and deposit and monitor that money in a bank for the street vendors. Accounts are short-term, but payout terms vary depending on the agreement between the susu and individual street vendors. Two interviews were conducted with wholesale sales representatives supplying market vendors with goods to better understand supply chain logistics. One interview was conducted with a religious leader working in the market. Fifteen interviews with street vendors were not utilized in the social network analysis, but did assist with framing the discussion on savings groups in Chapter 5. These 15 interviewees were members of a particular fellowship and savings group, but were located outside the two identified social network clusters in the Madina market, although they were connected to individuals within the Madina clusters through participation in the fellowship and savings group.
Table 4.1 Summary of Interview Subjects

<table>
<thead>
<tr>
<th>Description</th>
<th>n=</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Vendors included in the Social Network Analysis</td>
<td>54</td>
</tr>
<tr>
<td>Local Government Officials</td>
<td>4</td>
</tr>
<tr>
<td>Susus</td>
<td>2</td>
</tr>
<tr>
<td>Wholesaler/Product Distributor Representative</td>
<td>2</td>
</tr>
<tr>
<td>Religious Leader</td>
<td>1</td>
</tr>
<tr>
<td>Street Vendors involved in a fellowship and savings group (But, not included in the social network analysis)</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td>78</td>
</tr>
</tbody>
</table>

Five focus groups with four participants in each focus group, for a total of 20 voluntary focus group participants (38.5% of street vendors) were conducted on three topics: product associations, remittances and opportunities for savings of earnings. Two focus groups focused on the size, scope role and rules of product associations. Two focus groups addressed remittance behavior, purpose, use and method of remittance. One focus group examined the savings options available to market vendors and how these options were perceived. Options included going to the bank and opening an account, using a susu, or participating in fellowship and savings groups. Fellowship and savings groups are street vendors that come together for religious and personal fellowship. Weekly or monthly, depending on the terms of the group, members contribute an agreed upon amount, typically 2-5 Ghana Cedis (local Ghanaian currency, roughly equivalent to $.50-$1.25 U.S.). The amount is given to a member of the group on a rotating basis. This works as a savings mechanism as each member of the group knows their turn will come to receive the cash.

The next section will address the quantitative analysis, including coding and the social network analysis. This includes how the data collected from the participant observation, interviews and focus groups were used in the coding for the quantitative analysis. For the findings in Chapter 5, it is important to note that descriptive narratives from the data collection
above supplement the quantitative analysis. Thus, the resulting information from the ethnography will not just examine the structure of networks through the quantitative social network analysis that assesses the strength of ties, embeddedness and cohesiveness of networks. The qualitative narratives provide a description of the processes by which these networks form (by recording vendor stories of if/how vendors used or relied on networks to enter the market), mechanisms that sustain them (if the entry relationships hold over time or are more dynamic, forging new relationships and entering other social networks over time) and the motivations of the entrepreneurs in entering or maintaining network connections. Combining the qualitative with the quantitative provides a more robust understanding of the processes and mechanisms street vendors are embedded in, and how those process and mechanisms may influence behavior.

4.2 QUANTITATIVE ANALYSIS

Qualitative data collected from the participant observation, interviews and focus groups was analyzed in three phases:

- Phase 1 (on-going during field data collection): Initial open coding;
- Phase 2 (upon return to U.S.): Additional selective coding, grouping into themes, as well as descriptive statistics analysis;
- Phase 3: Social network analysis

Analysis of data occurred in phases of open coding, axial coding and selective coding. First, open coding divided observations, phrases and concepts into initial groupings, with particular attention to the types and structures of interactions between vendors. Axial coding brought together those groupings into themes. Finally, selective coding organized the themes
into a theory or way of understanding the street market networks. The next phase of analysis involved more in-depth selective coding and examination of descriptive statistics. Phase three used the coding to conduct the social network analysis.

The results of the coding generated numerically coded demographic data and behavioral variables (such as whether or not a street vendor remitted) of the street vendors for use in the social network analysis. The next section discusses the coding process, followed by a description of the use of logit regression, quadratic assignment procedure (QAP) and logistic regression quadratic assignment procedure (LRQAP) models to examine the role of social network attributes on remittance behavior of street vendors.

4.2.1 Data Coding

The interviews and focus groups uncovered multiple layers of social networks present in the Madina market. These networks are overlapping and complex, including rules and norms that guide and even sanction behavior of the participants. When coding the networks, networks were divided into three levels as discussed in Chapter 1: business association networks, kinship networks and friendship networks. Kinship networks were participants that identified as blood relatives. Friendship ties included street vendors that spent time outside of work together socially, or vendors whose location decision in the market was contingent on the other person, but they did not have a business relationship. For example, interviewees F1, N2 and A6, all second generation migrants, reported growing up together in the market while their mothers sold plantains. Although they each sell different products, when the market was built and relocated they purposefully located together. N2 stated “we always together. These are my sisters, *my sisters*” [italics added for emphasis] (Interview, 2016).
The third network, the business associations included the product and other dues-based associations, as well as business ties. Business ties were non-family business partnerships, such as renting booth or space to sell goods from another vendor. Some shopkeepers would rent multiple booths in the market to store excess stock, then sub-let the space to other vendors in the market selling small goods, such as candy, peppers, limes or other goods. This generated a source of income to shopkeepers and reduced the cost of renting for smaller vendors unable to afford the cost of a booth. The fellowship and savings group associations are organized by street vendors and membership is dues-based, with benefits of savings, social support and fellowship which will be discussed in greater detail in Chapter 5. Product based membership associations are also included in the business associations, which are also outlined in greater detail in Chapter 5.

4.2.2 Social Network Analysis

This section outlines the use of quadratic assignment procedure (QAP) and logistic regression quadratic assignment procedure (LRQAP) to understand the link between social networks, similarities in street vendor attributes and remittance behavior. However, before proceeding with the QAP and LRQAP, I conduct the analysis using a logistic regression. The problem with this method is that it is based on the assumption that there is independence among the observations. Social networks violate these assumptions though, because actors are connected through the social networks and are thus, not independent. Therefore, Quadratic Assignment Procedure (QAP) is conducted to examine correlations between the social networks generated from the field study. Finally, based on the QAP, Logistic Regression QAP (LRQAP) is conducted to examine the relationship between social network attributes and remittance
behavior. LRQAP is the appropriate method because it accounts for interdependency among observations. By transmuting characteristics of the network into matrices, LRQAP allows for analysis of data that is autocorrelated, that is, interdependence among observations (Dekker, Krackhardt & Snijders, 2007; Pinheiro, Serodio, Pinho & Lucas, 2016).

4.2.3 Analytical Tools & Software

Network characteristics were analyzed using UCINET software integrated with NetDraw for network visualizations and social network analysis (Borgatti, 2002; Borgatti, Everett & Freeman, 2002). STATA was used to conduct the regression analysis integrating demographic and other data collected from the interviews with street vendors.

4.2.4 Quadratic Assignment Procedure (QAP)

QAP is a two-step analysis that tests the correlations between two networks. While one network is the observed data, the other network can be observed, a model or an expected network (Helian & Long, 2016). The first step calculates Pearson’s correlation coefficients between two corresponding cells in the two matrices. Next, QAP randomly reassigns rows and columns in one matrix and recalculates the correlation measures, carrying out this procedure hundreds, or even thousands of times to determine the proportion that random measures are larger than the calculations from step one (Borgatti, Everett, & Johnson, 2013; Crossley et al., 2015; Helian & Long, 2016). Researchers can also control certain network attributes, such as density when running QAP. In UCINET p-values, but not standard errors are displayed to determine if the distribution is likely to occur by chance. Generally, a p<.05 threshold is standard, meaning the network is not likely to have arisen by chance and merits further testing to determine the
clustering (Borgatti, Everett, & Johnson, 2013; Crossley et al., 2015). Thus, QAP is looking for weak correlations, as strong correlations would indicate differences are not occurring at random.

One weakness of this method is that subsequent testing is limited to explaining structural, or macro level patterns (Crossley et al., 2015; Wasserman & Pattison, 2000). For understanding node level, or microlevel dynamics, qualitative data collection including interviews, follow-up surveys and focus groups should be used. However, QAP corrects for the bias in network data that all observations are interrelated.

In order to run the QAP, demographic data were transformed into social network matrices. The dichotomous and ordinal variables were transformed by matching. For example, the remittance variable is dichotomous, so if two individuals both remitted or neither remitted, the matrix box was coded one. If the individuals did not match, the box received a zero. Continuous variables, such as age were transformed for differences, such that the matrix, when correlated with the remittance matrix would examine if differences in age accounted for differences in remittance behavior. This transformation was completed using the Data>Attribute to Matrix command in UCINET. QAP was conducted to compare remittances to network attributes.

4.2.5 Logistic Regression Quadratic Assignment Procedure (LRQAP)

The next step was to conduct LRQAP to examine the factors impacting remittances. Similar to QAP, LRQAP is a two-step process. The first step runs a regression model and the second step permutates as in the QAP process (Dekker, Krackhardt & Snijders, 2007; Lemaire & Provan, 2012; Pinheiro, Serodio, Pinho & Lucas, 2016). Standard regression or logistic regression is not appropriate for network data as it violates the assumption of independence of
observations, thus LRQAP in UCINET is the appropriate tool, given the dependent variable is dichotomous. By transmuting characteristics of the network into matrices, LRQAP allows for analysis of data that is autocorrelated, that is, interdependence among observations (Dekker, Krackhardt & Snijders, 2007; Pinheiro, Serodio, Pinho & Lucas, 2016).

Results from the QAP and LRQAP are presented in Chapter 5.

4.3 ETHICS AND LIMITATIONS

This section outlines ethics and limitations of the dissertation in the context of the qualitative and quantitative methodology. In order to gain access to the market for this study, I used local contacts that shopped at the Madina market to introduce me to street vendors, as well as local government officials. The local government officials also provided a useful narrative of the role and history of the market within the community. My positioning as an American and white female influenced my interaction with the vendors. It was clear that I was not Ghanaian, and thus an outsider, when I first entered the market.

Associated with the perception of me as an outsider is concern of the interviewer or ethnographer effect (Creswell & Poth, 2017; Fetterman, 2010; Hammersley, 2013). This effect works in both directions. First, if I am perceived as having access to resources, participants may participate with hopes of gaining access to those resources, or increased status (Arnould, 1998). As a white person and American, it was initially conceived that I might have access to resources or money. But, in telling participants I was a student, I was able to overcome this perception. Many of the vendors have children and have to pay school fees, even for public schools, thus by identifying as a student, vendors assumed I did not have much money since I have to pay for school. Participants can also wish for the research to be successful and thus
provide answers he/she thinks the researcher wants to hear. The other direction is that in emersion, the ethnographer invests in relationships with the participants. This can affect the researcher both consciously and unconsciously during the fieldwork, as well as post-fieldwork in framing the findings and disseminating the outcomes (Peters & Wendland, 2016).

Because of the perception of me as an outsider, it took time to gain acceptance. Being introduced to the market by locals that shop there though, helped break down that barrier more quickly. The street vendors I was introduced to by my local contact were immediately warm and accepting of me, as were those the street vendors introduced me to, though some were slightly apprehensive at first. After a few weeks of being in the market, however, I began receiving broad support and interest from many of the vendors, who saw me as committed to understanding the market. Although it should be noted, there were some street vendors that remained apprehensive and cautiously aware of my presence, though I did not meet with any outward hostility.

Another issue with ethics, and a limitation of the fieldwork, was the use of English as the language for the interviews. While the research participants spoke English, there are other languages used by the market vendors. Thus, translation of some concepts and themes may not be as accurate as if collected in the native language. No one was excluded from the study because of language.

One challenge for surveying a street market is that you must gain acceptance within the market, including permission from the informal market leaders. The market leaders also played an important role in legitimizing me as a researcher, so it was important to recognize these leaders and speak with them before proceeding with any interviews. This also speaks to the
importance of the informal hierarchies that exist in the markets. Without the support of the market leaders, I could have faced ridicule and the possibility of being removed from the market.

I did not interview the kayayo, which are the young women and girls in the market that carry goods on their heads for market customers, nor the boys that transport goods on their carts. Neither directly obtain or sell goods, also the kayayo and boys are typically younger adolescents (Agarwal et al., 1997; Awumbila & Ardayfio-Schandorf, 2008). In excluding these service oriented actors, I may have missed an important market entry phenomenon, but they should be captured during interviews with market vendors when asking about their history and background in the market.

As this dissertation is exploratory, the goal was to extend social network theory and understanding of links between the rural and urban contexts through migration and remittances by immersing myself in a street market. Although the dissertation lacks a comparative component, it provides a rich exploratory case study and in depth perspective of the interplay between urban street markets, social networks and remittance behavior. Given the nature of the research question and methodological choice to answer this question the approach is appropriate, even given the limitations.
CHAPTER 5. FINDINGS

The first half of this Chapter outlines the qualitative findings from the qualitative fieldwork, including narratives organized around the themes that emerged, specifically the demographics of the sample, the organization of the market, including market hierarchies and product associations, as well as savings groups and remittance behavior. The second half of the Chapter outlines the quantitative findings from the social network analysis which tests the hypotheses presented in Chapter 3.

5.1 QUALITATIVE FINDINGS

5.1.1 Market Structure: Product Associations

One of the purposes of this dissertation was to uncover the types of social networks present in the market. Common in Ghana, and throughout Africa, marketplaces use product associations to coordinate the selling of goods and organize the labor force (Porter, Lyon & Pots, 2007). Through the various qualitative research approaches discussed earlier, this study found many product-based associations in the Madina market. Each association was structured around the product sold, and the associations had similar executive structures, but varied in complexity, in terms of rules and norms. The product associations fit into the business association networks identified in Chapter 1. Product associations played several important roles in the market, passing information, setting prices for products and enforcing market rules. Some of the associations present included: plantains, cassava, fish/seafood, tomatoes, vegetables, oil, clothing, shopkeepers, watches/jewelry.
Each association had the same executive structure of a Queen Mother or King, that is voted on by the membership and an assistant and secretary appointed by the Queen or King. The market also has an overall market King elected by the Queens and Kings of each association and for major market decisions, the Kings and Queens of the product associations will come together to discuss, negotiate and decide market matters. Similar to the composition of the market vendors, most heads of the associations are female; however, the current head of the Madina market is male, as is one of the product associations.

Queens and Kings are responsible for managing the association and procuring product, including negotiating prices and coordinate delivery of goods to be sold purchased and sold by the association members. Association members pay dues to the association in order to access product procured by the King/Queen. Associations also provide a benefit to members through collective action and social support. Working in the informal sector of the economy, worker protections are not extended to street vendors in the form of minimum wages, working conditions or overtime pay, for example. Associations provide supports for members that get married, have a child or a death in the family (Interview, 2016). Money is provided both from the dues paid and through collection to support members during need.

Associations also leverage lower prices in the procurement of goods than could be achieved individually. Street vendors worked within their association to procure goods to be sold, it is prohibited to procure product from a wholesaler or farmer not approved by the King/Queen Mother. Street vendors were also limited by the association in what could be sold and a street vendor could not be a member of multiple associations. For example, a plantain seller could not also be a member of the fish sellers association to sell both plantains and fish.
There was an exception however, one of the plantain sellers, A6, predominantly sells plantains, but occasionally procures other product, such as sweet potato or cocoyam to sell when it is in season. A6 is not sanctioned for this activity by any of the market associations, because her mother was the Queen Mother, which according to other street vendors gave her extra rights and freedoms not bestowed on others in the market (Interview, 2016). The different treatment is not seen antagonistically by other vendors, rather in reverence of A6's mother who served for over 20 years as the Queen Mother and is viewed with great respect.

For example, the plantain association is typical of most produce-based product associations in the market. Similar to other produce-based product associations, the plantain association is highly structured controlling who plantain sellers purchase from, the prices plantains are sold at and who may sell plantains. To sell plantains in the market, membership is compulsory. There are approximately 40 women in the association, no men sell plantains, as it is traditionally viewed as a woman’s job. Although there are 40 plantain sellers in the association, approximately one-third of the members only comes on the two market days, when traffic is heavier and most people come to the market. Plantains are usually purchased for GH₵30-85 weekly or bi-weekly, depending on the size of the bushel and yield. The cost for membership in the association is GH₵5 and the cost of renting a booth is approximately GH₵120 annually, but can cost more for larger booths. Plus, as discussed earlier, taxes to Madina costs GH₵.50 daily.

Other associations, such as the shopkeeper association, are designed as looser associations. It helps to coordinate the activities and actions of the members, but has a looser

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4 A6 is a reference to a specific person in the study. These codes were used to maintain anonymity of the research subjects. Participants were coded using the first letter of their first name and a number. These codes are included in the discussion so that in the social network maps, individuals can be identified by their position within the social network maps.

5 Produce includes fruit, vegetables and meat products such as plantains, tomatoes, fish, meat, cocoyam, etc. This is in comparison to non-parishables, such as the clothing association, or the shopkeeper association. Shopkeepers sell a variety of goods from home goods, baby supplies, canned goods, spices and pastas.
affiliation structure in contrast to the plantain association. The plantain association restricts plantain selling to members, and controls the supply chain to reduce procurement costs and set market prices, while also providing social benefits for members. The shopkeepers stated the primary benefit of the shopkeeper association is the social support benefits of joining, for example financial support if someone falls ill, is pregnant, or has a death in the family. While there is a coordination in price setting across shopkeepers, there is less control over product procurement. In part, this is due to the variation in products sold by the shopkeepers. Shopkeepers may sell canned goods, spices, soaps, cleaning supplies, books and writing material, home goods, baby supplies, etc. For shopkeepers there is also a higher cost of entry, so there is greater variation in the size and type of products sold by shopkeepers. For example, one newer shopkeeper in the market had not joined yet because she had not acquired the necessary capital to join the association, but was still allowed to enter the marketplace. Since the shopkeeper was not a member, she could not receive the social benefits of being a member, but could still be subject to sanctioning by the association if rules were violated.

Despite the looser association of the shopkeeper association, rules and rule-following extended not only to members, but non-member shopkeepers. One shopkeeper and member of the association, A7, had been caught violating the rules of the association and was currently being sanctioned by the market community. That is, other market vendors would not aid her if, for example, she needed to step away from her booth during the day, was absent from the market for a day, or needed assistance. Essentially, A7 was shunned by the community and this extended beyond the shopkeeper association to all members of the market. This observation represented the power and importance, not only of associations, but of rules within the market. Other sanctions that could be enforced included being dispelled from the market for cheating or theft,
or suspension for 3-6 months (depending on severity) for selling products outside those approved by the product association, or for procuring product(s) from a source not approved by the association.

5.1.2 Migration

This section outlines information on the migration status of the street vendors. From Chapter 2, Madina is predominantly a migrant community, with individuals coming from other parts of Ghana, seeking work in the Madina Market (Ghana Statistical Service, 2014). This data was collected from the qualitative interviews during the fieldwork. The data outlined in this section is used to develop an independent variable in the quantitative social network analysis outlined in the second half of this chapter. From the hypotheses in the previous chapter, whether a migrant was a first-, second- or third- generation migrant is anticipated to affect the likelihood of a street vendor to remit.

The median vendor was a first-generation migrant, as illustrated in Figure 5.1 below. In the sample 51.9 percent were first generation migrants, and 27.8 percent were second generation. This is slightly higher than the 2010 census of Madina (Ghana Statistical Service, 2014). Approximately 15 percent originated in the Greater Accra region. The longest commute to work reported was 1 hour, with most living 10-25 minutes from the market. While every migrant mentioned economic opportunity as a reason for migrating to Greater Accra, reasons for selecting the Madina market varied. Vendors cited lower costs in both housing and rent to work in the market as reasons for locating at Madina, as well as lower barriers to entry. Three vendors that had previously sold at other markets in Central Accra stated that the Madina market was less
political. If a person could pay the rent you could find a place to sell, whether it was in the government-built marketspace or out on the streets.

![Figure 5.1 Migration](image)

Just over half the vendors in the sample migrated from another region in Ghana, but no vendors originated from outside of Ghana. Figure 5.2 illustrates the breakdown of migrants from each region. Most migrants are from the Eastern Region, whose southern border is approximately 8 miles from Madina. All of the regions are in the southern half of Ghana, illustrating the regional nature of migration in this sample.
Timing of migration varied in the sample. Some migrated as teenagers or in their early 20s before marrying. Others migrated after marrying, either as a joint household decision, or at the bequest of their husband. Below are some excerpts demonstrating the different motivations and timing in moving:

- A17, who moved at her husband’s request, stated “there was no work. My husband had nothing. We had to go.”
- A4 is not married. She stated “my sister moved to work [in the] markets. She needed me…. We have a booth together. Living here is better. I can work.”
- E3 recalled, when she moved with her spouse in the 1980s, there were “no jobs. Nothing was good. Government was bad. Corrupt. We had to come [to Accra].” In the 1980s Ghana experienced military coups that destabilized government and the economy (Leite et al., 2000).
5.1.3 Remittances

This section outlines information on remittances by street vendors interviewed during the fieldwork. The data outlined in this section is used to develop the dependent variable in the quantitative social network analysis outlined in the second half of this chapter. Whether or not a street vendor remits is a primary interest of the dissertation.

In the sample, 57.7 percent reported sending remittances. This number is slightly lower than other recently published articles (see Acosta, Fajnzylber & Lopez, 2007; Castaldo, Deshingkar & McKay, 2012; McKay & Deshingkar, 2014), but if adjusted to household rather than individual, the percentage rises to 72.2 percent of households remit. Of those remitting, 66.7 percent reported sending remittances either only electronically or through a combination of cash and wire transfers, outlined in Figure 5.3. Most vendors remit through a combination of cash and wire transfers. Cash transfers occur either personally or through family and trusted friends to deliver the money.

![Figure 5.3 Remittance Method](image-url)

<table>
<thead>
<tr>
<th>Method</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Transfer</td>
<td>35.48%</td>
</tr>
<tr>
<td>Wire Transfer</td>
<td>9.68%</td>
</tr>
<tr>
<td>Cash Transfer &amp; Wire Transfer</td>
<td>54.84%</td>
</tr>
</tbody>
</table>
Wire transfers and wire transfer capacity is growing in the Global South. In Africa, the number of people with mobile phones far surpasses the number with access to bank accounts (Medhi, Ratan, & Toyama, 2009). Thus, mobile service providers have led the introduction of mobile banking throughout the continent. While mobile banking is popular in many countries, it has been slow to develop in Ghana, with MTN providing the first services in 2009 (Appiah-Gyamerah & Amoah, 2014). There are five other mobile phone companies in Ghana, two have recently entered the mobile banking market; however, the market is still dominated by MTN, who has the broadest and most reliable mobile network in Ghana (MTN, n.d.). MTN has been able to leverage its reputation and infrastructure to dominate the mobile transfer services market.

This dominance is reflected in the interviews. MTN was the only wire transfer method used by the vendors. Many cited MTN as the only available vendor to transfer funds through, demonstrating an information asymmetry when it comes to this new technology. Other stated MTN was the only reliable service provider, although no vendor in the sample had tried using any other method. Those that used wire transfer, stated the convenience of not having to return home each time money is needed to be sent.

While MTN has the broadest network, there are still many service gaps, particularly once outside the main urban cities of Accra and Kumasi. Those that do not remit money identified either a lack of service in recipient areas, an unreliability of the network or service, or expressed distrust in sending wire transfers. As Y1 stated, “I do not trust it [wire transfer technology]. I take money home, to my parents. Food, clothing and other things too. Sometimes my cousin does too.”

In addition to sending money, vendors also sent food, clothing and other necessities, such as medicine. Some, such as B2 sent goods hard to access in the remote areas, such as nice clothes
and certain food goods. B2’s family would keep some of the goods and sell others at the market and to friends and neighbors. This money provides a livelihood, particularly when “crops are in the lean season, and farming is difficult” (Interview, 2016). Another interview revealed that since R1 was 15 years old, she had been coming to Madina to work the market with her aunts, learning the market and taking money and goods back to the family, both for use in the household and to sell in her home community (Interview, 2016).

I used a correlation matrix to preliminarily examine possible relationships between the demographic data collected (i.e. gender, education, marriage, age, years of experience in the market, etc.) of the street vendors. Correlations showed that remittances were negatively correlated with education (p<.05) (Table 5.1), that is less education was correlated with remitting. This is opposite of the expected relationship in the post-colonial research on the informal sector. As discussed in Chapter 3, post-colonial perspectives of the informal sector of the economy assert workers in this sector are low skilled and have low education. This constrains their ability to sustain business and earn profits, which in turn would limit access to money in order to remit.

Correlation matrices allow for uncovering correlations in the presence of two variables, but do not indicate causal relationships. That is to say, there is a negative correlation between education and remittances, but this does not mean that education is driving remittance behavior. That is, more educated street vendors are less likely to remit. This could be related to the migration generation of a street vendor. Education is easier to access in the cities and so second and third generation migrants may have obtained more education than first generation migrants. However, there is not a significant correlation between education and migration, nor migration
and remittances. Therefore, the quantitative social network analysis in the second half of this chapter will examine this more closely.

<table>
<thead>
<tr>
<th>Table 5.1 Correlation Matrix for Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Remittance</strong></td>
</tr>
<tr>
<td>Education</td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Migrant Generation</td>
</tr>
</tbody>
</table>

*Correlations reported if p<.05

To better understand the relationship between migration and remittances in the sample, Table 5.2 provides remittance frequency and percentage distributions among migrants and non-migrants. First generation migrants made up 51.8 percent of the participants and were the most likely to remit at 71.4 percent. Second generation migrants were second at 60 percent. Admittedly, the sample size is small, with only three third generation migrants and 8 non-migrants.

<table>
<thead>
<tr>
<th>Table 5.2 Frequency and Percentages for Remittances by Migrant and Non-Migrants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Generation Migrant</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>Does not Remit</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Remits</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
The only non-migrant in the sample reported remitting regularly to extended family located in a northern region in Ghana. The spouse’s family “live up north. [The] brother has children in school. We help with school fees, we help when they are sick, everything” (Interview, 2016). D2 went on to discuss the challenges of paying school fees and accessing health care, particularly in the rural areas of Northern Ghana, where a hospital can be hundreds of kilometers away over “rough road.”

5.1.4 Savings Strategies

This section outlines information on savings strategies of the street vendors. This data was collected from the qualitative interviews during the fieldwork, as well as from one focus group focused on savings opportunities and strategies. While savings were not a focus of the dissertation, they were an important component to the life of the street market. The data outlined in this section is nonetheless of interest because savings strategies relied in part on social networks of street vendors, both in entering savings networks and learning about opportunities for savings.

In addition to remittances, 44.2 percent of the street vendors reported having savings accounts, either through a susu (defined in Chapter 3), a banking account, or reported saving on their own. Savings were positively correlated with education and marriage (Table 5.1), as were the number of accounts. That is, as education increases, the probability of saving money also increases. Moreover, married women are more likely to have savings than unmarried women.

Savings were reportedly used mostly for school fees (See Figure 5.4). This matches the correlation matrix finding that married vendors were more likely to have savings accounts. Street vendors also reported savings for household purposes and to support or grow the business. In
Ghana, rent is often paid in full at the start of a term, meaning households must have a year or even two years of rent paid in full at the beginning of a lease term.

![Figure 5.4 Purpose of Savings Accounts](image)

During the fieldwork there were no active microfinance organizations in the market, which could have served as another possible savings strategy. Many of the street vendors stated a strong distrust for microfinance, NGOs and providing financial services. However, while some street vendors distrusted microfinance or formal organizations, they were willing to use local susus.

One such susu had been working in this capacity in the market for 30 years, as such he had the trust of those that used the services. As E1 highlighted, the susu “has been here for a long time. I trust [the susu]…. [The susu] used to have a partner. My mother saved with them…. His partner passed, but he continues. Comes every Tuesday.” The susu carries a ledger and provides booklets to participants. Payments are made weekly and amounts are recorded in the ledger and
the booklet. The susu then takes the money to a local bank he is affiliated with and deposits and safeguards the money on behalf of the market vendors (Interview, 2016).

There are two banks within a quarter of a mile from the government-built marketspace and several banks interwoven with the street vendors at the Madina market. One of the banks is just outside the main entrance of the market, the other is located between the market and transit station. Both locations are convenient for street vendors. Due to the proximity and convenience of the banks, 9.25 percent of the surveyed sample reported using a bank account. B1 cited convenience, importance of saving, and preference to make deposits herself and manage her finances. While D2 stated she did not want to “suffer the fees of susu” and would rather manage than depend on someone else.

5.2 QUANTITATIVE ANALYSIS

Findings from the qualitative portion of the findings outlined above, including the interviews and focus groups, revealed there are multiple layers of social networks present in the market. Moreover, these networks are overlapping and complex, including rules and norms that guide and even sanction behavior of the participants. The descriptive statistics presented above will next be used for the quantitative social network analysis that follows.

5.2.1 Social Network Analysis

This quantitative section of the Chapter takes the attribute data and demographic data to conduct a social network analysis of the market studied. The social network analysis examines the relationship between social networks and remittances, testing the hypotheses presented at the end of the previous Chapter 3. Analysis is first conducted using logit regression, which assumes
that there is independence among the observations. However, social networks violate these assumptions because actors are connected through the social networks and are thus, not independent. Therefore, Quadratic Assignment Procedure (QAP) is conducted to examine correlations between the social networks generated from the field study. Finally, based on the QAP, Logistic Regression QAP (LRQAP) is conducted to examine the relationship between social network attributes and remittance behavior. LRQAP is the appropriate method because it accounts for interdependency among observations.

Dyads were coded either as business associational ties, kinship ties or friendship ties, from Chapter 1. Business association ties include product association and the fellowship & savings groups, as well as business relationships, such as rental agreements or mutual aid agreements between vendors. Friendships are relationships that are not family and more than a business association relationship. That is, social interaction, rather than business ties drives the relationship. Family ties captured in the market are mother, daughter, son, brother, sister, aunt, niece, cousin and in-law. Figure 5.5 illustrates that the family ties are clustered in small groups compared to Figure 5.7, 5.8 and 5.9.
Previous research has defined social networks and market interactions as dominated by family ties. A Bootstrap Paired Sample T-test can test the differences in network densities. In UCINET bootstrap draws N random numbers, with replacement from 1 to N, then calculates $Y^\wedge$ and calculates the statistic of interest, repeating this process a designated number of times using the following equation (Borgatti, 2000):

$$SE_b=\sqrt{\frac{1}{M-1} \sum_{m=1}^{M} (Z^m - \bar{Z})^2}$$

The difference in density between Figure 5.5 (density=.0300) and Figure 5.7 (density=.2446) is .2145. With a p-value=.0002, I find that network ties including family, friends and associations is denser than network ties that only include family. While family ties seem to

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6 Labels of the nodes in Figures 7-10 refer to individual actors included in the sample. These labels are used to ensure anonymity of those interviewed. Labels also provide an important reference for discussion on the location of particular nodes within the network.
be strong within the market’s social network structure, it does not account for all of the social ties present. Product associations (Figure 5.8) play an integral organizational role by coordinating the market and disseminating information more efficiently, than if street vendors were left to kinship (Figure 5.5) and friendship (Figure 5.7) ties only.

Figure 5.6 provides a visualization of the two social network clusters included in the sample. Several nodes acting as bridges between the two densest clusters, most notably A18 in the center of Figure 5.6. A18 is a married shopkeeper in her 20s. She participates in a fellowship and savings group and has a savings account at a local bank. As demonstrated in Figure 5.7, it is her associational connections through the shopkeeper association and savings group participation that creates the bridging effect. Once the associations are removed in Figure 5.7, A18 moves to a
less centralized area in the upper left corner. A18 re-emerges again as a bridge in Figure 5.8, which only includes business association ties.

![Figure 5.7 Social Network of Friends and Family - No Associations](image)

R2 also appears to have a slight bridging role in Figure 5.6, but not as pronounced as A18. This role becomes clearer in Figure 5.7. Figure 5.7 models the social networks of friends and family ties, with R2 acting as a bridge between two clusters. The Right cluster appears denser than the cluster on the left. R2 is one of the youngest in the sample and well educated. Just completing senior high school, R2 only works in the market part time to help her mother. She has 3 older siblings, two of which have completed nursing school, which R2 had also been accepted to begin in October, but had not yet started. As a part time worker for her mother, R2
has been raised in the market and therefore knows many of the nodes. It is through R2 that information may be passed between the two clusters; however, given her part time nature in the marketplace, this may not be an effective bridge between the two clusters.

Figure 5.8 maps only the association networks. In this Figure, A18 resumes the role of a bridge, as seen in Figure 5.6. Unlike the previous two maps, this map appears to define three clustered, but overlapping networks. The next section will describe the attributes from the social network analysis.

![Figure 5.8 Business Associations only](image)

5.2.2 Reciprocity, Degree, Closeness, Density, Betweenness

This section will examine measures of the social network. Reciprocity measures the two-way connection between nodes. From Chapter 3, it was expected that reciprocity would be strong within the market network. This network is highly reciprocal, with 80.1 percent reciprocity at the dyad-level and 89 percent reciprocity at the arc level. Arc is the tie between two dyads. Thus, for
dyad reciprocity, 80 percent of dyads are symmetric with in ties and out ties. Whereas, arc reciprocity means that of all outgoing arcs, 89 percent are reciprocated. Both are calculated by a simple formula of $R/(R+U)$ for arc reciprocity and $=R/(R+2U)$ for dyad reciprocity.

Degree is the number of ties a node has, indicating the strength of collaboration within a network. Degree is calculated for each dyad, with higher numbers meaning greater connectedness between nodes. Degree was calculated for both in-degree and out-degree. Given the high level of reciprocity, it is not surprising that in Table 5.3, the means for in- and out-degree are the same. The minimum number of ties was 0, from a vendor that was being ostracized due to non-compliance with association rules. The maximum number of ties observed was 34 in-degrees and 32 out-degrees.

| Table 5.3 Summary Statistics SNA Attributes |
|-----------------|-----|-------|------|-----|-----|
| Variable        | Obs | Mean  | Std. Dev. | Min | Max |
| In Degree       | 54  | 12.96 | 7.54     | 0   | 34  |
| Out Degree      | 54  | 12.96 | 7.20     | 0   | 32  |
| Betweenness     | 54  | 2.82  | 3.95     | 0   | 19.78 |
| In Closeness    | 54  | 0.39  | 0.07     | 0.14| 0.54|
| Out Closeness   | 54  | 0.39  | 0.06     | 0.14| 0.52|
| Density         | 54  | 55.71 | 27.64    | 0   | 100 |

Betweenness measures centrality, this allows for identification of bridges or gatekeepers. Gatekeepers are asymmetric arcs that connect a cluster to information from another node or cluster, while bridges are mutual ties that allow information to flow both ways between multiple clusters. A18 discussed as a bridge earlier had the highest betweenness score at 19.779, as did Y2 and A23 (10.43 and 10.37, respectively). The mean normalized betweenness score was 2.81, with 48 nodes below 10 and 41 scoring below 4. The network centralization index scored 17.29
percent, indicating a highly decentralized network. Decentralized networks are less efficient at passing information and collaborating.

The Geodesic Distance measures the number of nodes in the shortest path possible between two nodes. The smaller the geodesic number the shorter the path between to individuals within the network. This network has a mean geodesic score of 2.5 meaning the mean distance between two actors in the network is 2.5 nodes.

Closeness centrality is calculated by summing the shortest paths between one node to every other node in the network. Closeness can be calculated for in- and out-closeness and measures the centrality of the network. The lower the closeness score, the more central the node. A18 for example, while this node acts as a bridge, it had one of the higher in- and out-closeness scores (reference Table 5.3) at .520, indicating it is not central to the network. The lack of variation in closeness centrality confirms that the network is not highly centralized, making collaboration and information sharing more challenging.

Density is a measure of the proportion of possible connections are present in the network (Wasserman & Faust, 1994). Using UCINET the density of the network is measured at 24.5 percent. Meaning 24.5 percent of the possible connections are present. However, the standard deviation is high at 66.1 percent suggesting there is a lot of variation across street vendors in this sample. The high standard deviation and low density demonstrates a high level of diversity in the number of ties among market actors. Networks that are not dense are more difficult to pass information through and generate collaboration. The associations could represent an effort to mitigate these challenges, by providing association leaders that serve as more centralized nodes to receive and disseminate information throughout their network. A weakness of the sampling

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7 UCINET is social network analysis software integrated with NetDraw for network visualizations and social network analysis (Borgatti 2002; Borgatti, Everett, & Freeman 2002).
strategy used is that it does not fully capture any one association, thus the role of associations in overcoming challenges with dispersed and less dense networks would not be fully captured in this model. However, the low density of the sample, can also serve as an example for why street vendors in this market have self-organized into various product associations, and even fellowship and savings groups. These types of networks allow for more efficient mechanisms for actors to pass and receive information.

5.2.3 Discussion of the Social Network Attributes

Initial analysis found the social networks are not dense, nor highly centralized. This indicates that passing information through the network may not be efficient and reduce opportunity for collaboration. Lack of collaboration, may indicate that remittance decisions are made at the individual level. However, this lack of cohesion captured may also indicate a primary purpose of the product and other voluntary associations that have arisen in the market. These associations provide a mechanism for collaboration, collective action and information exchange across loosely connected actors.

The next section in this Chapter will take the demographic and social network data to run Quadratic Assignment Procedure (QAP) and Logistic Regression QAP (LRQAP) to examine the relationship between remittances and street vendor demographic and network attributes. QAP is used to test correlations between network attributes, then uses those correlations to build a LRQAP model to examine how similarities among vendors in the sample influence and remittance strategies.
5.2.4 Logistic Regression and Logistic Regression Quadratic Assignment Procedure (LRQAP)

This section presents results from the logistic regression and LRQAP to provide insight into the relationship between street vendors, social networks and remittance behavior. Remember that unlike regression, LRQAP relaxes the assumption that observations are independent. The dependent and independent variables are presented below, followed by the data analysis.

5.2.5 Dependent Variable

Two dependent variables are constructed from the fieldwork. The first is a dichotomous variable on whether or not a street vendor remitted money, in Table 5.4. It is coded yes if the street vendor has remitted money at least once in the previous three months. A second ordinal dependent variable was constructed to account for frequency of remittances. Frequency was never, occasionally, monthly and weekly; however, findings from the model did not differ significantly from the logit model with the dichotomous variable. For ease of interpretation, only the logit regression is reported.
Table 5.4 Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variable</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Send Remittances</td>
<td>54</td>
<td>57.7%</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Demographic Data</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>54</td>
<td>38.4</td>
<td>14.84</td>
<td>18</td>
<td>74</td>
</tr>
<tr>
<td>Gender</td>
<td>54</td>
<td>96.3%</td>
<td>0.19</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Married</td>
<td>54</td>
<td>52.0%</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Education Level</td>
<td>54</td>
<td>3.4</td>
<td>1.67</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>Migrant Generation</td>
<td>54</td>
<td>1.3</td>
<td>0.79</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Years Experience</td>
<td>54</td>
<td>18.7</td>
<td>16.00</td>
<td>0.5</td>
<td>63</td>
</tr>
<tr>
<td>Remit Electronically</td>
<td>30</td>
<td>66.7%</td>
<td>0.49</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Have Savings Account</td>
<td>54</td>
<td>44.2%</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Participate in Savings Group</td>
<td>54</td>
<td>28.8%</td>
<td>0.46</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Network Attributes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In Degree</td>
<td>54</td>
<td>12.96</td>
<td>7.54</td>
<td>0</td>
<td>34</td>
</tr>
<tr>
<td>Out Degree</td>
<td>54</td>
<td>12.96</td>
<td>7.20</td>
<td>0</td>
<td>32</td>
</tr>
<tr>
<td>Betweenness</td>
<td>54</td>
<td>2.82</td>
<td>3.95</td>
<td>0</td>
<td>19.78</td>
</tr>
<tr>
<td>In Closeness</td>
<td>54</td>
<td>0.39</td>
<td>0.07</td>
<td>0.14</td>
<td>0.54</td>
</tr>
<tr>
<td>Out Closeness</td>
<td>54</td>
<td>0.39</td>
<td>0.06</td>
<td>0.14</td>
<td>0.52</td>
</tr>
<tr>
<td>Density</td>
<td>54</td>
<td>55.71</td>
<td>27.64</td>
<td>0</td>
<td>100</td>
</tr>
</tbody>
</table>

5.2.6 Independent Variables

The median age of the street vendors in this sample was 38 years of age, with 96.3 percent female. Although this sample oversamples females compared to the population in the Madina municipality, street vending is a predominantly female occupation and based on the population of vendors in the marketspace, this demographic is accurate. Fifty-two percent interviewed were married, in line with the census report for the Madina area (52.5 percent) and approximately 8 percent widowed. Median education was some junior high school, which also aligns with the education level reported in Madina (Ghana Statistical Service, 2014). Although this is not operationalized as a variable, I wanted to note that in the sample, all of the street
vendors lived in the Greater Accra region, with only five living in areas outside of a 10 mile radius of the Madina market.

Age and Gender are used as control variables. Marital Status is coded 1 if married and 0 if not married. Education is an ordinal variable, with 1 coded as some primary school, 2 as completed primary school, and so on. The highest value is 7 for technical, trade or university. The mean education level is 3.4 which falls between some junior high and completed junior high. The median education level is some junior high. Migration Generation is an ordinal variable: 0 indicates the person is not a migrant, 1 indicates the person is a first generation migrant, 2 is a second generation migrant and 3 is a third generation migrant. No one in the sample claimed to be a fourth or more generation migrant. Years of experience is a self-reported number of years the person estimates they have worked as a street vendor.

Remit electronically is a dichotomous variable capturing whether the person uses mobile banking technology to remit money. Electronic remittances are a convenience in that the street vendor does not need to rely on a trust network to send cash back to family, or return home each time money is remitted. However, it also represents a cost through fees to remit. Savings Account is also a dichotomous variable of whether the person has a bank savings account, a susu account, or is saving on their own. Participate in savings group is a dichotomous variable of if the person is a member of a fellowship and savings group.

In the previous section in-degree, out-degree, betweenness, in-closeness, out-closeness and density were reported at the network level. For the LRQAP, these measures are calculated for each node. Descriptive statistics are provided in Table 5.4 (above).
5.2.7 Logit Regression

One of the primary assumptions behind logit regression is that the observations are independent. However, social network analysis violates this assumption, as the actors within a network are interdependent. The logit regression is included in the dissertation to show the difference in the models between the logistic regression and the LRQAP model that relaxes the assumption of independence among observations.

STATA is used to analyze the relationship between remittances and actor attributes using logit regression. Using a dichotomous dependent variable requires a logit model. Results are reported in odds ratios so that predicted probabilities will not be less than zero. Odds ratios allow for the independent variables to be interpreted by the strength of their relationship to the dependent variable. Table 5.5 provides the output for the logit regression models. Both models have the same dichotomous dependent variable. Model 1 includes age, education, marital status and years of experience in the market as independent variables. The second model adds whether or not the street vendor has a savings account to the model. Age, education and marital status are antecedent variables, while savings is an intervening variable. That is, savings could be a function of age, marital status or education level. Not including an antecedent can cause misleading analysis of the causal impact, while not including intervening variables limits our interpretations of the variables or phenomena that affect the dependent variable. By running two models, one with savings and one without allows us to analyze the effect of whether or not a street vendor has savings on the other independent variables.
Table 5.5: Logit Regression with Remittance as Dichotomous Dependent Variable

<table>
<thead>
<tr>
<th>Variables</th>
<th>MODEL 1 Remit (dichotomous)</th>
<th>MODEL 2 Remit (dichotomous)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>(-0.02)</td>
<td>(-0.02)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.51**</td>
<td>-0.71***</td>
</tr>
<tr>
<td></td>
<td>(-0.21)</td>
<td>(-0.26)</td>
</tr>
<tr>
<td>Married</td>
<td>1.27**</td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td>(-0.65)</td>
<td>(-0.75)</td>
</tr>
<tr>
<td>Years of Experience</td>
<td>-0.01</td>
<td>-0.01</td>
</tr>
<tr>
<td></td>
<td>(-0.02)</td>
<td>(-0.02)</td>
</tr>
<tr>
<td>Savings</td>
<td>1.41</td>
<td>-0.93</td>
</tr>
<tr>
<td>Constant</td>
<td>1.52</td>
<td>2.00</td>
</tr>
<tr>
<td></td>
<td>(-1.17)</td>
<td>(-1.25)</td>
</tr>
</tbody>
</table>

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

In model 1, education and marital status are significant. As education increases, the odds a street vendor in the sample will remit decreases. Marriage is positively related to remittances, such that, the probability of a married street vendor to remit is 27 times as high as an unmarried street vendor in the sample. When savings is added to the model, a variable significantly correlated to marital status, as discussed in Chapter 4, marital status is no longer significant. A savings account is an intervening variable between remitting and marital status, thus the model shows that some of the explanation of marital status is assumed when adding savings account to the model.

Several iterations of the logit model were conducted in line with the hypotheses presented, but none of the network attributes were significant. This could be explained because network data violates the fundamental assumption of inferential statistics that observations are independent of each other (Krackhardt, 1988) because of the bias inherent in network data.
Observations in network data are not independent as is assumed in inferential statistics. Rather, network data are biased in that the observations are inherently interdependent. To account for the interdependence of observations in the network data, QAP and LRQAP are ran for analysis in the next section using UCINET.

5.2.8 Quadratic Assignment Procedure (QAP)

QAP allows us to examine if there are correlations between actor attributes and remitting, by transforming the demographic data into social network matrices. Similar to a correlation matrix, QAP examines if a variable, in this case—remittances is correlated with other attributes of actors in the network, by examining similarities among actors. The dichotomous and ordinal variables were transformed by matching. For example, the remittance variable is dichotomous, so if two individuals both remitted or neither remitted, the matrix box was coded one. If the individuals did not match, the box received a zero. Continuous variables, such as age were transformed for differences, such that the matrix, when correlated with the remittance matrix would examine if differences in age accounted for differences in remittance behavior. This transformation was completed using the Data>Attribute to Matrix command in UCINET. QAP was conducted to compare remittances to network attributes. Highlighted in Table 5.6, there were no significant findings.
Table 5.6: QAP Remittances and Network Attributes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Remittances (Similarity Matrix)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Betweenness</td>
<td>-.031 (.115)</td>
</tr>
<tr>
<td>Density</td>
<td>.029 (.097)</td>
</tr>
<tr>
<td>In-Degree</td>
<td>.017 (.311)</td>
</tr>
<tr>
<td>Out-Degree</td>
<td>.023 (.206)</td>
</tr>
<tr>
<td>In-Closeness</td>
<td>.002 (.564)</td>
</tr>
<tr>
<td>Out-Closeness</td>
<td>-.011 (.324)</td>
</tr>
</tbody>
</table>

P-values reported in Parentheses

Although social network attributes were not correlated to remittances, individuals who are actively saving, participating in a savings and fellowship group, or receiving business start-up money from family may be correlated with remittances. In order to save, or participate in a savings group, an individual would need to earn profit and if a person is earning a profit, they may be more likely to also share that profit through remittances. Similarly, individuals that received business start-up funds from family, may be more likely to remit out of a sense of duty, or paying back a debt. Research on international remittances found 1st generation migrants are more likely to remit, with subsequent generations being less likely to remit (Ballard, 2002; Chimhowu, Piesse & Pinder, 2005; DeSipio, 2000). Therefore, these are also tested using QAP, with findings in Table 5.7.
Table 5.7: QAP Remittances and Street Vendor Attributes

<table>
<thead>
<tr>
<th></th>
<th>Remittances (Similarity Matrix)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings</td>
<td>-.006 (.733)</td>
</tr>
<tr>
<td>Fellowship &amp; Savings</td>
<td>-.007 (.709)</td>
</tr>
<tr>
<td>Group Participation</td>
<td>-</td>
</tr>
<tr>
<td>Church Start-Up</td>
<td>-.026 (.149)</td>
</tr>
<tr>
<td>Family Start-Up</td>
<td>.096** (.004)</td>
</tr>
<tr>
<td>Migrant Generation</td>
<td>.096** (.013)</td>
</tr>
</tbody>
</table>

*P-values reported in Parentheses*

Table 5.7 shows that receiving startup from family was positively correlated with remittances, as was migrant generation. However, savings was not statistically significant. Given these findings, the next section uses LRQAP to examine the nature of the correlations.

5.2.9 Logistic Regression Quadratic Assignment Procedure (LRQAP)

LRQAP is used to examine if similarities in actor attributes resulted in similarities in remittance behavior among actors within the social networks captured from the qualitative interviews. If actors that share certain attributes in the same social network behave similarly, this provides evidence that the social networks may be influencing the actor’s behavior, in this case whether or not a street vendor remits. Unlike QAP that works as a correlation matrix testing if one variable is related to another, LRQAP allows for a simultaneous examination of the significance of several variables on the propensity of a street vendor to remit.

Before running the LRQAP, the migration generation variable had to be transformed to a set of dichotomous variables to allow for interpretation. Using QAP, the migration generation variable was categorical (see Table 5.4 above) with a value of zero as non-migrants and a value
of 3 representing 3\textsuperscript{rd} generation migrants.\textsuperscript{8} While this could be used in the QAP to test for correlations in the social network between sameness in remittances and migrant generation, it was not appropriate for regression, since the variable included both migrants and non-migrants, which would not be possible to interpret. When transforming a categorical variable into dichotomous dependent variables, one category is excluded from the model and serves as the reference group. First generation migrant is set as the reference group, meaning interpretation of non-migrant, 2\textsuperscript{nd} generation and 3\textsuperscript{rd} generation migrant odds ratios are in comparison to 1\textsuperscript{st} generation migrants.

The LRQAP was conducted after transforming the migrant generation variable. Results in Table 5.8 show there are statistically significant relationships between remitting and marital status, as well as if the street vendor received business start-up funding from family. The odds that a married street vendor remits is 31\% higher than a street vendor that is not married, holding age, education, migrant generation and start-up capital constant. Similarly, the odds of a street vendor who received start-up funding for the business from family is 113\% higher than a street vendor that did not receive start-up funding from family, holding the other variables in the model constant.

There are also statistically different odds of remitting between 1\textsuperscript{st} and 2\textsuperscript{nd} generation migrants. In line with literature on international remittances and migration, the odds of a 2\textsuperscript{nd} generation migrant remitting were 20\% lower than a 1\textsuperscript{st} generation migrant. Although non-migrant and 3\textsuperscript{rd} generation migrants were not significantly different from 1\textsuperscript{st} generation migrants in the model, the odds ratios show a negative effect on remittances as compared to 1\textsuperscript{st} generation migrants.

\textsuperscript{8} Please note from the discussion in Chapter 4, this variable was not coded beyond a 3\textsuperscript{rd} generation migrant because no one in the sample identified as a 4\textsuperscript{th} generation migrant or higher.
migrants. Table 5.8, which reports the frequencies and percentages of remittances by migrants and non-migrants, also supports the findings from the LRQAP.

<table>
<thead>
<tr>
<th>Table 5.8 LRQAP of Remittances Reported in Odds Ratios</th>
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<tbody>
<tr>
<td>Remit</td>
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<td>t-statistic in Parentheses</td>
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</tbody>
</table>

5.2.10 Summary of the Quantitative Analysis

Using social network analysis demonstrates that while the attributes of social networks do not seem to influence remittances, there are differences in remittances behavior across street vendors. Beginning with logistic regression, remittances were positively associated with less educated and married street vendors. However, logistic regression did not account for the possible interrelatedness between observations, as is present in social networks. Therefore, QAP was used to determine correlational relationships between node attributes, which then informed a LRQAP model. The LRQAP found that remittances were positively associated with street vendors who are married, and street vendors that received start-up capital for their business from
family, and that the migrant generation influences remittance behavior, but there are not statistically significant differences between 1st generation migrants and non-migrants.

There are two weaknesses in the sample and data analysis that could be driving the migrant-remittance result. First, it could be a result of weaknesses due to the small sample size; over half of the sample was 1st generation migrants. However, drawing on data from the Madina municipality outlined in Chapter 2, this sample is in line with the number of migrants reported in the most recent census of Madina. The second weakness is that the data shows that non-migrants do not remit. Only 1 of the 8 non-migrants in the sample remitted. The non-migrant remitter was married to a 1st generation migrant. This does not mean though that non-migrants were not supporting broader family networks or members of their community. While this is a weakness of the data analysis, eliminating the non-migrants would have created a bias in the model. To deal with this a extended family/community support variable was generated to capture households providing support to other households, or members of the community; however, results were not significantly different from the current model, so they were not included in the analysis.

The next chapter will synthesize the findings from the fieldwork, demographic data and social network analysis to provide a robust discussion of the findings. The chapter will conclude with implications for the research and a discussion of the limitations and directions for future research.
CHAPTER 6. DISCUSSION AND CONCLUSIONS

The objective of this dissertation was to explore the relationship between social networks in an urban street market in the Global South and remittance behavior of street vendors embedded in those networks? Urban street markets are a point of entry for many migrants moving from the rural areas to cities. Migrants use social networks to find housing and work, then remit earnings back to their location of origin (Awumbila, Owusu & Teye, 2014). Emergent research finds internal remittances may outpace international remittances and be directed to more lower income households than international remittances (Acosta, Fajnzylber & Lopez, 2007; Adams, 1991; Adams, Cuecuecha & Page, 2008; Barham & Boucher, 1998; McKay & Deshingkar, 2014). Our understanding of internal remittances is limited, in part, due to the traditionally informal nature of remitting and reliance on cash transfers which are difficult to track.

Early ethnographic work in Sub-Saharan Africa (Hart, 1973, 1975; Kearney, 1986; Mitchell, 1969; Moran, 1990; Peace, 1979; Plattner, 1989; Stewart, 1991) found a vibrant informal sector rich with social networks and entrepreneurs. However, more recent capitalistic views and Western-based economic models have led to a dominant narrative of the informal sector as subsistence workers, who are not entrepreneurial, and unable to build wealth over time (Bhowmik, 2005, 2012; International Labour Organization, 1993; Meagher, 2007, 2010; Meagher & Yunusa, 1996; OECD, n.d.; Timalsina, 2011). While I do not argue that every street vendor is entrepreneurial, or earn profit and remit, the aim of this dissertation was to explore the social networks present within an informal marketplace, with relation to remittances.
The dissertation sought to explore the determinants of remittances by street vendors using a social network approach. Data was collected using an ethnographic approach, including participant observation, unstructured and semi-structured interviews. Data was initially analyzed using grounded theory, with social network theory and new institutionalism as sensitizing concepts. Interviews were initially coded by sorting observations, phrases and concepts into initial groupings focused on the interactions between street vendors. This initial phase helped to breakdown the types of interactions and how they may or may not fit into the business association, kinship and friendship networks alluded to in the research question. From this stage, observed groupings included interactions with susu, product associations for selling goods, informal savings groups, and interactions between government officials and street vendors in the market. Next, axial coding brought together the groupings into themes used to define topics and recruit participants for the focus groups.

This discussion outlines the findings relating to the relationship between urban street vendors, social networks and remittances to rural areas, with particular attention the market networks and hypotheses testing. Circling back to Chapter 1, market-level networks were divided into three primary categories: family, friends, and associations. While previous research asserts that street markets are dominated by family ties (Aryee, 2005; Khavul, Bruton & Wood, 2009), the quantitative social network analysis demonstrated that family ties are smaller, more fragmented groups. Family ties alone were not correlated with any actor attribute data related to savings, or remittance behavior. By adding friendship connections and business associations, the network density and cohesion of the whole social network structure was strengthened, thus reducing network fragmentation. The interviews collected during the qualitative fieldwork demonstrated a strong integration of business association, kinship and friendship ties. However,
no single market-level network (friends, family or association) had a statistically significant correlation with remittance behavior. Thus, previous research that only looked at one aspect of a street vendor’s social network, or that took an ego-centric approach, may have discounted the many influences street vendors experience within a marketplace.

As presented in Table 6.1, within the street market many layers of business associations, kinship and friendship ties were present. Business associations included product associations and market hierarchies, as well as street vendor organized savings groups. Kinship networks included family-owned businesses, family members assisting each other with child care, business activities and delivery of remittances to other family in the rural areas. Friendship networks included trusting friends to assist in business activities in the market, sharing child care responsibilities and remitting money to family in rural areas.
Table 6.1 Network Definitions and Classification in the Markets

<table>
<thead>
<tr>
<th>Network Type</th>
<th>Definition</th>
<th>Examples of Networks Found in the Market</th>
</tr>
</thead>
</table>
| Business Associations   | Ties between vendors that assist vendors with the carrying out of their work. These can range from loose, informal ties to highly formalized organizations, including: | • *Expected and Found:*  
  o Product associations with membership organizations, where vendors pay a fee to receive benefits  
  o Savings Groups- INGO, microfinance, or self-directed groups of women collectively saving money  
  o Informal or formal arrangements among vendors for carrying out selling. This includes rental of space, or business partnerships.  
  o Collective action that leads to procurement of product with the aim to reduce the cost of procurement for all members of the group.  
  o Market Hierarchies- Organizational structures in the market, including accepted rules and norms commonly recognized by street vendors and market leadership for organizing and disseminating information. |
| Kinship Network         | Blood Relative; Actor recognizes another actor as a family member         | • *Expected and Found:*  
  o Family-owned businesses  
  o Sharing of child care  
  o Family groups remitting together to a village of origin |
| Friendship Network      | Actors not related, but that have more than a business relationship. Are engaged socially outside of the market networks identified above. | • *Expected and Found:*  
  o Reliance on trusted family and friends to deliver remittances on behalf of a street vendor |

---

It should be noted, that the integration of product associations and product procurement is specific to Madina. In other markets, supply-chains networks could be important depending on the presence and structure of other networks, including product associations, in that market.
In addition to the types of social networks present in the market, there were also social networks that were expected, but not found and networks that I found and was not expecting, as outlined in Table 6.1. Regarding business associations, I anticipated finding small groups of vendors working together in order to reduce the cost of product procurement through collective action. Instead the product supply and cost setting of procurement was controlled through the associations, rather than left to individual street vendors. Also, while there were susus in the marketplace, there was not a strong presence of microfinance or INGOs in the marketplace. Instead, I found three self-organized fellowship and savings groups that were formed, operated and maintained by the street vendors (highlighted in Table 6.1).

The next section summarizes the quantitative findings from the LRQAP analysis, which used the social network attributes and market vendor attributes to examine remittance behavior.

6.1 REMITTANCES, SOCIAL NETWORKS AND STREET VENDOR ATTRIBUTES

QAP was used to build a model for explaining remittance behavior among street vendors in the sample. Network attributes, including density, betweenness and closeness were not correlated with remittances (as highlighted in Table 6.2). However, the model may underestimate the total network density. As discussed in Chapter 5, the rise in product associations was self-organized by the street vendors to better coordinate the procurement of product, provide social protections and provide rules and structures for market interactions. Reliance on kinship and friendship ties as highlighted in the social network maps, created smaller, more clustered networks. Associations provide bridges across these networks and play an important role in information dissemination and coordination or collaboration between actors. An example of this is how the product associations collectively bargain on behalf of vendors to assist vendors with
procuring product and creating a more efficient system. Associations also coordinate the market more broadly through their rule making and enforcement. Drawing back to Chapter 5 and the street vendor that was currently under sanction by the shopkeeper association. It was not just the shopkeepers, but all the market actors obeying the shunning sanction, and it was through the associational ties that this information was disseminated and adhered to. Thus, while the market is more decentralized, with less density, the associations provide important bridges across actors and provide opportunity for collaboration that would not exist without them.

The research question sought to explore the relationship between urban street vendors, social networks and remittances. LRQAP was selected because it loosens assumptions to allow for interdependence between observations. LRQAP uses matrices to examine if similarities among actors within a network behave similarly. In this dissertation, LRQAP is used to analyze the relationship between similarities in attributes of street vendors (i.e., marital status, migrant generation, education, and family start-up for the business) influenced remittance behavior.

Similarities among connected dyads in marital status, receipt of start-up funds from family and migrant status were associated with remittance behavior (see Table 6.2). More specifically, findings on migration status aligned with the literature on international migrants. In the sample, 1st generation internal migrants are more likely to remit than 2nd generation migrants (see Table 6.2). There was also a negative relationship between remittances by non-migrants and 3rd generation migrants compared to 1st generation migrants, the relationship was not significant. The largest effect on remittances was receiving startup from family, which increased the odds of remitting. Finally, as highlighted in Table 6.2, married street vendors were more likely to remit than unmarried street vendors.
Table 6.2 Hypotheses

<table>
<thead>
<tr>
<th></th>
<th>Expected Relationship to Remittances</th>
<th>Found Relationship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network Attributes</td>
<td>(+)</td>
<td>Not significant</td>
</tr>
<tr>
<td>(Betweenness, Density,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Degree (in- &amp; out-) and</td>
<td></td>
<td></td>
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<tr>
<td>Closeness (in- &amp; out-))</td>
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<tr>
<td>Migrant Generation:</td>
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<td></td>
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<tr>
<td>-First Generation Migrant</td>
<td>(+)</td>
<td>(+)</td>
</tr>
<tr>
<td>-Second Generation Migrant (compared to first generation)</td>
<td>(-)</td>
<td>(-)</td>
</tr>
<tr>
<td>-Third Generation Migrant (compared to first generation)</td>
<td></td>
<td>Not significant</td>
</tr>
<tr>
<td>Education</td>
<td>(-)</td>
<td>Not significant</td>
</tr>
<tr>
<td>Marital Status</td>
<td>(+)</td>
<td>(+)</td>
</tr>
<tr>
<td>Family Start-Up</td>
<td>(+)</td>
<td>(+)</td>
</tr>
</tbody>
</table>

In support of these quantitative findings, qualitative interviews with 54 street vendors in Madina market uncovered a variety of methods of remitting, most of which still relied on cash transfers rather than wire transfers for sending goods to rural areas. Mobile money technology is in its infancy in Ghana, only initiating in 2009. Currently, there is a lack of competition and vendors reported challenges with family in rural areas not having access to a cell phone or cell phone service that would allow for mobile transfers. Most reported taking remittances back to family themselves, or using family members and trusted friends to send remittances.

While the primary focus of this dissertation was on remittance flows to rural areas, resources also flow from rural areas to the urban. Eighty percent of first generation migrants reported relying on family for business start-up capital. Other support for first generation migrants included church and a combination of family and church support. The LRQAP revealed that street vendors receiving start-up from family were more likely to remit than street vendors not receiving business start-up capital from family. Both sets of remittance focus group participants agreed that receiving start-up for family was not a loan, obligation, nor was there a
feeling that money was owed. Instead it was a “privilege” or “honor” to send to family. Religious beliefs were also used to explain feelings that led to remitting. These sentiments of privilege, honor and religious belief were separate from motivations for sending, such as need by the recipient. Although sentiments of privilege were separate from need during the interviews, both were present as motivations for remitting.

6.2 LIMITATIONS

This section outlines some limitations and challenges of the dissertation, beyond those of time, sample size, sampling technique and generalizability that were discussed in Chapter 4. In qualitative research, rigor can be difficult to assess and demonstrate. Particularly in this case, where I was alone in the field, which limits opportunity for others to check the work, thus reducing reliability. Furthermore, ethnography can be subject to the interviewer’s effect. Research participants may have an incentive to try to paint either themselves, or the group they represent positively, or try to provide answers the researcher is looking for. One benefit of the ethnographic approach compared to survey or one time interview, as issues came up or questions, I was able to go back and seek clarification with participants.

Due to the time and nature of the inquiry, the sample size provides some limitations to the analysis. While the sample size provides enough observation and variance for regression, a larger sample size would have allowed for more robust testing. Another challenge was the use of LRQAP, which is a convergence model, so simple independent variables are better for the analysis and interpretation, than more complex categorical ones. This required taking complex concepts and beliefs uncovered in the qualitative interviews and focus groups and coding it into simplified variables for the quantitative LRQAP model. Thus, I was unable to examine
remittance method and frequency, or other more complex, but possibly relevant factors, in explaining or understanding remittance behavior.

Regarding the methodology, conducting the research at one site and using rolling sampling limits generalizability as the sample may not be representative of the larger population of street vendors. As noted in earlier chapters though, the nature of the inquiry was exploratory, to immerse myself in a street vendor network to understand the social networks and informal rules, norms and behaviors. Given the purpose and aims of the dissertation, the methodology selected is appropriate. Unlike quantitative research using secondary data, ethnography allows a researcher to dive deeply into an issue to provide understanding and meaning to observed phenomena.

6.3 POLICY RECOMMENDATIONS & CONCLUSION

From both the qualitative and quantitative data collected and analyzed in this dissertation, several policy recommendations emerge for the international community, and national and local government with regards to street vendors, social networks and remittances.

**Understanding Existing Network Structures.** The dominant focus of public policy and international aid interventions is on the treatment of the entrepreneur as an individual or a marketplace as singularly occurring phenomena, rather than as a rich and interconnected system of people and places. This dissertation found that actors within a social network behave similarly, in relation to remittance behavior. Thus, public policy and international aid interventions should consider localized context and existing networks structures when providing interventions. This will be fleshed out in more detail below.
**Social networks matter.** Although the social network attributes were not significant, there were common attributes of the actors within the social network that influenced remittance decisions. Moreover, while network attributes were not significant, taking into account the overlapping networks, including friendship, business ties and associations provides a more robust view and creates understanding of informal rules and norms that influence actor behavior. Previous research has found that family networks are most important in street vendor social networks; however, family networks in this dissertation were found to be fragmented and did not account for all the interactions within the market.

The associations play an important role within the market in structuring rules, norms and expectations for behavior, as well as coordinating collective action and providing social supports for street vendors. In Ghana, Madina was one of the first markets to be built by the government. As a part of an effort to improve street markets and worker conditions, the Accra Municipal Assembly (AMA), as well as other localities throughout Ghana and Sub-Saharan Africa are turning to public-private partnerships to build and improve market structures and access to electricity, running water and other public services for street vendors (AMA, 2016; Ghana Ministry of Finance, 2014; My Joy, 2016). However, street vendors, or even association leaders are often left out of the process (My Joy, 2016).

Given the role of associations within the markets, association leaders, as well as market vendors should be included for input on the markets, as wells as sought for assistance when vendors must be relocated for construction. During construction, market vendors can be displaced without clear instruction or an evident lack of planning for where displaced workers might go (My Joy, 2016). Some strides have been made by governments negotiating through third party actors or INGOs, such as Women in Informal Employment: Globalizing and
Organizing (WIEGO) (Cities Alliance, 2014). Despite this, challenges with rule making and enforcement still exist, as evidenced in a recent death of a street vendor when building debris fell from a construction site onto her makeshift booth below (My Joy, 2016).

**Reciprocity matters.** Previous recent research on markets have used interviews and surveys which provides information on the subject’s perception of their network, but not the network’s perception of the subject. One could argue that reciprocity indicates an ego-view of an individual’s network would be more reliable and validates the use of survey and interview methodology. Gaps in reciprocity uncovered during the fieldwork however, led to greater insights in informal rules, norms and behaviors. The complexity of the associations, and the willingness of participants even outside the association to follow those rules and norms were evidenced by the vendor that was being sanctioned.

**Family relationships matter.** Reciprocity also matters in remittance behavior. Receiving start-up from family was the strongest predictor of remittances in the sample. For international aid organizations, local nonprofits and community groups, understanding the strength of reciprocity within the context of the Global South is important in designing successful interventions. Given the reciprocity in networks and giving within family groups, designing interventions, particularly business plans that can recognize, account for a recipient’s reciprocity network and support the recipient’s existing or perceived network obligations for reciprocation, may create stronger and longer lasting interventions.

In line with this finding, street vendors receiving start-up capital from other sources, such as institutions or churches were less likely to remit. That is not to say microfinance organizations and programs are not effective, but consideration for local context, broader economic
implications and possible resultant shifts to social structures should be considered when implementing interventions.

**Rural-Urban-Rural Connections matter.** Understanding the remittance behavior of internal migrants in Ghana, and other countries in the Global South with large informal economies, is important as these countries continue to urbanize. Policy decisions on resource allocation between urban areas are struggling to keep pace with infrastructure needs caused by growing populations and continuing to develop infrastructure and access to basic services in rural areas is a fundamental concern in Ghana and the Global South.

As countries face pressure to formalize the informal economy, there needs to be a greater understanding of the circular impact migration, informal sector employment and subsequent remittances have. While this dissertation provides a small sample, first generation migrants predominantly relied on family from the rural areas for start-up capital for their business. In turn, migrants reciprocated by remitting money back to rural areas.

**Lack of trust in institutions.** Throughout the sample there was a lack of trust in formal institutions for both savings and remitting methods. Street vendors preferred to save on their own rather than trust a bank, and there were similar findings with remitting. While there were not currently INGOs or formal microfinance organizations operating in the market, some of the market vendors had experience with them. These organizations were perceived as unreliable, or untrustworthy, as they may come but not stay long in a market. When organizations select sites for interventions, entry and exit strategies should be formulated. Microfinance organizations are touted for providing recipients with self-sustainability, a way out of poverty and self-empowerment (Mayoux, 1999; 2001). On the other hand, these organizations are also criticized for trying to change the cultural dynamics and/or disrupt traditional gender roles within the
intervention location, acting paternalistically, rather than in partnership with local populations and for creating dependency of recipients on the services provided rather than remediating poverty (Holvoet, 2005; Mayoux, 1999; Van Rooyen, Stewart & De Wet, 2012). However, my research also uncovered an underlying mistrust based on exit of the organizations.

In designing interventions, organizations are trained to design strategies of entry, but it is more rare to also have corresponding exit strategies. Exiting may leave a service gap and breed distrust among recipients for future interventions.

Another distrust in institutions was uncovered between the market vendors and government. This corresponds to the daily collection of taxes and current conditions in the marketplace. The street vendors pay taxes daily, but are not seeing corresponding investments to improve the sanitation, flooding and electrical problems in the market. This has led to an underlying tension between the local government and street vendors. Similar to the recommendation under “social networks matter,” local government should place more effort on cultivating a relationship with the market, particularly in Madina where the market provides a large portion of the local own-source revenue.

**Lowering costs for wire transfers.** The cost of remitting both internationally and within Sub-Saharan Africa is the highest of any world region (Appiah-Gyamerah & Amoah, 2014; World Bank, 2017). Currently in Ghana, MTN is the primary actor in the mobile money transfer market. Access should be considered both in the urban markets and rural areas. Most of the street vendors not using MTN, or only using it occasionally stated the cost of fees discouraged use of the service, while other vendors cited lack of access to a mobile money agent in the rural area as the reason for not using mobile services.
While the market is fairly new, Ghana’s central government should promote policy that encourages competition and infrastructure development for mobile transfers. These types of investments have proven fruitful in other countries, such as with the M-PESA in Kenya, or mobile banking access in South Africa (Appiah-Gyamerah & Amoah, 2014; TechnoServe, 2016). INGOs and organizations such as the World Bank and IMF can be instrumental in encouraging and adoption of policy and structuring assistance programs to develop this infrastructure, as well as reducing costs of transfers for both international and internal remittances.

6.4 DIRECTIONS FOR FUTURE RESEARCH

One direction for future research is the role of the informal fellowship and savings groups present in the market. This was a finding that was unexpected and I was unable to find literature on informal savings or fellowship groups, such as the ones observed. One participant in the study works as a wholesale supplier in multiple markets in the Greater Accra area and is involved in multiple savings groups across multiple markets, indicating that these types of groups may be pervasive. For the participant, participation in the fellowship and savings groups not only provide an opportunity to network, meet new clients and integrate into the market networks, but also provide a personal benefit through savings and fellowship. Some of these organizations have a long and robust history within the context of the street markets. Future research should consider the role these informal organizations have, the support structures provided to members, including how they are formed, maintained and adapt over time. This could also provide more insight into influences on remittance behavior and if there are tradeoffs between savings and remittances.
Another avenue would be to conduct similar research in other suburban markets in Accra and throughout Ghana, or in other countries in Sub-Saharan Africa. As Adams et al. (2008) addresses, internal migration is largely regional; thus, different regions may have different ethnic compositions and different rules and norms for structuring interactions and actor behavior. Also, drawing on Chapter 2, central and local governments vary in their relationship with street markets and the informal economy, more broadly. These variations should have important macro-institutional effects on how markets operate. This could provide more depth of understanding and provide generalizability for the research. Findings from these possible future projects would be useful to local and central governments, nongovernmental organizations, community groups and religious groups working in these markets.

Research on international remittances find they are counter-cyclical, increasing during times of economic shock (Adams, 1991; Adams, Cuecuecha & Page, 2008). However, corresponding research on internal remittances is lacking. Given the relationship between the urban and rural through migration, this is an area of research that needs to be further explored.

Findings in this dissertation, provide interesting questions and several directions for future research. While 2nd generation migrants are less likely to remit than 1st generation migrants, start-up capital that came from family was more strongly related to remittance behavior. Family ties play an important and central role for street vendors, both for their business, as well as for broader community support structures.

This dissertation provides an exploratory frame for examining the role of migrant street vendors and remittances to rural areas. The findings demonstrate the complexity of the relationship between urban and rural in the Global South. Future research should expand the study to other locations and a broader sample. Ethnography is a valuable and is perhaps an
underutilized tool for policymakers. Although it requires time and resources, ethnography provides an emersion for researchers working in emergent fields of inquiry. This is particularly valuable in contexts where complexity is high and differences in culture, politics, economy and/or the environment exist between the researcher and research subjects. It can improve understanding of challenges and needs for building larger datasets for theory testing. For policy implementation or interventions by government or nongovernmental organizations, ethnography can provide localized insights for building interventions from the ground up.
APPENDIX A. INTERVIEW QUESTIONS

Information to be derived from Street Vendors

The interviews will be informal and unstructured at first, then move into semi-structured interviews depending on the information learned from the unstructured interviews. They may take place in an hour, or over days or even weeks, depending on the relationship with the vendor.

Background information

How old are you?
What ethnicity are you?
What religion are you?
What do you sell?
How long have you sold/been in this market?
How long have you been selling in the markets? How did you get started? How did you get the start-up capital?
What else have you sold?
Where do you currently live? How long have you lived there? How long does it take to get here each day?
What part of Ghana are you from? What is your city/village of origin?
Where does your family live?

Supply Chain Network

Where do you get goods come from?
Are you the producer?
Do you purchase directly from the producer? Or do you purchase from a supplier?

Business Association Network
Do you have a partner(s)? How do you know them?

Do you help others in the market? How do you know them?

How do you help them?

Are there others that help you? Who? How?

_Associational Life_

Are you a member of an association? (Ethnic, product, etc)

Does the association influence products sold or pricing?

If it is a product based association, does the association influence who the product is purchased from, or do you have a choice of who to purchase from?

_Remittance Network_

How do you spend your profit?

What is your profit used for?

Who do you give your profit to?

_Market Customs and Rituals (this will be derived from, but not directly asked in the sections above)_

Interviews and participant observation will also use the responses from associational life and market networks to examine the informal, but structured interactions among market actors. This includes the ancillary responsibilities, duties and customs that accompany being a part of the market network. Akin to that, if street vendors have a story for how these customs arise, and if there are formal or informal penalties for not participating.
REFERENCES


VITA

Sandy Zook received her Master’s in Public Administration from the University of Kansas in 2012. She went on to complete her Doctor of Philosophy in Public Policy at Georgia State University in 2017. Sandy has a decade of public sector experience, working both in state government, local government and the nonprofit sector.

Sandy’s research interests are in international development, civil society, cross-sector collaboration and nonprofit finance and financial management. She has a co-authored publication in the *Social Enterprise Journal*, titled “A Quantitative Critique of Kerlin’s Macro-Institutional Social Enterprise Framework” with Dr. Janelle Kerlin and Dr. Thema Monroe-White, as well as a co-authored book chapter in Dr. Dennis Young and Cass Brewer’s *Social Enterprise Zoo*, the book chapter is with Drs. Kerlin and Monroe-White and titled “Habitats in the Zoo.”

Sandy has experience teaching in nonprofit resource development and financial management at Georgia State University. She has also drawn on her extensive work experience to provide invited lectures at Georgia State University and the University of Ghana on topics ranging from public finance, international development, policy analysis and evaluation, social enterprise and comparative nonprofit sector development.