The case of mixed methods for impact evaluation in microinsurance

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8.1. Introduction

The preceding chapters discussed different approaches for assessing the impact of microinsurance, ranging from experimental and quasi-experimental (i.e., quantitative) approaches to qualitative approaches. However, these approaches should not be considered competing methodologies but rather complementary. A combination of different methods, in particular a combination of quantitative methods together with qualitative ones, provides insights strengthening the policy relevance of impact assessments.

Qualitative studies are employed as exploratory studies, preceding the quantitative work in order to explore topics to assess with quantitative analysis. However, there are many other ways of mixing methods, as shown by the following examples. Increased income is a commonly intended effect of crop microinsurance for insured farmers, since theory suggests that allowing farmers to take riskier but higher return investment decisions will result in higher income. This effect can be measured with quantitative methods, such as a randomised controlled trial (RCT). But what if a quantitative study applied to a microinsurance scheme finds that there is no difference in income between treatment and control group? A possible explanation for this finding could be that there simply is no causal relationship between microinsurance and income. However, there exist various other potential and plausible explanations: for example, it could have been that no seeds were available for purchase other than the ones farmers used before. In this case, lack of options would be the reason for stagnant income rather than a missing causal relationship between microinsurance and income under the right conditions. Hence, a succeeding study would unpack the causal chain for the farmer’s investment choices and explain the lack of increase in income. And, so, the insurance scheme can be adapted accordingly, and has also generated learning effects for other schemes.

However, qualitative methods alone can lead to unsatisfying results. Take, for example, a study with focus group discussions assessing the impact of a health microinsurance scheme. The participants might report that—despite being insured and health-care costs being at least partially covered by insurance—they still cannot seek sufficient treatment and that expenditures
on health remain very high. In this case, a quantitative study would be useful to measure the spending (total and out-of-pocket) on health care both for a treatment and a control group.

Both the above examples make the case for mixed methods: combining quantitative with qualitative analysis in order to assess the impact of microinsurance schemes.

8.2. What are mixed methods?

There are two parts to the definition of mixed methods: 1) methods, i.e., range of data collection processes, and 2) mixed, i.e., the combination of these diverse data into a single analysis. For most research teams, achieving a genuine mix of methods is a difficult challenge.

As Creswell and Plano Clark (2007) suggest in their definition of mixed methods research, it is not only the mix of methods, but also the underlying philosophical assumptions that determine this kind of research:

Mixed methods research is a research design with philosophical assumptions as well as methods of inquiry. As a methodology, it involves philosophical assumptions that guide the direction of the collection and analysis of data and the mixture of qualitative and quantitative data in a single study or series of studies. Its central premise is that the use of quantitative and qualitative approaches in combination provides a better understanding of research problems than either approach alone (Creswell and Plano Clark 2007, 5).

Whilst the examples above suggest combinations of quantitative and qualitative approaches and the term mixed methods is usually understood as this, the distinction between quantitative and qualitative can become difficult to maintain once engaged in actual field work. Participatory methods can generate numerical data while responses to quantitative surveys such as on subjective perceptions or views on priority projects may enter the qualitative domain. A more useful definition of the term mixed methods is analysis using data generated from different data collection processes (see table 1).1

1 See Bamberger et al. (2010, 3) for a discussion around this point.
Table 1: **Data from different kinds of data collection instruments**

<table>
<thead>
<tr>
<th>Data collection instrument</th>
<th>Possible uses</th>
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<tbody>
<tr>
<td>Project documents</td>
<td>Describing intervention and elaborating programme theory</td>
</tr>
<tr>
<td>Expert knowledge (academic papers or interviews with experts)</td>
<td>Elaboration of programme theory</td>
</tr>
<tr>
<td>Academic literature on intervention type and region of intervention</td>
<td>Forming evaluation questions</td>
</tr>
<tr>
<td>Principal investigators exposure to field (with some structured components)</td>
<td>Contextualisation for study, understanding of causal linkages</td>
</tr>
<tr>
<td>Beneficiary focus groups</td>
<td>Identifying priority and possible unintended outcomes</td>
</tr>
<tr>
<td>Structured surveys</td>
<td>Statistical analysis of the counterfactual Statistically representative presentation of the factual</td>
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However, just using both qualitative and quantitative data collection instruments is not sufficient to be considered a mixed methods approach. In the case of impact evaluation, a further useful distinction is between factual and counterfactual analysis. A theory-based impact evaluation will mix (combine) both factual and counterfactual analysis. The counterfactual analysis is the analysis of attribution, that is, measuring the impact by comparing treatment and comparison groups, using experimental or quasi-experimental designs. In contrast, factual analysis does not rely on a comparison group, but is simply describing what happened in the treatment area. Such factual analysis is an important part of a theory-based impact evaluation. The factual analysis may be either quantitative, such as a targeting analysis of who benefits from the scheme, or qualitative, such as focus group discussions of alternative risk coping mechanisms to understand the demand for microinsurance. Table 2 shows these categories. Many impact evaluations focus only on the categories described in the top right cell, which limits their ability to give policy relevant conclusions.
8.3. What are the potential advantages of mixed methods?

Mixed methods strengthen impact evaluation designs in the following important ways:

- Studies should be driven by issues (questions), not methods. Having a range of methods at hand means that all questions can be addressed, not just those amenable to particular methods. Some evaluation questions need quantitative data, and some need qualitative data.
- Quantitative analysis can be strengthened in a number of ways by using qualitative methods, such as data on context to inform survey design for quantitative data collection and casting light on the interpretation of quantitative results (see examples in section 8.5).
- Vice versa, qualitative analysis can be strengthened in a number of ways by using quantitative methods. This is true for both factual and counterfactual analysis, supporting qualitative results by quantitative measures. For example, unpacking the causal chain (as in theory-based impact evaluation) by qualitative analysis often requires answering a number of quantitative evaluation questions as well, or at least having numbers on hand helps to do this.
- Purely quantitative impact evaluations are sometimes criticised as having strong internal validity but weak external validity (e.g., Leeuw and Vaessen 2009; Cartwright 2007). Mixing methods provides more context for the intervention and so a better understanding as to which settings the results may be generalised.

8.4. How mixed methods may be used

Mixed methods can be used in the following three ways, as described by Carvalho and White (1997):

1. Integrating methodologies. Combining quantitative and qualitative work in part of the evaluation, this can be both concomitant and sequential, and for the latter, both

<table>
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<th>Table 2: Categories of analysis</th>
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<td><strong>Factual</strong></td>
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<tr>
<td>Quantitative</td>
</tr>
<tr>
<td>Qualitative</td>
</tr>
</tbody>
</table>
kinds of studies can succeed or precede each other. As in the example given above, a qualitative study may succeed a quantitative one in order to explain the results from the quantitative part and to unpack the causal chain, in particular if unexpected results occur. However, a qualitative study may also precede a quantitative one in order to explore potential impacts and outcomes. Very often, microinsurance schemes are different in practice than planned on paper. Conducting quantitative and qualitative studies concomitant to each other can help with understanding the context and how the intervention works in practice at field level. Thus, they can strengthen each other’s results. Take, for example, a health microinsurance scheme with insurance for outpatient treatment at particular local medical practitioner or in a particular clinic. Quantitative methods may show no increase in health care utilisation for the treatment group and, indeed, higher total costs of health care. However, qualitative methods, such as focus group discussions, might reveal dissatisfaction and lack of trust with the insurance’s practitioner. Hence, the insured go to other practitioners, without making use of the insurance. In combination, these data reveal valuable insight into microinsurance in practice.

2. Confirming, refuting, enriching, and explaining the findings of one approach with those of the other. This is possible when applying the concept of triangulation, by which different methods support the same conclusions (confirming), or do so whilst adding more understanding (enriching). Triangulation is an important and often used concept in mixed methods research. Such triangulation makes the study findings more convincing. However, there may be cases when data conflict with one another (refuting), in which case further work is needed to resolve or understand this conflict. Take, for example, a health microinsurance programme. Asking about different illnesses by using a quantitative, structured survey may show that health has increased within the treatment group. However, at the same time, results of focus group discussions of insured or of key informant interviews with physicians or hospital staff reveal that health has worsened. On the one hand, qualitative samples might easily be biased in their coverage, with a more formal sample survey giving a more representative view. On the other hand, quantitative surveys might neglect important issues of the causal chains. Hence, complementary studies are needed to explain this apparent contradiction in findings.2

2 For more on this please see Pluye et al. 2009.
3. Merging the findings of the two approaches into one set of policy recommendations. Whilst qualitative work can identify possible problems in an intervention, representative structured surveys can better capture how widespread these problems are. But, the importance of storytelling in conveying policy messages is well known, with qualitative data being a good source of stories on which to base proposed policies. Hence, it can be useful to draw on both approaches to make policy recommendations.

8.5. Examples of mixed methods in microinsurance

If understood and used in the way described above, mixed methods can be a useful approach providing insights into many issues related to the impact of microinsurance. The following examples show this usefulness:

- Morsink (2012) applied mixed methods research in an empirical study to investigate and test the question of why low-income households from rural Filipino communities demand natural disaster rehousing microinsurance and whether microinsurance has an effect on poverty reduction for this socio-economic group. For this analysis, focus group discussions (FGDs) to assess village characteristics were conducted with participants of different attributes such as gender, age, and social status. These FGDs preceded quantitative household surveys, whilst focus group discussions with insured and uninsured were conducted alongside the surveys. In addition, administrative data was used to solve issues with causality. The results show, amongst other things, that microinsurance can reduce the negative influence that a shock has on future economic growth.

- Although focusing on qualitative methods, Hintz (2010) complemented his explorative study of a credit life microinsurance pilot in Indonesia by quantitative methods. Qualitative interviews with Muslim beneficiaries were complemented with additional baseline and end line surveys with customers, as well as with additional research with members of other (functional) groups, like credit group leaders or loan officers. The study reveals that the intended developmental impact was very low—labelled “micro-impact”—but shows the complex interplay of the insurance product with the sociocultural context, leading to extensive social impact. Amongst others, crowding-out effects regarding traditional forms of family assistance were identified, as well as a possible inflation of funeral costs. However, there
was also evidence that financial literacy, as well as peace of mind of the insured, was increased by microinsurance, although, for some insured, this feeling of security decreased on account of religion and superstition.

- The “Client Math” approach, designed within the framework of the Microinsurance Learning and Knowledge (MILK) project by the MicroInsurance Centre, is based on a mixed methods approach, aimed at assessing the value of microinsurance for the poor. Based on a carefully developed theory of change, focus group discussions are used for refining the hypothesis and for deepening the understanding of the functioning of the product and the according value chain. This qualitative study part is then the basis for developing a sampling strategy (taking into account specific groups, e.g., by age or gender) and subsequent quantitative interviews. One distinctive feature of the Client Math approach is that participants for the treatment group are chosen after experiencing a financial shock, rather than waiting for a shock to happen. This has certain advantages for assessing the value of the insurance scheme, in particular for schemes covering low-frequency risks. However, because of this sampling approach, and the fact that the number of participants both for treatment and control group is relatively low (usually including up to 30 participants for each), the approach does not allow for statistical evidence. Hence the approach cannot determine effects in a causal sense, but can rather be understood as complementary to statistical and, especially, experimental methods. By providing numbers, comparing them for claimants and non-insured, and taking into account contextual information, the Client Math approach can provide valuable insight into potential gains that microinsurance can have for the poor. Therefore, it can help to deepen the understanding of the value that microinsurance schemes may have. This does, in particular, hold for low-frequency risks for which impact of microinsurance is difficult to achieve with statistical methods. This approach has, for example, been used for gaining insight into the value of property microinsurance in coastal Columbia or catastrophe microinsurance in Haiti (Magnoni and Poulton 2013; Magnoni and Budzyna 2013).

8.6. Meeting the challenges to mixing methods in mixed methods studies

Mixed methods are frequently lauded in the social sciences, and the fathers of social science, such as Durkheim
and Marx, readily combined quantitative and qualitative data. But as different disciplines have specialised, the use of methods has grown apart. Economics—and in the United States, political science and sociology—have taken the path of mathematical modelling and advanced statistical analysis. This divergence of paths creates problems for agencies wishing to commission rigorous impact studies of their programmes. Those with the necessary skills in counterfactual analysis do not generally have skills in qualitative analysis or mixed methods. Moreover, motivation to adopt mixed methods is not facilitated by the need to publish in high-ranked journals in their discipline, which mostly requires technical sophistry rather than practical insights.

Across both Europe—especially the UK—and South Asia, there is a strong tradition of development studies, which has always strived to achieve interdisciplinary research. But the reality has been one of multidisciplinary research, with parallel studies. Achieving a true mixed methods impact evaluation design is thus a serious challenge. Here are some pointers toward achieving that outcome.

- Establish very clear vocabulary on the evaluation questions, requiring an inception report which identifies the data to be used for answering those questions.
- Include a range of skills and experience in the evaluation team. Even more important is ensuring that the lead investigator is engaged in all aspects of the study and has the capacity to do so. Having other team members who can also bridge studies will help.
- Work with the whole team on the development of the causal chain and identification of underlying assumptions, requiring them to indicate what evidence they can bring to bear on which questions.
- Include a mix of skills in the external review panel. Ideally, the experts would have high professional standing combined with practical experience in the policy/programme domain.

An evaluation team with a diverse skills set and a team leader familiar with different methods are needed for a true mixed method study.
8.7. Conclusions

This chapter has discussed how different methods can be mixed for impact assessments in microinsurance and how the application of mixed methods research can contribute to better insight and higher validity. Application of different methods—quantitative and qualitative, factual and counterfactual—in parallel and sequentially can be valuable. Often, qualitative studies are used in an exploratory way, being employed as preparation for quantitative, counterfactual studies (i.e., experimental or quasi-experimental ones). The range of possible and valuable combinations of qualitative and quantitative methods is much wider. This range should be fully assessed in order to deepen the insight into potential impacts and outcomes of microinsurance to the welfare of the poor. By doing so, not only can insight be gained ex-post, but learning processes can be initiated in order to improve other schemes. Moreover, by combining different methods, insights regarding the generalisation of successful schemes can be made, which is of particular importance in practice when conducting a pilot project, transferring schemes to another context, or when scaling-up. Therefore, applying mixed methods for impact assessments in microinsurance is crucial in order to gain insight into how microinsurance schemes can affect the lives of the poor.

References


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Further reading


Planning and Conducting Impact Assessments in Microinsurance
Planning and Conducting Impact Assessments in Microinsurance