No access to formal banking?

How nano-finance is unlocking the power of communities around the world

THINK FORWARD INITIATIVE

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Imagine families, neighbourhoods, entire populations in rural or peri-urban areas of a developing country, all trying to overcome their social and financial limitations—individuals and households at the very bottom of the pyramid, who are not even eligible for microfinance. Yet like the rest of us, they still have health emergencies to confront and crucial bills to pay. To take advantage of income-generating opportunities, they must find a way to take out small loans. So what do many of them successfully do? They create a nano-finance group.

In a nano-finance group, individuals without access to financial services form a savings group with others in the same situation. They accumulate their savings into a common monetary fund, typically kept in a metal box with a couple of padlocks. The group members will eventually use the fund to help themselves to minor loans and informal insurance. Loans are used to smooth consumption or to set up a small retail business, while the informal insurance covers life cycle events such as a new baby, an illness or a funeral. This is what I call 'nano-finance'[1].

I am part of a team of researchers analysing a large-sample database of nano-finance groups. In our research project, funded by the FAHU Foundation, we aim to identify the best policies to enhance the financial sustainability of nano-finance worldwide[2].

From micro-finance to nano-finance

I believe nano-finance is different from micro-finance because it is based on a demand-driven, self-managed and self-financed grass-root association that is created from and for the communities at the bottom of the pyramid. In nano-finance, extremely poor people form a group to provide informal financial services to themselves. Micro-finance, on the other hand, is a much more formal and supply-driven provision of financial services.

The Inter-American Development Bank, the Bill & Melinda Gates Foundation, CARE, Oxfam International—many governments, international donors, development and non-governmental organizations (NGOs) are aware of the power of nano-finance. They work closely with nano-financed groups to provide social and financial services to the excluded population in developing countries.

NGOs help communities to create nano-finance groups, subsequently using the groups as a platform to provide sustainable development programmes to households. The development interventions support diverse social goals, from literacy, financial education, health and sanitation to child nourishment, women's empowerment, business training and even agricultural policies adapted to climate change. I call these programmes 'nano-finance(+)' because they have a financial goal plus a social one.

Development agencies create their own facilitation models in an effort to increase the impact of nano-finance(+). Each agency applies different types of interventions, depending

[1] Nano-finance encompasses different types of self-financed associations, such as village savings and loan association (initiated by CARE International), savings and internal lending communities (encouraged by Catholic Relief Services), the savings for changes model (Oxfam/Freedom from Hunger) or the self-help groups promoted by the National Bank for Agricultural and Rural Development

[2] Rolando Gonzales is part of a research project analysing the SAVIX database. Prof. Roy Mersland (University of Agder, Norway), Prof. Bert D'Espallier (KU Leuven, Belgium) and Linda Nakato (University of Agder, Norway) are also part of the project.

on their goals. But does the type of facilitation model makes a difference? Which plus interventions are carried out most often, and which are the most effective? How might we make nano-finance groups more sustainable?

After all, sustainability in nano-finance promotes informal financial inclusion and development. When nano-finance groups are sustainable, a continuous source of financial services is unlocked for their members, ensuring the long-term implementation of social interventions—even after a development agency stops working with the groups and leaves a community.

The sustainability of nano-finance: research-based evidence

To learn more about the dynamics of nano-finance, our research team is analysing the Savings Groups Information Exchange (SAVIX), a huge database with more than 250.000 nano-finance groups in 52 countries around the world. In this database, half of the nano-finance groups are located in Africa, because indigenous groups—like the *esusu* in West Africa and the *ikilemba* in Central and East Africa—were already active in that continent before development agencies intervened.

Instead of estimating a single econometric regression in my research, I opted for data-mining and machine-learning—in combination with artificial intelligence—to explore and understand the whole SAVIX database with thousands of different mathematical models and different simulations of artificial nano-finance groups. These techniques are extremely useful to identify the drivers behind the returns on savings generated by nano-finance groups. Returns on savings are remarkably relevant in the world of nano-finance, because groups that generate returns have a motivation to keep operating over time, turning them into a sustainable source of social and financial services.

The importance of innovation and entrepreneurship

NGOs apply a default nano-finance model to new groups that are starting their operations in a village. This default model prescribes 15 to 25 members per group, weekly meetings, an operational cycle of 9 to 12 months and the integration of social development programmes aligned with the targets of the NGO. The data-mining findings show that the type of facilitation model of each agency does indeed have a strong impact on the saving returns generated by nano-finance groups.

Agencies starting off with the default nano-finance model and then adapting the model to fit the goals of the members of nano-finance groups, promote higher savings returns. In other words: to encourage financial sustainability, it's important to let the groups 'graduate' and experiment with innovations like digital savings.

In terms of development interventions, my findings indicate that education, income-generating activities and health programmes are the most frequent interventions implemented by development agencies. The machine-learning evidence, however, shows that the most important social programme to enhance financial sustainability is business training. And business training is not quite the most favourite programme applied in nano-finance(+)!

Moreover, simulations of artificial villages show that a small retail business started with the loan from a nano-finance group can be more successful than a business started with microcredit. Nano-finance groups generate social capital during their meetings, and social capital is added to the loan capital obtained from nano-finance. This may boost business performance considerably.

Implications: nano-finance in practice

The previous findings have strong implications for anybody interested in using nano-finance as a platform to promote sustainable finance and multi- dimensional poverty reduction at the bottom of the pyramid. As it turns out, very strict traditional supervision models of development agencies may be slowing down the financial growth of members in nano-finance groups. It appears to be of utmost importance to let nano-finance groups play with innovations and provide them with business training. Experimentation is key, and so is entrepreneurship.

Instead of prioritizing social programmes aligned with the aims of NGOs, development organizations can boost the financial performance of nano-finance groups by encouraging members to take their own informed decisions, based on their unique aspirations and needs. These strategies will guarantee the financial sustainability of nano-finance groups, promoting long-term well-being within impoverished communities around the world. With nano-finance(+), there is a promising and inclusive way out of poverty — a way up.

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See also the latest publication of the author about nano-finance groups:
https://www.tandfonline.com/doi/full/10.1080/13504509.2019.1706059
And his profile in Research Gate:
https://www.researchgate.net/profile/Rolando_Gonzales2