



**WESTERN
MICHIGAN**
UNIVERSITY

The Journal of Sociology & Social Welfare

Volume 47
Issue 2 June

Article 3

2020

Structured Savings and Asset Ownership: The Role of Rotating Savings and Credit Associations among African Immigrants in the United States.

Habiba Ibrahim

Washington University in St. Louis, habibaayow.ibrahim@gmail.com

Follow this and additional works at: <https://scholarworks.wmich.edu/jssw>

Recommended Citation

Ibrahim, Habiba (2020) "Structured Savings and Asset Ownership: The Role of Rotating Savings and Credit Associations among African Immigrants in the United States.," *The Journal of Sociology & Social Welfare*: Vol. 47 : Iss. 2 , Article 3.

Available at: <https://scholarworks.wmich.edu/jssw/vol47/iss2/3>

This Article is brought to you by the Western Michigan University School of Social Work. For more information, please contact wmu-scholarworks@wmich.edu.



**WESTERN
MICHIGAN**
UNIVERSITY

Structured Savings and Asset Ownership: The Role of Rotating Savings and Credit Associations among African Immigrants in the United States.

Cover Page Footnote

I thank Professor Daniel Monti for his review and feedback on this work.

Structured Savings and Asset Ownership: The Role of Rotating Savings and Credit Associations among African Immigrants in the United States

Habiba Ibrahim

Washington University in St. Louis

Rotating Savings and Credit Associations (ROSCAs) are commonly practiced in developing countries across the globe. The practice is also common among immigrants in developed economies. This study uses survey data collected from African immigrants in the United States to examine whether saving in ROSCAs is associated with asset ownership among the participants. The results found that after receiving the ROSCAs savings, asset ownership among participants increased. Home ownership increased by 13.6%, small businesses increased by 27.2% (including taxi and commercial trucks) and car ownership increased by almost 20%. In conclusion, ROSCA participation increased asset ownership.

Keywords: ROSCAs, asset ownership, immigrants/refugees, structured savings, rotating, savings and credit association

Introduction

Immigrants lag in both the use of financial market services and wealth ownership. It is estimated that immigrants are 12% more likely to be unbanked compared to native-born Americans (Bohn & Pearlman, 2011; Department of Consumer Affairs, New York City, 2013). A higher percentage of immigrant individuals (32%) are unbanked compared to 18.5% among the native born population (Rhine & Greene, 2006). Similarly, there is a substantial gap between immigrants and native born both in assets ownership and financial wealth (Osili & Paulson, 2007; Painter & Qian, 2016). Studies on immigrants' homeownership consistently revealed that immigrants have low homeownership rates compared to the native-born U.S. population controlling for race and socio-demographic characteristics (Borjas, 2002; Mussa, 2013; Tesfai, 2016, 2017). The factors leading to this low participation are varied. The complexity of the U.S. financial system, such as not understanding required paperwork, how to begin the process, where to open accounts, bank fees and minimum balances (Department of Consumer Affairs, New York City, 2013) are partly responsible for low participation. Language barriers, negative experiences with financial markets in home countries and cultural and religious reasons were also found to contribute to the low participation of immigrants (Light, 1972; Light & Gold, 1999; Nam, 2015; Osili & Paulson, 2008; Paulson et al., 2006). As a result, many immigrant communities use alternative financial services such as rotating savings and credit associations (ROSCAs) as ways of pooling capital for larger purchases (Hevener, 2006; Light, 1996; Light & Deng, 1995; Light & Gold, 1999; Stewart, 2007). ROSCAs are "associations formed by a core of participants who agree to make regular contributions to a fund which is given, in whole or in part to each contributor in rotation" (Ardener, 1964, p. 201).

The use of ROSCAs for the purchase of durable goods and small business start-ups has been discussed in previous studies both in developing countries and among immigrant communities in developed economies (Besley, 1995; Besley & Levenson, 1996; Chiteji, 2002; Light & Gold, 1999; Stewart, 2007; Velez-Ibanez 1983). However, research has yet to explore the use of ROSCAs as a means to acquire assets including home purchases, autos and vocational training. This is especially true

among the African immigrant community in the United States. Therefore, this study attempts to investigate the role of ROSCAs in enhancing savings and asset ownership among African immigrants in the United States.

The current study is modeled after individual development account (IDA) programs and therefore uses Sherraden's (1991) definition of assets, "the stock of wealth in a household" (p. 5). Individual Development Accounts are special matched savings accounts that enable low-income individuals/families to save for specified goals within specified time frames (Schreiner & Sherraden, 2007; Sherraden, 1991). Specified assets for IDA savings are home, small business, and post-secondary education/technical training that enhances person's capabilities to gain employment. Over the past three decades, social policy scholars have advocated for policies that support low income households to acquire assets because asset ownership provides a pathway out of poverty and provides long-term financial security (Sherraden, 1991).

Immigrants have used ROSCAs to supplement the use of banking services for savings (Light & Deng, 1995; Stewart, 2007). Through ROSCAs, communities have created associations that facilitate savings in a way that they could not do individually (Gugerty, 2007; Hevener, 2006; Ibrahim, 2019). As such, these communities have used ROSCAs to save and accumulate capital for small business development and other investments. This study expands on this idea and examines ROSCAs as asset and wealth-building tools.

Using survey data collected from African immigrants living in the United States, the study examined the following questions: (1) Is participation in ROSCA associated with a propensity to save? (2) Does participation in ROSCA over time develop a savings habit/trend among participants? And (3) Is there a relationship between saving in ROSCAs and asset ownership among ROSCA participants?

Literature Review

Rotating Savings and Credit Associations

As defined earlier, a ROSCA is a rotating credit scheme for pooling money whereby a specific number of people form a

group and contribute a specified amount of money weekly, bi-weekly, or monthly (Addo, 2017; Ardener, 1964). Although ROSCAs operate with slight differences, they follow the same basic framework. In most cases, a group leader organizes among friends, neighbors, workmates, or relatives to form the association (Ardener, 1964; Light & Gold, 1999; Nelson, 1995). People in the group set an amount of money, and each member contributes weekly or monthly (Ardener, 1964). The group meets once a month, where members pay their contribution, eat and drink together, and sometimes share successes and challenges going on their lives. The lump sum collected is given to a designated member who has not yet received the allotment. When each member has received the lump sum at least once, the ROSCA group either dissolves or the cycle restarts (Ahn et al., 2016; Gugerty, 2007; Nelson, 1995; Nwabughuogu, 1984; Salamon et al., 2009; Stewart, 2007). Through the group savings, ROSCAs provide small-scale capital, and thus offer a measure of security to its members and credit on a very small scale, services that most financial institutions are unwilling to offer (Mbizi & Gwangwava, 2013; Nelson, 1995). ROSCAs also provide social support to the group members through the group meetings.

ROSCAs have existed across the world, especially in developing countries such as Africa, Asia, and Latin America, for a considerable period of time (Ahn et al., 2016; Ardener & Burman, 1995; Biggart, 2001; Bouman, 1979; Light & Gold, 1999; Nwabughuogu, 1984). While there is no known record of when the practice of ROSCAs began, the existence of ROSCAs was reported in Asia in the 19th century (Ardener, 1964) and in pre-colonial Africa (Ardener, 1953, 1964; Nwabughuogu, 1984). ROSCAs have different names in different communities across the globe, such as Djangii in Cameroon, susu and tontines in west Africa, Kye in Korea, Tanda in Mexico, chit fund in India, hu in China and ho in Vietnam (Besley et al., 1992), and Equub in Ethiopia and Eritrea (Yimer et al., 2018).

ROSCAs are often embedded in existing social networks and constitute the main institutions for savings in rural areas where there are no formal financial institutions (Almedom, 1995; Burman & Lembete, 1995; Nelson, 1995; Niger-Thomas, 1995; Nwabughuogu, 1984). These associations allow members to save and accumulate large sums of money that they can use for large

purchases or entrepreneurial investments (Burman & Lembete, 1995; Light & Gold, 1999; Nelson, 1995). Historically, most ROSCA participants are members of the same community and personally know each other (Besley et.al, 1993), therefore, ROSCAs are rooted in trust-based social backgrounds (Summerfield, 1995) and provide their participants with many of the services of a bank in a personal environment (Light & Gold, 1999).

Traditionally, anthropologists and sociologists have been interested in ROSCAs in terms of their ability to inspire group formation, social networking, and fostering conditions for individuals' success. However, in the past few decades, ROSCAs have become an area of interest among economists as well, especially in their contribution to regional development. Besley (1995) argued that ROSCA participants do not have access to credit from the formal financial institutions, therefore they join ROSCAs to save for durable goods that they could not afford with their own savings. Besley and Levinson (1996) further asserted that ROSCAs might stimulate participants to save for durable goods, which constitutes an important feature of the development process.

In addition, ROSCAs allow individuals to acquire their savings goals earlier than if they were to save for it individually, which serves as a powerful motivator for participation (Besley & Levinson, 1996). Light & Gold (1999) argued peer motivation among ROSCA participants fosters "forced savings," which is an unintended economic benefit of ROSCAs. Gugerty (2007) studied a sample of 70 ROSCAs with 1,066 members in Kenya and found that people join ROSCAs because saving requires self-discipline, and ROSCAs provide a collective mechanism for individual self-control. The common concept that "You cannot save alone" (Gugerty, 2007; Ibrahim, 2019) among ROSCA participants shows that ROSCAs also serve as a commitment device. This research could also be related to the work of Michael Sherraden (1991), who argued that there is a need for a structure to facilitate savings, especially in low-income communities. ROSCAs provide some form of an infrastructure based on community and social networks (Hevener, 2006), and participants have used their communities as structures to facilitate savings.

ROSCAs as Institutions

The most obvious function of these associations is that they assist in small-scale capital formation, or more simply, they create savings. Members could save their contributions themselves at home and accumulate their own 'funds,' but this would withdraw money from circulation: in a rotating credit association, capital need never be idle. (Ardener, 1964, p. 217)

ROSCAs serve as economic, social, and cultural institutions. As economic institutions, which are the focus of this study, ROSCAs serve various economic needs of the participants. They allow members to save, borrow, and insure themselves against unexpected expenditures such as emergencies (Sandsør, 2010). Thus, ROSCAs serve as both savings and credit institutions. Although ROSCAs are organized informally and usually keep poor records of the money that is collected and disbursed, they have well-established rules regarding reciprocity (Sandsør, 2010). ROSCAs use these established rules to improve their procedures against defaults until new members are known and integrated into the group (Ahn et al., 2016; Biggart, 2001; Niger-Thomas, 1995). One way this is achieved is by placing newcomers at the end of the rotations for receipt of the lump sum. In her study of Caribbean immigrants, Stewart (2007) reported that new members must be introduced by an established member who will take an oath at the group meetings that she will be responsible in case of a default. This kind of credit check has also been used in the United States when the financial market has not yet developed to the impersonal levels of the modern times. As noted by Monti (1999, p. 126), "being certified as morally qualified made it easier for entrepreneurs and craftsmen to establish themselves in the local market."

ROSCA participants utilize social ties to achieve an economic goal. In a recent qualitative study among ROSCA team leaders in the United States, Ibrahim (2019) found that although participants joined ROSCA to achieve an economic goal, it is the structure and the collective mechanism from the group that motivates them to choose ROSCAs over banks. Additionally, the social obligation and group expectations make ROSCAs a preferred method of saving among participants (Ibrahim, 2019).

ROSCAs in Developed Economies

ROSCAs are not only found in developing countries, but also among immigrants in developed economies. Scholars who have examined these informal institutions found that they exist in countries with well-developed financial institutions, such as Great Britain and the United States (Addo, 2017; Ardener, 1995; Besson, 1995; Hevener, 2006; Ibrahim, 2016; Light & Deng 1995; Murakami-Fester, 2017; Stewart, 2007). In the United States, the use of ROSCAs for the purpose of small business capitalization has been well documented. Light (1996), who studied ROSCAs among Korean immigrants extensively, argues that ROSCAs have played, and continue to play, a valuable supportive role in the financial life of immigrant communities. These communities lack access to the financial mainstream, mainly because their members do not speak English or lack credit histories in this country. Therefore, these informal associations fill the gaps and enable immigrants to save and borrow. More recent studies among immigrant groups in the United States continue to find the practice of ROSCAs to pool capital for micro-enterprise development (Addo, 2017; Murakami-Fester, 2017).

Researchers have assessed the role ROSCAs play in filling the gap by providing savings and loans in immigrant economies in the United States (Hevener, 2006; Light, 1972; Light & Bonacich, 1988; Light & Gold, 1999; Velez-Ibanez, 1983). Hevener (2006), who assessed ROSCAs as alternative financial vehicles among immigrants, noted that although Asians were only 3.6% of the U.S. population according to the census of 2000, they owned 4.4% of U.S. small businesses, which was disproportionately larger than other minority groups. Also, ROSCAs among Chinese immigrants have evolved more for commercial reasons, such as pooling capital funds for small businesses (Light, 1972). Asians have been widely cited to be using ROSCAs to pool start-up capital for small business. Light (1996) noted that Chinese and Japanese immigrants achieved higher rates of self-employment and became entrepreneurs within a short period of time due to their use of ROSCAs.

Research has also indicated that ROSCAs are common among Caribbean immigrants. Stewart's (2007) study of Caribbean women noted that the practice of ROSCAs is found within

every Afro-Caribbean enclave in the United States. The study found that ROSCAs are a supportive economic culture that grants access to capital resources these communities would not have otherwise been able to access (Stewart, 2007). Additionally, ROSCAs are practiced among African immigrants, although there is lack of research on how this community uses ROSCAs—a void this study intends to fill.

Guiding Framework

This study is guided by the institutional theory of savings (Beverly & Sherraden, 1999; Sherraden, 1991), which accentuates that institutional factors greatly influence individual and household-level savings because institutions shape individuals' behaviors through restrictions, structure, expectations, incentives, and opportunities (Curley et al., 2009). The theory particularly emphasizes the role of institutions in savings and asset ownership among low-income households. This theory has identified several factors that influence the savings behavior of individuals and households, particularly in low-income communities. These factors include: (1) access; (2) information; (3) incentives; (4) facilitation; and (5) expectations (Curley et al., 2009). ROSCAs have similar institutional features that support savings among participants (Ibrahim, 2019). The structure, expectations and group facilitation that ROSCAs provide to savers has been identified as particularly helpful in saving for targeted investment (Ibrahim, 2019). Moreover, the concept that "you cannot save alone" (Gugerty, 2007; Ibrahim, 2019) underscores the key role of institutional support in savings and asset accumulation. Previous studies guided by this theory have all examined structured savings through formal financial institutions. The current study expands on this concept to examine whether structured savings through ROSCAs have similar outcomes—increased savings and asset ownership.

Methods

Research Design: Case Selection, Sampling Method and Data Collection

This study used a cross-sectional survey data collected from African immigrants living in four cities across the United States using a mix of nonprobability sampling. The main sampling methods used for case selection were availability and snowball sampling. The snowball technique is an important and commonly used technique in research on minorities and hard-to-reach populations (Rubin & Babbie, 2005) who are often obscured from the view of policy makers and researchers (Atkinson & Flint, 2001). This method takes advantage of the social networks of identified respondents to provide researchers with an expanding set of potential contacts (Thomson, 1997). This typically fits the specific population of the current study.

Using community resource centers such as places of worship, community ethnic stores, and personal contacts, survey questionnaires were distributed to the respondents both individually and in groups in four sites after receiving approval from the Institutional Review Board. The data used in this study was collected between September 2014 and July 2015. A total of 820 surveys were distributed, and of this, about 350 surveys were completed and returned, a completion rate of 42.6%.

Measures and Analysis

The dependent variable is assets owned after receiving ROSCA funds. This is a dichotomous variable created from whether the respondents owned at least one of the assets identified or not after receiving the ROSCA funds. The analysis controlled for demographic variables and any assets owned before receiving the ROSCA funds. The independent variables included: amount of monthly savings; number of years participated in ROSCAs; savings target; lump sum amount collected; received the lump-sum amount; and institutional factors.

As an initial step, descriptive statistics and crosstabs were conducted to test if there were any associations among the

variables. To further address the research question, binary logistic regression was conducted using the following equation:

$$\text{Logit}(p) = \ln\{p/1-p\} = \beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_7x_7; \text{ where } X_1 \dots X_7$$

are the predictor variables and p is the probability of presence of the characteristic of interest.

Before conducting the logistic regression, multicollinearity diagnostics were conducted. All VIF values were less than 10 and the tolerance statistics were all over 0.6, therefore, multicollinearity was not a concern. The analysis was sequentially modeled. The first block consists of the demographic characteristics which are entered into the model as control variables. Controlling for the individual characteristics, the savings variables were entered as the second block of independent variables to determine the influence of each of these variables on the dependent variable, followed by institutional characteristics. Results are presented in Tables 1 to 6.

Table 1. Demographic Characteristics of Participants

Demographics		%	N (294)
Gender			
Male		53	
Female		47	
Age (years)	39.72 (10.06)		
City of Residence			
St. Louis		20.1	
Minneapolis/St. Paul		13.3	
Seattle		22.8	
Columbus		42.2	
Other		1.7	
Country of Origin			
Somalia		53.9	
Ethiopia		18.8	
Kenya		22.5	
Liberia		0.7	
Senegal		1.7	
Other		2.4	
Number of Years in the US	11.10(5.328)		
Level of Education			
None		23.1	
Less than 8th grade		11.6	
Some High School		10.9	
High School Graduate		15.6	
Some College		19.4	
Undergraduate Degree		15.3	
Post Graduate Degree		4.1	
Employment			
Yes		87	
No		13	
Annual Income			
Less than \$15,000		4.8	
\$15,000–20,000		9.9	
\$20,000–30,000		16.0	
\$30,000–40,000		28.3	
\$40,000–50,000		21.5	
Over 50,000		19.5	

Table 2: ROSCAs and Savings Information of the Study Respondents

Variable	%	N(294)
Currently participating in ROSCAs		
Yes	82.3	
No	17	
Past ROSCAs participation		
Yes	85.6	
No	14.1	
Length of ROSCA participation		
Less than 2 years	38.8	
2–4 years	35.0	
4–6 years	12.2	
6–8 years	6.8	
8–10 years	1.7	
Over 10 years	1.4	
Household monthly ROSCA contribution		
Less than \$100	2.4	
\$101–200	16.3	
\$201–300	25.9	
\$301–400	12.2	
\$401–500	25.2	
Over \$500	14.6	
Length of group rotation		
Less than 6 months	18.7	
6–12 months	58.5	
12–18 months	14.6	
18–24 months	4.8	
Missing	3.4	
Savings target		
Yes	89.5	
No	8.2	
Missing	2.4	
Monthly lump-sum amount collected		
Less than \$1000	4.8	
1001–2000	20.7	
2001–3000	21.1	
3001–4000	21.8	
4001–5000	16.3	
Over 5000	12.2	
Don't Know/not sure	1.0	
Received Lump sum yet?		
Yes	84.4	
No	12.9	

Table 2 (continued)

Variable	%	N(294)
Does ROSCA help you save?		
Yes	86.1	
No	10.9	
Do you have bank account?		
Yes	91.8	
No	6.1	
Ever received financial education training?		
Yes	29.6	
No	68.0	
Given a chance would you like to attend financial education training?		
Yes	83.3	
No	14.6	

Table 3: Use of Lump-sum funds from ROSCA

Variables	%
Started or expanded a business	13.6
Home purchase	7.8
Vocational training	2.7
Tractor trailer (commercial truck)	4.1
Taxicab	4.4
Car purchase	28.6
Home repair	7.5
Jewelry	8.5
Emergency funds	30.3
Home for parents in home country	17.0
Business in home country	17.3
Other	8.9

Table 4: Asset Ownership before and after receiving ROSCA funds

Asset	Before ROSCA (%)	After ROSCA (%)	Difference (%)	X ²
None	40	7.1	(-32.9)	27.414*
Home	8.5	22.1	13.6	93.532*
Small business	8.8	25.2	16.4	69.518*
Taxi-cab	2.4	7.1	4.7	77.337*
Tractor trailer	2.4	8.5	6.1	75.194*
Car	48.6	68.4	19.8	98.709*
Other	0	26.9	26.9	

Table 5: Frequency of Savings

Saving Frequency	Before ROSCA(%)	With ROSCA(%)	Difference (%)
Once a week	1.4	7.5	6.1
Once every other week	7.8	12.9	5.1
Once a month	31	59.2	28.2
Once every other month	12.2	10.2	(-2)
Once every six-month	6.5	5.4	(-1.1)
Did not save	38.4	0	38.4

Table 6: Logistic Regression: Assets owned after receiving ROSCA funds (yes = owns at least one asset; no = none)

Variables	Model 1	Model 2	Model 3
Gender	2.93(0.65)	1.85(0.78)	1.24(0.87)
Age	0.95(0.03)	0.95(0.04)	0.95(0.04)
Education	0.74(0.19)	0.89(0.24)	0.94(0.28)
Years in U.S.	0.99(0.05)	0.92(0.06)	0.88(0.08)
Household size	1.68(0.17)*	2.11(0.22)*	2.31(.28)*
Income	1.12(0.22)	1.03(0.28)	1.20(0.34)
Asset before ROSCA	29.74(1.08)***	34.96(1.18)***	27.77(1.18)***
Years in ROSCA		0.93(0.31)	0.85(0.33)
Monthly amount		2.14(0.38)*	3.36(0.46)*
Lump sum amount		0.58(0.25)*	0.45(0.32)
Saving target		5.79(0.81)*	5.36(1.08)
Received lump-sum		5.06(0.90)*	2.30(1.17)
Access			0.38(1.14)
Rules			0.38(1.03)
Facilitation			2.16(1.31)
Expectation			0.11(0.08)*
Peer motivation			5.09(0.11)
Networks			3.46(1.44)
Intercept	11.23(2.14)	0.16(2.95)	0.34(3.44)
Goodness of fit statistics			
-2 Log Likelihood	79.88	0.144	0.387
Cox and Snell R2	68.20	0.182	0.489
Nagelkerke	60.56	0.206	0.553
Hosmer and Lemshow Test			
Chi square	98.44	5.11	1.50
Sig.	0.276	0.745	0.993
Observations	294	294	294

Note: Odds Ratios followed by Standard Error in Parentheses

* $p < .05$ ** $p < .01$ *** $p < .001$

RESULTS

Sample Description

The final sample used in the analysis after cleaning the data was a total of 294. The sample was 53% male and 47% female, with a mean age of 40 (SD =10.06). The study sample had a wide range of educational levels, ranging from no education (23.1%) to post-graduate degree holders. The majority (61.2%) had a high school diploma or some primary education. A majority of the respondents (87%) were employed at the time of the survey. About 60% of the households earned less than \$40,000 annually, with a mean household size of 4.95 (SD = 2.36.). The mean number of years respondents lived in the United States is 11 (SD = 5.33) with a range of two years to 36 years. It is interesting to note that there are more men respondents (53%) than women (47%) in this study, since the literature indicates that majority of ROSCA participants are women (Anderson & Baland, 2002; Besson, 1995; Kedir & Ibrahim, 2011; Stewart, 2007). While the current study does not address the reason for this change, recent studies documented that more men are participating in ROSCAs among immigrants, due to the different financial demands in the U.S. and the need to meet financial challenges such as taking care of extended family members either in home countries or refugee camps (Ibrahim, 2016, 2019). Although more men are joining ROSCAs, women remain in command of ROSCA groups and an overwhelming majority of ROSCA group team leaders are women (Ibrahim, 2019; Stewart, 2007).

ROSCAs and Savings Information

Table 2 shows information about respondents' ROSCA participation and savings. All the respondents are either currently participating in a ROSCA group or have done so since moving to the United States for a period ranging from less than two years to over 10 years. Most of the respondents (86%) have participated in ROSCAs between two to six years, while the other 10% have participated in ROSCA savings for over six years. A small percentage (1.4%) reported they participated in ROSCAs for over ten years. These statistics suggests that this savings

approach has become part of their tradition, possibly contributing to a long-term savings habit.

The households' monthly ROSCA contribution also ranged from less than \$100 to over \$500. Depending on the number of people in the group and the amount they saved monthly, they collected between \$1000 to over \$5000 a month that one of them would take home for immediate consumption or long-term investment. A majority (89.5%) joined the group to save for a targeted goal by the end of the ROSCA rotation/cycle. It is intriguing that as much as the participants are depending on the informal market, 91.8% have bank accounts.

Use of Lump Sum Funds from ROSCAs

Table 3 present the results of how participants used the lump sum funds. Many participants have indicated that they used the funds for more than one purchase. The uses were very diverse, but the results indicate that most of them used the funds for larger purchases or long-term investments. For major purchases, 28.6% indicated they used their ROSCA funds for a car purchase. This was followed by investment in small businesses (22.1%), including investing in commercial trucks and taxicabs, home purchases (7.8%), home repair (7.5%) and jewelry purchases (8.5%). While the majority of the savers joined ROSCAs to save for a targeted investment, the largest percentage of ROSCA funds (30.3%) were used for emergencies, an indication of competing needs against savings for future investment. Additionally, ROSCA savings were also invested in country of origin in small businesses, homes, land, or farms.

To test whether there was any change in asset-ownership, participants were asked about the assets they owned before ROSCA participation and assets owned after receiving ROSCA funds (see Table 4).

As the results in Table 4 reveal, more participants owned at least one of the major assets identified after receiving the funds than before. For example, home ownership rose from 8.5% to 22.1%, and small business ownership increased from 8.8% to 25.2%. Likewise, taxicab and commercial truck ownership rose from 2.4% to 7.1% and 8.5%, respectively, and car ownership rose by about 20% after participants received the lump sum funds from the ROSCA. Respondents also indicated they owned other

assets, including emergency funds, jewelry, small businesses, and homes in their country of origin.

Frequency of Savings

Table 5 shows the differences in the frequency of savings among study participants before and after joining ROSCA groups. In most categories, the frequency of savings went up after respondents joined ROSCAs. Most notably, those who saved monthly increased from 31% to 59.2%. This is an increase of over 28% in saving frequency. This huge increase in monthly frequency of savings was expected, as most ROSCA groups meet monthly. This is similar to findings from previous studies both in developing and developed countries that most ROSCAs make monthly payments (Anderson & Baland, 2002; Kedir & Ibrahim, 2011; Light, 1996).

Logistics Regression Results

As presented in Table 6, in the first model (block1), which has the demographic variables and assets owned before receiving ROSCA funds, only two variables are statistically significant. The household size is statistically significant (OR 1.686; $p < 0.005$). This means larger households were 1.6 times more likely to own at least one of those assets compared to smaller households. Assets owned before ROSCA funds were also significant (OR 29.746; $p < 0.005$). Age, gender, education, income, and number of years lived in the U.S. were not statistically significant. In the second model (block 2), several other variables were added including: the number of years participated in ROSCAs; the amount of monthly savings; having a savings target; receiving the lump sum funds; and total lump sum amount. The amount of monthly savings is statistically significant (OR = 2.142; $p < 0.005$). Those who deposit more money are twice as likely to own an asset after receiving funds than their counterparts. Having a savings target by the end of the ROSCA cycle/rotation is statistically significant (OR = 5.799; $p < 0.005$). Those who have a savings target when they join ROSCA are almost five times more likely to own an asset after receiving the funds. Likewise, having received the lump sum funds is positively

associated with owning an asset (OR= 5.064; $p < 0.005$). The total lump sum amount is also significant (OR= 0.58; $p < 0.005$).

In the full model, institutional factors were added. The variables in this block included: access; rules; facilitation; expectation; peer motivation; and networks. The only variable that is significant from the institutional variables is expectation (OR = 0.118; $p < 0.005$). In the full model, the variables in the model explained between 20% to 55% of variability in asset ownership in the sample.

Overall, these findings suggest saving in ROSCAs makes it possible for participants in this sample to achieve a targeted goal of purchasing an asset, similar to an earlier study by Besley, Coate and Loury (1993), which suggested that ROSCA savings helped savers finance indivisible durable goods.

Discussion

The results show that among the African immigrants, men and women participate in ROSCAs almost equally. Most of the participants (60%) were in low-income households earning less than \$40,000 annually. A majority (80.5%) were people who do not have a college degree. However, there are also few highly educated individuals who choose to participate in ROSCAs, as about four percent had post-graduate degrees. These individuals have the educational qualifications to obtain jobs that can give them access to formal institutionalized savings programs but join ROSCAs as a supplemental savings plan because of the social pressure and high expectations the group provides (Ibrahim, 2019; Steward, 2007).

This study commenced with the assumption that ROSCA users are mostly unbanked. The results indicate otherwise; over 90% of the participants have a bank account, yet still participate in ROSCAs to achieve a targeted economic goal. As such, ROSCAs help members diversify their holdings in much the way people who have more money buy stocks, properties, and other investments simultaneously. Hence, ROSCA as a “foreign” custom seems to fit quite well in American savings and investment practices, making upward mobility easier for those in the lower income bracket.

It is prudent to bear in mind that the study sample is not nationally representative, and therefore, the results presented cannot be generalized to African immigrants across the country. However, as one of the few ROSCA studies in the U.S., the findings from this study make generous contributions to the immigrants' savings and asset-building literature.

ROSCAs and Savings Habit

The first aim of this study was to determine whether participation in ROSCAs over time helps develop a savings habit/trend. The findings indicate that, when the individuals in the community under study get access to this savings group, they save continuously for a long period of time. The descriptive statistics revealed that more than half (54%) of the respondents' have continuously participated in ROSCAs for a period of two to eight years. Most ROSCAs pay their contributions monthly; a few do so more frequently, such as weekly or bi-weekly. On average, ROSCA group rotations take 12–24 months, and members are obligated to continuously pay their monthly contribution until everyone receives the funds. These regular contributions become part of their lifestyle. The social pressure and peer motivation encourages members to continue saving in ROSCAs, which suggests that ROSCAs build a saving habit among participants over time.

Previous research has suggested that due to the obligation to contribute regularly, "ROSCAs help to build the habit of savings" (Nelson, 1995 p. 54). Ardener (1964, p. 218) called it "the element of compulsory saving" in ROSCAs. The development of a culture of savings is regarded as crucial for economic improvement among the poor (Dichter & Harper, 2007). The concept of "you cannot save alone" is a major reason that attracts people to savings groups such as ROSCAs (Ambec & Treich, 2007; Gugerty; 2007; Ibrahim, 2019).

Scholars who study ROSCAs wonder why people choose to save in ROSCAs instead of saving individually, even when they have access to formal financial markets. Research suggests that people make this choice because ROSCAs provide a support mechanism to help them save, which is especially true for low-income households (Ibrahim, 2019). Those who participate in ROSCAs are mostly low-income working families. Currently,

the low-income threshold for a family of four is \$45,622 (Mather, 2013). Close to 60% of the households in this study had an income of less than \$40,000 a year and a mean household size of almost five, meeting the definition of the low-income population. Although they are willing to save, they do not have surplus income to deposit into a bank account and leave untouched over a period of time. Thus, ROSCAs provide support to control spending and enable savings. This is comparable to findings from the American Dream Demonstration (ADD), which evaluated IDA programs and found that disadvantaged populations can save when given access to institutional support (Han et al., 2007). In the absence of those institutional supports, community support systems such as ROSCAs come in handy.

Asset Ownership

The second goal of the study was to determine the relationship between saving in ROSCAs and asset ownership. Asset ownership has been recognized as an essential element in households' upward mobility and transitions out of poverty (Moser, 2005; Shapiro & Wolf, 2001; Sherraden, 1991), thus, asset ownership creates opportunities and status that can be passed along to future generations.

The results of this study indicated that the savers have used their funds to purchase/invest in assets. Participants showed an overall increase in the amount of assets owned after receiving ROSCA savings, as detailed in the results section. This is consistent with findings from previous studies that ROSCA participants use their funds for durable goods that they cannot afford with their own savings (Besley et al., 1993). These results reveal that the main goal of saving in ROSCAs, among the study sample, is for future investment and not immediate consumption. Although previous studies documented the use of ROSCAs for small business capitalization among immigrants' communities (Light, 1972, 1996; Light & Gold, 1995; Valez-Ibnez, 1983), research has not explored other investments, such as a home purchase, home improvement, or a car purchase using ROSCA funds, therefore this study did address these gaps in the literature.

Further, the results of the logistic regression indicated that there is a significant relationship between savings in ROSCAs and asset accumulation, even after controlling for demographic

characteristics. Thus, the findings suggest that ROSCAs play a vital role in poverty reduction among those who utilize them. Twenty years ago, Light (1996) suggested that ROSCAs are a self-help solution to urban poverty in the United States. He concluded that ROSCAs are effective at improving the economic welfare of low-income groups, and the laws and public policies should encourage their use. The current study suggests the same with data from new group of immigrants not previously studied.

Study Limitations

One of the limitations of this research is the sampling method. The study used snowball and convenience sampling to recruit participants. These methods are cost-effective and help to reach populations that are not easy to access (Faugier & Sargeant, 1997), which was helpful to increase the sample size. However, because the researcher relied on referrals, units for inclusion in the sample were not based on random selection (Biernacki & Waldorf, 1981), therefore, the representativeness of the sample is not guaranteed. This makes it difficult to measure the true distribution of the population and of the sample. The sample size was also small which affects the strength of the statistical power and reduces the ability to detect significant differences between values. Perhaps other significant results would have emerged if a larger sample were used.

In addition to the research design limitations, this data was all based upon self-report. It involved sensitive financial information, such that at times participants expressed concern over how their information would be reported. Therefore, there is the possibility of over- or under- reporting the actual amount saved and received. Subsequent studies in this subject could improve the reliability of the findings from this study.

Implications for Research, Policy, and Practice

Research. This is one of the first studies to identify ROSCAs as an asset-building tool among African immigrants in the United States. It is important to further interview individuals who have used ROSCA funds to purchase assets such as businesses and homes in order to validate the current survey results. Additionally, while participants joined ROSCA to save

for a specific goal, a significant number used the savings for emergency needs. This knowledge can help guide future studies to explore these competing needs and inform interventions for these emergency needs.

Policy. Research on the use of ROSCAs by different immigrant groups in the United States dates back to the 1970s. Light (1972, 1995, 1996) has shown how Japanese immigrants attained high levels of entrepreneurship within a relatively short period by raising capital through ROSCAs. There are also studies on ROSCAs among other groups (Light & Bonacich, 1988; Stewart, 2007). The current study adds to this body of work on the use of ROSCAs by African immigrants. Local-level policies to support these communities through existing community development financial institutions (CDFI) and integrating them into existing programs that support entrepreneurs and homebuyers, such as small loans and community development grants, could also be useful.

Practice. ROSCAs could be used as a bridge to the formal financial markets by expanding on existing initiatives. For example, Finanta, a non-profit organization in Philadelphia, has been working with two ROSCA groups—an African group and a Spanish-speaking group—since 2011. The savers in these groups are saving only for micro-enterprise capitalization. The agency is helping the participants use their custom as a gateway into the formal economy (Melamed, 2011). They are achieving this goal by facilitating the monthly ROSCA group meetings; when members pay their contributions, the organization reports that to the major credit agencies as loan repayments. Additionally, they provide other services, such as credit counseling, business consultation, and networking to ROSCA group members (Finanta, n.d). Agencies working with communities who use ROSCAs could replicate this practice and assist ROSCA members to build credit lines, so that ROSCA participants could also benefit from other services, such as credit counseling, home ownership programs, and training.

Conclusion

A key insight from this study is that ROSCA groups provide support that enable savings for its members. In the absence of supportive institutions to support savings for low-income households, these communities have shown that they can

identify, collate, and exploit the resources available to them to make upward mobility possible.

This study finds that immigrants maintain ROSCAs for two main reasons. Firstly, these communities want to save and invest in assets such as small business and home ownership. However, most of them are in low-income households without surplus money to put aside monthly to reach savings targets. These individuals also lack the credit history required for borrowing in this country. Additionally, borrowing from financial institutions comes with interest, which conflicts with some of these immigrants' communities religious beliefs. Therefore, these individuals form ROSCA groups so they can pool their resources together on a regular basis to help each other reach their investment goals.

Secondly, saving requires structural support (Sherraden, 1991); ROSCAs provide that support to the members through several institutional elements (Ibrahim, 2019). These elements include rules and regulation, expectations, trust, and control mechanisms (Ibrahim, 2016, 2019). The notion of "I cannot save alone" suggests that ROSCAs provide both support and a control mechanism to postpone current consumption in order to improve the future. Some of these elements are similar to those identified in the institutional theory of savings and are known as the determinants of savings and asset-building for low-income households (Curley, 2004 Sherraden et al., 2003; Ssemawala et al., 2009). Therefore, these findings accentuate the importance of creating policies that will support low-income households to save and acquire assets.

Acknowledgements: The author wishes to thank Professor Daniel Monti for his review and feedback on this work.

References

- Addo, P. (2017). Is it entrepreneurship, or is it survival? Gender, community, and innovation in Boston's Black immigrant micro-enterprise spaces. *Societies*, 7(3), 20. <https://doi.org/10.3390/soc7030020>
- Ahn, D., Kang, W., Kim, K. & Shin, H. (2016). Analysis and design of microfinance services: A case of ROSCA. *The Engineering Economist*, 62(3), 197–230. DOI:10.1080/0013791X.2016.1236305
- Almedom, A. (1995). A note on ROSCAs among Ethiopian women in Addis Ababa and Eritrean women in Oxford. In S. Ardener & S. Burman (Eds.), *Money-go-rounds: The importance of rotating savings and credit associations for women* (pp. 71–76). Berg.
- Ambec, S., & Treich, N. (2007). ROSCAs as financial agreements to cope with self-control problems. *Journal of Development Economics*, 82, 120–137.
- Anderson, S., & Baland, J. M. (2002). The economics of ROSCAs and intrahousehold resource allocation. *Quarterly Journal of Economics*, 117(3), 962–995.
- Ardener, S. (1953). *The social and economic significance of the contribution club among a section of the Southern Ibo*. Conference Proceedings, West African Institute of Social and Economic Research.
- Ardener, S. (1964). The comparative study of rotating credit aAssociations. *Journal of The Royal Anthropological Institute*, 94(2), 201–229.
- Ardener, S. (1995). Women making money round: ROSCAs revisited. In S. Ardener & S. Burman (Eds.), *Money-go-rounds: The importance of rotating savings and credit associations for women* (pp. 1–19). Berg.
- Ardener, S., & Burman, S. (Eds.). (1995). *Money-go-Rounds: The importance of rotating savings and credit associations for women*. Berg.
- Atkinson, R., & Flint, J. (2001). Accessing hidden and hard-to-reach populations: Snowball research strategies. *Social Research Update*, Issue 33. <http://sru.soc.surrey.ac.uk/SRU33.PDF>
- Besley, T. (1995). Nonmarket institutions for credit and risk sharing in low income countries. *Journal of Economic Perspectives*, 9(3) 115–127.
- Besley, T., & Levenson, A. (1996). The role of informal finance in household capital accumulation: Evidence from Taiwan. *The Economic Journal*, 106(434) 39–59
- Besley, T., Coate, S., & Loury, G. (1992). *On the allocative performance of rotating, savings, and credit association* (Discussion paper #163). Center for International Studies. Princeton University.
- Besley, T., Coate, S., & Loury, G. (1993). The economics of rotating, savings and credit associations. *American Economic Review*, 83, 792–810.

- Besson, J. (1995). Women's use of ROSCAs in the Caribbean: Reassessing the literature. In S. Ardener & S. Burman (Eds.), *Money-go-rounds: The importance of rotating savings and credit associations for women* (pp. 263–288). Berg.
- Beverly, S., & Sherraden, M. (1999). Institutional determinants of savings: Implications for low income households and public policy. *Journal of Socio-Economics*, 28, 457–473.
- Biernacki, P., & Waldorf, D. (1981). Snowball sampling: Problems and techniques of chain referral sampling. *Sociological Methods and Research*, 10(2), 141–163.
- Biggart, N. (2001). Banking on each other: The situational logic of rotating, savings and credit associations. *Advances in Qualitative Organization Research*, 3, 129–153.
- Bohn, S., & Pearlman, S. (2011). *Ethnic concentration and bank use in immigrant communities*. http://irving.vassar.edu/faculty/sp/BohnPearlman_2012.pdf
- Borjas, G. J. (2002). Homeownership in the immigrant population. *Journal of Urban Economics*, 52, 448–476.
- Bouman, F. (1979). The Rosca: Financial technology of an informal savings and credit institution in developing economies. *Savings and Development*, 4, 253–276.
- Burman, S., & Lembete, N. (1995). Building new realities: African women and ROSCAs in urban South Africa. In S. Ardener & S. Burman (Eds.), *Money-go-rounds: The importance of rotating savings and credit associations for women* (pp. 23–47). Berg.
- Chiteji, N. (2002). Promises kept: The role of rotating savings and credit associations in the economy. *Journal of International Development*, 14, 393–411.
- Curley, J. (2004). *The role of institutions in the saving participation and performance of low-income households in Individual Development Accounts*. Doctoral Dissertation, Washington University, St. Louis.
- Curley, J., Ssewamala, F., & Sherraden, M., (2009). Institutions and savings in low-income households. *The Journal of Sociology & Social Welfare*, 36(3), 9–32.
- Department of Consumer Affairs, New York City. (2013). *Immigrant financial services study*. Department of Consumer Affairs, Office of Financial Empowerment, New York City. <https://www1.nyc.gov/assets/dca/downloads/pdf/partners/Research-ImmigrantFinancialStudy-FullReport.pdf>
- Dichter, T. W., & Harper, M. (Eds.). (2007). *What's wrong with microfinance?* Practical Action Publishing.
- Gugerty, M. K. (2007). You can't save alone: Commitment in Rotating Saving Credit Association. *Economic Development and Cultural Change*, 55(2), 251–282.

- Han, C. K., Grinstein-Weiss, M., & Sherraden, M. (2007). *Assets beyond saving in Individual Development Accounts* (CSD Working Papers No. 07–25). Center for Social Development, Washington University.
- Hevener, C. (2006). *Alternative financial vehicles: Rotating savings and credit associations (ROSCAS)*. Federal Reserve Bank of Philadelphia. Discussion Papers Community Affairs Department.
- Ibrahim, H. (2016). *Participation in rotating, savings and credit associations, and enhanced asset accumulation among African immigrants in the United States: An institutional approach*. Doctoral Dissertation.
- Ibrahim, H. (2019). Do institutions matter? The persistence of ROSCAs among immigrants in developed economies. *Journal of Enterprising Communities: People and Places in the Global Economy*, 13(3). <https://doi.org/10.1108/JEC-04-2018-0027>.
- Kedir, A. M., & Ibrahim, G. (2011). ROSCAs in urban Ethiopia: Are the characteristics of the institutions more important than those of the members? *Journal of Development Studies*, 47(7), 998–1016.
- Light, I. (1972). *Ethnic enterprise in America: Business and welfare among Chinese, Japanese, and Blacks*. University of California Press.
- Light, I. (1995). Rotating credit associations. In F. Ng (Ed.), *Asian American encyclopedia*, (pp. 1284–1286). Marshall Cavendish.
- Light, I. (1996). *A self-help solution to fight urban poverty*. The American Enterprise Institute.
- Light, I., & Bonacich, E. (1988). *Immigrant entrepreneurs: Koreans in Los Angeles 1965–1982*. University of California Press.
- Light, I., & Deng, Z. (1995). Gender differences in ROSCA participation within Korean business households in Los Angeles. In S. Ardener & S. Burman (Eds.), *Money-go-rounds: The importance of rotating savings and credit associations for women* (pp. 217–240). Berg.
- Light, I., & Gold, S. (1999). *Ethnic economies*. Academic Press.
- Mather, M. (2013). *U.S. low-income working families increasing*. Population Reference Bureau. <https://www.prb.org/us-working-poor-families/>
- Mbizi, R., & Gwangwava, E. (2013). Rotating, savings and credit associations: An alternative funding for sustainable micro-enterprise—Case of Chinhoyi, Zimbabwe. *Journal of Sustainable Development in Africa*, 15(7), 181–193.
- Monti, D. (1999). *The American city: A social and cultural history*. Blackwell Publishers.
- Moser, C. (2005). Asset, livelihoods and social policy. *Arusha Conference: “New Frontiers of Social Policy”*—December 12–15, 2005. Brookings Institution.

- Murakami-Fester, A. (2017). How Blacks took banking into their own hands. Personal Finance. *USA Today*. <https://www.usatoday.com/story/money/personalfinance/2017/02/01/how-blacks-took-banking-into-their-own-hands/97307338/>
- Mussa, A. (2013). Immigrants and natives homeownership gap in the state of New York. *Proceedings of the New York State Economics Association*, 6, 148–155.
- Nam, Y. (2015). Older immigrants: Economic security, asset ownership, financial access, and public policy. In N. Morrow-Howell & M. Sherraden (Eds.), *Financial capability and asset holding in later life: A life course perspective* (pp. 104–119). Oxford University Press.
- Nelson, N. (1995). The Kiambu group: A successful women's ROSCAs in Mathare Valley, Nairobi (1971 to 1990). In S. Ardener & S. Burman (Eds.), *Money-go-rounds: The importance of rotating savings and credit associations for women* (pp. 49–69). Berg.
- Niger-Thomas, M. (1995). Women's access to and control of credit in Cameroon: The Mamfe case). In S. Ardener & S. Burman (Eds.), *Money-go-rounds: The importance of rotating savings and credit associations for women* (pp. 95–110). Berg.
- Nwabughuogu, A. I. (1984). The Isusu: An institution for capital formation among the Ngwa Ibo: Its origin and development to 1951. *Africa*, 54, 46–58.
- Osili, U., & Paulson, A. (2007). *Immigrants' access to financial services & asset accumulation*. National Poverty Center.
- Osili, U., & Paulson, A. (2008). Institutions and financial development: Evidence from international migration in the United States. *Review of Economic and Statistics*, 90(3), 498–517.
- Painter II, M., & Qian, Z. (2016). Wealth inequality among new immigrants. *Sociological Perspectives*, 59(2) 368–394.
- Paulson, A., Singer, A., Newberger, R., & Smith, J. (2006). *Financial access for immigrants: Learning from diverse perspectives monograph*. Federal Reserve Bank of Chicago and The Brookings Institute.
- Rhine, S., & Greene, W. (2006). The determinants of being unbanked for U.S. immigrants. *Journal of Consumer Affairs*, 40(1), 21–40.
- Rubin, A., & Babbie, E. (2005). *Research methods for social work*. Thomson Brooks/Cole.
- Salamon, H., Kaplan, S., & Goldberg, H. (2009). What goes around, comes around: Rotating credit associations among Ethiopian women in Israel. *African Identities*, 7(3), 399–415.
- Sandsør, A. (2010). *The rotating savings and credit association—An economic, social and cultural institution*. Thesis for the degree Master of Economic Theory and Econometrics Department of Economics University of Oslo.

- Schreiner, M., & Sherraden, M. (2007). *Can the poor save? Saving and asset building in Individual Development Accounts*. Routledge.
- Sherraden, M. (1991). *Assets and the poor: A new American welfare policy*. M. E. Sharpe.
- Sherraden, M., Schreiner, M., & Beverly, S. (2003). Income, institutions, and saving performance in in development accounts. *Economic Development Quarterly*, 17, 95–112.
- Stewart, D. (2007). Collecting on their investments, one woman at a time: Economic partnerships among Caribbean immigrant women in the United States. *International Journal of African Renaissance Studies*, 2(1), 35–57.
- Summerfield, H. (1995). A note on ROSCAs among Northern Somali women in the United Kingdom. In S. Ardener & S. Burman (Eds.), *Money-go-rounds: The importance of rotating savings and credit associations for women* (pp. 209–215). Berg.
- Tesfai, R. (2016). The interaction between race and nativity on the housing market: Homeownership and house value of Black immigrants in the United States. *International Migration Review*, 50(4), 1005–1045.
- Tesfai, R. (2017). Continued success or caught in the housing bubble? U.S. and foreign-born Black housing market outcomes from 2007–2011. *Population Research and Policy Review*, 36(4), 531–560.
- Thomson, S. (1997). Adaptive sampling in behavioral surveys. *NIDA Research Monograph*, 167, 296–319.
- Velez-Ibanez, C. (1983). *Bonds of mutual trust: The cultural system of rotating credit association among urban Mexicans and Chicanos*. Rutgers University Press.
- Yimer, G., Decock, W., Ghebregergs, M., Abera, G., & Halibo, G. (2018). The interplay between official and unofficial laws in rotating savings and credit associations (Eqqub) in Tigray, Ethiopia. *The Journal of Legal Pluralism and Unofficial Law*, 50(1), 94–113. DOI: <https://doi.org/10.1080/07329113.2017.1407525>