

The Past, Present and Future: Technology Remains a Challenge for Microfinance

With a population of about 17 million people, Dhaka serves as the economic and political center of one of the world's most densely populated countries. All throughout the city, Rickshaw drivers and CNG vehicles¹ partake in a seemingly never-ending concert of shouting and honking. As our van slowly navigates out of the city, the hustle and bustle is gradually replaced by the lush beauty of rural Bangladesh. Our destination is a small village called Danga Palash, situated two-hours outside of the capital. Because of the traffic, we arrive late to the weekly meeting at the local Grameen Bank office. On a weekly basis, borrowers meet with a local bank representatives to receive funds, discuss their investments, and pay back outstanding borrowings. Some are customers since the bank opened this branch in 1983. Remarkably, all of the attendees are female. That is not a coincidence: In fact more than 96% of the lenders are women.

As we join the meeting, all of them proudly share the businesses that microloans have enabled them to build over the years. They engage in a variety of entrepreneurial activities, including farming, grocery stores, and garment production. After the meeting, three of them volunteered to show us their homes and share their stories in more detail. The first lady maintains a fruit and vegetable garden with gigantic jackfruits and guava trees. The second lady bought five cows, and, more recently, two vans that she rents out for profit. The last lady operates a cement factory and purchased land that she leases to farmers. This has enabled her to finance her children's education and send them abroad for work. All of them have in common that they were raised in very humble and impoverished conditions. Growing up in straw huts, they now have beautiful, multi-storey homes that are sturdy enough to withstand the natural disasters that plague the villagers in the Bengal Delta.

Rethinking Banking

Grameen Bank was founded in the context of the great Bangladesh famine of 1974 (Yunus, 2008). Three years after the country has declared independence from Pakistan, the Liberation War has left Bangladesh economically shattered. Muhammad Yunus, who finished his PhD and gained first teaching experience in the United States at the time, decided to return to his home to seize an opportunity to become the head of the economics department at Chittagong University. During his tenure, he got increasingly involved in projects focusing on the bottom of the pyramid. The experiences he gathered then led to the launch Grameen Bank as a bank for poor villagers in Bangladesh. Despite early difficulties with organizational setups and the regulatory recognition of microfinance institutions, the institution proved vastly successful. Today, the bank

¹ Vehicles that run on compressed natural gas. They are one of the reasons Dhaka's smog level is relatively low, compared to cities of similar size in neighboring India.

lends USD1.6bn in outstanding loans to 8.9mn borrowers. In 2006, the bank and its founder have received the Nobel Peace Prize for their contribution to the fight against poverty.

The system behind Grameen Bank challenges fundamental assumptions regarding the poor. Yunus argued that traditional economic theory was too focused on prosperity, but rarely deals with poverty. He consequently began to study the poor on a micro-level. As a result, he came to the conclusion that the poor and their ability to manage their own finances are systematically underestimated. In fact, he found that many of them are shrewd money managers that are able to feed whole families with minimal resources. Their inability to rise out of poverty is not derived from a lack of marketable skills. The poor remain poor because they cannot retain the return of their labor, because they do not control the productive asset. Furthermore, those that have nothing are unable to provide sufficient collateral for traditional credit institutions. Because of the lack of collateral, they do not have access to credit through a commercial bank. Similarly, the small loan sizes (the average Grameen Bank borrower has an outstanding loan balance of ~200USD) are not sufficient to cover the administrative costs of traditional institutions, rendering this segment unprofitable for them.

To service them, it needed a novel approach to banking. Grameen Bank established a lending system that does not require a collateral. It is based on the assumption that all humans have innate skills that they can earn a return on, which allows them to repay borrowed funds. Early customers have shown that they have enough incentive to pay back the loan, just in order to get access to additional loans. Finally, all loans are lent out in a group-setting to reduce the erratic behavior of the individual borrower. This system also allows intra- and intergroup competition to develop. If somebody does not repay, Grameen Bank assumes that that is due to circumstances the customer faces, not because they do not want to. The bank thus counsels them on how to succeed. If the situation requires it, basic loans can be converted to flexible loans. As the name indicates, this loan type allows for a more flexible repayment schedule. With repayment rates of more than 98% (Kota, 2007), Grameen Bank outperforms most conventional commercial banks on this metric (Baydas, Graham, and Valenzuela, 1997).

A Powerful Tool to Fight Poverty

In his 1985 book, *Innovation and Entrepreneurship*, Peter Drucker predicted a transition from a bureaucratic to an entrepreneurial society that is shaped by agents of innovation. To establish such a society, three preconditions need to take hold: opportunity, motive, and means (Birkinshaw, 2016). While Drucker primarily focused on developed markets, the same preconditions apply to poverty-dominated regions. There, only two out of three conditions are met. First, there are plenty of opportunities for entrepreneurs, since even basic infrastructure and services do not exist in many places. Second, the poor face strong motives to act entrepreneurial. Along Maslow's hierarchy of needs, even the fulfillment of lower-level needs such as shelter and

security can be uncertain. Additionally, the low supply for salary-paying jobs often leaves no option but to be self-employed. Third, and in contrast to more developed regions, the means of the entrepreneurial society are often not available. Yunus has shown that the poor lack ownership of the means of production and access to affordable ways to fund them. By granting loans to the unbanked, Grameen Bank provides exactly these missing means. This allows poor villagers to leverage existing skills to set free dormant entrepreneurial potential. Releasing the economic potential of hundreds of millions of people that fall under this group can change the fortunes of whole countries.

Grameen Bank not only aims to provide access to basic financial services to the unbanked, but also puts great emphasis on counseling them. This is to provide them with confidence in their abilities and the perspective to rise out of poverty. Counseling is especially important for certain societal segments that are left out of the economic process for sociocultural reasons. A great example is women in rural Bangladesh. While Grameen Bank's early borrower-base mainly consisted of men, their field officers soon realized that their wives are often excluded from financial decisions. By offering loans directly to women, Yunus hoped to give them a voice on financial matters within their families and promote their role in economic activities. In 1998, a seminal study by Pitt and Khandker (1998) found group-based microlending programs to be more effective when the money is lent to women. For these reasons, Grameen Bank today almost only admits women as new borrowers, with few exceptions.

Over the years, Grameen Bank was able to build a strong presence in many villages in Bangladesh. It has become a respected brand that is trusted by many. More recently, the bank has developed this unique platform and access to the bottom of the pyramid to expand its range of offerings. This includes financial services such as insurance, pension schemes, and housing loans. Programs such as affordable higher education loans and interest-free loans for "struggling members", those that struggle for their lives, are cross-financed by other business segments of the bank. Replication programs have sprung up across the globe, including the United States and Europe. National and international players from all industries have started to partner with Grameen Bank in their fight against poverty. Grameen Telecom co-owns Grameenphone, which has become Bangladesh's largest telecommunications provider. The non-profit-organization also operates the Village Phone initiative, which provides affordable telecommunications services and GSM payphones to rural areas. The contracts are in turn financed by Grameen Bank.

Importantly, microfinance should not be mistaken for charity. It is a profitable business model that can compete with profit-driven enterprises (Baydas, Graham, and Valenzuela, 1997). In fact, Yunus is an avid critic of development aid. He claims that they are organized in a way to maintain the jobs of the aid workers and justify their presence, not to produce results (Yunus, 2008). Instead, he proposes a concept that he calls "Social Business" (Yunus, 2011). Instead of

taking the initiative away from the poor, Grameen Bank has shown that a business model that is tailored to the bottom of the pyramid can render them a viable customer segment. With this approach, Yunus predicts that by 2050, poverty will not exist anymore.

All is not Paradise with Microfinance

Grameen Bank's reach and scale are undoubtedly impressive. The rise of microfinance has led to plenty of inspiring anecdotes, such as the ones at the outset of this essay. Despite all that, there is a lack of empirical proof of the positive impact of microfinance (Armendáriz and Morduch, 2010). Studies that demonstrate beneficial social implications (Pitt and Khandker, 1998) were found to suffer from weak research designs and inadequate data (Duvendack et al., 2011, p. 4 and 42). Some authors claim openly that microfinance does not work. In a controversial account, Bateman (2010) argues that microfinance primarily serves to promote neoliberalist free market ideologies and the self-interests of people involved in the industry. Hickel (2015) states that microfinance leads to unsustainable debt for the poor, because it is used to fund consumption.² Finding conclusive evidence on microfinance as a whole is made difficult by the heterogeneity of initiatives, even if they are modelled after the Grameen system (Duvendack et al., 2011, p. 7-8 and 78).

In addition, interest rates for microloans are still high. Basic loans at Grameen Bank are currently priced at a 20% interest rate on declining balances³. This is less expensive than most competitors in Bangladesh and the recently introduced legal limit for microfinancing institutions of 27% (Kazmin, 2010). Outside of Bangladesh, this figure can be as high as 195% (Roodman, 2011). Nonetheless, there is an inherent market demand for debt financing by the bottom of the pyramid. This is shown by the fact that Grameen was not the first institution to offer financing to them. Before, many villagers financed business activities through independent lenders. These lenders regularly offered loans at annual interest rates of more than 100%. Grameen Bank clearly offers a more affordable solution. That is to say that microfinance is not the often-proclaimed panacea for poverty, but it is a step into the right direction.

Microlending, Superpowered

Given the extraordinary repayment rates, one might argue that it should be possible to reduce the interest rates to lower levels. Today, this is inhibited by the bank's cost structure. A large share of these costs comes from entertaining local presences. At the same time, it is surprising how

² Grameen Bank has identified a range of risk factors that could lead to borrower default, including misuses of funds. Other important reasons are natural disasters, separations between husband and wife, and situations where borrowers are served by more than one microcredit institution to refinance their debt.

³ That means that the weekly interest repayment is calculated based on the outstanding loan balance. If the borrower pays back part of the loan, the basis for interests declines over time. In practice, this results in a 10% annual interest rate for a loan that is paid back consistently within one year.

manual some of the debt disbursement and collection processes are. A bank employee attends the weekly community meetings, calculates the interest fees, and registers payments on a paper sheet containing all borrowers of the branch. The employee submits these recordings to the branch manager, who in turn passes them to the area manager. Only at this level are the manual recordings entered into a user interface and sent to the head office via a virtual private network (VPN) connection. Even this automation is a relatively new development.

This shows that current solutions do not sufficiently leverage the technologies that have become available since its inception. Thus far, the industry as a whole has made inadequate or poor investments in their information systems infrastructure (European Microfinance Network, 2011). Grameen Bank has already set strategic goals to increasingly computerize its operations. In addition to optimizing existing structures, microfinance institutions should consider investing in emerging technologies to enable completely new solutions. Examples are P2P lending networks or Blockchain-based value transfer systems. Grameen Bank is in a unique position to distribute such innovations due to its brand, extensive customer base, and access to partners such as the country's largest telecommunications network, Grameenphone.

One example for a company with a novel approach to microfinance is Kiva. The non-profit-organization operates an online platform for low-income entrepreneurs looking for a loan. More than 6'000 "field partners", social businesses around the globe, post profiles of potential borrowers on the Kiva platform. Investors can then browse these profiles and lend money directly through the website. Loan sizes start from USD 25 and do not require interest (Feldman, 2015).⁴ At 97%, Kiva boasts a loan repayment rate that is comparable to other leading microfinance institutions, despite its lack of physical branches. Thus far, more than USD1bn in loans have been paid out.

Shaping the Future: Lessons from the Past

Technology will play a key role in driving down costs and increasing access to financial services. As we create new solutions, we should keep in mind the lessons that Muhammad Yunus has taught us. First, make sure to challenge existing assumptions that are institutionalized by the current system. Grameen Bank was founded on the belief that the poor are financially more capable than traditional economics presumes. In turn, it enabled a novel approach that services millions of customers that were previously thought to be unbankable. Second, come up with solutions that are suited to the people it serves. The economic behaviors of different societal groups are not the same, and the current banking system is built for the wealthy. To reach non-traditional customers, business models need to be adapted to their specific circumstances.

⁴ The platform aims at individuals who want to invest funds for philanthropic reasons, not to make a profit. Kiva itself is financed through sponsors and grants. It does not take commissions on the loans.

Third, focus on social businesses that are profitable on their own, and not dependent on grants and donations. This approach will make them sustainable for the long-term.

Finally, these findings not only apply to microfinance, but also to the greater context. Poverty is a complex societal problem that requires a multi-layered solution. Access to basic financial services is one part of the puzzle, but cannot be the complete solution. If we implement the right solutions in the right way, we might be able to realize Yunus's vision to eradicate poverty as we know it within the next three decades.

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