



The Influence of Collectivism on Microfinance in Senegal

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I. Introduction

“Mi anda si mido faala heebude prêt. No saati fii si hida joogi kalis bwee en Sénégal. Si hida joogi, a footike joonude yeembe beng bwee. Woono jaatigibe maa waala bengure maa buuri faala heebude kalis. Si ko dun, haray mi wowata rootude kalise.”

“I don’t know if I truly want a loan. It’s hard if you have a lot of money in Senegal. If you do, you have to share it. Maybe your families and friends need the money more. If that’s the case, then I can’t pay back the loan.”

- Mamadou D*, subsistence farmer in Thiabekaare, Senegal, January 2017.

There is wide-ranging research on microfinance in developing countries, yet less is understood about the effects of cultural norms on how individuals and groups interact with microfinance institutions (MFIs). Strong social networks that typically exist in collectivist cultures have been found to play an important role in the diffusion of microfinance (Banerjee et al., 2013). Countries in sub-Saharan Africa, which have been characterized as having high or moderate levels of collectivistic values, also have well-documented norms of redistribution whereby individuals frequently transfer a substantial share of their income to members of their social networks, i.e. members of the household or extended family, friends, and neighbors (Baland et al., 2016; di Falco and Bulte, 2011). This informal redistribution shapes the social and economic habits of individuals; people make resource-allocation choices accounting not only for their own socioeconomic status but also for that of the members of their social networks (Platteau, 2000, 2006, 2014). In seeking to understand the role of collectivism and strong social networks in microfinance, economic research has focused primarily on the risk-sharing dimension of informal redistribution in economies where people are structurally vulnerable to income shocks, but have limited access to financial markets and to formal redistribution systems (Cox and Fafchamps, 2007).

Recent economic literature, however, has increasingly focused on the potential adverse effects of collectivist cultural norms. Norms of informal redistribution have been found to distort economic decisions related to investment and entrepreneurialism (Grimm et al., 2013; Hadness et al., 2013). Such norms have also been found to result in strategies to escape the pressure to redistribute, for instance, by favoring non-easily-sharable assets, hastening some expenses, and hiding income sources and easily-shared resources (Baland et al., 2011; Boltz et al., 2015; di Falco and Bulte, 2011; Goldberg, 2013).

In this paper, we aim to investigate the influence of collectivism on microloan borrowing decisions. A simple economic model is used to detail how norms of informal redistribution, in the form of sharing profits from a microloan project, could reduce borrowing. A cross-country comparison using a complete dataset of the 1,049,576 loans facilitated from 2007 to 2016 by Kiva, a global microfinance institution, is used to uncover whether, in practice, borrowers from countries with different levels of collectivism interact with microfinance differently. We then detail a case study of microfinance in Senegal, which has been defined as a collectivist culture with well-documented

collectivist cultural norms, including informal redistribution, to better understand the mechanisms by which collectivism influences borrowing decisions (Senegal - Geert Hofstede, 2017; Boltz, 2015). Surveys and ethnographic interviews of lending institutions, small business owners, and individuals in Senegal were conducted.

Through the cross-country analysis, we find evidence suggesting that collectivist cultures tend to borrow smaller loans and tend to have shorter loan terms. Through the research trip in Senegal, including surveys and detailed interviews with 103 Senegalese natives, we uncover how collectivist cultures are well-suited for the structure of group borrowing that is used by microfinance to distribute risk. On the other hand, we also discovered some of the ways in which collectivist cultural norms can deter entrepreneurs from borrowing money or starting ventures, because of the norms of informal redistribution.

Our research adds to the few ethnographic accounts on microfinance that engage with the processes of borrowing rather than the institutional outcomes driving the industry (Brett, 2006; Perry, 2006; Guérin, 2006; Duffy-Tumas, 2005). Our account highlights the importance of cultural context, not only in structuring of microfinance products such as microloans, but also in spreading the concept of financial services to isolated regions and villages.

II. Methodology

In this study, a combination of economic theory, cross-country data analysis, surveys, and interviews were used. The surveys and interviews were conducted in the Dakar and Kedougou regions of Senegal from December 2016 to January 2017 with participants ranging from lending institutions, to small business owners, to individuals.

Theoretical Framework

Following from the Stiglitz (1990) model of peer monitoring in a competitive credit market, we create a theoretical economic model to uncover how informal norms of redistribution - specifically profit sharing from successful microloan projects - could influence borrowing decisions.

Empirical Strategy

The cross-country data used for this research includes 94 countries and was aggregated from three sources. First, data on all loans facilitated from 2007 to 2016 by Kiva, a global microfinance institution, were downloaded using the Kiva API (Kivatools, 2017). A total of 1,049,576 loans facilitated by Kiva were included. Our data second source is Geert Hofstede's Index of Individualism, which was merged with the Kiva dataset on the country variable (Index of Individualism, 2014). The index of individualism measures the "degree of interdependence a society maintains among its members [which is]...related to whether people's self-images are defined in terms of 'I' or 'We'. In individualist societies, people are supposed to look after themselves and their distinct family only [while] in collectivist societies people belong to 'in groups' that take care of them in exchange for loyalty" (Senegal - Geert Hofstede, 2017). The range of scores on Hofstede's Index of Individualism observed in the dataset includes a least individualistic, minimum score of 6 (Guatemala), a most individualistic, maximum score of 91 (United States), and a mean score of 27.

Senegal received a score of 25, which is a relatively low score. The final data source was GDP per capita, PPP (current international \$), which was downloaded from the World Bank Dataset and was used as a control in the cross-country analysis (World Bank Databank, 2016).

In investigating the differences in how individualist and collectivist cultures interact with microfinance, cross-country comparisons were used. The average loan size and loan term were used as metrics to compare countries with different cultures of collectivism (as measured by Hofstede's Index of Individualism).

Ethnographic Strategy

To investigate the influence of collectivist cultural norms on microfinance, a detailed ethnographic study was conducted in Senegal from December 2016 to January 2017. Senegal is considered a relatively collectivist society and, in Geert Hofstede's Index, is described in detail:

“A low score of 25 in this dimension means that Senegal is considered a collectivistic society. This is evident in a close, long-term commitment to the member ‘group’, be that a family, extended family, or extended relationships. Loyalty in a collectivist culture is paramount and overrides most other societal rules and regulations. The society fosters strong relationships where everyone takes responsibility for fellow members of their group. In collectivist societies: offence leads to shame and the loss of face, employer/employee relationships are perceived in moral terms (like a family link), hiring and promotion decisions take account of the employee's in-group and management is the management of groups (Senegal - Geert Hofstede, 2017).”

During the research trip, 103 individuals were interviewed from a range of professions, backgrounds, ages, genders, and geographical locations within Senegal. The locations of the research include Dakar, the urban capital of Senegal, Kedougou, a rural city in the south-east of Senegal, and four rural villages in the Kedougou region of Senegal (Dindefelo, Thiabekaare, Segou, and Pelle).

While in the Dakar and Kedougou regions, surveys and extensive ethnographic interviews were used to investigate people's attitudes towards microfinance and to understand the influence of collectivist cultural norms on people's interactions with microfinance institutions (MFIs) in Senegal. The survey (included in Appendix A), includes 6 questions related to people's attitudes and interactions with MFIs. The extensive interviews immediately followed the surveys and were used to provide greater detail and substance to the answers recorded from the surveys.

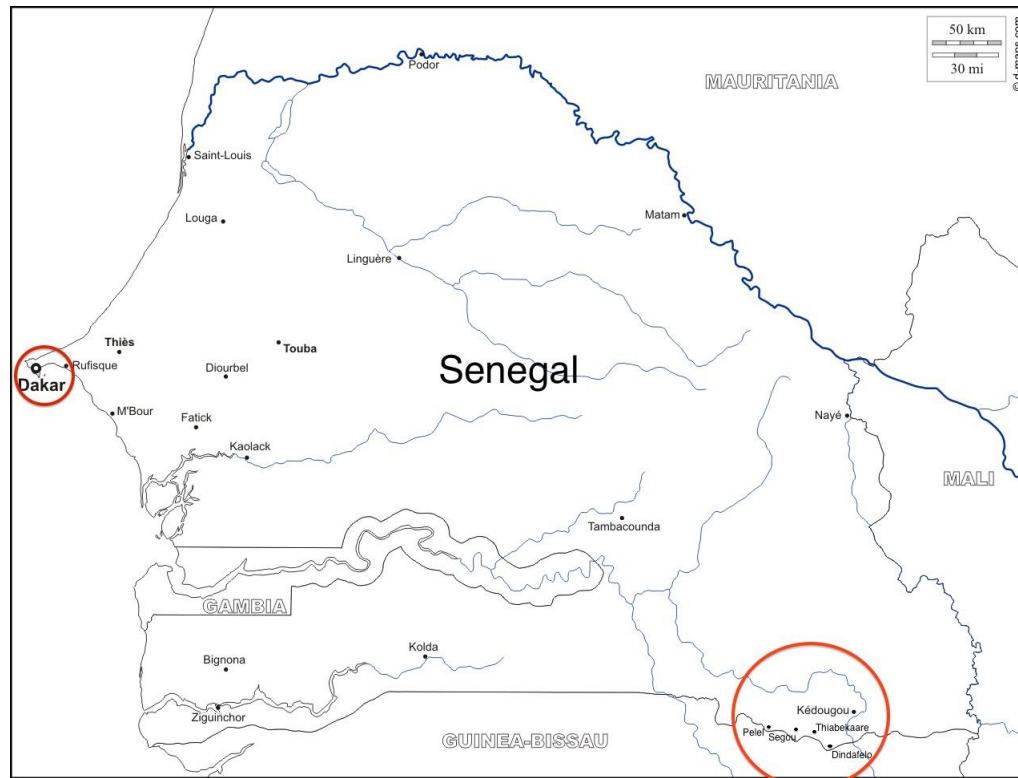


Figure 1: Map of Senegal

Various precautions were taken to mitigate bias in answers, to both the survey and interview questions, that would plausibly emerge given that the researchers are foreigners from the United States. The Kedougou region, which has a population of approximately 152,134, has a relatively minimal foreigner presence, and was selected because of the extensive social network that one of the researchers, Keaton Scanlon, had previously developed in this region (Senegal Census Data, 2013). Keaton spent four months in the Dakar region and a cumulative year and a half living in the Kedougou region of Senegal, primarily in the village of Thiabekaare, but also in Dindefelo, Segou, Pèlè, and the town of Kedougou. In addition to becoming proficient in the local language of Pular, Keaton developed a strong social network in both regions. Many of the people in Keaton's established social networks in the Dakar and Kedougou regions were surveyed and interviewed, because of the relative reliability and expected honesty of their answers. To expand beyond Keaton's network in getting honest attitudes and answers, Seydou Diallo, a bilingual native to the Kedougou region, utilized his network established from his 20 years living in the region, and assisted in administering surveys and conducting interviews. All interviews were conducted in Pular, the local language in which Keaton is fluent. In Dakar, where the majority of people speak French and Wolof, people who spoke Pular were sought out, and even provided some aid translating responses from proximate participants.

In addition to interviewing 103 individuals in the Dakar and the Kedougou regions, employees at various microfinance institutions in the regions were also interviewed. Employees of Credit Mutuel du Senegal, a microfinance institution, as well as Orange Money, a mobile money service, were interviewed to get a greater understanding of microfinance in Senegal from the business

providers' perspective. These interviews were conducted in Wolof by Seydou Diallo, and then translated into English.

III. Basic Theoretical Framework

Our theoretical economic model is directly specified at the borrower level and sheds light on how norms of informal redistribution in collectivist cultures could affect borrowing decisions. Our analysis in this paper follows from Stiglitz (1990), who constructs a model of peer monitoring in a competitive credit market.

Assume that all individuals have various projects which they can undertake profits that are shared, γ , increases, the marginal returns of scale, $Y(L)$, decreases. This suggests that, in practice, a borrower in a culture with norms of informal redistribution would have a lower propensity to take on projects with larger scale compared to a equivalent borrower not in a culture with norms of informal redistribution. Given that there is an opportunity cost of undertaking a new project, such as forgone consumption of goods that are not easily sharable, the profit sharing proportion, γ , decreases the propensity of a borrower to take such that project i , if successful, returns $Y_i(L)$ when undertaken at scale L (measured in CFA franc of expenditure). If project i fails, its returns are zero. The probability of success for each project is p_i . To account for norms of informal redistribution in collectivist cultures, let γ be the proportion of the profits that are shared if a project is successful, such that $0 \leq \gamma \leq 1$. We assume that γ is larger in countries with higher levels of cultural collectivism. If the project is successful a proportion of profits from the project, $\gamma Y_i(L)$, is shared and $(1 + r)L$, the loan amount plus interest, is paid back to the MFI where the rate of interest r is fixed. If the project is unsuccessful, then nothing is shared but, still, $(1 + r)L$ is paid back to the MFI.

Thus, the expected consumption tomorrow from undertaking project i , with rate of interest r , is:

$$C = \gamma p_i Y_i(L) - p_i(1 + r)L + (1 - p_i)(-(1 + r)L)$$

For the borrower presented with the expected consumption tomorrow from undertaking project i represented above, we have the following maximization problem:

$$\max \gamma p_i Y_i(L) - p_i(1 + r)L + (1 - p_i)(-(1 + r)L)$$

$$L \geq 0$$

The slope of the indifference curve if the individual undertakes project i is:

$$\partial C / \partial L = \gamma p_i Y_i'(L) - (1 + r)$$

Thus, in the borrower's maximization problem, we are left with the following comparative static:

$$\gamma p_i Y_i'(L) = (1 + r)$$

The indifference curve, $\partial C / \partial L$, represents the marginal consumption of scale, where scale is

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measured in CFA francs of expenditure. It is evident in the comparative static, where the rate of interest, r , and the probability of success, p_i , are fixed, as the proportion of the out a loan in the first place (i.e. given the lower marginal utility of scale, utility could be maximized when $L=0$ and all wealth is invested into consumption). We investigate these dynamics through cross-country analysis of microloan data and through ethnographic research strategies in Senegal.

IV. Empirical Results: The relationship between collectivism and microfinance

In analyzing the relationship between collectivist culture and microfinance, we investigate whether, in accordance with the theoretical model, there is an association between a country's level of collectivism and its average microloan size and term length.

Loan Amount Comparison

Across all of Kiva's 1,049,576 loans across 94 countries between 2007 and 2016, the maximum loan facilitated by Kiva is \$100,000 and the minimum loan is \$25. The mean loan facilitated by Kiva is \$842.09. Based on the theoretical economic model defined earlier, we'd expect countries with higher levels of collectivism to have lower average loan sizes. There is a clear positive association between average loan size and level of collectivism on the country-level (see Figure 2).

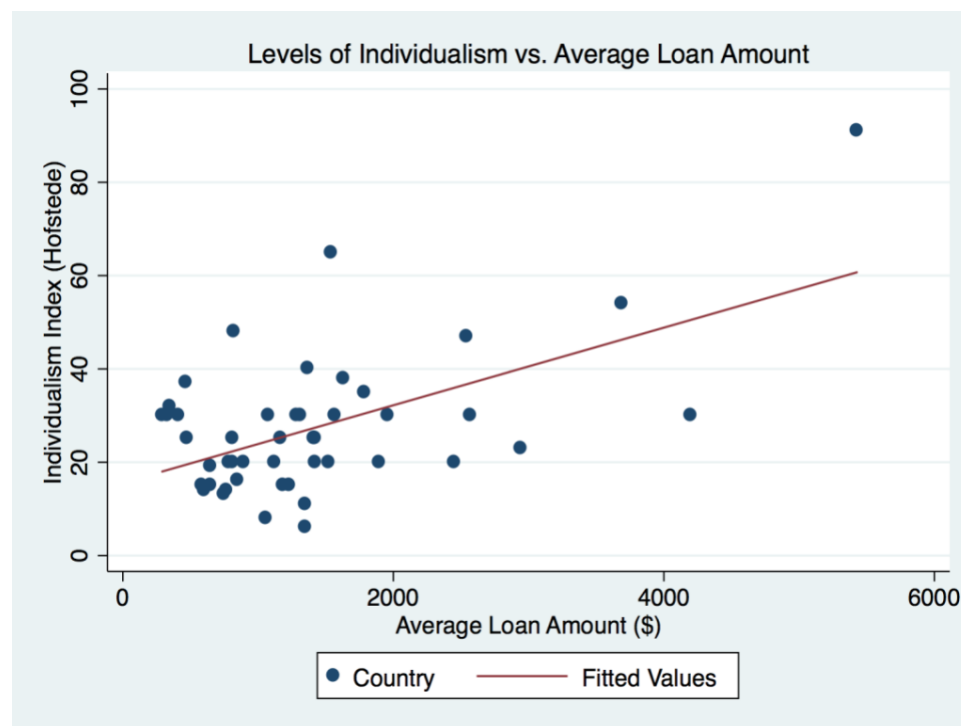


Figure 2: Individualism vs. Average Loan Amount

Since countries with higher levels of development typically have higher levels of individualism - which is noted in Hofstede (2001) and supported in our data (see Figure 3) - we use level of development as a control. A cross-country regression of average microloan size on level of individualism, controlling for level of development as measured by the logarithm of GDP per capita, supports the hypothesis derived from the model that there is a relationship between collectivism and loan size (see Table 1), which is statistically significant. A 10-point increase in a country's level of individualism (measured on a 100-point scale), is associated with a \$295.50 increase in the country's average microloan size.

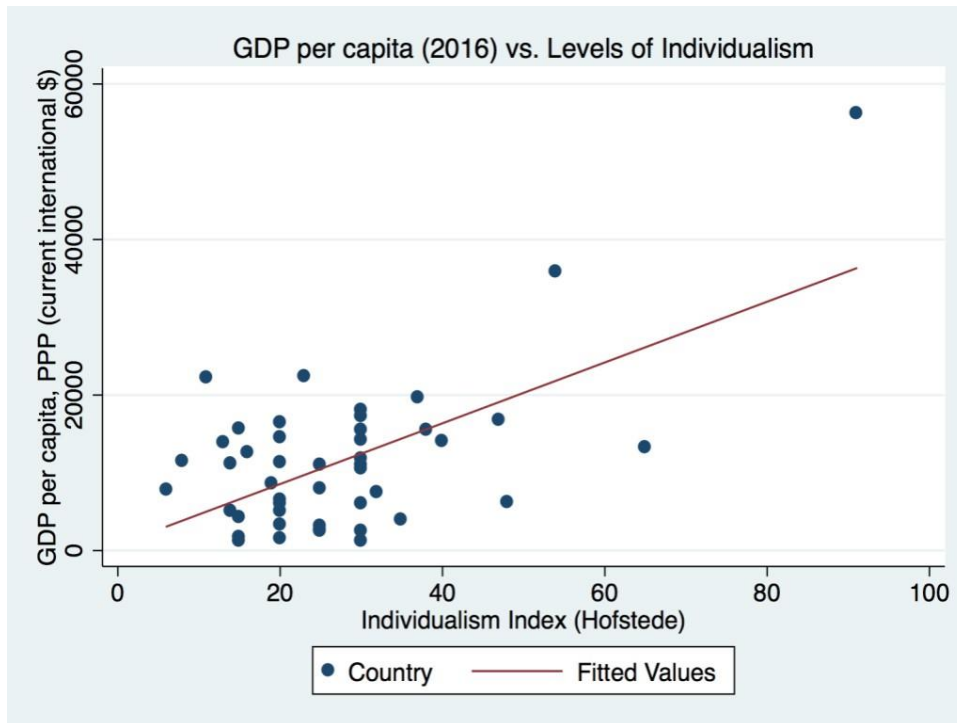


Figure 3: Individualism vs. GDP per capita

Loan Term Comparison

The theoretical economic model suggests that informal redistribution reduces the marginal returns of scale. With a longer duration loan, there are more opportunities to share profits with others. For instance, if a Senegalese farmer took out a loan to buy chicken for resale, given a longer loan duration, there would be more opportunities for people to ask the farmer for chickens or for profits from the business. Therefore, it is plausible that norms in collectivist culture, such as norms of informal redistribution, influences both the size and the duration of loans. Across the Kiva dataset, the minimum loan term facilitated by Kiva is 1 month and the maximum loan term is 195 months (16.25 years). The mean loan term facilitated by Kiva is 13 months. There is a clear positive association between countries with individualistic cultures and countries with longer average loan terms. This could suggest that borrowers in collectivist cultures take on more short-term projects compared to individualistic cultures.

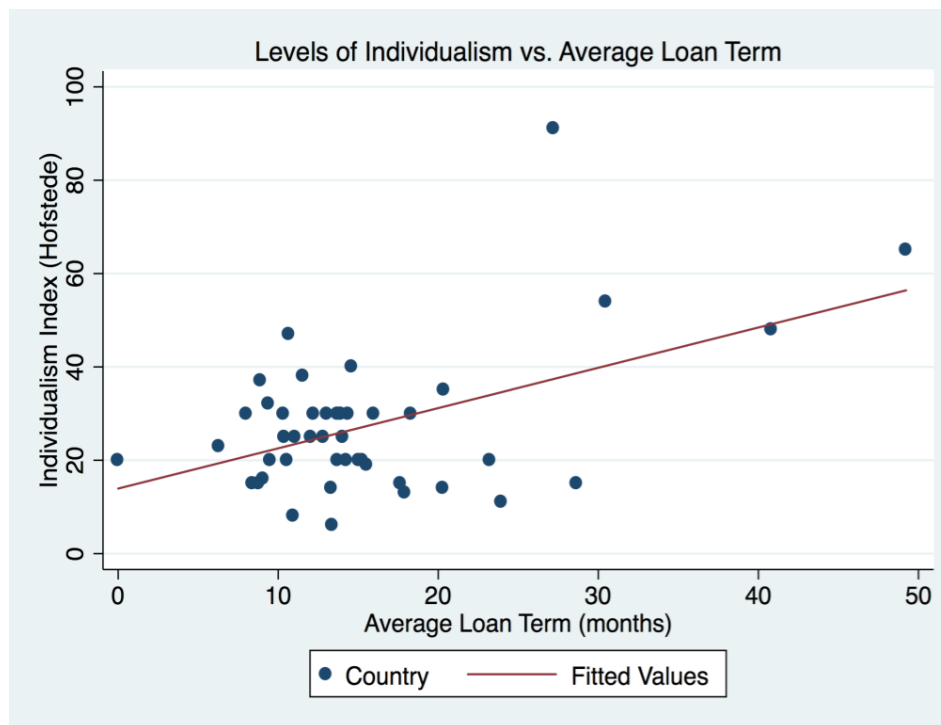


Figure 4: Individualism vs. Average Loan Duration

In a regression of the average loan term on the level of individualism across countries, again controlling for the logistic of GDP per capita, there is a significant relationship between individualism and the average microloan term such that a 10 point increase in a country's level of individualism (measured on a 100-point scale) is associated with a 2.53 month increase in the average microloan term.

Table 1: Regression Results

Dependent Variable	Individualism (Hofstede Index)	Log of GDP per capita (PPP, current international \$)	Constant	R^2 N
Loan Amount (USD, \$)	29.55*** (8.59)	392.72*** (149.24)	-2938.40*** (1278.77)	0.41 41
Loan Term (months)	0.25*** (0.08)	1.08 (1.40)	-1.23 (12.07)	0.25 46

Note: * $p < 0.1$, ** $p < 0.05$, *** $p < 0.00$

V. The influence of collectivism on microfinance: A case study in Senegal

In an effort to provide a more detailed account of the relationship between collectivism and microfinance, we conducted detailed surveys and ethnographic interviews in Senegal, which has been defined as a collectivist culture with well-documented collectivist cultural norms including norms of informal redistribution (Senegal - Geert Hofstede, 2017; Boltz, 2015).

The current landscape of microfinance in Senegal

Microfinance institutions in Senegal, as in many other developing countries, are on the rise. In 2015, there were 1,168 microfinance institutions in Senegal, some of the most popular being the Alliance of Credit and Savings for Production (ACEP), Senegalese Mutual Credit (CMS), and the Partnership for Mobilizing Savings and Credit in Senegal (PAMECAS) (International Monetary Fund, 2016). In parallel to the increase in the number of microfinance branches, the number of accounts has been rising substantially since 2004.

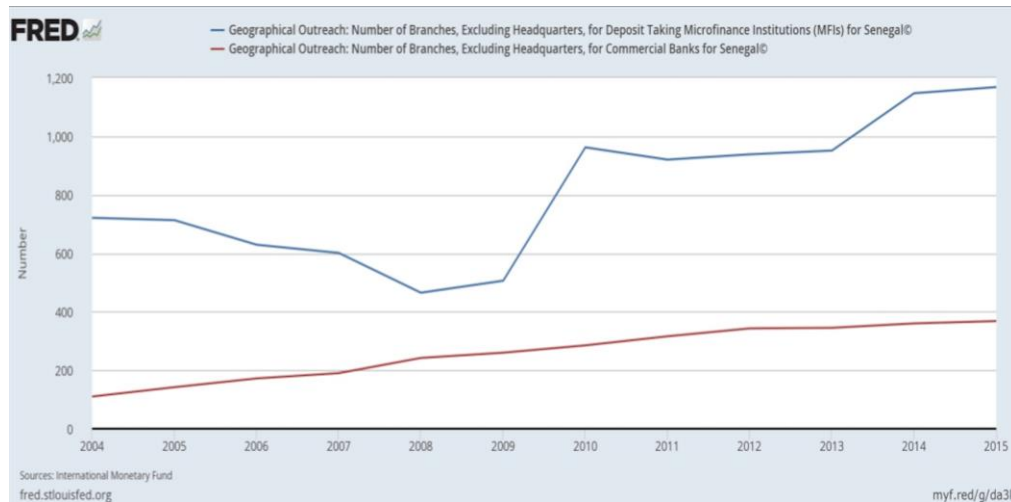


Figure 5: MFIs and Commercial Bank Branches in Senegal

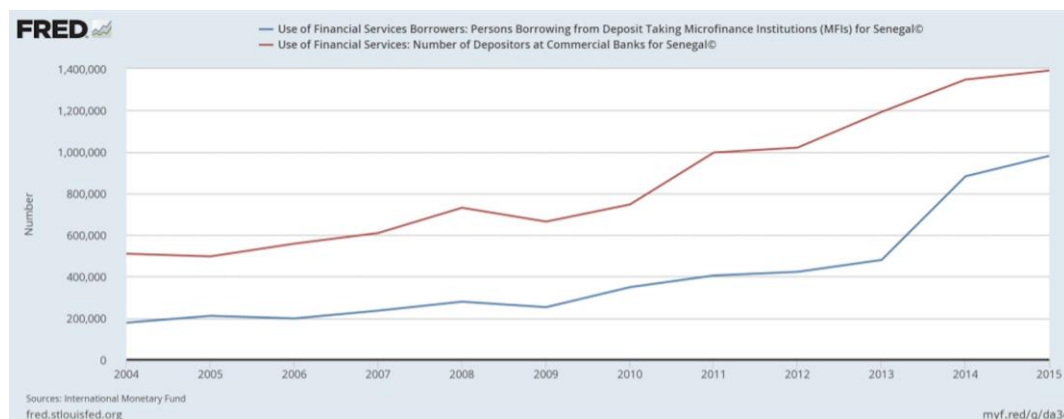


Figure 6: MFIs and Commercial Bank Depositors in Senegal

While the growth of microfinance in Senegal is shared by many countries in Sub-Saharan Africa, Senegal's microfinance landscape has some unique characteristics. For instance, the dominance of Islam in Senegal, where 94% of the population is Muslim, influences the structure of informal microfinance systems (Mahmud, 2013). A blog post by Kiva describes in detail that many informal lending structures in Senegal do not operate with interest due to Islamic Law, since Islamic scholars claim that "charging interest on loans is usurious and a violation of Islamic law" (Islamic microfinance, 2012). To accommodate Islamic Law, while maintaining its core business model, Kiva charges a service fee instead of interest in some cases.

The Structure of microfinance in Senegal

To gain insight into the structure of microfinance institutions in Senegal and the impact of Senegal's collectivist culture on these structures, bank managers from the Kedougou branch of Credit Mutuel du Senegal and a director of operations at the Kedougou branch of Orange Money were interviewed.

Microcredit

Credit Mutuel du Senegal is one of the largest microfinance institutions in Senegal and, at the end of 2014, had more than 125,000 active borrowers (FCCMS, 2015). In the Kiva dataset, the mean loan amount in Senegal from 2007 to 2016 was \$1415.77 and the average loan term was 11.05 months. In accord with the data from Kiva, the bank manager cited average loan sizes of 15,000 CFA to 1,000,000 CFA (about 1600 USD) (Badji E*, January 12, 2017). While the average number of borrowers per loan for all of Kiva's loans was 1.97, the average number of borrowers per loan for the 10,865 loans to borrowers in Senegal is 6.05 people.

In accord with the analysis of Kiva's data on loans facilitated in Senegal, the bank manager from Credit Mutuel du Senegal in Kedougou stated that the most common type of loan system is that of a large group. The advantage of such a structure is that the benefits and burden of the loan are distributed. A group loan also makes the loan less risky for the banks, since the borrowers keep each other accountable. According to the bank manager, "It is better to loan to a group because it is less risky. A lot of women's groups and big families borrow money from us." (Badji E*, January 12, 2017).

The well-documented collectivist social norms and strong social networks in Senegal are plausibly conducive for such arrangements. Badji E*, the bank manager, outlined that, if people in the group are unable to payback their loans, they are given a few months of additional time and, if still unable to pay, then other people in the borrower's group are asked to contribute on the behalf of the defaulting customer. Next, the defaulted borrowers' family members are visited by the bank in an attempt to acquire the owed funds, and finally, the chief of the village is approached. Upon this step, an agreement is made between the village chief and the bank as to how the customer should best account for their default (such as with the taking of collateral). Since social networks are so strong, it is common, according to Badji E*, for the bank to get money for the loan: "The social shame of not abiding by one's word is often enough to get someone to pay back their debt. However, friends and family often will help as well" (Badji E*, January 12, 2017).

Microloan borrowers in Senegal also cited benefits of group borrowing in expanding the scope of who can participate in microfinance. Ibrahima*, a college student in Kedougou, said that "To get a loan, you have to show the bank that you have something, like money, or a motorcycle, or cows. I don't have enough." (Ibrahima A*, January 5, 2017). In groups, however, such burdens are distributed. In the case of Credit Mutuel du Senegal in Kedougou, the bank manager stated that loan amounts are determined by past credit history with the bank, including consistency and size of past deposits. Since only two of the borrowers are required to have their identification cards photocopied - along with having savings accounts of at least 15,000 CFA (approximately 24 USD) - often a head of household or a wealthier person in the village join a loan group on behalf of other people in their social network.

While the group-borrowing system we observed in Senegal is a common structure for microloans and seems to benefit banks and borrowers, responses during the ethnographic interviews shed light on significant drawbacks as well. Most prominently, there is pressure for all parties within a borrowing group to only use money for low-risk investments. Badji E*, the bank manager, stated that “different interest rates are given to loan recipients from different industries. We charge a lower fee to buy and sell produce at the local market, but a higher fee to buy and sell livestock. Livestock is more risky” (Badji E*, January 12, 2017). In comparing uses of the 10,865 microloans facilitated by Kiva in Senegal between 2007 and 2016, there is a clear skew towards relatively low-risk investments. Some of the most popular activities for which loans through Kiva were borrowed include retail (3102 loans), food production/sales (979 loans), fruit & vegetables (578 loans), livestock (449 loans), animal sales (376 loans), food market (365 loans), and cloth and dress making supplies (352 loans).

In this way, there appears to be a tension between microcredit and true entrepreneurship, which is usually associated with taking risks. Unlike entrepreneurialism in the United States, for instance, with very few venture capital funded startups being successful, MFI rules in Senegal are set up not to tolerate any failure. However, as mentioned in a chapter on microfinance in *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*, “it is a necessary byproduct of the rules that have allowed microcredit to lend to a large number of poor people at low interest rates...microfinance gives its clients every incentive to play it safe, so it is not well suited to discover who has an appetite for risk taking” (Banerjee et al., 2011, p.177).

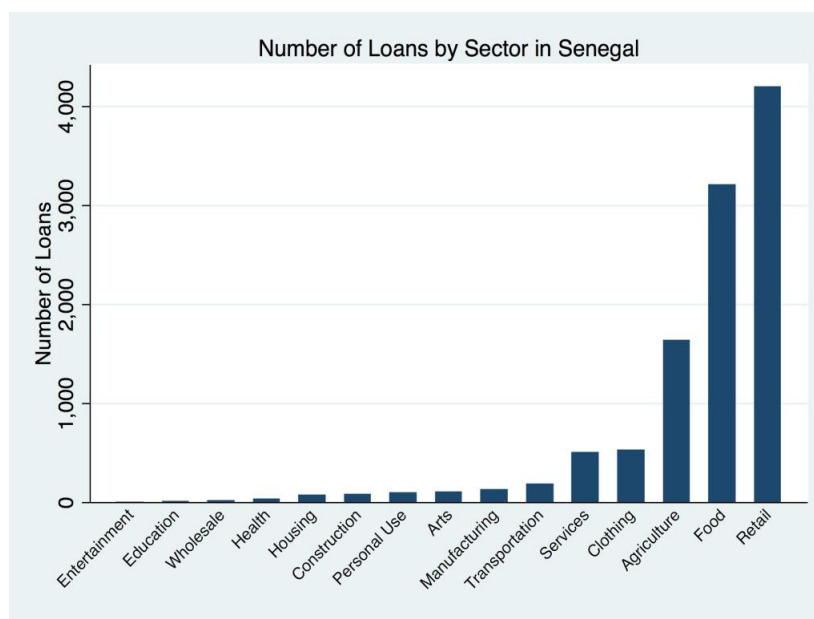


Figure 7: Microloans in Senegal by sector

Microcredit

Microsavings institutions, like microcredit institutions, fill a void unattended by traditional banks. Azi T*, the Director of Operations at Orange Money, a mobile money service, explained that Orange Money does not offer loans or credit opportunities, but instead provides clients with

the ability to safely store savings which fits into the overarching category of microfinance.

As is the case with microloans, financial requirements deter many from using the services. According to the Director of Operations at Orange Money in Kedougou, “putting in money is completely free, but withdrawing money comes with a small fee” (Azi T*, January 8, 2017). This fee naturally makes it undesirable to withdraw small amounts of money frequently, and adds extra costs when one could, potentially, just physically hold onto their money. Many of those interviewed stated that they avoid savings accounts, even through platforms such as mobile money, because of the withdrawal fees. Mamadou Jang G*, a construction worker in Kedougou said, “I don’t use Orange Money because the fees would take away my money” (Mamadou Jang G*, January 9, 2017). When asked where he puts his money, Mamadou Jang G* said, “I hide it. I put it in my hut and lock it when I go away or take it with me. It’s not good, though. It can be dangerous carrying around all of my savings” (Mamadou Jang G*, January 9, 2017). In addition, some cited the fees to opening a savings account as a barrier. Adama H* cited a fee of 10,000 CFA to open an account (approximately 16 USD) that, although not astronomical by standards in Kedougou, is enough to cause some like Adama to avoid opening an account.

During interviews in Senegal, the benefits of collectivist cultural norms in the context of micro savings became apparent. A few people interviewed described how, given the withdrawal fees, groups have merged together under one account. Coumba E*, for instance, described how norms in collectivist culture have adapted to the structure of microsavings in Senegal: “I know many people who share one account and all withdraw money if they need it. Some people don’t have savings accounts because of the fees. But other people share the fees by using one account” (Coumba E*, January 11, 2017).

Attitudes towards microfinance institutions (MFIs)

During interviews, there were noticeable differences in awareness of microfinance institutions between those interviewed in the Dakar region and those interviewed in the Kedougou region. The Senegalese capital of Dakar is an urban center for many MFIs, while Kedougou is the poorest region of the country with a lower population density (152,134 people in Kedougou, versus the 1.056 million people living in Dakar according to Senegal Census Data, 2013).

All people interviewed in the Dakar region were familiar with microfinance. When asked about their thoughts about microfinance, most gave answers reflecting a sentiment similar to Issa J*’s answer: “I think microcredit and savings are good. They help people start business and save for family and for school” (Issa J*, December 30, 2017). All of the people interviewed in Dakar seemed to have a positive view towards microfinance, even though less than half used at least one of the services provided by microfinance institutions.

While most people interviewed in the Kedougou region knew what microfinance was, multiple people interviewed indicated that they were extremely hesitant or afraid of such institutions. Most apparently, there was a consistent fear that one would be put in jail if they weren’t able to pay their loan. The origin of such a fear could potentially be sourced to the structure of microloans. To overcome the expensive administrative costs involved in lending to the poor, including due diligence on borrowers, MFIs diverge from traditional banks and informal moneylenders in how loan contracts are enforced. In addition to threatening to cut off all future lending to anyone who defaults outright, MFIs have a track record of removing almost all flexibility of loan repayments

(Banerjee et al., 2011, p.167). The stringent nature of loan contracts with many MFIs is also unsurprising given the politics of micro-finance: low default rates are often used as the proof-of-concept for microfinance institutions. The “portfolio at risk” (loans that may default, but will not all) was less than 4% in South Asia and no more than 7% in most Latin American and African countries in 2009 (Microfinance Information eXchange, 2017). According to the Kiva website, the repayment rate on all of their loans is 97.3% (The risks of lending, 2016).

However, in an interview with MFIs in Senegal, the actual enforcement of default cases was not excessively stringent. The bank manager at Credit Mutuel du Senegal, Badji E*, clarified the actual protocol of loan contract enforcement. According to Badji E* if a borrower did not pay, the bank would firstly follow up with the borrower, followed by the borrower’s family and the village chief and elders. Only when the borrower’s network has been fully explored are the police involved, initiating a process of repossession in which livestock or homes are taken over and sold by the bank. People are never arrested, however, as putting the customers in jail is not regarded as a productive way to recover missing funds.

Interestingly, when many of the village residents were interviewed regarding their attitudes towards loans, people seemed scared of the banks. One strategy that seems to keep MFI defaults low, whether used intentionally or not, is fear. Many of the people interviewed mentioned their fear of microfinance institutions. Awa B* from the village of Segou in the Kedougou region stated that: “I’m scared of the loans. The police will come if [they] can’t repay the loan.” (Awa B*, January 5, 2017). With a similar sentiment towards MFIs, Ibrahima G*, a subsistence farmer from Péllel, claimed that “Banks are scary. They will take everything you have and put you in jail if something bad happens and you can’t pay them back in time.” When asked what would happen if one was able to avoid the banks, the interviewee said, “They will find your family and take their things, and might put them in jail too. You can’t hide from the police” (Ibrahima G*, January 11, 2017). While there is clearly a large degree of misinformation between the microfinance institutions and the potential borrowers, it seems to be understood by the institutions. Badji E*, the bank manager, said that “the people in the villages are scared of us. They think banks are evil and that we want to take all of their things. They don’t understand how banking works” (Baji E*, January 12, 2017). From our conversations in the larger town of Kedougou with people who have family in the surrounding villages, we discovered that when no one in a village has ever borrowed from a bank, it is rare that bank loans will be sought out. However, once some in the village have successfully taken out microloans, people are more likely to pursue similar opportunities themselves.

The Influence of Collectivism on Borrowing Decisions

Groups are an integral part of microloans - not only for institutions that often use group-borrowing structures - but also in how individuals interact with microfinance institutions. While interviewing individuals in the Kedougou region, it became apparent that strong social networks influence borrowing decisions.

The case study of Mamadou B*, a man of thirty two years born and raised in Thiabekaare, Senegal, sheds light on how collectivist culture norms can influence borrowing and spending decisions. He is the son of the chief of the village, which may have brought some heightened social status, but economically he grew up much like the rest of the village - as a subsistence farmer. His family grows corn, peanuts and occasionally cotton and sells their excess at the end of harvest time. He is the father of two children, aged three and one, and has a wife, who, like almost the

entirety of the women in the village, is a homemaker.

Throughout the time Keaton has known Mamadou B*, which has been about four years as of December 2016, he has always expressed a strong work ethic and, by observation, is perhaps one of the more entrepreneurial young people in the village. He has been unique in that he has been hired to take on a part time job with a non-profit called EcoSenegal while also managing his own vegetable garden. He said that the garden barely pays for the work and time put into it, yet he expressed dreams of one day making the garden large enough that he can hire younger boys to work, thus allowing him more time to focus on selling what he grows. If he had funding, he says that he would buy a motor pump, which would allow him to expand his garden (right now his lugging watering cans to and from the river is inefficient enough that it limits the amount of produce he can grow). He stated that last year he had enough money to purchase a pump, however, both his wife and he fell sick. The hospital fees meant that he could no longer afford a pump.

Mamadou B* gave multiple explicit indications of how collectivist social norms affect his borrowing and spending activities. After being asked whether he'd consider taking out a loan, Mamadou B* stated his worry:

“If people find out you have money, they all ask for it. It goes away quickly to things that are most important. Families are huge here. If someone gets sick or needs the money more than me, I'd give it to them. I'm scared that if I get a loan, I will share it and then be unable to pay it back” (Mamadou B*, January 7, 2017).

With funds from Stride 4 Senegal, a nonprofit organization dedicated to Senegalese development, we had the capacity to facilitate an interest-free loan to Mamadou B*. Before even discussing the possibility of a loan, we spoke at length about the pros and cons of informal loaning structures with him. He said he wouldn't want to borrow money unless he knew he could repay it, so would want to think “mootya!” (hard!) before taking out an actual loan. “Yeembe no sekude nolugol sata, konno nolugol no sati bwee” he told me, which translates to, “People think loans are easy, but loans are very difficult.” He spoke at length about problems he has seen in the past with aid organizations just “giving”, and he expressed that he has seen firsthand that when people are given ‘free’ money they may not put in much work to sustain a project. When asked if people sometimes asked him for money because he has a garden and he said that it does occasionally happen.

Mamadou decided that he did want a microloan so that he could buy a gas water pump for his garden. In describing the benefits of such an investment, he said: “I don't mind watering the garden, but it takes a lot of time. It's hard to water it two times a day and I cannot expand the garden anymore with my other job in Dindefelo. If I have a water pump, I could save time and expand the garden.” (Mamadou B*, January 7, 2017). The conditions of the loan (in Appendix B), describe the structure and payment plan of the interest-free loan for 200,000 CFA (the equivalent of about \$330).

While Mamadou's garden and, now, his own gas pump statute him in a better economic position than the majority of the village, his initial concern for how his loan would fit into the context of his large social network was shared by many. Seydou L*, when asked what he would do if he got a large loan, stated that “I'd share it with my family. People share in Senegal” (Seydou L*, January 2, 2017). While more research needs to be done in this regard, there was certainly a common theme of informal redistribution, not only of money, but also of other items such as crops, food, and

clothes.

VI. Conclusion

As more microfinance organizations are being founded and more branches are being built, even in remote rural areas like the Kedougou region of Senegal, more research is needed to understand the influence of culture on microfinance. Naturally, there are effects in both directions: microfinance institutions can affect culture and culture can affect microfinance institutions. This research project aims to uncover how collectivist culture - and the norms associated with that culture - influence microfinance.

We construct a theoretical economic model to demonstrate how norms of informal redistribution common in collectivist cultures can reduce borrowing. Through a cross-country comparison of loans facilitated by Kiva from 2007 to 2016, we find that collectivist cultures tend to borrow less money for a shorter duration, of which a greater proportion is spent on sectors such as food, livestock, and agriculture than their more individualistic counterparts. Importantly, our research also involved three weeks of ethnographic fieldwork in Senegal to uncover some of the ways in which collectivist culture influences people's attitudes towards, and interactions with, microfinance. We find that collectivist culture is well-suited for the loan structures of many MFIs, such as group-borrowing. However, we also found, mainly through ethnographic interviews with individuals, that collectivists' cultural standards such as norms of redistribution make people hesitant to borrow money.

Future research should explore how culture influences microfinance in other cultural contexts, or better uncover the ways in which collectivist culture affects how people interact with institutions (MFIs being one of them). Additionally, research should be done on the specific loaning structures that should be different depending on cultural context. Our hope is that our research - along with future research - not only raises interesting questions but sheds light on the lives and attitudes of those affected by development efforts, whether related to microfinance or not.

VII. References

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Appendix A: Ethnographic Research Question**

1. Si goo'to joonee maa kalis seeda, ko hondung sortata? *Imagine we gave you a small amount of money.*

What would you spend it on?

2. Si goo'to joonee maakalis bwee, ko hondung sortata? *Imagine we gave you a large amount of money.*

What would you spend it on?

3. Si goo'to joonee maa kalis seeda fii boniface maa, ko hondung sortata? *Imagine we gave you a small amount of money for business. What would you spend it on?*

4. Si goo'to joonee maa kalis bwee fii boniface maa, ko hondung sortata? *Imagine we gave you a large amount of money for business. What would you spend it on?*

5. Kohondung wooni relation maa con der banque? Esque hida joogi compte? Esque hari a yihee kader banque fii nawalagol kalis? *What is your relationship with banks? For instance, do you have a savings account or have you ever borrowed money from a bank?*

*** These questions were carefully translated and asked in Pular by a local, native speaker.*

Appendix B: Mamadou B*'s Microloan Contact (translated into English)

Dindefelo, date : 08/01/2017 Name: Mamadou B* Address: ****

ID Number: **** Telephone number: *****

Objective: A loan application

I am a gardener, and do not have the assets to purchase what I wish for my business. I hope after my plea, you will be able to assist me in my wishes. I have a plot of land 40 meters by 40 meters and wish to irrigate and expand my vegetable growing operation. With a 200,000cfa loan, I will be able to purchase motor pump. The work is as follows: January-February: Preparation of land; March-April: Planting; May-September: Watering and tending to plants; October-November: Harvest/vegetable sales.

Signed: Mamadou B* Dindefelo, date: 01/08/2017

Contract

I, Mamadou B* (birthdate, village of residence and identification number provided), commit to having received 200,000CFA, to be used for the purchase of a water pump, from the hands of Keaton Scanlon (Batouli Ba). Signed: Mamadou B*.

Dindefelo, date: 01/08/2017

Plan for payment of bill

I, Mamadou B*, born *****, village of residence *****, ID number *****, has been paid the full amount of 200,000cfa without the charging of interest, with Ibrahima T* as a witness, on the 8th of January, 2017. The year of repayment will begin March 2017, with a 100,000cfa installment to be paid back by the 31st of August, 2017. The second installment of 100,000cfa will be paid back by the 31st February, 2018. These installments will be paid into the hands of Ibrahima T*, on behalf of Batouli B*.

Signed: Keaton Scanlon, Ibrahima T*, Mamadou B*

Notes

¹ We gratefully acknowledge financial support from the Kenneth I. Juster Fellowship and logistical support from Clare Putnam. We also thank Andrei Shleifer and Susan Kask for significant advising, suggestions, and general support with the research project. Hassana Diallo and Seidou Diallo provided in-country assistance and translated interviews.