

# DIGITAL TRANSFORMATION: THE NEXT BIG LEAP IN MICROFINANCE

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## Abstract:

Microfinance in India has gone through drastic and dramatic evolution. It had its ups and downs, but the strength has always lied in the noble fact of servicing the poor, underprivileged masses with an aim of upliftment or poor through financial inclusion. Microfinance is operational intensive business and achieving operational excellence is key to success as it eliminates bottlenecks and reduces costs thereby increasing profitability for the business. Till recently, the entire transaction was cash based. About 99% of the disbursements and repayments are dependent on cash. In numbers, over 80 mn disbursements and 1,000 mn repayment transactions take place every year in cash mode. This is the main reason for which the sector was at the receiving end during the demonetization period and was impacted the most in terms of spread and for a long time period and faced a sudden slump in growth. Though several Microfinance Institutions (MFIs) have made forays into digital technologies, they still resort to manual interventions for most frontend cash based transactions of disbursements and repayments. Most of the innovative efforts are around introducing MIS systems, mobile and tablet solutions to bring down manual physical documentation and the time involved in it. This facilitates automation of process, better transparency, efficiency, productivity, finally enabling the MFIs to provide faster and better services to the clients. No innovation comes without challenges, and the bottleneck here is the huge cost involved in such technological innovations. Other issues faced are the resistance of members to adopt digital payment methods owing to their lack of financial literacy and technological knowhow. Nevertheless, Digitization definitely is the means to safer, reliable and efficient way of providing services, and our rural hinterlands will not be left behind for long.

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*Keywords : Microfinance, Digitization Evolution of Microfinance, Tablet Solution, JAM Trinity, Demonetization*

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### **Objectives:**

- To understand the evolution and changing scenario of Microfinance Industry in India
- To study the need and utility of digitization in Microfinance space

### **Research Methodology:**

The research is purely based on secondary data, majorly from Microfinance sectoral reports and news articles.

### **Introduction:**

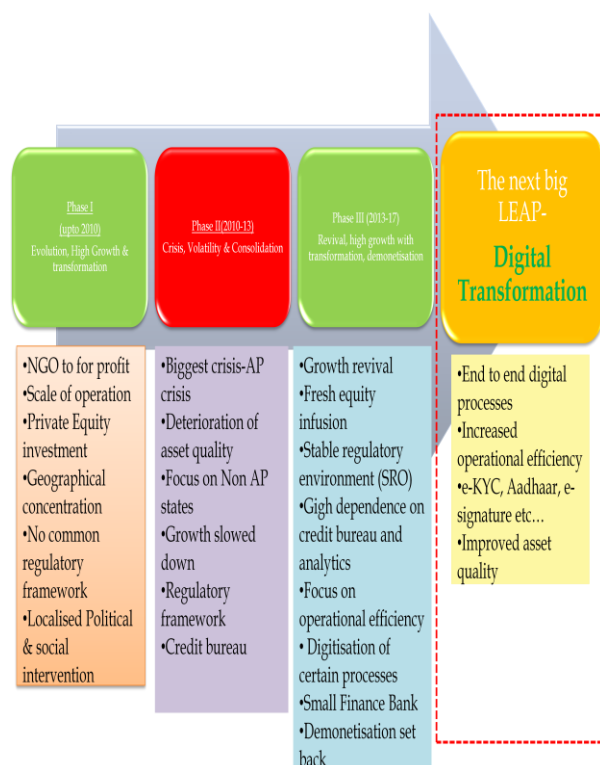
With the success of a small experiment conducted by Nobel Laureate Professor Muhammad Yunus, in the poverty stricken and flood ravaged Bangladeshi village of Jobra by providing a small amount as working capital to a few women, microfinance was born. Over the years, Microfinance has been proven to be one of the most important & powerful tools for empowerment & poverty alleviation as it provides most tangible outcome within a shortest period of time. The Microfinance sector in India has traversed a long journey from micro savings to microcredit and then to microenterprises and now entered the field of micro insurance, micro pension. The origin of Microfinance in India dates back to 1992 when National Bank for Agriculture

& Rural Development (NABARD) piloted the formal launch Self Help Group (SHG) Bank linkage program. From a small pilot of linking 500 SHGs in a year's time, it has come a long way and became the world's largest micro-finance program which currently covers 10 crore families through 85 lakh SHGs, of which, 88% are rural women. It is a major business opportunity for the Indian banking system with over Rs. 61,500 crore collateral free loan outstanding and another Rs. 16,000 crore in savings accounts as on 31st March 2017.

Over the last 3 decades, the sector has undergone dramatic changes and has been driven by many factors which include the transformation of microfinance providers, the demand supply gap, regulatory framework, expansion of funding sources and last but not the least the use of technology.

### **Facts and Findings**

#### **Microfinance in India: Evolution & Transformation**



### **Phase I (upto 2010)**

This is the initial phase of the industry characterized by evolution of various players, shift from specialized not for profit entities (NGOs) to an increasing number of for profit regulated and licensed MFIs (NBFC – MFI) with focus on sustainability. The industry saw high growth mainly due to investment from private equity investors as they considered it to be the highest level of safety with repayment rate was almost at 100%. The demand supply gap was so huge that there was hardly any competition and the microfinance players focus in limited geographies resulting into concentration of portfolio to certain geographies. No common regulatory framework for the sector and there was small scale impact due

to regulatory, political and social interventions and was localized in nature.

### **Phase II (2010-2013)**

This phase is specifically considered from the advent of biggest microfinance crisis, the Andhra Pradesh crisis in Oct 2010. Due to over blown microfinance activities like overleveraging of borrowers, repayment issues and some extreme cases of suicides in AP, the sector got into crisis. This led to sharp deterioration in asset quality of MFIs, the portfolio at risk (PAR) > 90 days increased sharply from 0.3% in 2010 to 58% in 2012. The bigger impact was bankruptcy of many MFIs. That's when Reserve Bank of India (RBI) intervened and provided common framework in 2011 for regulating NBFCs undertaking microfinance activity. The sector underwent consolidation mode. Marginal growth in portfolio from almost Rs.20,000 crore in 2011 to Rs.14,600 crore in 2013 and majorly in Non AP states.

### **Phase III (2014-2017)**

After passing through the tough times during 2010-13, following consolidation, the sector was brought to a new normal. Growth started under various regulatory and operational controls, fresh funds infusion, stable regulatory environment, emergence of self-regulatory organizations (SRO),

strong credit bureaus, focus on operational efficiency, lower interest rate, higher ticket size, digitization. The most important recognition to the sector during this period was issuance of license to 8 NBFC-MFIs to operate as Small Finance Bank (SFB) and universal banking license to 1 NBFC-MFI Bandhan. The sector was growing healthy with portfolio of 57,941 Cr as on Sept 2016 and very good asset quality (PAR 30 of 0.45% only). But the major setback to the sector was in the form of Demonetization (November 2016) and its impact. In a country where 69% of the population lived in rural areas and 90% of the transactions are cash based, the move was paralyzing. For the MFI industry this came as a blow too. Most of the borrowers of the MFIs are based in rural areas; they borrow in cash and repay in cash. The collection efficiency fell to as low as 30% which was otherwise at 99% level. For many MFIs the non-performing assets (NPA) have risen to about 6-8%

### **The next Big LEAP: Digital Transformation in Microfinance Space:**

Like any other sector, Microfinance also is seeing its digital era. It is quite astounding to see how digitization can change the microfinance scenario. MFI sector did not really have to wait for demonetization for

the digital push. Infact digital interventions and innovations in the MFI sector had begun much before. With technological efforts, Microfinance activities could be done at greater pace, thereby reducing TAT, enabling the MFIs to provide faster and better quality service to the customers. As evident from details about the sector, the sector has gone through a whole transformation compared to the way it was operating in the beginning.

### **Computer Era:**

Since all accounting entries, data management, documentation was done manually in registers and books, it was not only cumbersome but also carried the risk of loss of information and data in cases of damage, theft or loss of these documents. The time it took to do all these manual chores, is out of question, unimaginable. The introduction of computers did a great deal of time and effort saving, though computers in MFI branches came only after a few years, being an expensive investment. Tally was the most valued possession of each of these MFIs, who could atleast manage their accounting with Tally software.

### **Loan Management system and MIS Era:**

Seeing an opportunity in the amount of huge data being managed by these MFIs, some

technology organizations came up with Software's especially customized for MFIs. One of the first's in India was Jayam Solutions. Realizing the power of such softwares, which apart from efficiency and productivity, also provided data accuracy, interested the MFI Sector Funders and they started promoting such software's and provided them for free (as donations) to the MFIs. It was the software era since then and many players jumped in with their specialized software's, some of which also provided integrated solutions of Loan Management system along with accounting, audit and monitoring and HR management systems. Software's like, Delfix Nano, Bijli, Ganaseva, Efimo, etc. and many more started pitching their products with newer innovative technologies and features so as to lure the MFIs for about a decade. Some MFIs also went ahead to design their own software's and loan management system so as to incorporate any new requirement or changes, without any external dependency. It was a competitive time to witness how good, efficient, accurate and helpful is an MIS system of an MFI. Moreover, it actually also became a point of evaluation for Investors and Funders. Rating agencies also gave weightage to MIS systems during an MFI rating exercise.

### **Tablet Solution and Mobile App Era:**

Subsequently, the next following digital innovation was the use of Tablet and Mobile solutions in order to provide a frontend access and extend the range of functionality of an MIS system. With tablets, MFIs were not only able to duplicate the desktop screens and get real-time information and reports, but were also able to introduce features of on the field data – real time - front end data entry. This movement took away manual form filling, time and effort spent for manual work and duplicity of work. This obviously translated into less operational time, giving the MFI field staff an opportunity to engage more with the group members and even speak on social and financial issues. Some of the MFIs were more innovative and used the tablets and mobile apps for showing Financial literacy videos, trainings etc. This also helped the MFIs in strengthening their monitoring systems, by introducing geo tagging and time mapping to keep track on the whereabouts and travel pattern of the MFI staff, capturing photos for attendance of member meetings, registering and ensuring disciplined timely meetings.

### **JAM Trinity Era:**

With the JAM (Jan Dhan, Aadhaar, Mobile) trinity hitting India, MFI sector also took

cue and started exploring ways through which the services could be provided in more advanced means. It is a true enabler of the digital ecosystem which has given impetus to the financial inclusion movement. India is the only country in the world with a billion unique digital IDs and more than 600 million mobile-phone users out of which 25+ cr people own a smartphone (likely to grow to 40 crore by 2018), making India the world's second-biggest smartphone market. As much as 27% of the mobile internet users are from rural areas, expected to increase to 31+ crore by 2020, as per a Boston Consulting Group.

Sector Researchers, Consultancy firms and MFIs themselves got into another improvisation path which would enable them to extend their services to the underserved through digital channels. The Aadhaar wave rather helped the industry to move to one KYC ID for availing loans which ruled out possibility of frauds by members using other KYC. To make this more reliable and robust, technology advancements through lead management modules, to introduce eKYC checking through biometric and retina identification were brought in. This is where the Tablet and Mobile solutions came to rescue. These devices were leveraged to capture the

member's biometric and authenticate her Aadhaar. Once done, the device could further automatically send the data to credit bureaus for checking the member's credit history and providing reports, thereby providing customer insights. Thus this eliminates the manual process of filling for, digitizing them, sending data for credit bureau checking and consolidation of response. With this, the MFI could, in matter of few minutes, decide the members credit eligibility and take decision of whether to onboard her or not, thus saving on a lot of time, thereby reducing the overall TAT (Turn Around Time) and finally being able to provide faster and better services to the members. Some of the MFIs who have built this system and are using it boast of dramatic reduction in servicing time. Bharat Financial Inclusion Ltd, erstwhile SKS, one of the largest MFI in India has been doing extremely well in the digital front and has shown a great pathway to other fellow MFIs. It has come up with its digital initiative and confirms of approval of loans within 7 minutes instead of the tre tradition over 7 days period. SKS plans to go 100% digital financial inclusion with 2 lakh Kirana Points across 16 states, in partnership with leading banks where the borrowers can now walk into the nearest kirana/ merchant store to make basic financial transactions like repaying loan,



depositing money, withdrawing cash, making bill and other. A similar intervention is brought about by Artoo, a financial Technology firm in partnership with MFI Annapurna, which will help the loan officers take immediate loan processing decisions with the help of an Intelligent Digital Loan Origination System. Another MFI turned SFB – Ujjivan uses Android phones which provided the field staff access to member information, processing repayment transactions, marking customer attendance, Loan utilization checks, etc. and the tablet solution used for aquisition of customers and underwriting. NABARD had initiated a digitization project eShakit for women SHGs (self Help Groups) aiming at providing hassle free financial services from the banks in digital manner by integrating banks' systems with tablets and mobile phone fed with member details.

Banks like YES Bank, Indusind Bank, RBL Bank, Axis Bank, etc are also coming up with interesting apps and tablet solutions in order to ease the work on field. These have obviously brought in better transparency; assisted in taking risk assessed decisions and encouraged business scale up.

### **Post Demonetization - Cashless**

#### **Transaction Era:**

But the main breakthrough came with Demonetization which pushed every Indian to think cashless. Congruent to cashless comes digital. This is when the MFIs, after much deliberation thought of going digital too. To deal with rural and urban poor, underserved unprivileged masses which primarily deal only in cash, where there are hardly any banks around, leave alone good internet connectivity and internet banking facilities was an unimaginable task. Probably this must have been some of the major reasons for the MFI sector to deal in cash, inspite of the national movement towards getting cashless. Though out of India there have been classic cases like the vast use of Vodafone's M-Pesa and others, India always was too comfortable with cash transactions. However, late but not in vain, efforts were made towards cashless economies in the FI sector too, thanks to demonetization. Many MFIs are already transiting into cash-lite operations and are seeing value in it. Even before demonetization some MFIs and banks had already started making digital cashless disbursements directly into the members 'accounts. Over 60% NBFC-MFIs adopted cashless disbursement models' this also ensured that the member has bank accounts, a very important step towards financial inclusion. However, there was a huge barrier left unaddressed; the limitation of a

member to be able to withdraw the money from bank accounts and use them immediately. This issue was bloated up even more during demonetization when making digital disbursements was easiest thing to do, the members could withdraw the disbursed amount owing to no or low cash availability in bank branches. Withdrawal limits set aggravated the issue to higher levels. While cashless disbursements were still happening, there were hardly any MFIs who dared to get into cashless collections. As per a recent report by MFIN and Microsave, In the fourth quarter of FY 2016-17, about 40% of total disbursements and a mere 5% total repayments of the MFIs covered were reported to be cash-lite. After demonetization, payment wallet companies and other digital companies came up with options for cashless payments for rural areas. Though this is not as vastly used, it is still a very positive step towards cashless collections. The benefits obviously outnumber the challenges involved. Cashless transactions will also help mitigate any cash carrying risks apart from increasing productivity and operational efficiency.

Amongst many new innovations and interventions around digitization, National Payments Corporation of India (NPCI) is

taking some incredible steps to support this drive. A recent feather to the cap is the pilot project launched to digitize MFI transactions. It has also succeeded in getting 2 banks and an MFI where RBL bank will disburse loans directly into the Aadhaar seeded bank accounts of the members and and HDFC bank will receive payments for MFI swatantra Microfinance using the Aadhaar payment bridge system and unstructured supplementary service data (USSD) based \*99#. Mobile network providers like Vodafone are also partnering with MFIs to bring about overall efficiency in disbursement, collection and digitization of loans.

### **Challenges in Digitization for Microfinance:**

Though all of this sounds exciting, is it too good to be true? Is it affordable? Is it reliable, feasible and viable? These are obvious questions which force the MFIs to hold back their steps towards digitization. Such digital innovations mean huge cost implications and lowering profits and burning holes in the pockets of investors. This is where affordable digital solutions are desirable in order to move cashless or cash-lite. And how can we forget the issue of low internet connectivity which is the premise for most digital solutions. These hold good for niche segments, but while



dealing with poor, illiterate masses, we need to be absolutely aware and mindful of the fact that they are not just low on financial situation and financial literacy, but also lack technology knowhow and are rather averse to it. The poor refrain from such transactions as they just don't gain confidence and are in habit of using cash which is convenient. It calls for the MFI to go an extra mile in making the poor 'Digitable' or technology able. The value proposition for such poor customers is limited. And what about data security and restriction of personal information from flowing out? This again is a huge risk and needs due attention. With so much data flowing, it is not an easy task to keep data and personal information confidential. In the MFI space it also at times is required to share data, especially the credit behavior of members which also includes sensitive personal and family data, which needs some decent protocols. These are thoughts to introspect on and questions to ponder.

### Conclusion

While there is no question about the paradigm shift that this digital revolution will bring about in the MFI industry, there are still doubts on the viability of such digitization for MFI sector. It definitely calls for a few years of successful demonstration of cases and continuous

improvement to make digitization common phenomena in this industry. While everyone wishes for a easy cashless economy to flow, one also anticipates the issues, risks and resistance which comes with it. Some of the ways to prevent data sharing risks are to create lenders' code of conduct, finalize responsible data sharing protocols, exploring data security systems, etc. It will take some time for the sector to become resilient to digitization but there surely is light at the end of the tunnel. It goes without saying that digitization is the way ahead and with its popularity and success, the availability of options will be plenty and the expenses towards this much needed enabler will also go down in times to come. This goes without saying that the benefits churned will be manifold with high growth prospects, reduced operational costs, scope of catering to greater masses with agility and speed. Some of the MFIs have gone a step ahead and passed on a part of the benefits to the members by lowering the interest rates. Technology will definitely play a crucial role in bringing about financial Inclusion and it is great time to watch out for some really interesting and intriguing interventions.

**References:**

1. Atmadip Ray, Economic Times (Feb 2017) *Loan approvals done in 7 minutes, not 7 days*  
<http://economictimes.indiatimes.com/markets/stocks/news/loan-approvals-done-in-7-mins-not-7-days/articleshow/57323032.cms>
2. Atmadip Ray, Economic Times (Aug 2017), *MFI investors have to wait a while to reap benefits of digitisation*  
<http://economictimes.indiatimes.com/markets/stocks/news/for-pe-investors-in-mfis-its-a-long-road-ahead/articleshow/60217369.cms>
3. Business Standard (Oct 2016), *Nabard gears up to SHG digitisation in 22 districts by 2016-17*  
[http://www.business-standard.com/article/pti-stories/nabard-gears-up-to-shg-digitisation-in-22-districts-by-2016-17-116101500525\\_1.html](http://www.business-standard.com/article/pti-stories/nabard-gears-up-to-shg-digitisation-in-22-districts-by-2016-17-116101500525_1.html)
4. BW Disrupt (April 2017), *MFIN Launches India's First Financial Literacy App for Microfinancing*  
<http://bwdisrupt.businessworld.in/article/MFIN-Launches-India-s-First-Financial-Literacy-App-for-Microfinancing/25-04-2017-116988/>
5. Deccan Herald (Sept 2017), *Over 60% NBFC-MFIs adopted cashless disbursement models'*  
<http://www.deccanherald.com/content/630278/over-60-nbfc-mfis-adopted.html>
6. Dr. P.Malarvizhi, Ms.Parul Munjal, (2016), *Microfinance In India – Digital Financial Inclusion*
7. Economictimes (April 2017), *Artoo partners with Annapurna Microfinance*  
<http://tech.economictimes.indiatimes.com/news/corporate/artoo-partners-with-annapurna-microfinance/58128118>
8. Klapper & Singer (Aug 2014), *Highlighting the potential benefits of digital payment systems*
9. Livemint (2004) *NPCI begins pilot project to digitize transactions in microfinance sector*  
<http://www.livemint.com/Industry/A6SJv42MUwh87IBODzCf8O/NPCI-begins-pilot-project-to-digitize-transactions-in-microf.html>
10. MFIN, (Nov 2016), *Micrometer, Issue 19*
11. MFIN, (May 2017), *Micrometer, Issue 21*
12. MFIN, (Aug 2017), *Micrometer, Issue 22*
13. PWC (Nov 2016), *Shifting trends in the microfinance ecosystem*
14. Varadh Pande, Niloufer Memon (Sept 2017), *Protecting borrowers in the digital era*