



RESEARCH BRIEF

Community Membership and Reciprocity in Lending: Evidence from Informal Markets

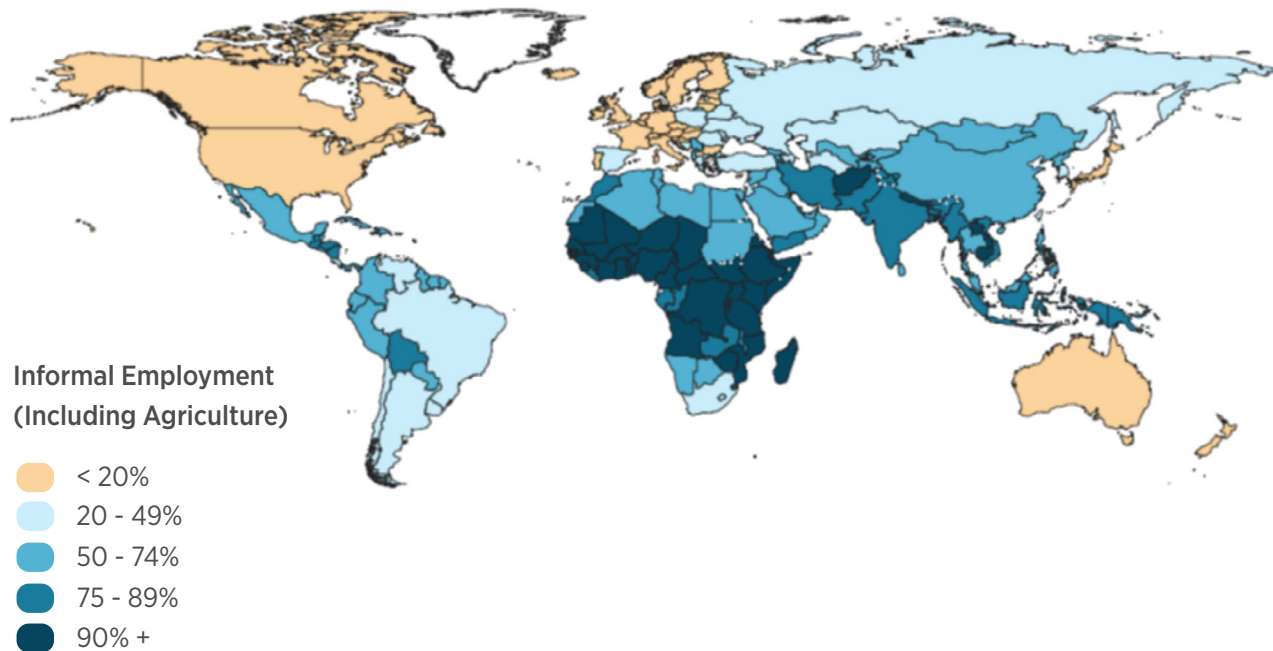
Based on BFI Working Paper No. 2021-114, *“Community Membership and Reciprocity in Lending: Evidence from Informal Markets,”* by Rimmy E. Tomy, Chicago Booth, and Regina Wittenberg-Moerman, University of Southern California

KEY TAKEAWAYS

- ✓ In the absence of formal financial markets, wholesalers and retailers often establish informal lending networks. Community is key to informal networks and is largely defined by place of origin and language.
- ✓ This research finds that wholesalers are more likely to lend to retailers within their community.
- ✓ Wholesalers are also less likely to repossess goods, deny future credit, or take other actions against members of their community.
- ✓ The observed cooperation between same-community wholesalers and retailers is consistent with an indirect reciprocity mechanism.

Imagine that you are a wholesale provider of textiles to retailers who sell their wares in a large bazaar in one of many communities across India. As a wholesaler, you receive your inventory from a large supplier in say, Mumbai or Delhi. It's a challenging business; margins are thin, and your livelihood depends on your retailers' success. At the same time, retailers often do not have enough money to purchase your wares and, therefore, you need to provide credit. To whom do you lend? In an informal market that is absent balance sheets and sales data, who do you trust? Where do you get your information?

Figure 1 • Distribution of Informal Employment (2016)



Source: Tackling Vulnerability in the Informal Economy.

These and similar questions are the motivation behind recent research from Booth School's Rimmy E. Tomy and Regina Wittenberg-Moerman of the University of Southern California. In "Community Membership and Reciprocity in Lending: Evidence from Informal Markets," the authors offer a novel theoretical insight into how such markets operate. In doing so, their work offers suggestions into how the introduction of more formal mechanisms could not only improve the operational efficiency of many informal businesses, but also enhance the lives of wholesalers and retailers.

Birds of a feather ...

Researchers have long been interested in the informal sector because of its estimated size: about 30 percent of GDP and 70 percent of employment in developing economies. Even so, the informal economy is marked by low levels of development and productivity, likely in part because businesses in this sector have limited access to banks and capital markets, and rely heavily on trade credit. Therefore, an understanding of the factors that can ease access to trade credit in the informal sector can help improve trade and investment in this sector, aiding its long-term growth.

To investigate those factors, the authors conducted a survey of traders in a large, organized marketplace, or bazaar, in lewduh, located in northeast India and the epicenter of trade in the region. The authors investigated factors that influence wholesalers' decisions to extend trade credit to retailers. The authors interviewed a sample of 503 traders operating in the market, of whom 146 were wholesalers and the rest retailers.

Including information gleaned in their surveys about other wholesalers and retailers, the authors assembled a dataset with information on 1,230 wholesaler-retailer links (relationships). For each link, they collected data on the provision of trade credit, including: whether trade credit was provided and, if so, under what terms; wholesalers' responses to retailer defaults; and characteristics of the link, such as the length of the wholesaler-retailer relationship. In addition, the authors collected demographic information about the traders, including gender, age, education, and years in operation.

Crucial to the authors' investigation was the role that community plays in disseminating information. They explore, in other words, how a community influences the allocation of credit and the mechanisms through which within-

Wholesalers' leniency might imply that retailers should repay outside-community wholesalers before repaying same-community wholesalers, resulting in higher within-community defaults. However, wholesalers face fewer defaults from same-community retailers.

community allocation is achieved. What, then, do the authors mean by "community?" Two factors, ethnicity and place of origin, are the key determinants of a person's community. When people from different origins and ethnicities come together in a "foreign" place, they often reside together and engage in similar social activities, whether religious or secular. Attendance and participation in these social events are important means of creating community and disseminating information among community members. In this way, wholesalers and retailers come to know each other—and to know about each other.

Before describing the authors' novel insight into the role of cooperation in community, let's review their primary findings:

- Wholesalers are more likely to lend to retailers from within their community. Specifically, wholesalers are 11.5 percent more likely to provide trade credit to retailers from their community, relative to retailers from other communities.
- Conditional on providing credit, wholesalers also provide 8 percent more credit to retailers within their community. Moreover, wholesalers are 13.6 percent less likely to experience defaults by these retailers.
- Wholesalers are less likely to repossess goods, deny future credit, or take other actions against members of their community. This leniency might imply that retailers should repay outside-community wholesalers before repaying same-community wholesalers, resulting in higher within-community defaults.

However, wholesalers face fewer defaults from same-community retailers.

The final finding, along with evidence that wholesalers lend preferentially within their communities, suggests the presence of a mechanism that incentivizes same-community wholesalers and retailers to cooperate. The authors propose that an indirect reciprocity mechanism explains such cooperation. In practice, this mechanism suggests a wholesaler who is more generous toward a retailer may derive benefits from other community members who are aware of her generosity. Such a mechanism can insure against income fluctuations and is a response to the lack of formal sources of insurance (e.g., social security).

Such informal insurance is critical for these small businesses, whose owners are not wealthy and cannot withstand large negative income shocks. In times of need, wholesalers rely on community members for help and, in return for this insurance, assist other community members even when doing so is costly. The cost to wholesalers arises from having to obtain additional resources to support larger amounts of trade credit to same-community retailers, while the cost to retailers relates to them not exploiting the leniency of same-community wholesalers.

The authors provide an extensive analysis in support of indirect reciprocity as key to financing within informal networks, including on wholesalers' access to funds, and on within-community information flows and their importance in establishing a positive reputation.

Conclusion

This research finds that wholesalers are more likely to provide trade credit and offer less restrictive credit terms to retailers from their community, relative to retailers from other communities, and they are more lenient when within-community retailers' default. Wholesalers are also more likely to be repaid by same-community retailers.

This phenomenon is consistent with an indirect reciprocity mechanism, according to the authors, wherein credit allocation within communities helps mitigate income shocks. When a trader experiences a sudden decrease in income, she relies on her community for support. In return, traders assist

other community members, even when it is costly. This reciprocity incentivizes same-community wholesalers and retailers to cooperate.

The authors are careful not to generalize their results to informal networks in other countries where, for example, weaker community ties may exist. Future research offers rich opportunities to explore these and related questions. That said, even this early work could prove useful to policymakers who hope to improve the lot of wholesalers and retailers operating in informal markets. A better understanding of how informal markets work, especially the importance of indirect reciprocity, could help introduce more formal mechanisms that could protect the millions of people working in the informal economy.

CLOSING TAKEAWAY

Informal insurance is critical for these small businesses, whose owners are not wealthy and cannot withstand large negative income shocks. In times of need, wholesalers rely on community members for help and, in return for this insurance, assist other community members even when doing so is costly.

READ THE WORKING PAPER

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