

# The challenging dynamics of microcredit in Angola<sup>1</sup>



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Personal characteristics and capacities are important for whether microcredit clients succeed in business. In particular, a client's education influences business profitability. However, to benefit from group-based microcredit, clients also need to be in credit groups that develop appropriate norms of solidarity. The education of group members may help develop in-group solidarity, but certain types of within-group heterogeneity can be detrimental to group norms and group survival.



be improved. The lack of available data is not just a problem in Angola, but seems to be a more general phenomenon in many resource rich developing countries. The upshot is that while we know quite a bit about the macro level challenges such countries face, less is known about the micro level.

This brief presents findings from a project jointly conducted by the Chr. Michelsen Institute (CMI) and Development Workshop (DW) in Angola, which has analyzed poverty and entrepreneurship among the poor in Luanda, the capital of Angola. The project focused on the role and dynamics of microcredit, i.e. small loans given to micro-entrepreneurs, often on a group basis, where clients are members of credit groups with joint liability for each other's loans. While some see microcredit as an effective tool for entrepreneurship and poverty reduction, rigorous evaluations of their effects have been more muted in their assessment. A lot of research has been conducted on the preconditions for microcredit to

## Introduction

There has been little quantitative analysis of poverty dynamics in Angola. The recent census notwithstanding, little data has been collected and is available for research purposes in this heavily oil-dependent economy. We hence know little about the situation of the poor in Angola, the factors that shape their living standards, and how their living standards can

work, focusing in particular on the characteristics of clients and the way in which microcredit is given, for instance in terms of loan sizes, interest rates, repayment and so on. Our project adds to this research by studying these questions in an Angolan context, and by focusing on how credit group dynamics influence chances of success.

The project conducted a survey covering 539 microcredit clients in 51 credit groups, randomly selected among the clients of two urban branches of the largest non-commercial microcredit institutions in Angola, KixiCrédito. We performed in-depth interviews with the clients in 2010 to look at the importance of client characteristics for business success, and to study short term determinants of group solidarity. We collected additional information on the credit groups in 2014 to look into longer-term questions of group survival and group exit. In the following, the main results from the project are presented.

## Education matters for the success of entrepreneurs

According to our 2010 survey, the sample of microcredit clients ran very small businesses, a large majority was informal, and the median business had no employees outside the household. In other words, our sample consists of small enterprises, often termed micro-enterprises. Almost 95 per cent of entrepreneurs were involved in various types of retail sales, some in combination with simple manufacturing or service provision, the rest were involved in manufacturing (of clothes, food, furniture and more) or services (hairdressing, beauty salons, transport and more). Two thirds of our sample are women, consistent with the female-male ratio in the KixiCrédito client base. In 2010, most respondents had only been KixiCrédito clients for a few years. The median client got his/her first loan in 2008. Average current outstanding loan size of the clients was about 100.000 Kwanza (a little more than 1000 USD at the time of the survey), which was also the average in the KixiCrédito system. The weekly profit of the median enterprise was about 100 USD, and the mean about 250 USD. This is substantially higher than in similar surveys from other developing countries, but consistent with the fact that Angola is an oil economy with a substantially higher price level.

While a number of previous empirical studies have been conducted on the effect of the entrepreneur's education on the profitability of an enterprise, most do not address the key methodological problem that education is endogenous: Education and entrepreneurial success may both be influenced by underlying variables, such as ability, which may lead estimates of the impact of education to be biased. In using the DW-CMI survey data to estimate the impact of education on the profits generated by the microcredit clients, we used an instrument variable approach to address this problem.

Our results suggest that education is an important determinant of the extent to which microcredit clients succeed in business. The estimates suggest that an added year of formal education has a return of between 7.1 and 9.4 per cent in terms of added

profits. Increasing human capital therefore seems an important underlying factor in enabling micro level entrepreneurs in Angola to lift themselves and their households out of poverty.

Additional results also speak to the potential importance of health and social capital. These results should be taken as suggestive rather than conclusive, as the above mentioned methodological problems may remain. Chronic illness has a significantly negative relation to entrepreneurial success. Entrepreneurs who report being chronically ill have almost 30 per cent lower profits than individuals in good health. If confirmed by more rigorous evaluations, these results give cause to consider health interventions aimed at entrepreneurs. For social capital, we found little relation between an entrepreneur's level of trust and profitability, nor did the nature of his or her network matter. The exception is that entrepreneurs who know a local police officer had significantly higher profits. Informal interviews conducted suggest that police corruption is an important constraint to entrepreneurs in Angola. Looking at local institutional arrangements may be important to understand the situation and prospects of micro-entrepreneurs in this context.

## Education promotes norms of credit group solidarity

Our 2010 survey included an economic experiment among the microcredit clients. The experiment took the form of a dictator game. In this game, each participant (or dictator) was given 500 Angolan Kwanza (about 5.4 USD at the time of the experiment), and told that he could keep the money or give some or all of it to a recipient. The decision was anonymous in the sense that the recipient would not know the identity of the dictator, nor would the dictator know the identity of the recipient. The game was played in two versions. In the first version, the recipient was a fellow credit group member of the dictator. In the second version, the recipient was not a member of the dictator's credit group.

Fully rational, self-interested individuals should give nothing to the recipient in this game, keeping all the money for themselves. In our experiment, keeping all the money was in fact the most common decision, made by 28 per cent of participants in the first version of the game and 41 per cent in the second. The rest, however, gave away some or all of the money, exhibiting altruism or egalitarianism. The second most common decision was to give half the money to the recipient, a not uncommon pattern in these types of games.

Our analysis of the game, however, focused on in-group favoritism, i.e. the ratio of the sum given to a member of your own credit group compared to the sum given to an outsider. We found that more highly educated participants favoured in-group members to a greater extent. The more years of education a client had, the greater was the amount given to a fellow group member compared to the amount given to an outsider. This is a striking result, as education is often believed to broaden the perspectives of people, making them less likely to favour their

own narrow social group. Educated group members hence seem important contributors to the establishment of norms of solidarity within a credit group.

The result suggests that group composition is important in generating favourable norms of cooperation within credit groups. Having educated members in a credit group increases solidarity, at least in the short run, and this result is robust to controlling for other aspects of group composition through group fixed effects. While this is an important insight, data from the 2010 round was less informative about what other aspects of the credit group composition were decisive in improving interactions in these groups, and could not really be used to study more long-term effects. To get more insight into these matters, we therefore conducted a second round of data collection in 2014, four years after the first round of interviews.

## Fragmented groups have a greater risk of collapsing

Our 2014 data showed that 19 of the 51 credit groups originally surveyed in 2010, no longer existed. The fact that more than a third of the groups had disbanded in just four years is striking. We therefore wanted to look into the factors that made some groups survive, while others did not.

In theory, there are two main reasons why groups disband. The first has to do with graduation; micro-credit groups are essentially based on this rationale, they should promote access

greater propensity for exit was due to graduation from or break down of the groups. Graduation seems an unlikely explanation, as being in a more diverse group does not correlate with being in a group where networks are more extensive. Our data instead suggests that diversity in terms of social identity has a negative relation to norms of solidarity in the credit groups. Religious fractionalization is highly negatively correlated with the proportion of group members who practice in-group favoritism in the dictator game experiment, i.e. with giving more to a fellow group member than to an outsider.

Interestingly, within-group economic inequality is related to group exit probabilities in a different way. Inequality in household income of group members is associated with a decrease in the probability of exit, but decreasingly so, and only up to a point. Higher exit rates of more economically equal groups could be explained by graduation if being in a group characterized by equality is somehow connected to doing well. However, this does not seem to be the case. Instead, we have some evidence that groups with a higher level of inequality are more dynamic, since average profits tend to increase with inequality in a group at a diminishing rate. An alternative explanation could be that our inequality measure simply captures groups whose members have greater variability in income over time, and who develop solidarity norms or mutual insurance mechanisms to counteract this. We find some support in the data from the dictator game for this explanation; as income inequality increases, a lower proportion of group members transfer no money to their own



Education is important for succeeding in business.

to capital and reduce poverty to an extent where the members can put up their own collateral and apply for standard individual loans. The other main reason that we can consider for why groups are disbanded, is if they are or become dysfunctional and break down. Our analysis focused on whether heterogeneity in group composition was related to the probability of group exit, and if so, whether this happened through graduation or groups breaking down. In principle, the effect of heterogeneity is ambiguous. A greater diversity of ideas, experience, and networks can have a positive effect on members' benefits from group membership, but diversity can also create conflict.

Our results showed that groups that were more heterogeneous in terms of social identities, had a higher probability of having closed down. In particular, religious fragmentation of a group was negatively and significantly related to survival. Diversity in social background hence appears bad for chances of credit group survival. Further analyses looked into whether this

group member. It is, however, difficult to distinguish further between these mechanisms.

Little other evidence is available on the effect of credit group composition on group norms, functionality, and longevity. If confirmed by further studies, our results suggest that microcredit institutions face some challenging dynamics. Heterogeneity among members may have different effects according to its nature. Fragmentation in terms of social identity may be detrimental to how well a group functions, but economic inequality not necessarily so, depending on how extensive it is. This provides some guidance for microcredit institutions in thinking about how to put groups together, including the question of whether and how to constrain self-selection into groups. However, we stress that clear dilemmas remain. Even if greater diversity with respect to social identity should come with a greater risk of group collapse, greater interaction between diverse individuals may be desirable in a wider perspective.

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## Endnotes

This policy brief reflects views of the authors on findings of the project «Dynamics of poverty among micro-entrepreneurs in Luanda», and not necessarily those of the collaborating institutions.

## Further reading

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