Int.J.Curr.Microbiol.App.Sci (2020) *9*(2): 11-18

International Journal of Current Microbiology and Applied Sciences
ISSN: 2319-7706 **Volume 9 Number 2 (2020)**
Journal homepage: http://www.ijcmas.com

Review Article https://doi.org/10.20546/ijcmas.2020.902.003

Innovations in Agricultural Credit Disbursement and Payment Systems for Financial Inclusion in Rural India

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Keywords

Agricultural Credit, KCC, SHG-bank linkage groups, JLGs, FPOs, Card and Mobile based payment systems

Article Info

Accepted:
05 January 2020
Available Online:
10 February 2020

A B S T R A C T

Timely disbursement of credit is game changer in agricultural production. There are few factors which impedes the availability of the credit from institutional structure and make farmers depended on informal ones. A number of innovative methods like KCC, SHG bank linkage groups, JLGs and FPOs had been promoted for financial inclusion under institutional structure. Except KCC, performance of other methods had been outstanding in recent years. Factors such and age, education, farm and land size influence the adaptation of KCC. Card based and Mobile based payment system was also developed in order to bring transparency in payment methods.

Introduction

Provision of sufficient and disbursement of credit in time to the peasant community plays an important role in faster and sustainable growth of agriculture and allied activities in the countryside. A large number of people in rural areas depended on agricultural and allied activities as a major source of employment and income and hence it has been considered as the backbone of the economy. Besides most rural households lack access to reliable and affordable finance for agriculture and other livelihood activities.

Urgency of innovative approaches and tighter provision of credit was felt after the financial crisis. A huge potentiality of rural and agriculture innovation can be seen to improve food security and livelihood of rural poor. Improved credit flow by banks to small and marginal farmers (SMFs) was the result of policy intervention by introducing Kisan Credit Card (KCC). It had increased the disbursement of farm credit and improved its coverage. Besides KCC other credit delivery model helped in inclusion of the bottom of the pyramid

Figure.1 Institutional Structure-Agriculture and Rural Credit in India, *Source:* NABARD

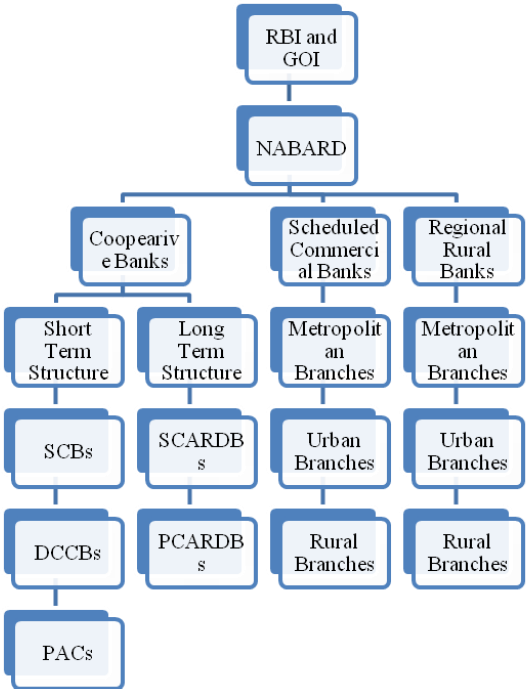
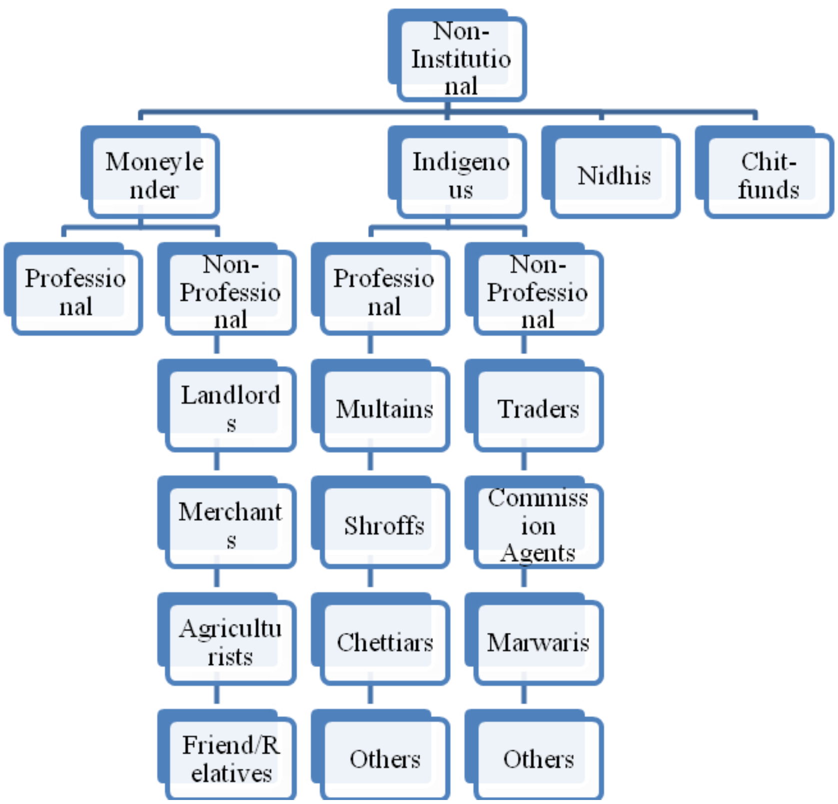


Figure.2 Non-Institutional Frameworks for Agricultural Credit in India, *Source:* Mamoria, C.B. (1982)



Sources of agricultural credit

The existing institutional credit delivery system in India is presented in figure 1 It is evident that there has been a “multi-agency approach” to meet the credit needs of the rural households, and the farming communities, in particular Government of India and RBI are the leading decision makers in agricultural credit then onwards NABARD which is the sole determiner of the farm credit.

After NABARD, Nationalized Banks, RRBs and Co-operative Banks are distributing agricultural credit m ground level with their various branch networks like State cooperative banks (SCBs), District Cooperative Central Banks (DCCBs), Primary Agricultural Credit Societies (PACs), State Cooperative Agriculture and Rural Development Banks (SCARDBs) and Primary Cooperative Agriculture and Rural Development Banks (PCARDBs).

High cost of service delivered, lack of branch networks, perception of low profitability in agriculture, information asymmetries, high levels of rural poverty or low levels of farmer education, lack of collateral and financial literacy are some of the reasons why formal lenders are reluctant to finance agriculture. But most of bank managers is seen to blame high degree of uncontrolled production and price risk for not financing agriculture. Thus farmers have to rely on non-institutional finance (Figure 2).

Around 38.9 percent (2002) of total credit in India was disbursed from non-institutional sector (Yadav, 2017) . Non-institutional lenders usually charge a high rate of interest keeping land or other assets as collateral. The important sources of non-institutional credit are traders and commission agents, landlords, money lenders, friends and relatives etc.

Challenges faced by farmers

Development of microfinance and agricultural financial markets in India was slowed down by several factors like lack of registered credit history, lack of market information, weak policy, legal and regulatory framework, and income variability among farmers.

Supply of finance and access to financial services was impeded by risks such as weather risk, commodity risk, seasonality, geographical dispersion and poor physical infrastructure. In the current scenario, mostly all payments are made through cash.

Lack of proper price information, commission agents and product quality are some of the problems faced on the input side while payments receivable by farmers are more often than not ridden with delays is the problem related to output side.

Innovation in delivery of credit

Kisan credit card

The Kisan Credit Card (KCC) scheme, introduced in 1998, is a single window system with flexible and simplified procedure for the farmers.

The farmers can avail credit for cultivation of crops, post-harvest expenses, marketing of produce, maintenance of farm assets, activities allied to agriculture and also consumption requirements of farmer households.

As per latest data there are 66.2 million operative KCC accounts. Although commercial banks hold less amount of operative KCC (36%) as compared to cooperative banks (46%), it has the lions share in total share total amount of outstanding (O/s) loans (64%) (Figure 3).

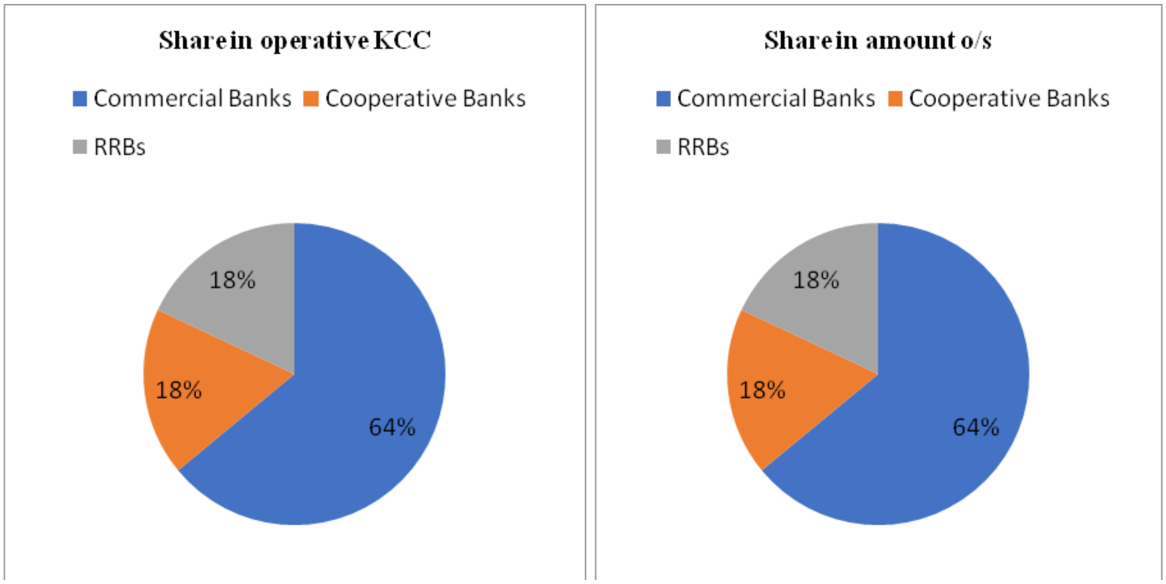


Figure.3 Bank category-wise share in operative KCC and amount p/s as on March 31,2019
Source: RBI and NABARD, 2018-19

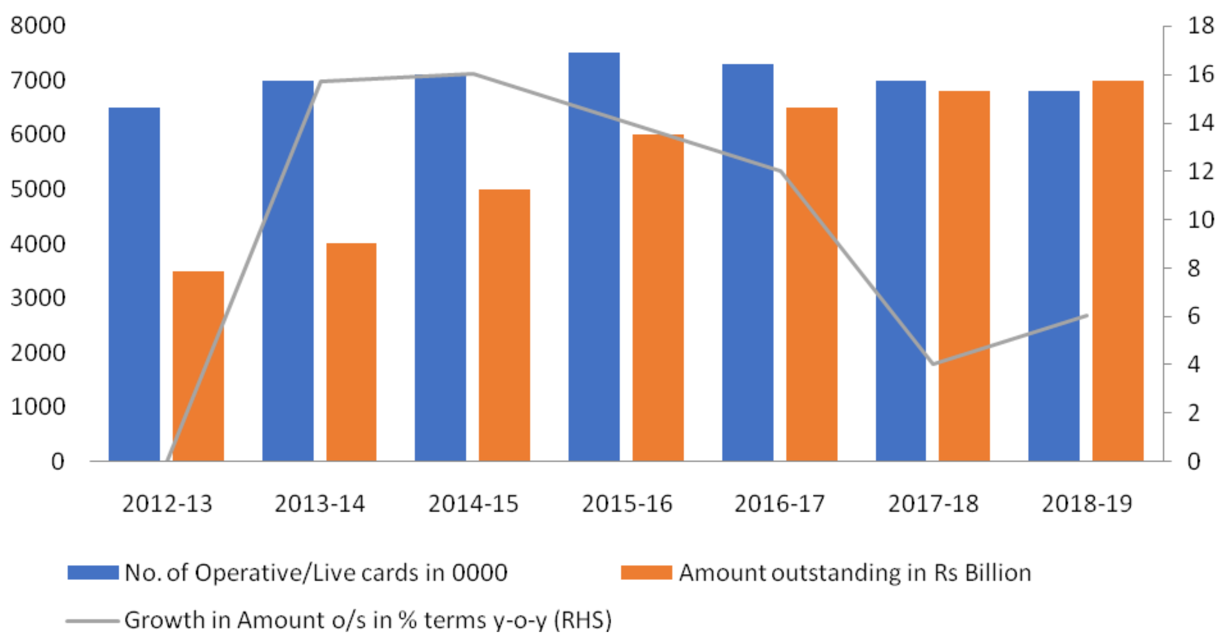


Figure.4 Year wise performance of KCC in terms of operative cards, amount o/s and its growth
Source: RBI and NABARD 2018-19

Only 45 per cent of farmers possessed operative KCCs. More than one card was held by. per cent agricultural household while only 10.5 per cent of agricultural households were found to have a valid KCC (NAFIS Survey, 2016-17) . Besides recently the number of operative KCC and outstanding loan in respect to it is stagnant with declination of the growth rate of outstanding loan (Figure 4). Hence, there is an urgency to improve the penetration of KCC.

Factor behind the better performance of KCC scheme in financial institutions

Factors like family size, land size, age, education were influencing the adoption of KCC in rural areas, however there effect were totally different in case of commercial and cooperative banks (Jainuddin *et*, *al*. 2015). In case of commercial banks family size and land size had positive and significant effect whereas age and education had negative and significant effect.

The study showed one year increase in the age of farmers would lead to 0.4 per cent decrease in loan amount under KCC scheme. In case of cooperative banks family size had negative and significant effect whereas land size, age and education had positive and significant effect. It depicts that one per cent increase in education of farmers would lead to 0.9 per cent increase in loan amount.

Further the study indicated that one per cent increase in land size would lead to an increase in loan amount by about 7.8 per cent in commercial banks and 9.8 per cent in cooperative banks borrowed under KCC scheme. Based on these results, it was concluded that the performance of KCC scheme was better in cooperative banks than in commercial banks.

SHG-bank linkage model

This model was launched in 1992. It has three main features:

1. Acceptance of informal groups as clients of banks-both deposit and credit linkage.
2. Introduction of collateral free lending.
3. Permission to lend to groups without specification of purpose/activity/project.

Joint liability groups (JLGs)

The scheme was initiated by NABARD in 2006 with the expectation of enhancing credit flow to share croppers/tenant farmers who do not have land rights. Figure 6 shows the progress of JLG model.

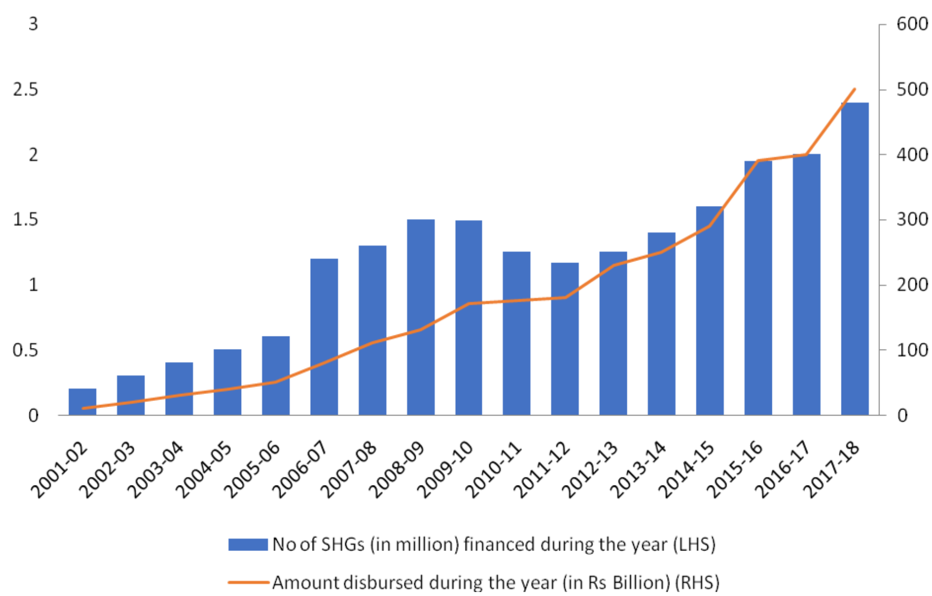


Figure.5 SHGs disbursed and amount financed during the year
Source: Handbook of statistics of Indian Economy, 2017-18

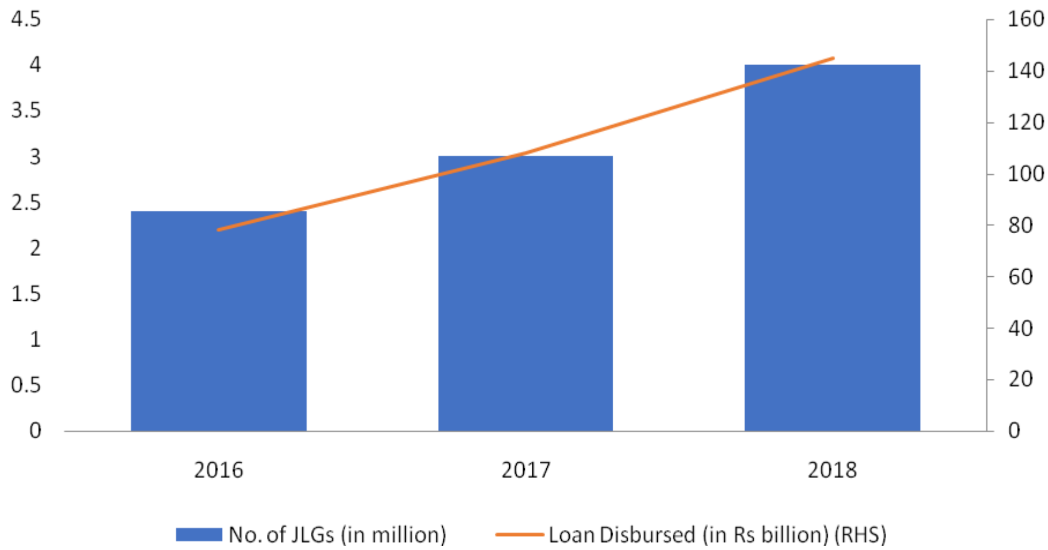


Figure.6 Number of JLGs and loan disbursed during the year
Source: NABARD-status of microfinance in India, 2017-18

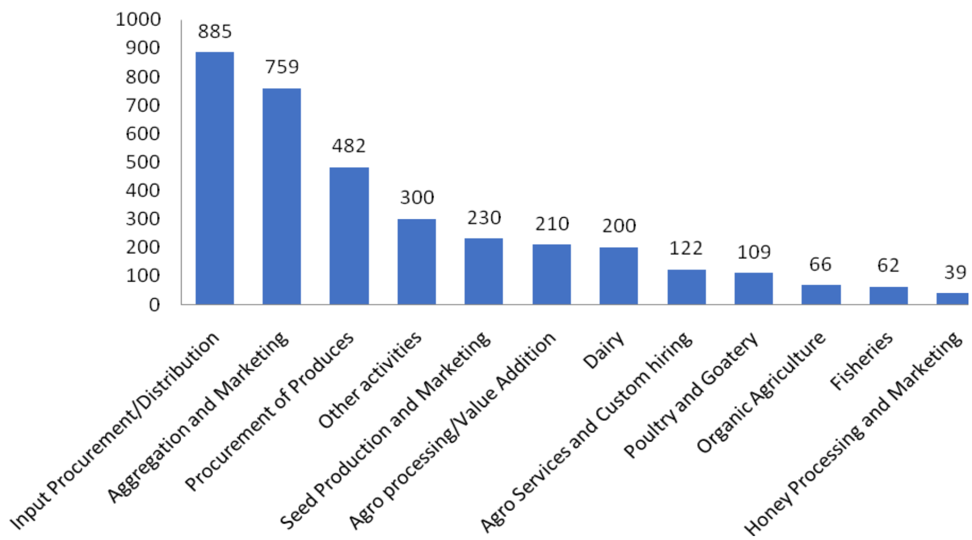


Figure.7 Typology of FPos promoted by NABARD
Source: NABARD

Farmers producers organizations (FPOs)

The main purpose for FPOs is to improve the bargaining power of the small and marginal famers. Reduction in cost of production and marketing cost, access to modern technologies, greater access to storage, efficient management of value chain, easier access to financial resources without collaterals and other support services by service providers are some of the benefits enjoyed by the farmers under FPOs. NABARD cumulatively promoted over 3000 FPOs across states among that most the FPOs are related to either input procurement/distribution or aggregation and marketing (Figure 7).

Innovative payment solutions as a means for greater financial inclusion

Efficient, reliable, affordable and global standard payment system is the cornerstone of financial infrastructure of the nation. It also enhance globalization, act a tools of economic empowerment by financial inclusion, improve transparency as well as operational efficiency and reduce transaction costs. Some of these are smart cards, magnetic strip cards, mobile accounts, mobile wallets, mobile purse and paper voucher.

Card-based payment systems

The purpose is to issue multipurpose stored value card of various denominations which can be used to purchase various goods and services from affiliated merchants based on anywhere. There are different methods of card-based payment

Closed system payment instruments

Not reloadable with cash and do not permit cash withdrawal. e.g. Phone calling, prepaid voucher and gift vouchers.

Semi-closed system payment instruments

These are used at merchant location, can be reloaded but do not allow cash withdrawal. e.g. cash cards and smart cards

Semi-open system payment instruments

These can be reloadable or non-reloadable, and can be used at any point-of-sale terminal, but do not allow cash withdrawal. e.g. gift cards issued by banks.

Open system payment instruments

Both re-loadable and non-reloadable, they permit cash withdrawal at ATMs. e.g. payroll cards and travel cards (Carr, 2010)

Mobile-based payment systems

Providing soft infrastructure is a complimentary action for technology revolution in rural areas. Mobile phone service helps to overcome social and economic barriers. Following condition should be meet for a mobile payment service to become acceptable (Pandey *et, al.* 2010).

Simplicity and usability

The m-payment application must be user friendly and customer must able to personalize to suit his or her own convenience.

Universality

Application must provide for transactions between one customer to another customer (C2C), or from a business to a customer (B2C) or between businesses (B2B). The coverage should include domestic, regional and global environments. It should also include both micro and high value macro payments.

Interoperability

Development the application should be based on standards and open technologies that allow one implemented system to interact with other systems.

Security, privacy and trust

There should be trust between customer and operator related to three grounds. First the credit and debit card information provided by customers should not be misuse. Second customer privacy should not be lost during transaction in the sense that the credit histories and spending patterns of the customer should not be openly available for public scrutiny and last but not the least the system should be foolproof, resistant to attacks from hackers and terrorists.

Cost

The payment system should not be costlier than existing payment mechanism.

Speed

The speed at which m-payments are executed must be acceptable to customers and merchants.

Timely disbursement of credit is very much crucial for the development of the agriculture. There are a number of factors such as high cost of service delivered, information asymmetries, lack of branch networks, perception of low profitability in agriculture, lack of collateral, high levels of rural poverty or low levels of farmer education and financial literacy, which are the impediment in the supply of finance and the ability of farmers to access the financial services from institutional structure.

Thus they are more dependent in informal sector. In order to increase the inclusiveness under institutional structure a number of innovative methods like KCC, SHG-bank linkage groups, JLGs and FPOs had been promoted. Only 45% farmers had KCC which implies there is a need to increase its penetration level.

Age, education, family and land size are some of the factors which influence the adaptation of KCC in rural areas. The performance of SHG-bank linkage groups, JLGs and FPOs were remarkable. In order to build the transparency in payment system card based payment system and mobile based payment system were introduced.

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How to cite this article:

Arghyadeep Das and Neela Madhav Patnaik. 2020. Innovations in Agricultural Credit Disbursement and Payment Systems for Financial Inclusion in Rural India. *Int.J.Curr.Microbiol.App.Sci.* 9(02): 11-18. doi: https://doi.org/10.20546/ijcmas.2020.902.003