

Management Information System For Rural Microfinance Groups

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Abstract: The primary purpose is to present a mechanism for analyzing information systems, both those bought off-the-shelf and those developed internally. This MIS Evaluation Framework provides a mechanism for the industry to determine the quality of an information system. MFIs, donors, and other external stakeholders, as well as system developers, can use the project because it is very versatile. It can be used by MFIs to assess off-the-shelf systems in their hunt for a suitable solution. External entities can use it to evaluate off-the shelf or internally developed systems to assist an MFI, identify alternatives, or include as part of an institutional appraisal. Software development and information systems can use it to build a better system for rural social finance groups.

Keywords: Microfinance Institutions, Mahila bachat Gats, NABARD, Incentive System, Poverty, Self Help Groups, etc.

I. INTRODUCTION

The term "microfinance" has acquired popularity not only in poverty reduction and development circles, but also in the media and, more recently, across a variety of industries such as agricultural, transportation, and housing. It has emerged as an important component of both the national and international financial sectors, particularly for the informal sector employed in rising economies such as India. According to what we hear and read about microfinance, it has emerged as a leading mechanism for financial inclusion, poverty reduction, livelihood enhancement, and economic regeneration initiatives in situations such as disaster relief, economic structural adjustment, and even as a proposal for national debt cancellation around the world. It's been called "one of the most important economic phenomenons since Adam Smith's invention of capitalism." According to the World Bank, microfinance will be the economic engine of the future.

Problem Statement:

The current economic conditions of rural self help groups are very poor, there is no awareness of finance nor are they taught how to manage their money and the aspects of managing their business.

Our management information system based application will help solve these problems of rural self help groups, there are problems in maintaining the financial records of each individual and also of the group, generating detailed reports about the financial status of the group and its members.

There are many problems in the business side of the rural self help groups; there is no proper application or system built specifically for them to manage their business. Our application focuses on providing them with an inventory management system and an incentive based system that will help the group in growing as an organization and the users as an individual.

Aim of this Paper:

The aim of this paper is to provide rural microfinance institutions and its members with a management information system based application that can help them in making the microfinance institution more efficient in managing their business and provide a user friendly experience for both the users and the administrators.

II. OBJECTIVE(s)

The objective of this paper is to make the working of all the rural microfinance institutions like self help groups and mahila bachat gats efficient. Our application aims to solve existing problems of self help groups by providing them a platform to properly manage their finances and efficiently operate their business ventures using the features of our application.

III. MICROFINANCE

Microfinance is described as the provision of savings, credit, insurance, and payment services to relatively poor people, rather than in comparison to other kinds of finance. Microfinance, according to proponents, is the best technique for assisting individual self-help efforts in both livelihood and development.

Microfinance, according to India's microfinance policy paper, "includes the supply of financial services and the management of modest amounts of money through a variety of products and a system of intermediate activities targeted at low-income clients." Microfinance is the provision of small loans and other services to low-income households and microenterprises, such as savings, insurance, and transfer services. Microcredit also refers to a bank or other entity making a tiny loan to a customer.

IV. WHAT IS THE NEED OF MICROFINANCE WHEN BANKS EXISTED?

The lack of proof of recognized employment or collateral that the poor can supply when requesting for loans is the major factor of conventional banking institutions in India failing to lend to the rural poor. Banks are further hampered by the high risk and transaction costs of modest loan savings accounts. As a result, the impoverished have little choice except to borrow money at excessive interest rates from local moneylenders.

V. METHODOLOGY

By providing the users a way to manage their self help group's finances and also to be able to grow their business. The application is in dual language so people who are inexperienced can use it with ease. There are incentivised plans in the application that will help the user in becoming more financially independent and also provide support to the group. Detailed financial reports, inventory status, self help group status and incentive system can be accessed that will provide pillar based support in the form of a management information system to the self help group.

VI. MICROFINANCE STORY IN INDIA

The Gujarat-based Self-Employed Women's Association (SEWA) was the first in India to establish a microfinance institution, SEWA Bank, in 1974. Since then, this bank has been providing financial services to those in rural areas who want to start their own enterprises. Kudumbashree, Kerala's Poverty Eradication Mission, which began in 1998, is an example of a successful initiative. Neighborhood Groups (NHGs) is a female-led community organization that brings women from rural and urban areas together to fight for their rights and empower them. Women work on a number of subjects through these NHGs, including health, nutrition, and agriculture. They can earn money and apply for microcredit while working under this initiative. Small-scale efforts like these help people in impoverished places gain financial independence. To meet the needs of India's huge rural population, microfinance facilities are required. Microfinance in India should focus on encouraging socioeconomic development at the grassroots level through a community-based strategy, empowering women, and boosting household income as its key goals. Running a microfinance programme in rural India has its own set of problems, as does conducting any revolutionary initiative:

1. Does not reach the poor who deserve it.

People living in poverty are overlooked by microfinance delivery strategies because they are considered hazardous. When it comes to picking beneficiaries for the scheme, there is a prejudice. The scheme's operators choose economically stable individuals as programme participants in order to run the programme successfully and achieve greater repayment rates. The poorest of the poor are too fearful of taking on debt to invest in the future. As a result, the microfinance schemes will only assist them to a limited amount.

2. Limited spread in the poorer states.

Microfinance programme coverage is low in states where a high proportion of the population lives in poverty. Orissa, Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, and Uttar Pradesh are among the states that are lagging behind in implementing microfinance initiatives. The support provided by state governments, local culture and practise, and the concentration of MFIs in certain states all play a role in the successful distribution of microfinance programmes.

3. High interest rates.

Because borrowers are interest-sensitive, their borrowing capacity reduces when interest rates rise. As a result, high interest rates are ineffective and undermine the financial position of disadvantaged clients. Charging extremely high loan rates to disadvantaged people is likewise exploitative. In the microfinance business, interest rates do not appear to be well-regulated. Some MFIs have interest rates that are regulated. They may, however, impose transaction expenses, which increase the burden of borrowing and make it less appealing. MFIs may charge 11-24 percent annual interest rate, compared to 9-10 percent in the banking industry. These interest rates, however, vary depending on the financing conditions and policies of the MFI.

4. Low depth of outreach

The program's scope is growing, although the quantity of loans granted remains minimal. This sum is insufficient to meet the financial demands of the impoverished. Loans are rarely longer than a year in duration. Borrowers are unable to use their loans for productive purposes due to insufficient loan size and a short term of lending availability. Rather than borrowing to invest, they typically use these small loans to handle liquidity concerns.

Our concerns should be focused on people's access to microfinance in rural and urban regions, as well as the rules that accompany it, and the provision of basic training for the rural and urban poor on how to use these loans for constructive reasons.

VII. MODUS OPERANDI FOR MAHILA BACHAT GAT

MAHILA BACHAT GAT, a local Self-Help Group, aids in the economic development of rural, semi-urban, and urban women. It is a group of local women who have banded together for the common goal of economic well-being for themselves and their families. It often functions on a local level and is linked to cooperative banks for transactions. Women members of Mahila Bachat Gat receive assistance in the form of low-interest loans, savings, and returns on investment. No improvement in standard of living is possible without financial help, and Mahila Bachat Gat gives that support to economically disadvantaged women. The Self-Help Group, such as Mahila Bachat Gat, operates on a local level and also gives employment opportunities to its members. Other people can also seek the local Mahila Bachat Gats for financial assistance, such as low-interest loans. If a person is not a member of the Self-Use Group, they can obtain loans from them with the help of a reference from another member of the Self-Help Group.

Self-Help Groups, such as Mahila Bachat Gat, play a significant economic role at the local level. Mahila Bachat Gats not only economically and socially empowers many women, but also gives direct and indirect financial aid to many members and non-members. Mahila Bachat Gats are a formal organization that provides informal loans to numerous members and nonmembers on a mutually beneficial basis. A variety of positive factors, such as very cheap interest rates, easy and small amount availability, easy repayments, and so on, make Mahila Bachat Gats the preferred choice for getting loans. Self-help organizations have the potential to significantly alter the economic landscape, particularly in rural and semi-urban areas.

VIII. HOW ICT WILL HELP IN MICROFINANCE DEVELOPMENT?

1. Using online micro-lending platforms.

It might be tough for budding entrepreneurs to find investors and business partners. Many entrepreneurs have great company ideas but lack appropriate financial backing. Without the use of intermediaries, online micro lending

platforms try to link lenders and entrepreneurs directly. However, in the vast majority of cases, these sites are accessed via intermediaries. However, there may be situations when the cost of obtaining a lender on their own outweighs the charge paid to the intermediary. The use of an intermediary is justified in such instances. These, like any other online platform, have numerous flaws. People are at risk of being exploited if they do not exercise caution. According to data, the likelihood of receiving a loan for the first time is high. Developing a lengthier relationship with the moneylender, on the other hand, can be difficult at times. Many recommendations have been made by research studies to overcome such shortcomings.

2. An ICT based system to upload their documentations.

Microloans have a rigorous documentation process. Some examples of regular documents include: a copy of the national identity card, a copy of the birth certificate, a copy of the deed, certification from the Grama Niladhari (GN), salary certificates, and confirmation of the guarantors' identities. This list may vary depending on the microfinance institution. Most MFIs demand photocopies of these documents to be submitted in person, either to the MFIs agent or to the MFIs headquarters. This is a time-consuming process that may necessitate the farmer visiting the agent or the office several times, raising the transaction costs. Promoting electronic information is one possible strategy to avoid this transaction cost. Email is used by all MFIs. Almost certainly; the MFIs representative has an e-mail address. As a result, it is very conceivable that the information required for verification will be submitted via e-mail. In an ideal world, the entire loan approval procedure would be completed online. Many farmers use smartphones and at least one of their family members most likely does as well. As a result, it is easy to simply take a picture of a document (or perhaps scan it as a PDF) and sends it eliminating the transaction costs.

3. ICT based alert system for repayments.

Microfinance loans are notorious for having poor repayment rates. This is one of the primary reasons for the agents to pursue the farmers in order to collect the installment and interest. From the perspective of MFIs, this has raised transaction costs, necessitating higher interest rates to offset these costs. A microfinance loan has a payback duration as well as a specific date of the month to pay the installment. Interest will be added once the installment date has passed. As a result, skipping a payment has a cost for the farmer as well. As a result, a mobile-based SMS alert system to remind farmers of the installment date is feasible. There are farmers that do not pay their installments because they do not have enough money, therefore sending these reminders may be ineffective. However, there are farmers who will miss the payment date since they will be preoccupied with other tasks. An ICT-based alert system, preferably an SMS delivered to the farmer's cell phone reminding him of the payment deadline, might produce positive outcomes in such cases. The objective here is to eliminate the additional cost that a farmer must face if he mistakenly forgets to pay the installments. This would not operate if the farmer was broken. According to research, such ICT-based alert systems have considerable impacts, particularly when microfinance loans are supplied to farmer organizations.

I. OUR IMPLEMENTATION

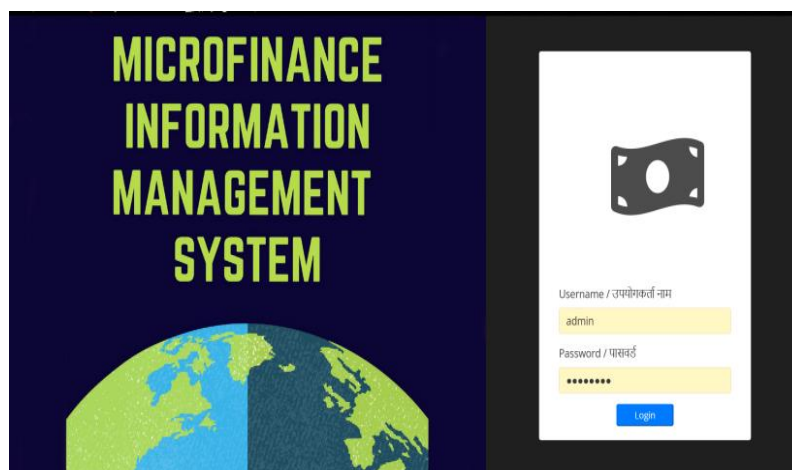


Fig 1. Login Screen for our MIMS application

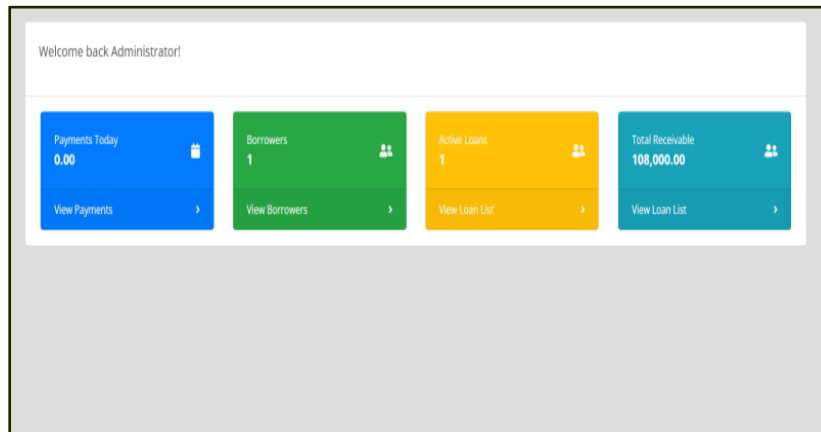


Fig. 2. Dashboard for Lender. The Admin can see Total No, of Payments made to him today, No. of borrowers, Active Loans for that Particular Lender and Total Cash Receivable

Loan List + Create New Application

Show 10 entries Search:

#	Borrower	Loan Details	Next Payment Details	Status	Action
1	Name :Smith, John C Contact # :+16554 454654 Address :Sample address	Reference :81409630 Loan type :Small Business Plan :36 months [8%, 3] Amount :100000 Total Payable Amount :108,000.00 Monthly Payable Amount : 3,000.00 Overdue Payable Amount: 90.00 Date Released: Sep 26, 2020	Date: Nov 26, 2020 Monthly amount:3,000.00 Penalty :90 Payable Amount :3,090.00	Released	

Showing 1 to 1 of 1 entries Previous 1 Next

Fig. 3. Borrowers (Loan) List. Here Lender can view number of borrowers who have pending loan

Edit Payment

Loan Reference No.
81409630

Payee
Smith, John C

Monthly amount:3,000.00 Amount

Penalty :90

Payable Amount :3,090.00

Save Cancel

Fig. 4. Make payments to the Lender and also issue penalty for Late Payment

New borrower

Last Name: Harsh First Name: Singh Middle Name: Balwant

Address: Vikhroli Contact #: 9619040460

Email: 2018.harsh.singh@ves.ac.in Tax ID: 57560959

Save Cancel

Fig. 5. New Borrower Screen. Here we can add borrowers where after checking his eligibility by the lender is given a loan with a low interest rate.

Plan's Form

Plan (months):

Interest: %

Monthly Over due's Penalty: %

Save Cancel

#	Plan	Action
1	Years/Month: 3 yrs. Interest: 8% Over dure Penalty: 3%	Edit Delete
2	Years/Month: 2 yrs. Interest: 5% Over dure Penalty: 2%	Edit Delete
3	Years/Month: 2 yrs. and 3month/s Interest: 6% Over dure Penalty: 2%	Edit Delete

Fig. 6. Microfinance Loan Plan Screen. Here Lenders can make different plans and provide discounts based on their preference.

Loan Type Form

Type:

Description:

Save Cancel

#	Loan Type	Action
1	Type Name: Small Business Description: Small Business Loans	Edit Delete
2	Type Name: Mortgages Description: Mortgages	Edit Delete
3	Type Name: Personal Loans Description: Personal Loans	Edit Delete

Fig. 7. Loan Type Screen. Here Lenders can Make different loan schemes for different borrowers taking different assets.

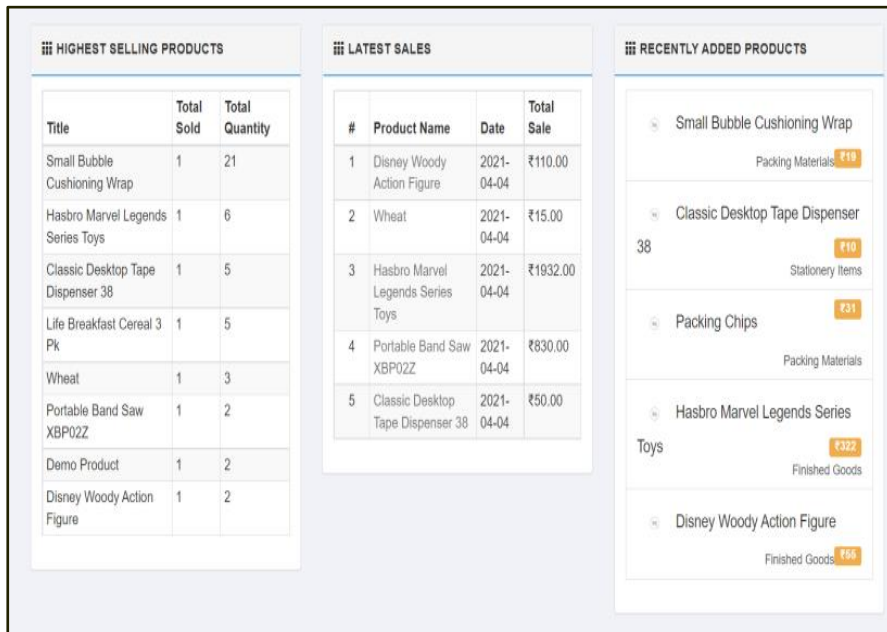


Fig. 8. Inventory Dashboard. It displays about Highest Selling Products, Latest Sales and Recently Added Products

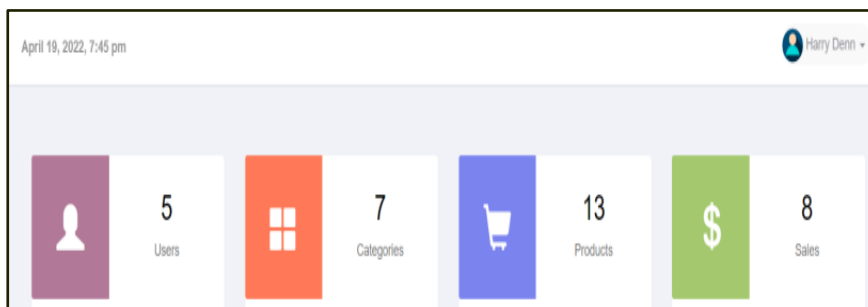


Fig. 9. Admin Dashboard. It shows number of suppliers, types of categories of product, unique products and number of sales in total

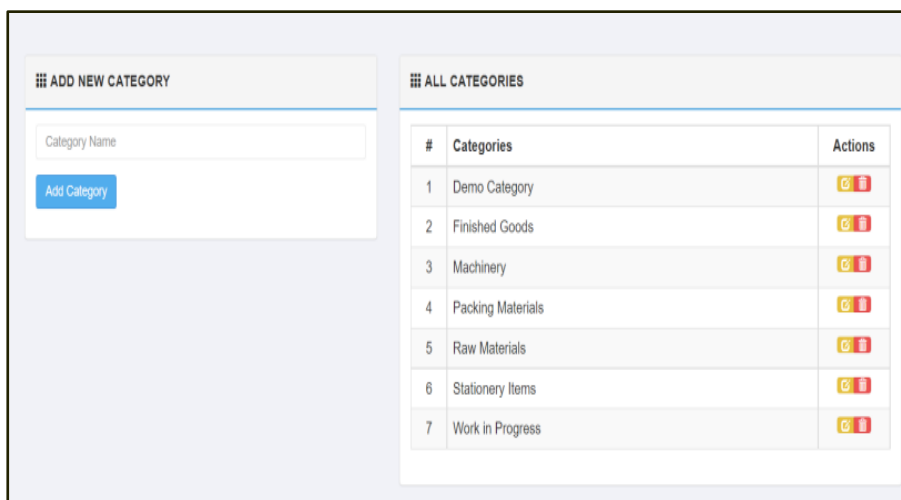


Fig. 10. Adding a new category for products. Here Retailer can add new product categories



















Product Title	Categories	In-Stock	Buying Price	Selling Price	Product Added	Actions
Demo Product	Demo Category	48	100.00	500.00	April 4, 2021, 4:45:51 pm	 
Box Varieties	Packing Materials	12000	55.00	130.00	April 4, 2021, 6:44:52 pm	 
Wheat	Raw Materials	69	2.00	5.00	April 4, 2021, 6:48:53 pm	 
Timber	Raw Materials	1200	780.00	1069.00	April 4, 2021, 7:03:23 pm	 
W1848 Oscillating Floor Drill Press	Machinery	26	299.00	494.00	April 4, 2021, 7:11:30 pm	 
Portable Band Saw XBP02Z	Machinery	42	280.00	415.00	April 4, 2021, 7:13:35 pm	 
Life Breakfast Cereal-3 Pk	Finished Goods	107	3.00	7.00	April 4, 2021, 7:15:38 pm	 
Chicken of the Sea Sardines W	Finished Goods	110	13.00	20.00	April 4, 2021, 7:17:11 pm	 
Disney Woody - Action Figure	Finished Goods	67	29.00	55.00	April 4, 2021, 7:19:20 pm	 

Fig. 11. All Products Screen. Here Admin can view all Products Page and their Buying and Selling Price respectively

















ALL SALES						ADD SALE
#	Product name	Quantity	Total	Date	Actions	
1	Demo Product	2	1000.00	2021-04-04	 	
2	Wheat	3	15.00	2021-04-04	 	
3	Hasbro Marvel Legends Series Toys	6	1932.00	2021-04-04	 	
4	Portable Band Saw XBP02Z	2	830.00	2021-04-04	 	
5	Classic Desktop Tape Dispenser 38	5	50.00	2021-04-04	 	
6	Small Bubble Cushioning Wrap	21	399.00	2021-04-04	 	
7	Life Breakfast Cereal-3 Pk	5	35.00	2021-04-04	 	
8	Disney Woody - Action Figure	2	110.00	2021-04-04	 	

Fig. 12. The personal information of both the Doctor and the Patient. Over here the patient and the doctor can view their personal bio-data.

Date	Product Title	Buying Price	Selling Price	Total Qty	TOTAL
2022-03-09	Soops	50.00	100.00	10	1000.00
2022-02-17	Fruit Basket	100.00	200.00	20	4000.00
2022-02-09	Leather Shoes	250.00	1000.00	20	20000.00
2022-02-09	Small Bubble Cushioning Wrap	10.00	20.00	21	420.00
				GRAND TOTAL	₹ 25,420.00
				PROFIT	₹ 17,710.00

Fig. 13. Generate Sales Report. We can generate Microfinance sales reports by day, month and year.

X. WHAT SHOULD BE NEXT STEPS IN IMPLEMENTING MICROFINANCE IN INDIA?

The microfinance program has witnessed phenomenal growth in India in the last decade. However, the focus of most of the microfinance service providers has remained on expanding the outreach of microfinance programs with little attention to the depth, quality and viability of the financial services. In addition to addressing these issues, a robust structure is required to allow microfinance to empower rural India.

XI. GLOBALIZATION AND MICROFINANCE

The desire for "greater financial returns or profit" from market operations is often linked to globalization. Globalization is a characteristic of today's world, and it is fueled by information and communication technologies (ICT). It refers to the integration of global economies. According to an IMF document titled "Reaping the Benefits of Financial Globalization," money has migrated the farthest and fastest to most OECD member nations, whereas low-income countries have seen only minor increases.

XII. TOTAL NUMBER OF MFIS IN INDIA

There were 223 MFIs in 2017 that included NGO-run units and societies. 47 non-banking finance companies – microfinance institutions (NBFC-MFIs) had also been registered with the Microfinance Institutions Network (MFIN).

XIII. CONCLUSION

No one can deny that microfinance can be a powerful tool for human, social, economic, political, and national development. Support for microfinance as a development strategy is justified, according to the rationale. Microfinance, on the other hand, has no basis in development if it cannot help the majority of its clients. Microfinance offers a win-win solution for capital growth. The best method to alleviate poverty for low-income earners is to increase their production potential rather than their consuming capacity. Active participation can have a favorable structural and human development effect. Microfinance has the potential to improve the lives of low-income workers who work in a large-scale informal economy. Success here is critical to the success of the present government's One District, One Factory strategy, as well as Ghana's ongoing industrialization efforts.

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