

Conducting Quantitative Surveys in Rural Africa: Possibilities and Constraints

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This paper aims to assess the pro's and cons of choosing a quantitative survey at household level in order to indicate the impact of a development programme in a poverty-struck region in Africa. For the last 4 decades, the Belgo-Congolese Ngo CDI (*Centre de Développement Intégral*) has pursued an integral development approach in about 200 villages of the Ubangui District in the Democratic Republic of Congo. In this context the term 'integral' means that villagers have been simultaneously supported through health services, agriculture techniques training, produce marketing, and infrastructure works (roads and landing stages for vessels).

Recently the donor insisted on evidence (through a baseline study and follow-up surveys) that the level of poverty in the intervention zone would be decreasing. The researchers carrying out the baseline study were faced with the challenges of justifying the choice of a quantitative survey as a method for impact assessment, as well as implementing it in an unusual cultural context.

Project evaluation in Ubangui: an assignment

The location of the project to be evaluated is a remote corner in the Democratic Republic of Congo (DRC), notably in the North-West which is in the Ubangui districts (Equateur Province). The area is strongly neglected and underdeveloped in terms of infrastructure (defunct road system), health, education, absence of capital or any economic leverage

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factors. Politically the Democratic Republic of Congo may be considered unstable. The economy does not venture above the mere subsistence level.

The project in question is one of the many of the Ngo Centre de Développement Intégral. This NGO was founded in 1969 by a missionary priest and a doctor in order to enable the development in this Ubangui area in all its aspects. This included: improvement of road infrastructure, vaccination campaigns, hospitals and health centres, increasing agricultural production through cultivation techniques (field rotation and maintenance), handling and marketing cash crops, introducing new crops in the area such as soja and coffee and selling to urban centres and for export.

Technically, the project is run in about 250 villages (formerly catholic mission posts) by the Congolese staff of CDI Bwamanda. It is in Belgium, however, that projects are designed and submitted for funding. One of the main donors during the last decade is the Belgian Survival Fund.

This donor granted a new funding for the programme period 2008-2013 at the condition: that the impact of the programme was to be given evidence of in quantitative terms. It was stipulated that this was to happen at beneficiary level (proof that 'the poorest' are reached) through a combination of baseline studies and follow-up studies, both mid-term and at the end of the programme period. This evaluation exercise was also to be carried out by an external evaluator.

HIVA was approached by CDI Bwamanda to carry out this cluster of studies, at the above mentioned conditions and within the limits of a particularly tight budget. It was agreed that, in order to estimate the standard of living and the benefits of the project, a survey would be organized at household level. This was to be repeated at a later stage. The difference between now and later would then count as 'proof of the impact'.

Research design

HIVA by that time was in a process of guiding a group of researchers at the University of Kinshasa to become an institute doing applied social research. This group is called the *Chair de Dynamique Sociale (CDS)*. The commission of CDI Bwamanda came as an opportunity to expose the Kinshasa-based researchers to the reality of project evaluation

as well as a possibility to dramatically reduce the costs. In the consortium that was formed, HIVA would elaborate the research design and do the quality control of the field work. CDS would be responsible for the field work, the statistical analysis, the document study and the report.

The research team realized that some *practical decisions* still had to be taken up front. Language would be a problem as most people in the districts only speak local languages and hardly any Lingala (which is the lingua franca in DRC) - let alone French. The research therefore would have to work through CDI Bwamanda's field agents, not only to announce the interview sessions to the villagers, but also to do the interviews themselves. Given the time constraint, it would not be possible to identify and recruit other interviewers.

More fundamentally, one could question whether differences in standard of living between 2008 and, say, 2012 would qualify as proof of impact. Being the nightmare for any impact study, it is always hard to maintain that those differences are to be attributed to the project rather than to external factors (stabilized political context, markets opening up, less failed harvests thanks to better climate etc.). Therefore, additional methods would have to be brought in to demonstrate – to some extent – the causality between programme and impact.

As for the sampling, it was jointly decided to have 300 interviews with heads of households in a total of 30 villages, which were selected according to distance from CDI Bwamanda's intervention centres (i.e. where CDI has a depot and/or health centre). They all would be villages touched by the programme. All though it would make sense to have another sample of villages not reached by the programme (as a control group), it would be difficult or nearly impossible to have access to those villages as they would be unknown to the field agents, who therefore would have an impossible job to gain their confidence to take part to this survey at such a short notice. The research would therefore make do with only villages included in the programme.

Other decisions taken right from the start were to limit the interview time to half an hour to avoid respondent fatigue and to work only with pre-coded answer categories..

The *checklist* was constructed, with nearly all questions aiming for fact-related answers. A recently used World Food Programme questionnaire was a great help. The body of the questionnaire had three major parts: 1° the economic activities (and notably the type of crops and the size of the produce), 2° the food and meal patterns, and 3° the possessions and services the villagers had access to. The checklist was evidently tested and validated.

In the villages

The *selection* of respondents happened in three stages: (a) the choice of subdistricts, proposed by the CDI Bwamanda management, (b) the choice of the villages, proposed by the field agents and (c) the households, to be chosen by chance.

As for the subdistricts and the villages, a major factor in the choice was the possibility for the researchers and interviewers to reach them during the two missions to the Ubangui area. This is not all that dramatic as a bias mechanism, as the same villages will be visited during the follow-up studies.

As for the households, it is less clear to which extent they are representative. It was ruled out to select them by name to avoid suspicion and reluctance to this survey at large. So, next time, it may well be that other people will be selected.

In the villages of this area, it would be impossible to just knock at people's door to have an interview; and lists of inhabitants are inexistent. So the research team had to make do with a typical 'third world method': identifying villages, having field agents announce the survey, gathering those villagers who are interested and subsequently selecting them by lottery.

In order to deal with the above mentioned attribution problem, other additional methods would have to be brought in to prove the causality between the project and eventual improvements in standard of living. Hence separate checklists were elaborated to conduct in-depth interviews with the CDI Bwamanda staff on the programme strategy and to guide focus group meetings with the beneficiaries on the degree of satisfaction with the project. On top of that, a careful recording of intermediary variables, such as village characteristics would take place.

The implementation worked out well and according to the plan. Villagers were warned in advance by field agents and those same field agents were trained into interviewing. On a typical day in the field, a group of 8 people (researchers and field agents) went out to one of the chosen villages where heads of households of about three or four villages gathered. They were given an introduction on what was going to happen. Then followed a lottery which was taken very seriously. Subsequently, about 30 to 40 individual interviews were held. With villagers who weren't selected for an interview but still had bothered to come, a number of focus group meetings were organized.

The survey was held in the off-season, that is after the harvest season, so that people were not occupied working on the fields. Those interviewed were mostly men, as the only female heads of households were widows. A possible conflict of interest was avoided by organizing it in such a way that no-one was interviewed by his or her own field agent. Presumably because of the quite formal introduction, people tended to be quite cooperative. The villagers were not giving the impression of being intimidated and during the focus groups, they did not speak in all too friendly terms about CDI Bwamanda. Still, interviews of this kind are a strange thing in this sort of remote area, which made that the interview sessions were steadily watched by bystanders, who at times had to be kept at a distance.

The statistical analysis and the baseline study results are owned by the Ngo CDI Bwamanda and therefore to be considered classified information.

A survey in the jungle: a good idea?

We now come to the main question of this paper: an assessment of both the advantages and the set-backs of using the survey-method for the given study subject under the given circumstances. To that end, we look at the design as well as the implementation and we compare with alternative methods.

The advantages of a quantitative survey, compared to other methods, are undeniable: it goes for objectiveness. In the case of measuring the effectiveness of a development

project, the ultimate beneficiaries are interviewed – bypassing the project management and the Ngo staff. Results are measurable in quantitative terms and the exercise is repeatable.

Another interesting feature is, strange it may seem, the cost-effectiveness of the method. This is because of the way it has been implemented. Most of the work has been done by local researchers who work at much lower remuneration fees than expats. The interviewers themselves being salaried staff of CDI Bwamanda were only paid daily allowances.

One of the challenges of this kind of survey is that without a control group, the causality is hard to prove. We sorted this out by triangulation, using additional methods of observing (focus groups with beneficiaries and depth interviews with project staff)..

However, throughout the implementation, we could not turn a blind eye to the possibility that bias would creep in. The selection was not exactly done by chance: we may well have the more accessible villages and the more interested people in our sample. This bias is partly neutralized by the fact that we have a longitudinal approach, in which it is the comparison in time that counts. Still, we should take into account the eventuality that people positively affected by the project would migrate to other places (nearby cities or the capital).

Another source of bias is the reliability of the answers when exact data are asked. It appeared, for instance that villagers had great difficulty to estimate the quantities of their harvest and the surface of their crop fields. Maybe more fundamentally, the interviewers were not ‘neutral’ to the project, and we cannot estimate which effect this had. At the other hand, even when they were unfamiliar with the interview format, villagers were not exactly shy while answering the questions. This was probably due to the extensive and quite formal introduction and the fact that the interviews proved to be a rare opportunity to voice the dissatisfaction with the project’s goings to a ‘third party’, i.e. the research team.

Another shortcoming is that the female voice was nearly annihilated by working with male-only focus groups or mixed groups, in which women (due to the culture) hardly said

a word. As the individual interviews were only for heads of households, the female presence in that sample was limited to widows.

We could therefore ask ourselves to which extent the shortcomings we've met have put the choice for the survey method as such in jeopardy:

- shouldn't we have demanded to control the choice of villages and people, regardless of time and costs?
- does a longitudinal approach not require you need to select exactly the same villages and the same persons?
- shouldn't we have demanded to have as many women as men in the sample, regardless of the cultural context wherein women are not supposed to represent the household?

However, alternative methods too have their pro's and cons:

- mapping the Ngo's efforts (as is usually done on the basis of those vague and hazy logical frameworks) will most certainly show the outputs and not the impact;
- narrative and lively accounts of particular cases lack representativeness;
- group discussions may well fall in the trap of particularism.

By triangulation, the best of both worlds was tried for: aiming for objectiveness by conducting a survey, while catching a good 'proxy' of causality through more qualitative methods.

Cultures and methodology

The question therefore remains: is a survey a good choice in the given circumstances, knowing that bias may eat out the clear advantages of a survey, i.e. its trying for objectiveness. So far we have shown that bias comes from survey shortcomings in general, from the difficulty of measuring the impact of a project in particular and from all sorts of practical constraints due to a 3rd world context.

Bias may also come from cultural factors². Every now and then we've stumbled upon the fact we were operating in a culture that is masculine (i.e. with clear role differences between men and women), holding a high power distance (i.e. a chief cannot be argued with, certainly not in public), collectivist (views and ideas are defined by the group), particularistic (relations have to be in all aspects of life, and tend to be more important than universal rules), oriented on what is now rather than the past or the future, and – hypothetically – nestling in dependence rather than taking one's destiny in own hands.

These predispositions mostly collide with the assumptions made while carrying out a survey: that individuals can speak freely for themselves (regardless of their gender and their place in the hierarchy), that individuals rationally shape their own opinion, that they can express differences of opinion with people in one domain and agree with the same people in other domains, that towards outsiders they automatically distinguish their experiences from their hopes and that they adopt the development axiom that all people strive towards self-reliance. It will take further research to find out whether these 'value conflicts' totally undermine any attempt to organize a survey in this particular context, or that they will just take the necessary efforts of the researcher to look for technical remedies for it within the survey framework.

This brings us to conclude that to measure the impact of a development project, even in a rural African context, a survey may be the method to choose for, if it can be done properly and eliminating biasing circumstances, like the ones we just named. Language use, cultural setting, hazardous circumstances have to be checked thoroughly in advance. A survey is to sociological methods what democracy is to political systems: the one with the least disadvantages.

² Background literature on cultural differences:
Hofstede G., *Culture's Consequences: International differences in work-related values*. Beverly-Hills, CA: Sage, 1980.
Elsen B., Pollet I. and P. Develtere, *Compass for Intercultural Partnerships*, Leuven: Leuven University Press, 2007.