Do micro-credit, micro-savings and micro-leasing serve as effective financial inclusion interventions enabling poor people, and especially women, to engage in meaningful economic opportunities in low- and middle-income countries? A systematic review of the evidence

Executive summary

Background

Micro-leasing, micro-credit and micro-savings are three financial inclusion interventions which have the potential to transform the lives of those with limited access to financial services. In theory they have the potential to enable investment in income generating activities, consumption smoothing and financial planning. In December 2011 a working group of the United Nations Capital Development Fund (UNCDF) even explored microfinance as a tool for social protection through savings. In practice however, for a long time, we lacked convincing objective evidence of the impacts of these interventions, either negative or positive. While early evaluations suggested these interventions were promising, most recent evidence is less clear-cut about their effects. Furthermore, while they have been advocated as tools to enable women greater economic empowerment, we do not know whether interventions that specifically target female entrepreneurs are more or less effective. The results of the first randomised controlled trials (RCTs) on micro-credit in Manila and Hyderabad in 2009 challenged the idea that microfinance reduces poverty (Banerjee et al. 2009a, Karlan and Zinman 2011). In addition to the scientific discussion of the nature of available evidence about the impact of microfinance, whether positive or negative, or indeed the absence of any evidence either way, microfinance has also received much negative media attention over the last few years which has raised the profile of the debate and increased the pressure to address the question of the effectiveness of microfinance.

Specifically there are unanswered questions about the success of micro-leasing, micro-credit and micro-savings in enabling poor clients to engage in economic opportunities, which include starting a business or extending/growing an existing enterprise, for example opening a market stall, or sowing a cash crop. There are further questions about the extent to which these opportunities are meaningful in terms of financial outcomes. We do not know how, for whom, and in what circumstances these interventions are successful (or not), nor whether specifically targeting women is more or less effective for combating economic gender inequalities than more mainstream interventions.

This review set out to address these questions using systematic review methodology which employs a replicable, rigorous and structured approach to identifying, selecting and synthesising good quality relevant evidence on any given topic. In addition to reviewing the evidence of impact, we developed a theory of change, also called a causal pathway.

The potential causal pathways through which access to finance can impact on economic growth are complex (Levine 2004); our previous work highlights this specifically in relation to microfinance (Korth et al. 2012, Stewart et al. 2010b). This review specifically examines two key steps in the logic pathway: engagement in economic opportunities and the outcomes of this engagement for clients. Specifically we examine microfinance's impact on the following outcomes: starting a business or investing in someone else's including: setting up a micro-enterprise or extending/growing an existing enterprise, opening a market stall, or sowing a cash crop. This review also considers the financial outcomes of clients' engagement in these kinds of economic opportunities. These include outcomes such as 'returns to capital', 'increases (or decreases) in capital stock', 'increases (or decreases) in profit', 'fixed asset investment', etc. We have captured the wealth outcomes

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reported in included studies and classified these in terms of income and assets. They include both increases and decreases in income, expenditure and accumulation of assets, whether financial assets (i.e. savings) or non-financial assets. Each is considered at the individual, household and business level.

Methods

Our protocol for this review was peer reviewed and published in June 2011. Throughout the review, we drew on the expertise of potential users, including policy advisors and microfinance organisations, seeking their input into where to search for relevant literature, on our initial findings and on how best to disseminate this work.

In order to identify all the relevant literature we searched systematically for evaluations of micro-leasing, micro-credit or micro-savings in low- and middle-income countries (LMICs), looking in six specialist trial and systematic review databases, 25 more general electronic bibliographic databases and Google Books. We also searched 31 organisational websites, contacted key individuals in the field, conducted citation searches for key publications, scanned the included literature from five related systematic reviews, and searched the reference lists of initially included papers. Our search results were screened in two stages and those papers that met our inclusion criteria were then coded by a team of four researchers to ensure accuracy and consistency, avoid bias, and maintain clarity. All relevant studies were assessed using predetermined quality criteria, and the findings of those studies judged to be 'good enough' were included in the review.

The findings of these studies were then synthesised using two approaches: (i) identification of whether each intervention was having statistically significant positive, negative, varied or no effects on the lives of clients, and (ii) narrative synthesis of findings using matrices. We developed a causal chain to unpack how microfinance impacts on poor people and mapped the available evidence of effectiveness on to this causal chain. While the limited evidence base made it difficult to conclude with confidence for any of our review questions, we gained greater understanding of the issues which enabled us to draw out implications for policy and practice.

Findings

Microfinance is a particularly challenging area to evaluate using rigorous research designs, which in turn made it difficult to systematically review. Challenges included the complexity of microfinance itself, as well as the difficulties of evaluating a social intervention across varied development contexts.

We identified over 14,000 citations that were assessed against our inclusion criteria and reduced to 84 relevant studies. Of these, 17 were judged to be of good enough quality for inclusion in this review. The interventions assessed in these studies varied widely and there was variation in their findings, with both positive and negative impacts identified. There was no rigorous relevant evidence about micro-leasing available so we are unable to say whether micro-leasing actually increases or decreases poor people's engagement in economic opportunities or influences subsequent financial outcomes. Our findings with regards to micro-credit and micro-savings are summarised below in relation to our key research questions.

Do micro-credit and micro-savings enable poor people to engage in economic opportunities and, if so, which type of economic opportunities?

We looked for causal relationships between micro-credit and micro-savings and engagement in economic opportunities. In simple terms micro-credit should enable the poor to invest in income generating assets such as stock for sale. Micro-savings, on the other hand, ought to enable those with a variable income to improve their financial planning, for example saving money for annual farming costs such as seed and fertiliser. Savings are therefore less likely to increase engagement in economic opportunities, although they may sustain engagement for those who already have an income.

The available evidence suggests that micro-savings does not significantly increase poor people's engagement in economic opportunities. There is some evidence that micro-credit influences poor people's engagement in economic opportunities. The evidence on combined micro-credit and micro-savings suggests that these do not impact on income diversification, although borrower/savers are more likely to have more than one business.

Does microfinance and engagement in these economic activities impact on clients' income?

We would expect microfinance, when combined with economic opportunities, to impact on income in various ways. Micro-credit is expected to increase incomes eventually, although this may not become a reality for some time due to the incurred debt which must be repaid. Micro-savings should, in theory, enable better financial planning, which might smooth income, and potentially increase longer-term income, for example by enabling accrued savings to be spent on extending a business, or sustaining a business by covering seasonal shortfalls.

The available evidence shows that micro-savings using a commitment account increases the value of savers' businesses, but does not increase their business profits (in Malawi). Ordinary savings accounts have no effects on clients' income. Micro-credit appears to have a largely positive impact on borrowers' income, although these data are not completely reliable and may be prone to bias. Data from Ghana show a positive association between micro-credit and income in some areas but a negative one in others, and in some areas those who have been borrowers for longer have lower incomes. Combined micro-credit and micro-savings appear to increase income in India and Kenya, but not in Indonesia. These studies are, however, prone to bias.

Does microfinance and engagement in these economic activities impact on clients' savings?

In theory microfinance is likely to have varied effects on clients' savings. While the availability of savings accounts, and particularly commitment accounts, may encourage and facilitate saving any available profits, the requirement within micro-credit to make debt repayments might be expected to decrease levels of savings, at least until those debts have been paid off. Many micro-credit schemes require borrowers to accumulate savings before credit is made available, and sometimes throughout the loan period.

The evidence shows that micro-savings does significantly increase people's savings in Malawi and Kenya, although in Kenya this is only true for women. The best available evidence on micro-credit (from Bosnia and Herzegovina) suggests that micro-credit has reduced people's level of savings, while slightly less reliable evidence from Uganda and Zimbabwe suggests that borrowers' savings increase. In Peru credit is found to have no impact on savings. Data from Kenya and Indonesia find no significant effects of combined micro-credit and micro-savings on levels of savings, although these data are not 100 percent reliable.

Does microfinance and engagement in these economic activities impact on clients' accumulation of non-financial assets?

In theory micro-credit is expected to increase clients' accumulation of non-financial assets for use in their businesses. However, the requirement to repay debts may lead borrowers to sell non-productive non-financial assets to raise funds quickly. Micro-savings ought to enable clients to accumulate funds gradually and therefore enable them to invest in non-financial assets in the longer term.

Reliable evidence from Malawi shows that micro-savings using a commitment account increases savers' accumulation of non-financial assets; however, ordinary accounts have no significant impact. Three slightly less reliable studies of micro-credit find no significant impact of micro-credit on the accumulation of non-financial assets at the household level, although two did find a significant impact at the business level. One further study from Bangladesh found a significant association between women taking out loans and their accumulation of nonland assets; however, this evidence is not sufficient to establish a causal relationship.

Evidence on the impact of combined micro-credit and micro-savings is not 100 percent reliable but suggests mixed effects with regard to the accumulation of non-financial assets: in Indonesia there was no effect found while in Kenya researchers found a positive significant impact of combined credit and savings on the accumulation of non-financial assets. There is a negative association in Ethiopia between combined credit and savings and clients' holding of assets and also their need to sell goods to pay for basic needs, while there is no association between engagement in the programme and the ownership of livestock.

Does engagement in these economic activities impact on clients' expenditure?

The theoretical relationship between microfinance services and expenditure is complex. It is not always clear what changes in levels of expenditure mean, as they can relate to increased investment in productive goods (such as a bicycle or sewing machine), an increased quality of life (such as better nutrition) or merely an indication of more cash to spend.

Reliable evidence from Malawi shows micro-savings has no significant impact on expenditure. Evidence from Kenya similarly shows no impact on business expenditure or on gifts and remittances, although it does suggest micro-savings significantly increases spending on foodstuffs and personal items such as alcohol and clothing. High-quality evidence from Bosnia and Herzegovina showed no significant effect of micro-credit on business consumption but found a significant decrease in consumption of food at home among clients with businesses who have low levels of education. Slightly less reliable studies suggest that micro-credit increases expenditure in Thailand, Bangladesh and Vietnam although this is contradicted by other similar studies in Peru, Zimbabwe and Uganda. There is a positive association between expenditure and loans in data from Bangladesh although this is not evidence of a causal relationship.

Combined micro-credit and micro-savings in India appear to have increased spending on housing improvements and consumer goods, but not on food; however, this evidence is not 100 percent reliable. Two studies do show an association between household expenditure and participation in combined credit and savings programmes in Zanzibar and Ghana although the evidence from Ghana applies to some regions and not others, and both these studies are not robust enough to establish a causal relationship.

Overall findings

While it is difficult to generalise from the available evidence, what we found can be summarised as follows:

1. We found no studies of the impact (positive or negative) of micro-leasing, either on engagement in economic opportunities or on the financial outcomes of such engagement.
2. We found no evidence that micro-savings enables engagement in economic opportunities, although in some cases, but not all, it increases income, savings, expenditure and the accumulation of non-financial assets. The most rigorous evidence on micro-savings comes from studies in Malawi and Kenya. The first shows that commitment savings accounts increase levels of non-financial assets among savers while the evidence from Kenya suggests savings accounts increase female market vendors' levels of savings and expenditure.
3. Micro-credit sometimes increases engagement in economic opportunities, but not always. The most rigorous evidence is from Bosnia and Herzegovina and shows that micro-credit leads young people to start new businesses; however, this was only true of those with relatively high levels of education or vocational training. Micro-credit can also increase income in some circumstances, but reduces it in others. It has similarly mixed impacts on levels of savings and accumulation of assets, and in most cases reduces expenditure, although the advantages or disadvantages of the latter are not entirely clear.

4. Even when combined, the provision of micro-savings and micro-credit has little impact on clients' engagement in economic opportunities. Combined services have mixed impacts on income, the accumulation of non-financial assets and on expenditure. There is little evidence about the impact of combined services on levels of savings.

There is not enough evidence to ascertain whether or not these financial interventions have different impacts at the individual, household or business levels, nor can we identify patterns in the exact circumstances in which microfinance has positive impacts for clients. Based on the studies in this review we cannot tell whether group or individual lending models are more effective forms of micro-credit. We also cannot tell whether combining micro-credit, micro-leasing or micro-savings with other complementary interventions such as business training makes a difference. While some reviewed studies targeted women specifically and others disaggregated outcomes by gender, there is not enough evidence to allow us to conclude whether financial interventions targeted at women are more or less effective for them.

Our causal pathway analysis highlights the contradictory nature of the evidence available, as well as the many gaps in the evidence base.

Discussion

The varied nature of the evidence makes it difficult to draw conclusions; however, it is clear that both micro-credit and micro-savings can reduce poverty but do not in all circumstances nor for all clients. Given these varied results, it is important to consider whether there is potential for harm in offering either of these services, or indeed in not doing so. While the lack of financial services may limit the ability of the poor to withstand shocks or to increase their wealth, micro-credit also brings the risk of increased debt and loss of collateral. It is harder to envisage a potential for harm in having a voluntary savings account. This logic, combined with the mixed evidence for positive impacts suggests that micro-savings is the 'safer' intervention and that arguably the poorest of the poor should not be offered micro-credit without careful consideration of the implications for their lives of increased debt.

We have also drawn methodological lessons from this work. It is frustrating to have conducted a review which is large in many senses, but is at other times so narrow as to exclude interesting evidence. We strongly recommend that a different approach to the commissioning of systematic reviews is adopted in international development, one which steps back from the urgency of assessing whether or not a broad programme has an impact, and first produces detailed and comprehensive maps of the evidence in any given area.

Conclusions and implications

We anticipate that users of this research will want to undertake a process of interpretation and application of the results of this review. However, on the basis of our findings we draw out the following implications for policy, practice and research:

Implications for policy

- As with all credit products, there is a need for caution given the potential for both good and harm to clients. In particular, because micro-credit makes some people poorer and not richer, there is an imperative to be particularly cautious when targeting the poorest of the poor. There is less risk if services are targeted at those who already have some financial security, such as savings (often integrated into micro-credit programmes) or another source of income, which will allow them to make loan repayments even if their businesses do not generate a profit immediately.
- Micro-savings appears to be a more promising intervention for clients, and might potentially be extended to the poorest of the poor as it has limited scope for harm. Savings services, without linked credit, should therefore be made more widely available for the poor.
- Micro-credit benefits some clients and the potential for increasing income and reducing poverty for some should

be carefully balanced with the possible risk to others.

- Rigorous evaluation of pilot programmes is required prior to roll-out in order to minimise the risks of doing harm.
- There is, as yet, a lack of evidence about whether interventions that target women benefit them more than those which do not specifically target women. While care should therefore be taken to avoid excluding women from financial interventions, extra effort to focus micro-credit and micro-savings exclusively on women as opposed to including them in mainstream interventions are not warranted by the evidence base.

Implications for practice

- Practitioners, as well as policy-makers, need to be cautious when deciding whom to target with micro-credit services. Micro-credit ought only to be targeted at the poorest of the poor with considerable care because some clients will be made poorer as a result of taking out a loan, the consequences of which could be devastating. Services should be targeted at those who already have some financial security, such as savings or another source of income, which will allow them to make loan repayments even if their businesses do not generate a profit immediately.
- Those implementing microfinance services should note that micro-savings using commitment accounts is a promising intervention for clients.

Implications for research

- Rather than establishing conclusively whether or not microfinance reduces poverty, we anticipate the value of future research will be in identifying how, and in what circumstances, these financial inclusion interventions can work for the poor.
- There is a need to conduct more primary research to unpack the different stages of the causal pathway as the evidence base in this complex area remains small. When choosing study designs researchers should carefully consider potential risks of bias. Our review suggests that RCT designs are mostly likely to provide robust assessments of impact. There is a need for focused questions and validated outcome measures.
- There is a need for greater standardisation of outcomes considered within impact studies, as well as greater standardisation of outcome measures. Research needs to consider longer-term outcomes.
- There is a need for the development and implementation of standardised minimum reporting requirements to ensure lessons can be learnt from the research that has been done.
- New studies are needed which contrast interventions targeted at women with those that are not. Analyses disaggregated by gender should be routine in all impact evaluations.
- More research is also required which explores different models of microfinance in order to provide more valuable informative evidence to guide decisions around which models are funded and implemented in which circumstances.
- There is a need for studies that assess whether combining micro-credit, micro-leasing or micro-savings with other complementary interventions is more or less successful.
- Micro-leasing is an under-researched area with potential for reducing poverty but also for increasing over-indebtedness. Efforts should be made to evaluate any existing and planned programmes to inform future decisions about this intervention.
- Reporting of all research needs to be improved, and greater clarity encouraged for reports published online without peer review.

While there is much to be learnt from systematic reviews, having conducted two systematic reviews on the impacts of microfinance we suggest that:

- No new systematic reviews of the effectiveness of micro-credit or micro-savings are conducted until there is a significant increase in the volume of primary research.
- Systematic maps be drawn up of the literature related to broad policy areas such as microfinance and/or financial interventions before any further focused reviews are undertaken that address specific questions. Such maps can be used to identify more focused questions to be addressed in future primary research and in systematic reviews.

Executive summary

- Systematic reviews are still new in international development and there is a need to gather learning from teams undertaking reviews so that lessons can be learnt for the extended use of this methodology in other areas of development.
- When searching for relevant literature for development reviews it is important not to limit oneself to electronic databases as a considerable part of the literature included in this review was not published in mainstream journals or indexed in online electronic databases of research.

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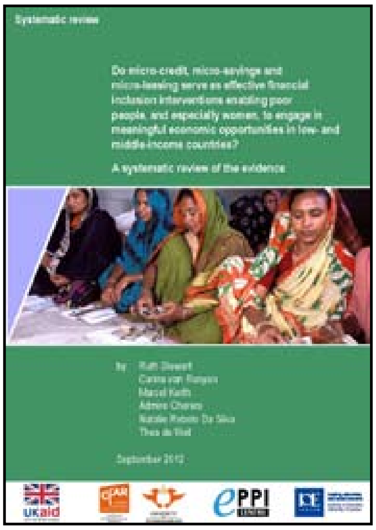

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