A Comparative Study of Traditional Analog Microfinance and Digital Microfinance in Indonesia(revised)

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1. Introduction

Microfinance or micro financing has developed very rapidly in the last two decades. Since the success of the program introduced by the Grameen Bank Muhammad Yunus (Nobel Peace Prize winner in 2006) in Bangladesh in 1980, the world's financial institutions began to pay great attention to microfinance in reducing poverty and also make a profit.

The existence of micro-enterprises, a fact the spirit of entrepreneurship among the people who could be the pioneer of renewal. Recognizing the reality of people's economic development focus primarily on micro is very strategic to achieve broad -based development or development through equity.

The financial institution has the function as an intermediary in economic activity. If the function is running well, then the financial institution can generate added value , so that efforts to improve people's income one can do in a productive manner by utilizing the services of intermediation of financial institutions, including the productive efforts undertaken by the poor .

Many experts and businesspeople also think about and develop micro credit in alleviating poverty and equalize participation income. So as to raise the dignity of them. Various alternatives and strategies in the micro-credit services are planned and conducted in conquering the obstacles and challenges faced in their business success.

After the financial crisis of 1997-1998, poverty alleviation became one of the first priorities of the government engaged in wide-range financial reforms, which also sought to reduce growing income disparities between people and between regions.

Indonesia is one of the developing countries that successfully run sustainable microfinance in a relatively large scale. For example, Bank Rakyat Indonesia (BRI) unit network is now the largest and one of the most profitable rural micro banking networks in the developing world. Therefore, this makes microfinance in Indonesia an interesting research subject from which we hope to learn some best practices in Indonesia.

Under those background, we examined the relationship between the traditional indigenous systems such as Alisan and Pinchang Sinjam, the "analog-based" microfinance system represented by Grameen Bank, and the "digital-based" system. known as “branchless banking” in Indonesia, and found that both systems have their advantages and disadvantages. We will analyze the advantages and disadvantages of each, and ask whether they will coexist in the future, while being separated from each other. Will they coexist in the future? As long as human beings are the target (client), the digital system will never completely replace the analog-based system, we would like to discuss this issue. Also based on the current state of digitalization in Shariah microfinance and the current state of traditional analog Shariah microfinance, we will analyze the advantages and weaknesses of both as described above.

As far as the perspective of financial inclusion is concerned, this paper discusses whether the coexistence of analog and digital may be recognized as effective in overcoming the geographical background of Indonesia. By comparing both digital and analog microfinance, this study will identify the advantages and weaknesses of each, which will lead to synergies, increase social inclusion, and reduce the risks associated with an over-emphasis on digital. This approach has not been used in many past studies, and in this respect, we believe it will create a stir in future research. This research hope can provide useful information and insights to policymakers, microfinance provides and other stakeholder do they can make better decisions that will inform the development of microfinance in Indonesia and throughout the world.

1) Microcredit Definition

Microcredit involves the loaning of small amounts (typically USD 10) of money of the poor. It is characterized by group landing, rigorous monitoring, and progressive landings to lower the risks of default, and to lower the cost monitoring and administration. Group landing lowers the risks of default for two reasons: the peer selection process by group members ensure that trustworthy and creditworthy individuals are admitted in to the group. After all, the group members know their fellow villagers best, and would not want a bad apple to jeopardize their chances of obtaining loans.

Progressive landing means that borrowers are given increased borrowing limits after they establish the creditworthiness of their clients very quickly. Progressive lending means that borrowers are given increased borrowing limits after they establish a good credit record of prompt repayments. Hence progressive lending provides an incentive for borrowers to repay their loan on time, so that they would be eligible for increased loan amounts.

According to the definition used in the Microcredit Summit (2012), is a micro-credit lending program amounted to little to the poorest to finance the project he's working on his own in order to generate income, allowing them to care for themselves and their families, *“programmes extend small loans to very poor for self-employment projects that generate income, allowing them to care for themselves and their families”*

2)About Microfinance

Microfinance is a winder definition as compared to microcredit. In addition to microcredit, microfinance also includes other value-adding activities like the provision of business and financial advice, and also the provision of savings and insurance services. The inclusion of savings is important, as it allows the microfinance institution to recycle the saving from the community into loans, thereby creating a more sustainable from the banking.

Microfinance be explained in terms of the ' inferiority ' or limitations, namely the inferiority of the poor (the poor's) that are difficult or limited access to financial services / banking .

Some definitions of microfinance are as follows:

- International Management Communications Corporation (IMCC) : *Microfinance as a set of techniques and methods of non - traditional bank to open access to the widest sector untouched formal financial services .*
- The Foundation for Development Cooperation : *microfinance as the provision of financial services , especially savings and loan for poor households who do not have access to formal financial institutions .*
- Asian Development Bank : *microfinance as the provision of financial services is the broadest , such as deposits , loans , payment services , money transfers and insurance to poor and low-income households and to small businesses / micro .*
- Marguerite S. Robinson : *microfinance as a small -scale financial services , especially credit and savings provided for those who are engaged in agriculture , fisheries or farms ; who manage small or micro businesses that include production , recycling , repair or trade ; providing services ; who work for wages or commissions ; who derives income from / by way of lease of land , vehicles , livestock personnel , or equipment and machinery ; and to individuals or groups in both rural and urban areas in developing countries*

From some of the above there is no standard definition of the microfinance, microfinance except that all relate to the activities of financial services for the poor who have limited access when dealing with formal financial institutions .

Although some debate exists, microfinance can be a powerful way to fight poverty and promote economic development (e.g., Littlefield et al. 2003; Goldberg 2005). Each type of microfinance service can deliver social and economic benefits. Payment services allow poor households and small businesses to transfer money in a faster, safer, and easier way than cash payments. Not only do the payment services create a platform for households and small businesses to forge a formal relationship with microfinance institutions, but they also help clients build a credit history, which is critical to further utilization of financial institutions. Loan services increase household income and can provide people with better living conditions, health care, and education. Loans can also help build household assets by enabling business investments that can generate returns. Savings and insurance services help households better manage cash flow and protect them from unexpected financial hardships. Just the knowledge that these services are available can provide peace of mind, which may help people make better decisions in the long run.

Several studies have demonstrated that there is still an unmet demand for microfinance services, as a majority of rural households still do not have access to a source of funds from a semi-formal or formal institution. The regulated microfinance providers, BRI Units and BPRs, tends to cover mostly the upper levels of the microenterprise market, in district and sub-district towns, with loans of more than Rp. 3 million (US$320), while NGOs, cooperatives, and village-based institutions village-based institutions – Badan Kredit Desa (BKDs) – reach a lower end of the market but still have a limited outreach in rural areas

3)Micro Finance in Indonesia

History: Indonesia has a relatively long microfinance history, especially commercialized microfinance. As mentioned, by the end of the 19th century Indonesia had already established the Indonesian People’s Credit Banks, or the Bank Rakyat Indonesia (BRI), now one of the largest microfinance systems in Indonesia. It was also one of the first Asian countries to develop large-scale commercial microfinance systems. In 1907, Indonesia established the Village Credit Organization, or Badan Kredit Desa (BKD)—village-owned banks offering microcredit on commercial terms. Today the BKD offers microloans commercially under the supervision of the People’s Bank of Indonesia, or

Bank Rakyat Indonesia (BRI), a major commercial bank that provides rural micro-banking networks through sub branches, the so-called Unit Desa, at the sub district level. While both large commercial banks and smaller regulated financial institutions play significant roles in Indonesia's microfinance industry, non-formal institutions such as cooperatives, NGOs, and rotating savings and credit associations also make considerable contributions to the sector. In recent years, some NGOs and other MFIs have ventured into commercial microfinance with their own small regulated financial institutions.(source : WTP, "Microfinance Industry Report Indonesia," 2009).

Summary of microfinance in some representative Asian countries

Country	History (starting from)	MFIs' penetration rate (active borrowers to the extreme poor population)	ROA and main sources of funding	Regulatory authorities
Bangladesh	1970s	Relatively high (32.5%)	ROA: Relatively high (3.67%) Sources of funding: Equity, deposits, Palli Karma-Sahayak Foundations (PKSF) funding, debt	Microcredit Regulatory Authority (MRA)
China	1990s	Very low (0.4%)	ROA: Low (1.07%) Sources of funding: Government funding, international grants, deposits, People's Bank of China (PBC) funding	People's Bank of China (PBC), China Banking Regulatory Commission (CBRC)
India	1960s	Low (6.7%)	ROA: Low or moderate (an average of 2.67% for 2005- 2010) Sources of funding: Debt, commercial banks funding, government funding, grants	Reserve Bank of India (RBI)
Indonesia	1890s	Very low (1.2%)	ROA: Relatively high (4.03%—among the highest in selected Asian countries) Sources of funding: Debt, commercial banks funding	Bank Indonesia (BI), Financial Services Supervisory Agency (LPJK)
Pakistan	1950s	Low (5.2%)	ROA: Low (0.46%) Sources of funding: Grants, donor funding—Pakistan Poverty Alleviation Fund (PPAF), commercial banks funding, deposits	State Bank of Pakistan (SBP)

Note: GDP data are as of 2021; poverty data as of latest-available years ranging from 2008 to 2021; other data as of 2021 taken from the Microfinance Information Exchange Market.
Sources: Microfinance Information Exchange Market, International Monetary Fund, World Bank, Milken Institute

Tabel 1.1 Summary of microfinance in some representative Asian countries

Finally, Indonesia has also a long history of informal credit and savings schemes, comprising Rotating Savings and Credit Associations (RoSCAs) or Arisan in Indonesian, and other forms of traditional finance. However, most of these schemes have limited outreach and sustainability prospects.

Regulatory environment: The central bank, Bank Indonesia, relinquished its banking supervision role to a new independent financial institution, the Financial Services Supervisory Agency, or Lembaga Pengawas Jasa Keuangan (LPJK). Village banks are still supervised by BRI branches and cooperatives under the direct supervision of the Ministry of Cooperatives and SMEs. Today, financial regulations in Indonesia are relatively liberalized. Banks and other financial institutions are free to set interest rates on loans and don't face excessive documentation and capital adequacy ratios.

2.Probrems in Microfinance Schemes

In general, formal financial service providers tend to reach the top end of the microfinance market, while at the bottom of the financial services pyramid, poor households and rural micro-entrepreneurs outside the main towns are still underserved. The outreach of microfinance services in rural areas remains limited, as most commercial institutions, such as BPRs and Bank BRI Units tend to focus on district capitals and regions of high economic activity, such as Java and Bali. A number of factors underlie this situation: The further expansion of Bank BRI's Unit network seems constrained by the 'cash cow' status it has within the bank and by the high capital requirements to open new branches or to operate in regions of lower population density, especially outside Java and Bali. Bank BRI units have been overly conservative in lending, and still fall short of their potential in terms of outreach in rural areas. By focusing on borrowers with fixed income or collateral, they have excluded a majority of typical microfinance clients.

The regulatory environment for MFI non-bank financial institutions is not conducive to their strengthening and institutionalization. They operate under conditions of uncertainty over such matters as legal identity, eligibility to mobilize deposits and the jurisdiction of various levels of government. Supply-led microcredit programs initiated and subsidized by the government do not provide a conducive environment for sustainable microfinance providers to operate. There is a lack of awareness and application of good practice microfinance principles among government agencies and semi-formal organizations, as well as some commercial banks that have entered the microfinance business recently. There is still no central microfinance training provider in Indonesia.

Technical assistance and capacity building support to microfinance providers have been limited by the diversity and geographical spread of institutions. Only a few organizations have benefited from non- financial support. The ProFI project of GTZ and Bank Indonesia has tried to address this problem so far as BPRs and some other regulated non-bank institutions are concerned. There is a substantial gap in capacitybuilding for less formal entities. There is no formal credit bureau in Indonesia which could be used to monitor credit risk and over-indebtedness in areas of strong microfinance competition. Banks involved in microfinance, such as BRI units and BPRs do exchange information on their clients on an informal basis.

Micro-finance institutions in Indonesia offer only limited financial services. For example, only the BRI Unit system has an integrated system of money transfer since it is part of Bank BRI. Current regulations prevent cooperatives and BPRs from engaging directly in remittance services. Some rural banks have cooperated with third party providers of money transfer services to complement their existing savings and lending products. A few large cooperatives have also partnered with third party providers of money transfer services. This is an important area of public policy which lags behind technical developments and community needs.

The demand for leasing products is evident in the Syariah cooperatives and the wider development of this service is required. Facilities for microinsurance are in demand by MFIs to permit better risk management of lending programs. This demand has not yet been addressed by insurance companies. Microcredit for housing, disbursed by MFIs for low-income households to construct or renovate their houses through self-help or communal activity is a pressing need which is not yet being adequately supplied or targeted. The State Ministry of People’s Housing is providing subsidized credit to be delivered via MFIs, but there are questions as to the targeting of these funds. If microcredit is delivered with a ‘shelter’ focus for the incremental improvement of the dwellings of the poor, this lending can be done sustainably.

Formal financial services such as banking institutions in developing countries can only reach a small proportion of citizens so that the various financial authorities to promote financial inclusion program. Under community banks are reluctant to relate to, for example because they've imagined expensive to deal with the bank. While serving community banks also assess under greater costs.

However, financial institutions play an important role in improving the welfare of society as a whole so as to reach people down remains to be done. Even consultancy Economic Development Services (EDS) assess the role of financial institutions in poverty reduction in Indonesia.

Based on the Indonesian economic growth, socio economic demographic conditions, percentage of Industry in Indonesia is one of the potential markets to develop microfinance business Indonesia, Indonesian microfinance will continue to grow, both in size and degree of sophistication. It will contribute to the financial inclusion of the poor and of other unbanked people. This will contribute to poverty alleviation, both directly and by accelerating the process of financial deepening. Among activities best positioned for growth, and with major welfare benefits for the poor and near-poor, is the development of affordable financial services for money transfer. Despite regulatory prohibitions and technology costs, many microfinance institutions already have experience providing money transfers using licensed third parties.

Another area of opportunity lies in rapid technical advance in information and telecommunications technology. Since most potential micro-borrowers live in rural and remote areas while MFIs are mostly located in sub-district towns, the transportation and opportunity costs for both borrowers and field staff are very high. The opportunity represented by mobile-phone banking user in Indonesia. The dissemination of cell phones in rural areas lags behind some regional neighbors, but the infrastructure and consumer demand are developing to the point where the mobile banking opportunity can be grasped.

Based poverty reduction programs empowering micro and small businesses is a program that aims to provide access and economic empowerment for micro businesses and small. Important aspects of the reinforcement is to provide the broadest access to the poor to be able to try and improve the quality of life, but government of Indonesia did not have government institution special in training and social institution, so we give recommendation to develop microfinance for the future with social program coverage-based empowerment program group micro enterprises in Indonesia.

The government of Indonesia in the future must have government institution special in training and social program to develop microfinance in Indonesia. Motivation and Training Program, Telecentres, Televillages and Telelearning, Peer Tutoring and Group Tutoring, Entrepreneurship Program, like as a short training talk is given on issues relating to training in health, sanitation, clean environments, family planning, education, budgeting and product development. Training is needed, not just at the beginning of a program, but throughout the life of the program and assistance in motivating the women in the programs to make their repayments and to improve their income generating skills.

Tele Cottages are community centers that have modern electronic communication facilities which enable the population to share resources in education, training, employment, and social and economic development. To work effectively, the telecottages need a community facility with telecommunications and information processing equipment so that the public can access them. The telecottage concept was meant to benefit the local communities by providing services to local businesses and distance working opportunities, and in some places has already provided local training facilities, open learning access points for distance education, and expanded social networks.

Potential market with to mobile banking users in Indonesia, there are 250 million mobile subscribers, with 143 million unique mobile subscribers enabling the poorest people to have access to reliable financial transactions based on location demographics and Indonesia with it has a total of 17,508 islands, for it microfinance development program must be balanced with adequate infrastructure to take advantage of information technology such as mobile banking, etc. and provide the best service for micro banking customers and for the future development of microfinance.

Based on the discussion above, it can be concluded that in order to develop microfinance in Indonesia, which the government of Indonesia have potential market for microfinance business it would be better for government to make a government institution special in training and social program with professionalism and implementation of government practice to develop microfinance in Indonesia to reduce poverty in Indonesia.

3. Methodology and data

The purpose of this research is an interesting subject matter to be analyzed is how the projected development of the microfinance industry in Indonesia in the future. On our research, we describe the history of microfinance in Indonesia and to analyze management, mechanisms, and schemes microfinance in Indonesia. After that, we analyze the factors driving microfinance growth rate in Indonesia and analyze extent is the business of microcredit in alleviating poverty. At last, we analyze the most effective and appropriate management for the development of microfinance in Indonesia in accordance with the socio-economic and demographic conditions in Indonesia connecting with how to use digital skills.

Analytical methods performed with qualitative and quantitative method of the projected growth of various economic and demographic factors that affect the growth rate of national microfinance industry.

We now collect Data from Microfinance Bank in Indonesia (BRI/Bank Rakyat Indonesia, the largest microfinance bank in Indonesia, HP: Melayani Dengan Setulus Hati) and Non Bank Microfinance in Indonesia (The Fund and Credit Institution), OJK(Otoritas Jasa Keuangan (ojk.go.id)),Commercial Microfinance company, Ministry of Economic Affair, Republic of Indonesia, Badan Statistik Indonesia or Indonesia Statistic agency, World Bank.

The purpose of this research is an interesting subject matter to be analyzed is how the projected development of the micro finance industry in Indonesia in the future. We analyze the most effective and appropriate management for the development of microfinance in Indonesia in accordance with the socio-economic and demographic conditions in Indonesia to overcome the poverty and promote small business. Theoretical and empirical analysis by considering the condition of the national and global position of a basic framework or argument in building a strategic agenda for the future microfinance industry in Indonesia associated with the development of the national economy.

4.Expected results and discussion

Benefit of this research is to realize that the microfinance industry is strong and healthy and can make a major contribution in supporting economic growth in Indonesia and alleviating poverty. At the same time, our research provide Information how effective and appropriate management for the development of microfinance in Indonesia in accordance with the socio-economic and demographic conditions in Indonesia. For policymakers, microfinance provides and other stakeholder do they can make better decisions that will inform the development of microfinance in Indonesia.

There are clear differences between the characteristics of digital and analog finance, and as long as the users of finance are human, there will be limits to what can be handled digitally. Therefore, one of the objectives of this study is to clarify where analog approaches can be used. Perhaps there are areas that cannot be compensated for by digital technology, such as human oriented decision making related to emotions and empathy, and the aspect of social capital utilization. However, there is a possibility that methods such as group lending, which has been applied to human-oriented conventional microfinance, can be constructed by using digital media.

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