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A review on digitalization of SHG with mobile usage in India

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ABSTRACT

Microfinance program promoted by the government of India through 'The National Bank for Agriculture and Rural Development' (NABARD) has impacted thousands of villages throughout India for the last twenty years. According to NABARD, 11 crore household across India with over 87 lakh Self Help Groups created deposits over Rs. 195 billion. India has a platform of over billion mobile users and a half billion internet users and financial transactions, especially through United Payment Interface by the government of India, make the financial transaction process easy and transparent through banks for customers. E-Shakti launched by NABARD in 2015 has digitalizing information of SHG across India. World bank has seen online bookkeeping of SHG raising over a million transactions every week across lakhs of house households even in a rural area. This paper presents the significance of the paradigm shift of digitalization of SHG with mobile.

Keywords— Microfinance, NABARD, World Bank, Self Help Group, Digitalization, Mobile

1. INTRODUCTION

Poverty has been a tough issue to negotiate even after independence as the population had grown over 1.3 billion by 2019 from a 361 million from 1951 census. Getting food, water and housing in a humongous task as rural population ballooned to 833 million with female population touching 58.7% by 2011.¹ Through various programs since 1991, a much debated "Below Poverty line" (BPL) had come down to 25.7% by 2012 from 50.11% in rural India and was about cross single digit in urban India. There has been a greater gap created between the super-rich with a crore of rupees vs people barely make standard per capita income. Literacy among all females is not at 70% and at least ten points below that of male. According to 2018 global Multidimensional Poverty Index (MPI) released in 9/2018 by the United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI), India made a phenomenal leap of reducing BPL by 27.5% with 271 million came out of BPL. Bihar, Jharkhand, Uttar Pradesh and Madhya Pradesh have contributed to 196 million MPI poor people, more than half of the total. Arunachal Pradesh, Bihar, Chhattisgarh, and Nagaland came next in the list with poor nutrition is the biggest contributor and lack of six-year education even for single house hold is the next contributor for poverty.² Perhaps India progressed to this higher level with the enormous growth of Self Help Group (SHG) along with continued subsidy on food, improved education policy by state governments, and huge impact by information and communication technology (ICT) in the form of "Mobile" and slow diffusion of a costlier smartphone with internet built browser. SHG has begun in 1970 in the name of "Self Employed Women's Association" (SEWA) in Ahmedabad by Ilaaben Bhat and later in Tamil Nadu with "Working Women's Forum" along in Maharastra with "The Annapurna Mahila Mandal", then NABARD has allowed sponsoring. SHG has made great stride as credit management was promoted by "Mysore Resettlement and Development Agency" (MYRADA) in Mysore by 1987. SHGs have begun to rise as liberalization policies created momentum by 1991 as NABARD has initiated financial inclusion and Reserve Bank of India (RBI) has allowed any SHG to open a saving account.

Any SHG is based on poor rural or urban with up to 20 members. There may be local banks involvement. They mobilize own savings as a team and then transform these funds as a loan to its members on payment basis with interest. They can finance the growth of the small business or entrepreneurial venture through accumulated savings and earnings. Next step is the bank linkage for credit through NABARD. This has brought down the BPL level significantly but not eradicated poverty.

2. LITERATURE REVIEW

In 2014, Society for Elimination of Rural Poverty (SERP) made remarkable use of ICT to process accounts online with the internet using mobile so called "M-bookkeeping" which provided a reliable interface between the SHGs, banks, government all other external stakeholders. SERP spent 14 crores for mobile for 40,000 to process accounts across AP with 3.68 crores for infrastructure and software, and 1.1 crores for internet connectivity. This is significantly lower than the usage cost of books and no transparency. The key point of M-book keeping is the credit worthiness of an SHG and highlighted the ability to serve the poor

Prabhala Kishore, Rao T. Umamaheswara; International Journal of Advance Research, Ideas and Innovations in Technology through government agencies. By 2014, over 8 lakhs SHG groups have been regularly uploading data into a central database from 1 crore household in AP. There are over 40,000 book-keepers use mobiles to upload data with accuracy and maintenance of books of accounts. This has been promoting financial literacy higher transparency, reliable credibility and greater performance of SHGs.

M Gopal Krishna, Aliya Sutana, and Dr T. Narayana Reddy had a study on benefits of SHG bank linkage (SHGBL) program with mobility of the savings in 2017 with a published paper on called “Self –Help Groups for Women Empowerment in the Present Scenario - A Review”. They had a review of SHGBL up to 31-03-2017 which became the world largest microfinance program for poverty alleviation with over 85 lakh SHG groups across India and 85% were women. The savings outstanding of SHGs with banks grown to Rs. 16,114 crore along with a loan Rs. 38,781 crore disbursed in the financial year 2017. They discussed the role of NABARD to empower SHGs with training on various programs where participant rose to 37.69 lakhs from 1.75 lakhs in 2016. The paper gave a view of digitization of SHG with E-Shakti with book keeping, accumulated savings with loans processing, credit history, and generating grades. By 2017 this project brought an online activity for over 1.3 lakhs with 14 lakh women. The concluded the SHGBL has to grow faster to rise the standard life of rural people.

According to Sibanarayan Mishra and Chinmayee Sahoo who published a paper in 2018 with a title “Women’s entrepreneurship development through self-help groups: journey from under participation to saviour”, had investigate progress with a multi stage random sampling technique of SHGs through banking linkages in Nuasantha Gram Panchayat (GP) of Puri district of Odisha. They selected two SHGs with 20 members each and examined the women entrepreneurship development with a multi variable regression model. They found that the growth of SHGs was lower in Odisha comparatively than the growth in India. 40% of members opened bank account after joining SHG and still, 47.5% of members had no bank account. The study revealed that the loan was used 45% to repay business purposes, 25% for old debt and 12.5% for illness or urgent needs. 70% of the savings came from the category of less than Rs. 400 per month and 25% came from less than Rs. 1000 category. They concluded the SHG was a great model to income generation and the government should put hand in hand with the bank.

B. Rajesh and Prof. B. Sudhir studied the usage of Mobile, TV, Newspaper, Computer and ATM with 440 samples from the women of SHG in four districts of Rayalaseema region in 2018 and a published paper titled “Self Help Groups and the Role of ICT”. 45.5% were between 36-50 years old and 36.9% were between 25-36 years old. These two composed of over 82% sample. Married was 96%, Family below Rs. 25,000 and Rs. 50,000 were 78%, Occupation of house wives were 55%, Business Women 20%, and Coolie 13%, and in education were Secondary School were 46%, illiterates were 31%, degree and above 15% and Intermediate was 8%. 67% have a mobile, but only 8.4% have computers, 98% have TV, and 70% read newspapers but only 20% bank cards. Using ANOVA, they test age with problems with usage ICT and found no association between a problem with mobile usage and age groups, no problems with ATM usage, and no problems with newspaper but problems were there with computers, along with problems with TV (Children education). They studied perceptions of respondents from SHG with four ICT attributes which are Internet facilities, Support services, dissatisfaction services and news services. They found that there was a significant satisfaction level with these ICT attributes. They felt that ICT empowers SHG groups but need to raise awareness and deploy ICT tools effectively.

P. Sreelatha had studied the rise of SHGs across AP and discussed the accumulated savings in SHGs led to the benefits in the way loans to the other members, knowledge of financial discipline, handling the financial resources over period and ability to get micro credit from NGOs or banks without collateral in a paper titled as “Self Help Groups – A Tool to Uplift Poor: A Study” in 2018. There were more than 25 lakh SHGs located across 26,500 villages of undivided AP in 2010. Banks had given Rs. 2049 Crore by 31-03-2010. This translated into an Rs. 28650 loan per SHG and Rs.1766 per family. According to NABARD, there were 69.53 lakh SHGs and 53.19 lakh were exclusively operated by women. 12.94 women SHGs were credit linked. A total saving of Women SHG was Rs 4498.66 crore, the total was Rs 6198.71 crore, Out of total Rs 14453.30 crore, loans disbursed to Women SHGs was Rs 12429.37 crore. The study found that NABARD bank linkage of SHG helped uplift poor.

3. OBJECTIVES AND METHODOLOGY

- To present the SHG growth in India with the current research literature.
- To analyze the usage of digitalization of process in SHG
- To suggest challenge and suggestions

This is study is based on secondary sources with looking through current literature and reports of NABARD and SERP.

4. GROWTH OF SHG

In India, microfinance in the form SHG-bank linkage monitored by the Reserve Bank of India and NABARD has been promoting to improving the existing relationship between the poor and the bankers with the financial inclusion. The SHG bank linkage has become the pioneering initiative of NABARD and the government of India. As shown in table 1, the number of SHGs have grown from 76.97 lakhs in 2014-15 to 87.44 but the total savings went from 11,059 crores to 19,592 crores, a growth of 77%. The percentage of women in all SHGS is declined from an 86.51 in 2014-15 to 84.51 by 2017-18.

Table 1: Growth of SHGs, Saving, Loan across

Year	2014-15	2015-16	2016-17	2017-18
No of SHGs, lakh	76.97	79.3	85.77	87.44
Total Savings, Cr	11,059	13,691	16,114	19,592
No of Women SHGs, lakh	66.51	67.63	73.22	73.90
Total Savings Women, Cr	9,264	12,035	14,283	17,497

Percent of Women SHGs	86.41	85.58	85.36	84.51
Loans Disbursed to No. of SHGs, lakh	16.26	18.32	18.98	22.61
Amount of Loans Disbursed to SHGs, Cr	27,582	37,286	38,781	47,185
Loans Disbursed to No. of Women SHGs, lakh	14.48	16.29	17.16	20.75
Amount of Loans to Women SHGs, Cr	24,419	34,411	36,103	44,558
Outstanding Loan, No. of SHGs, lakh	44.68	46.73	48.48	50.20
Outstanding Loan Amount SHGs, Cr	51,545	51,428	61,581	75,598
Outstanding Loan, No. of Women SHGs, lakh	38.58	40.36	42.84	45.49
Outstanding Loan Amount Women SHGs, Cr	45,901	51,428	56,444	70,401

Source: Report of NABARD, "Status of Micro Finance in India – 2017-18",

Southern five states have Rs. 33,317 cr in all total savings of SHG, followed by an eastern region with Rs. 20,732 cr, western region with Rs. 11,362, a central region with Rs. 10,294, and north eastern region Rs. 6,608.

Banks disbursed Rs. 47,186 cr loans to 22.61 lakh SHGs during 2017-18 up from 18.98 lakh in 2016-17. One in every four SHGs in the southern region and one in every three SHGs in the eastern region has given loan in 2017-18 as shown in table 1.

Rs. 47,186 cr of bank loan was disbursed in 2017-18 an increase of 21% with R38,781 cr in 2016-17. The southern region has 74% total bank loan disbursed with 55.43 lakh SHGs and Eastern regions have 19% with 31.86 lakh SHGs. 50.20 lakh SHGs were having credit outstanding of Rs. 75,598 cr in 2017-18 with 48.48 lakh SHGs with credit outstanding of Rs. 61,581 in 2016-17, a growth close 25%.

NPAs under bank loans to SHGs as on 31 March 2018 were 6.1 per cent as compared to 6.5 per cent the previous year. The concern, however, is the absolute NPA amount has been steadily increasing in recent years, by 15 per cent during the year to R4628 crore as on 31 March 2018 from R4,002 crore in 2017 and R3,686 crore in 2016.

Non-Performing Assets (NPAs) under bank loans to SHGs fall 6.1% in 2017-18 from 6.5% in 2016-17. But the amount has been increased, by 15% to Rs. 4,628 cr at the end of 2018 from Rs. 4,002 cr at the end of 2017. It was Rs 3,686 cr at the end of 2016.

5. DIFFUSION OF MOBILES AND ICT

Indian consumers from both urban and rural areas have been using mobile in a major way as shown in table 2 from 2009 as the world saw 2 billion mobile users in 2005. Only in 2009, India had over half a billion mobile users with a penetration level below 40%. India added over 500 million new mobile users as the total subscribers gone over ONE Billion by 2016 as mobile technology becoming a hot bed for research yet very few uses in social sciences.

Even internet crossed 100 million in 2011 and added a humongous 100 million in both 2015 and 2016 as total internet penetration rose close to 40% but has not seen substantial increase in last two years as social media with facebook, twitter, whatsapp, LinkedIn, etc, began to contribute information with just SIM technology on the mobile.

Table 2: Growth and Penetration of Internet with growth of mobiles in India^{3,4}

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Internet users	62.16	92.32	125.6	158.9	193	233	354	462	472	492
% of population	5.10	7.50	10.10	12.60	12.80	18.10	27	34	36	38
Mobile users, millions	525	752	894	865	886	944	970	1034	1168	1183

Lack of information and difficulty to attain knowledge has been reshaped by greater penetration of mobiles since 2010. Mobile has driven the usage of Internet and accessing online information among state governments and business firms, NGOs and citizen. Online brings greater transparency and faster information movement. SHGs have been greatly aided by this paradigm shift but there has to be skill set one need attain just like being literate.

5. DIGITALIZATION OF SHGs

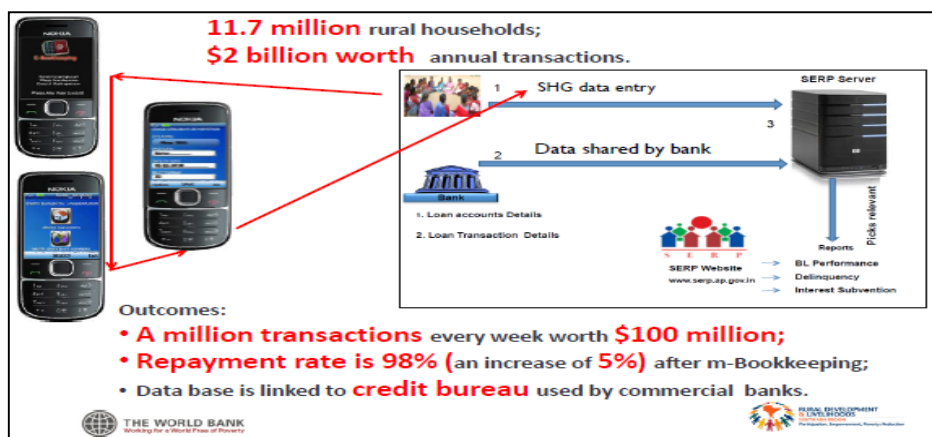


Fig. 1: M-Book Keeping Model from SERP and E-Shakti along with World Bank

Information on any SHG can be brought through computer or mobile using networking technology into a server just like a railway reservation or a payment or receipt of an electricity bill. e-SEWA centre has been growing to process information or financial services in a few minutes in so-called “Digitalization” and RBI, NABARD and governments have begun to implement SHGs to mobile in a big way. There are over 800 million ATM card holders according to RBI in 2017-18. There are over 3 million “Point Of Sale” (POS) machines across India where one can swipe a debit or credit card linked with savings account to allow funds transfer to seller’s account using internet or online, e-tailers use regularly. This process has caught up SHGs in 2015 by NABARD across India and SERP in AP.

There has to exist a database SHG members, Aadhar number, mobile number, meeting minutes, and bank accounts. One has to enter savings amount as and when deposited by member or loan given by a member or loan taken by the member as shown in figure 1. This digital information can be entered through mobile even offline and upload a server when ready to transfer data into a server where agencies can see or regulatory authorities can scrutinize the validity transactions. The initial cost will be big but effectively updated transaction so called digitalization information of SHGs will be a significant step to bring greater benefits and alleviation of poverty as indicated by UNDP in 2017.

Table 3: Growth E-Shakti online SHG by NABARD and SERP

Year	June 2016-17	June 2017-18
Digitalized SHGs, lakhs	1.13	3.88
Digitalized usage by Women, lakhs	14	42.54
No. SHG with Credit Linked	63,700	2,06,785

The National Bank for Agriculture and Rural Development (NABARD) has been initiated digitalization of selected SHGs with financial information. E-Shakti (meaning electronic empowerment) started in two districts, Ramgarh in Jharkhand and Dhule in Maharashtra. It has online information for 8,400 SHGs across 1,110 villages. NABARD extended the program to 22 additional districts with 1,08,403 SHG women’s information was digitalized, 54% of members have Aadhar Cards and 30% members own mobiles by 2016-17.

As shown in table 3, by 2017, over 14 lakh SHG women were using E-Shakti have 12 lakhs Aadhar and 5.15 lakhs mobiles. These numbers swelled by 200% with 3.88 SHGs digitalized, SHG women members grown by 300% to 42.54 with 34.74 lakh savings accounts with over 10,642 bank branches, Savings from SHG Rs. 1,635 cr, loan to the member from savings Rs. 923 cr, bank loan availed Rs. 4,220 cr, and bank loan outstanding Rs. 3,371 cr. Source: E-Shakti Website, eshakti.nabard.org, June 2018.

Digitalization of SHG requires good fixed cost but monitoring of SHGs is easy no irregularities of transactions both administration and financial. Mobile book keeping every transaction in a transparent way and secure with comprehensive information to all the stakeholders. Better allocation of resources to SHG especially weaker outreach. Linkage to banking has easier access and greater control. Data trail can be easily tracked and the credit line can be focused so NPAs can be reduced in a clear manner. National Rural Livelihoods Mission (NRLM) and Pradhan Mantri Jan-Dhan Yojana (PMJDY) can see the digital trail of savings and credit so financial inclusion and livelihood welfare programs can be easily targeted and implemented. Data has to be reliable and validated, data processing is time-consuming, and there will be poor internet connectivity. Mobile ownership and knowledge have to be greatly improved. Technology plays a significant role in government monitoring besides facilitating financial services for the rural and urban poor especially for women through SHGs. Just like SMS, every SHG has to recognize digital information is the key but comes with an initial fixed cost but a minimal cost over a period of two or three years. Accountability and transparency through digital information open the doorway from “Banks, NABARD, NGOs and others” to facilitate more SHGs. As digitalization and mobile usage reach more than 50%, the platform for low-income households is set to access formal financial services at affordable costs and greater convenience.

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