



The impact of Public Sector Banks on small and marginal farmer's credit access and financial inclusion

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Abstract

Access to agricultural loans and financial inclusion are crucial for the socioeconomic advancement of India's small and marginal farmers. Particularly through programs like the Kisan Credit Card (KCC), Public Sector Banks (PSBs) are essential in offering credit at reasonable rates. The purpose of this study is to examine how PSBs help small and marginal farmers obtain financing and advance financial inclusion. The Autoregressive Distributed Lag (ARDL) model is used to evaluate secondary data from 2013–14 to 2023–24 in order to look at both short- and long-term relationships. The CUSUM test is used to verify that the model is stable. The findings show that KCC coverage and PSB lending greatly increase farmers' access to credit. To further empower farmers, the report recommends increasing credit facilities, streamlining KCC procedures, fortifying digital banking infrastructure, and keeping an eye on how agricultural loans are being used.

Keywords: Public sector banks, agricultural credit, financial inclusion, kisan credit card (KCC), small and marginal farmers, ARDL model, CUSUM test

Introduction

Financial inclusion is one powerful and highly valued instrument that supports the socioeconomic growth of a developing country such as India. It reduces poverty and financial exclusion by educating individuals on how to use their savings. Socioeconomic progress depends on it. Accordingly, it can be said that financial inclusion is a necessary step in promoting a nation's inclusive growth, which is why it is critical to the development of any nation. On the other hand, a consumer who is financially literate may make better decisions about the many financial services and products that can meet his specific demands. The country will expand overall as a result of the impoverished having better access to reasonably priced financial services (Devendra Prasad Sah 2020) ^[1]. By offering reasonably priced financial services to marginalized communities and businesses, banks play a critical role in advancing financial inclusion in India. In order to promote inclusive growth, the Reserve Bank of India requires banks to set aside a percentage of their loans for priority industries including agriculture and small companies. In order to provide access to banking and financial services for underserved populations, like as women and farmers, government programs like Stand-Up India, Pradhan Mantri Jan Dhan Yojana, and Pradhan Mantri Mudra Yojana depend on banks (Rupam Mishra 2022) ^[2]. The foundation of a contemporary economy is made up of financial institutions, which act as vital middlemen that ease the movement of capital and money. These organizations, which each have a unique function in the financial ecosystem, include banks, credit unions, investment businesses, and central banks. These organizations support economic growth and development via lending money, mobilizing savings, and providing a range of financial services (Padme Gowda 2020) ^[4].

Review of literature

▪ Gowda, A. T. P. (2020) ^[4]. The Role of Financial Institutions in Economic Development a Study In

particular, Indian case studies highlight the importance of financial institutions for economic growth, inclusiveness, and sustainability. The long-term impacts of digital financial inclusion on reducing poverty and enhancing economic resilience in developing nations, however, have not yet been empirically evaluated. Because of their dependence on case studies and descriptive analyses, current approaches have limitations. To prove causal relationships and policy impacts, future research should use strong econometric models and longitudinal data. Furthermore, investigating the convergence of artificial intelligence with blockchain technology may improve financial stability and inclusivity.

- Mishra, R. (2022) ^[2]. Exploring The Transformative Impact of Financial Inclusion on The Indian Economy This study links financial inclusion (FI) to higher savings, investments, and entrepreneurship, highlighting its critical role in fostering India's economic growth, reducing poverty, and boosting social empowerment. Important research indicates that FI and economic indicators are positively correlated; nonetheless, there are still gaps in knowledge about the effects of digital financial services and financial literacy programs. The study emphasizes how important it is to address underrepresented populations and geographical differences. In order to maximize FI's potential, future research should employ a combination of approaches to investigate contextual impediments and suggest tailored financial literacy programs, enhanced digital infrastructure, and targeted interventions for rural women.
- Vardhan, D. V., et. al. (2025) ^[3]. Financial Inclusion through Public Sector Banks-A Study on Select Banks Through initiatives like microfinance, internet banking, and the Jan Dhan Yojana, public sector banks have played a significant role in advancing financial inclusion in India, as this study demonstrates. After looking at demographic factors, it concludes that

outreach is typically successful since there is no appreciable impact on awareness or access. It does, however, highlight inadequacies in addressing infrastructural and digital security concerns, which blight progress. The study found a knowledge vacuum about the long-term effects of these programs on economic empowerment and social justice. To identify behavioural impediments and provide solutions, future research should include qualitative and longitudinal evaluations in addition to policy suggestions for improving infrastructure and digital security.

Objectives of the study

- To study the role of Public Sector Banks Credit facilities to agricultural.
- To assess Public Sector Banks in promoting financial inclusion for Small and Marginal farmers.

Research Methodology

With an emphasis on small and marginal farmers, the study looks at how Public Sector Banks (PSBs) support financial inclusion and agricultural development in India. The relationship between agricultural credit disbursed, Kisan Credit Cards (KCC) usage, and credit given to these farmers is examined using an Autoregressive Distributed Lag (ARDL) econometric technique. The quantitative analysis makes use of secondary data from 2013–14 to 2023–24. Credit performance, financial inclusion metrics, and agricultural loan trends are all examined using descriptive statistical methods. The study is to assess the short- and long-term relationships between farmers' financial inclusion levels and the allocation of agricultural loans by PSBs.

The Model of Econometrics

The immediate and delayed effects of PSB loan activities on agricultural financial inclusion were estimated using the ARDL (1, 1, 1, 1) econometric model, which comprises one lag of the dependent variable and one lag of each independent variable. The regression model's general form can be written as follows:

$$KCC_t = \alpha_1 KCC_{t-1} + \beta_1 ACD_t + \beta_2 ACD_{t-1} + \gamma_1 SMF_t + \gamma_2 SMF_{t-1} + C + \varepsilon_t$$

Estimated ARDL Equation with Coefficients

$$KCC_t = 0.065543 + 0.578925KCC_{t-1} + (5.43 \cdot 10^{-8}) ACD_t - 0.000127SMF_t + 0.001362SMF_{t-1} + \varepsilon_t$$

According to the study, access to agricultural financing is still influenced by the robust financial inclusion in India's agricultural sector. Higher levels of public sector bank lending improve farmers' access to credit, as evidenced by the positive impact of the Agricultural Credit Disbursed variable. The benefits of targeted credit programs appear gradually over time, as indicated by the minor negative coefficient of the present share of loan to small and marginal farmers (SMF). With no serial connection, the study also demonstrates a significant explanatory power and a robust model fit. The results highlight how crucial public

sector banks are to expanding financial inclusion and bolstering rural loan delivery networks.

Public Sector Banks are Providing Agricultural Credit

Since about half of India's population works in agriculture, agricultural financing is essential to the country's rural development initiatives. The Reserve Bank of India's Priority Sector Lending (PSL) criteria, which require that 18% of banks' credit be dedicated to agricultural, have made Public Sector Banks (PSBs) crucial in this area, having a major influence on financial inclusion and poverty reduction. As a result, the amount of agricultural loan disbursed has increased dramatically, from ₹7.30 lakh crore in 2013–14 to ₹25.48 lakh crore in 2023–24. Small and marginal farmers, who grew their share of agricultural loans from 52% in 2019–20 to 56.5% in 2023–24, are especially supported by PSBs. Small and marginal farmers, who grew their share of agricultural loans from 52% in 2019–20 to 56.5% in 2023–24, are especially supported by PSBs. Additionally, they encourage structural change and the diversification of rural income by supporting long-term investment funding for vital agricultural assets. Agriculture's risk characteristics discourage commercial banks from lending, but PSBs counteract this with initiatives like credit-linked insurance and the Interest Subvention Scheme, which has caused non-performing assets to drop from 10.1% to 6.2% in the same time frame.

Contribution of public sector banks to advancing financial inclusion for farmers

Motivated by the objectives of the EASE Reform, the Department of Financial Services (DFS) in India concentrated on improving financial stability and inclusion in 2024. Important measures included the Insolvency and Bankruptcy Code and the Prudential Framework for Resolution of Stressed Assets, which led to a substantial decrease in non-performing assets (NPAs) from ₹10.36 lakh crore in March 2018 to ₹4.75 lakh crore in March 2024. Additionally, as a result of the effective implementation of BHIM-UPI, digital payments increased under the DIGIDHAN Mission. By August 2025, 561.6 million bank accounts with an average deposit of ₹4,768 had been established as a result of financial inclusion initiatives, especially those implemented via the Pradhan Mantri Jan Dhan Yojana (PMJDY). In order to benefit farmers and underprivileged communities, the program placed a strong emphasis on rural access, with 67% of accounts being in rural regions and 56% of accounts being held by women. Additionally, 38 crore RuPay debit cards were distributed to enable digital payments and insurance, highlighting the significance of PMJDY in providing government assistance and fostering economic development.

The data from the years 2018-2024 shows the number of operative accounts and outstanding amounts for Commercial Banks, Cooperatives, and Regional Rural Banks (RRB) in thousands and crores, respectively.

Table 1: Growth of Agricultural Institutional Credit through Commercial Banks, Co-operative Banks and Regional Rural Banks in India (2018–19 to 2023–24)

Year	Commercial Bank's		Co operatives		RRB		Total	
	No. of Operative Accounts (in '000)	Amount Outstanding in Operative Accounts (in Rs cr)	No. of Operative Accounts (in '000)	Amount Outstanding in Operative Accounts (in Rs cr)	No. of Operative Accounts (in '000)	Amount Outstanding in Operative Accounts (in Rs cr)	No. of Operative Accounts (in '000)	Amount Outstanding in Operative Accounts (in Rs cr)
2018-19	23,632	4,55,079	30,414	1,27,436	12,253	1,27,072	66,300	7,09,587

2019-20	24,145	4,70,144	28,938	1,36,735	12,197	1,36,695	65,280	7,43,573
2020-21	30,696	4,56,736	30,183	1,46,981	12,891	1,49,416	73,770	7,53,133
2021-22	26,871	4,76,283	31,131	3,00,350	13,348	1,62,060	71,350	9,38,693
2022-23	28,296	5,18,636	31,344	1,89,235	13,829	1,77,604	73,469	8,85,475
2023-24	28,144	5,11,005	31,506	1,93,951	13,952	1,81,140	73,602	8,86,095

Source: PIB, Government of India, KCC, pib.gov.in)

Results and Discussion

Table 2: ARDL Co – efficient estimation on Agricultural Households Credit data

Variables	Co - efficient	Std. error	t - Statistic	Prob
Agricultural Households With KCC (-1)	0.578925	0.192535	3.006856	0.0397
Agriculture Credit Disbursed Crore	5.43E-08	2.19E-08	2.480537	0.0682
Share to Small Marginal Farmers	-0.000127	0.001076	-0.118312	0.9115
Share to Small Marginal Farmers (-1)	0.001362	0.000980	1.389666	0.2370
C	0.065543	0.032663	2.006633	0.1152
R-squared	0.995617	Mean dependent var	0.447778	0.995617
Adjusted R-squared	0.991234	S.D. dependent var	0.073276	0.991234
S.E. of regression	0.006860	Akaike info criterion	-6.825894	0.006860
Sum squared resid	0.000188	Schwarz criterion	-6.716324	0.000188
Log likelihood	35.71652	Hannan-Quinn criter.	-7.062344	35.71652
F-statistic	227.1647	Durbin-Watson stat	1.906276	227.1647
Prob(F-statistic)	0.000057			

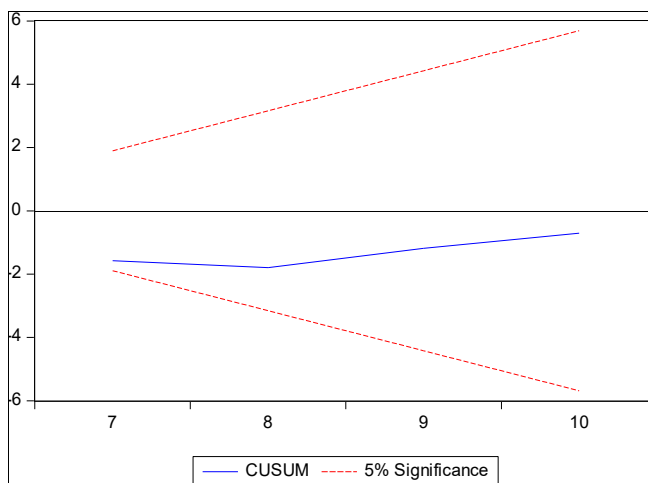


Fig 1: Cusum test for Stability of the model

Findings of the Study

- The percentage of small and marginal farmers, agricultural households with KCC, and agricultural credit disbursement are all strongly correlated over the long term.
- The number of agricultural households with KCC is positively impacted by the amount of agricultural credit that is awarded.
- The KCC coverage from the prior year has a beneficial impact on the coverage this year.
- In the medium term, the percentage of small and marginal farmers has very little impact.
- With an R2 of 0.9956, the model findings demonstrate excellent accuracy and stability.
- Public Sector Banks have played an important role in improving financial inclusion through credit schemes and KCC.

Suggestions

- Expand small and marginal farmers' access to lending facilities.
- Make KCC processes simpler and raise awareness among farmers in rural areas.

- Fortify digital credit distribution and banking infrastructure in rural areas.
- Make sure that the use of agricultural credit is properly monitored.
- Promote long-term loans for irrigation and agriculture development.
- Connect KCC to online payment and insurance platforms.
- Regularly support and evaluate public sector banks' performance

Conclusion

The study emphasizes how Public Sector Banks (PSBs) help small and marginal farmers in India have better access to credit and increase financial inclusion. The percentage of small and marginal farmers who benefit from these programs, the coverage of Kisan Credit Cards (KCC), and the amount of agricultural credit disbursed all have a strong long-term correlation, according to the empirical research conducted using the ARDL model. PSBs encourage long-term investment in rural assets, which helps to expand credit availability and promote sustainable agricultural development. The study highlights the significance of ongoing assistance and farmers' awareness of loans. PSBs play a key role in lowering financial exclusion, fostering rural development, and improving the socioeconomic standing of agricultural households through targeted lending programs, digital banking efforts, and government-backed schemes. To further empower small and marginal farmers, it is imperative to monitor loan utilization, streamline credit procedures, increase KCC outreach, and strengthen infrastructure.

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