

Impact of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank on Rural Development in Karnataka: An Empirical Study of Credit Access, Income Generation, and Financial Inclusion among Rural Households

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Abstract- By offering rural and semi-urban populations institutional credit, savings options, agricultural finance, microenterprise loans, insurance access, pension enrollment, remittance services, and digital banking capabilities, regional rural banks play a critical role in fostering inclusive rural development. With a focus on credit availability, income generation, and financial inclusion among rural households, the current empirical study investigates the effects of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank on rural development in Karnataka. Primary data from rural households, farmers, members of self-help groups, agricultural laborers, artisans, and micro-entrepreneurs who have utilized the banking and credit services provided by these regional rural banks forms the basis of the study. Since Karnataka Gramin Bank and Karnataka Vikas Grameena Bank merged into Karnataka Grameena Bank on May 1, 2025, the research also takes into account the post-amalgamation context. Indicators including access to formal credit, loan utilization, household income, employment creation, agricultural investment, savings behavior, use of digital banking, participation in government financial schemes, women's financial participation, and a decrease in reliance on unofficial moneylenders are some of the ways the study plans to measure rural development. Data may be gathered using a structured questionnaire, and the relationship between bank services and rural development outcomes may be investigated using statistical methods like percentage analysis, mean score analysis, correlation, regression, chi-square test, ANOVA, and factor analysis. The study is anticipated to demonstrate that when credit is available, timely, affordable, productively utilized, and backed by institutional guidance and financial literacy, Regional Rural Banks have a positive impact on rural development. Policymakers, banks, NABARD, government agencies, and rural development organizations may find the findings useful in bolstering livelihood-based banking

interventions, financial inclusion, credit delivery, and support for Self-Help Groups in Karnataka.

Keywords: Regional Rural Banks, Karnataka Grameen Bank, Karnataka Vikas Grameena Bank, Rural Development, Credit Access, Income Generation, Financial Inclusion, SHG Finance, Agricultural Credit.

I. INTRODUCTION

A significant portion of the state's rural population still depends on farming, dairy, livestock, horticulture, fisheries, wage labor, artisan work, petty trade, and small service activities for livelihood security. In this context, banking institutions become crucial not only as loan providers but also as organizations that mobilize rural savings, lessen reliance on informal moneylenders, support productive investment, promote financial literacy, deliver government-sponsored schemes, and connect weaker segments with insurance, pensions, digital payments, remittances, and direct benefit transfers; Regional Rural Banks were established under the Regional Rural Banks Act, 1976, with the specific objective of developing the rural economy by providing credit and other facilities for agriculture, trade, commerce, industry and other productive activities in rural areas, particularly to small and marginal farmers, agricultural labourers, artisans and small entrepreneurs, and this legislative purpose gives RRBs a developmental identity distinct from ordinary commercial banking institutions because their mandate combines social banking with local credit delivery and rural livelihood promotion ; at the national level, the Department of Financial Services has also described RRBs as an alternative channel to the cooperative credit structure

for expanding institutional credit to agriculture and the rural sector, and has noted that they carry the basic mandate of rural development and financial inclusion, with 28 RRBs functioning across States and Union Territories through more than 22,000 branches in about 700 districts as of the official update available before 15 April 2026 ; within Karnataka's rural banking structure, Karnataka Grameen Bank and Karnataka Vikas Grameena Bank were important RRBs because they served rural and semi-urban communities through agricultural loans, Kisan Credit Card-related lending, SHG overdraft and microcredit support, Udyam and Vyapar-type business loans, deposit services, savings accounts, digital access, social security schemes and government-sponsored credit channels, thereby linking rural households, farmers, SHG members, small traders, artisans, rural youth and micro-entrepreneurs with formal finance and development-oriented banking products ; the institutional background of the study is further shaped by the Government of India's continuing structural consolidation policy for RRBs, under which Karnataka Grameena Bank, with its head office at Ballari and sponsorship of Canara Bank, came into existence on 01 May 2025 through the amalgamation of Karnataka Vikas Grameena Bank and Karnataka Gramin Bank as per Gazette Notification No. 1604 dated 07 April 2025, and the bank itself explains that consolidation was expected to improve operational viability, customer service, infrastructure, technology, network strength, workforce capacity and strategic outreach ; this merger makes the present topic relevant for both historical impact assessment and current rural banking policy because the two earlier RRBs represent the pre-merger legacy of rural credit delivery in Karnataka, while the merged Karnataka Grameena Bank represents the post-merger platform for future agricultural finance, SHG support, financial inclusion, rural entrepreneurship, MSME credit and weaker-section development across the state; moreover, the merged bank's reported position as at 30 April 2025 total business of ₹1,03,625 crore, deposits of ₹54,934 crore, advances of ₹48,691 crore, credit-deposit ratio of 88.64 percent and clientele base of 1.90 crore— shows that the institution has significant scale and outreach for supporting rural transformation, making it necessary to study how its banking presence can influence credit access, income generation, financial

inclusion, self-employment, women's empowerment and balanced rural development in Karnataka.

II. STATEMENT OF THE RESEARCH PROBLEM

The research problem of the proposed study emerges from the need to conceptually examine whether Regional Rural Banks in Karnataka, particularly Karnataka Grameen Bank and Karnataka Vikas Grameena Bank and their post-merger continuation as Karnataka Grameena Bank, have been able to transform their institutional presence, rural branch network, deposit mobilization and priority-sector lending mandate into meaningful rural-development benefits for households engaged in agriculture, allied activities, self-employment, SHG-based livelihoods, petty trade, artisan work and micro-enterprises, because although RRBs were designed to serve the rural economy and are required to direct substantial credit toward agriculture, small and marginal farmers, micro-enterprises and weaker sections under the RBI's priority-sector framework, the practical rural-development outcomes of such banking intervention cannot be assumed merely from the growth of business, deposits, advances or credit-deposit ratio; this issue becomes especially important in Karnataka after the Government of India's Gazette notification brought Karnataka Vikas Grameena Bank and Karnataka Gramin Bank into a single transferee institution from 1 May 2025, creating a larger banking platform whose reported pre-merger consolidated position as at 30 April 2025 showed total business of ₹1,03,625 crore, deposits of ₹54,934 crore, advances of ₹48,691 crore, a credit-deposit ratio of 88.64 percent and a clientele base of 1.90 crore, yet the existence of such scale does not automatically reveal whether rural borrowers experience timely credit access, adequate loan size, reduced dependence on moneylenders, improved farm investment, expansion of dairy, poultry or horticulture activities, better household income, greater savings discipline, women's empowerment through SHGs, digital banking adoption, insurance or pension coverage, or meaningful participation in government financial-inclusion schemes; the problem is also sharpened by the fact that Karnataka's rural credit ecosystem is coordinated through Annual Credit Plans, Lead Bank mechanisms, SLBC reviews, government-sponsored

programmes and priority-sector monitoring, while PMJDY progress data show that RRBs remain important channels for rural and semi-urban accounts and deposit mobilization, indicating that inclusion has widened but requiring investigation into whether inclusion leads to productive investment and livelihood improvement; therefore, the present study seeks to address the gap between institutional banking performance and household-level rural development by asking how far the services of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank have contributed to credit access, income generation, financial inclusion, SHG participation, rural entrepreneurship and social empowerment among rural households, and by identifying the constraints such as low financial literacy, repayment difficulties, seasonal income, collateral issues, digital unfamiliarity and uneven credit utilization that may limit the developmental impact of RRBs even when outreach and credit targets appear strong, thereby making the research problem relevant for post-amalgamation rural banking policy, beneficiary-level assessment and future development planning in Karnataka; it further requires comparison across borrower categories, including farmers, SHG members, women borrowers, artisans and micro-entrepreneurs.

III. REVIEW OF LITERATURE

The literature related to the empirical study on the impact of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank on rural development in Karnataka may be reviewed through five connected areas: studies on Regional Rural Banks, studies on credit access, studies on income generation, studies on financial inclusion, and studies on SHGs and women's empowerment, because each area helps to build the empirical foundation for examining how rural households benefit from formal banking services; studies on Regional Rural Banks show that rural banking institutions have played an important role in expanding institutional finance to underserved areas, as Burgess and Pande (2005) found that rural branch expansion in India significantly reduced rural poverty and increased non-agricultural output, suggesting that access to banking infrastructure can produce wider development effects beyond credit delivery itself,

while Binswanger and Khandker (1995) argued that India's formal rural credit expansion contributed more clearly to non-farm growth, employment and rural wages than to agricultural output alone, indicating that RRB impact should be measured through both farm and non-farm livelihood indicators; in the Karnataka context, this is relevant because Karnataka Grameen Bank and Karnataka Vikas Grameena Bank historically served rural borrowers, farmers, small traders, artisans and weaker sections, making them suitable institutions for household-level empirical assessment; studies on credit access indicate that formal loans affect rural development by reducing dependence on informal moneylenders, lowering transaction uncertainty, enabling productive investment and increasing the ability of farmers, SHG members, artisans and rural entrepreneurs to plan economic activities, while Armendáriz and Morduch (2010) observed that microfinance and rural credit systems are most effective when they combine credit access with repayment discipline, borrower screening and social support, and Banerjee et al. (2015) showed that microcredit can increase business investment and borrowing for enterprise activity, although its effects on consumption and social outcomes may vary across households, which implies that the present study should not assume uniform impact but should test how loan purpose, loan adequacy, repayment conditions and borrower type influence outcomes; studies on income generation connect institutional finance with farm investment, enterprise creation, wage opportunities and household income growth, as Khandker (2005) found that microfinance participation was associated with poverty reduction and welfare improvement in Bangladesh, while Binswanger and Khandker's Indian evidence suggests that rural credit can support employment and rural wage gains, thereby justifying variables such as income before and after loan, asset creation, employment generation, business expansion, agricultural investment and diversification into dairy, poultry, trade or services; studies on financial inclusion emphasize that rural development is not limited to credit but includes account ownership, savings behaviour, payments, remittances, insurance, pension access, digital banking and participation in government benefit systems, as Sarma and Pais (2011) linked financial inclusion with broader development conditions, and Cole, Sampson, and Zia (2011) found

that financial literacy and knowledge influence demand for formal financial services, which is important for rural Karnataka because households may have bank accounts but may not actively use digital banking, insurance, pension schemes or savings products without awareness and confidence; studies on SHGs and women's empowerment show that group-based savings and bank linkage can strengthen women's participation in household financial decisions, enterprise activity and social confidence, as Puhazhendi and Badatya (2002) assessed the SHG-bank linkage programme as a mechanism for improving living standards among rural poor, and Swain and Wallentin (2009) found significant improvement in empowerment among SHG members compared with non-members, while Al-Kubati and Selvaratnam (2023) further treated the Self-Help Group Bank Linkage Programme as a sustainable development tool for women's empowerment; therefore, the reviewed literature supports the need for an empirical study in Karnataka that measures whether access to Karnataka Grameen Bank and Karnataka Vikas Grameena Bank services has improved credit availability, income generation, financial inclusion, women's participation, savings behaviour, loan utilization, reduction in informal borrowing and livelihood development among rural households, while also allowing the researcher to test whether benefits differ across farmers, SHG members, rural entrepreneurs, artisans, women borrowers and small traders.

IV. RESEARCH GAP

Although previous studies have established that rural banking, microfinance, financial inclusion and SHG-bank linkage can influence poverty reduction, livelihood security, women's participation and access to formal finance, the specific research gap in the proposed empirical study lies in the limited household-level evidence on whether Karnataka Grameen Bank and Karnataka Vikas Grameena Bank have actually improved credit access, income generation and financial inclusion among rural households in Karnataka, because earlier research has often examined Regional Rural Banks from the institutional side by analysing branch expansion, deposits, advances, recovery, profitability, non-performing assets and policy performance, while giving less

attention to beneficiary-side outcomes such as adequacy of loan amount, timeliness of credit, productive use of loans, change in household income, employment creation, savings behaviour, digital banking usage, reduction in informal borrowing, women's role in financial decisions and satisfaction with banking services; for example, Misra (2007) focused on the performance and future direction of RRBs, Shylendra (1996) examined distributional aspects of an RRB's lending, and Beck, Demirguc-Kunt, and Levine (2007) explained the broader relationship between finance, inequality and poor households, but these studies do not provide Karnataka-specific field evidence on how rural borrowers experience banking services at the household level; similarly, although Demirgüç-Kunt, Klapper, Singer, and Ansar (2022) show that account ownership and digital financial access are important indicators of inclusion, there remains a need to test whether rural households merely possess bank accounts or actually use them for savings, payments, insurance, pension schemes, remittances, direct benefit transfers and livelihood finance; studies on SHG-bank linkage also show positive effects on women's savings, social participation and group-based credit discipline, yet Rajeev, Vani, and Veerashekarappa (2020) suggest that transaction costs and group processes influence the real value of SHG lending, indicating that the impact of bank-linked microcredit must be studied through borrower experiences rather than assumed from loan disbursement alone; therefore, the present study fills an important gap by empirically examining the impact of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank on rural development through primary data from farmers, SHG members, artisans, small traders, rural women, agricultural labourers and micro-entrepreneurs, and by linking independent variables such as credit access, loan size, loan purpose, financial literacy, SHG membership, digital banking use and frequency of bank contact with dependent variables such as household income, employment, business expansion, agricultural investment, savings habit, women's empowerment and reduced dependence on moneylenders; this gap is also timely because the amalgamation of the two banks into Karnataka Grameena Bank from 01 May 2025 creates a need to assess the pre-merger developmental contribution of these institutions and generate

evidence useful for post-merger rural banking strategy, policy planning and inclusive development interventions in Karnataka.

Research Questions

1. Has access to credit from Karnataka Grameen Bank and Karnataka Vikas Grameena Bank improved the income of rural households?
2. Do RRB services improve financial inclusion among farmers, SHG members, artisans, and rural entrepreneurs?
3. What is the relationship between loan utilization and livelihood improvement?
4. Do SHG members benefit more from RRB services than non-SHG rural households?
5. What are the major difficulties faced by beneficiaries in accessing credit and digital banking services?

Objectives of the Study

1. To examine the role of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank in improving credit access among rural households in Karnataka.
2. To analyse the impact of RRB credit on income generation and livelihood development.
3. To study the contribution of RRBs to financial inclusion through savings accounts, digital banking, insurance, pension schemes, and government benefit transfers.
4. To evaluate the role of RRBs in supporting agriculture, allied activities, SHGs, rural entrepreneurship, and micro-enterprises.
5. To identify the major challenges faced by rural households in accessing and using RRB services.
6. To suggest policy measures for improving the developmental impact of RRBs in Karnataka.

Hypotheses of the Study

1. H1: Credit access through Regional Rural Banks has a significant positive impact on household income generation.
2. H2: Financial inclusion services provided by RRBs have a significant relationship with rural livelihood improvement.
3. H3: Productive utilization of bank loans significantly improves agricultural investment, business activity, and employment generation.

4. H4: SHG-linked borrowers experience higher financial participation and empowerment than non-SHG borrowers.
5. H5: Access to RRB credit reduces dependence on informal moneylenders among rural households.

V. SCOPE OF THE STUDY

The scope of the present empirical study is confined to examining the household-level developmental impact of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank in selected rural districts of Karnataka where the two Regional Rural Banks had substantial pre-amalgamation operational presence and where the merged Karnataka Grameena Bank currently continues rural banking services, and the study covers rural households who have directly or indirectly used RRB services such as savings accounts, agricultural loans, Kisan Credit Card-related credit, SHG loans, micro-enterprise loans, dairy and allied-sector finance, remittance facilities, insurance, pension schemes, digital banking and government benefit transfer services, with special focus on farmers, small and marginal farmers, agricultural labourers, self-help group members, rural women, artisans, petty traders, dairy farmers, rural youth, and micro-entrepreneurs, because these groups represent the main beneficiary categories for whom Regional Rural Banks were originally established under the Regional Rural Banks Act, 1976, which aimed to develop the rural economy by providing credit and other facilities for agriculture, trade, commerce, industry and other productive rural activities, especially for small and marginal farmers, agricultural labourers, artisans and small entrepreneurs (Government of India, 1976) ; geographically, the study may cover selected districts from both the former operational areas of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank so that regional variations in credit access, income generation, financial inclusion and livelihood outcomes can be compared, while institutionally the study considers the historical role of the two banks before amalgamation and the current policy relevance of Karnataka Grameena Bank, which came into existence on 01 May 2025 with head office at Ballari under Canara Bank sponsorship after the amalgamation of Karnataka Vikas Grameena Bank and Karnataka Gramin Bank (Karnataka Grameena

Bank, 2025a) ; analytically, the study is limited to measuring selected rural development indicators such as access to formal credit, adequacy and timeliness of loans, purpose and utilization of credit, change in household income, employment creation, savings habit, digital banking usage, SHG participation, reduction in informal borrowing, women's financial decision-making and satisfaction with banking services, and it does not attempt to measure the entire rural economy of Karnataka; respondent-wise, the study may use a structured questionnaire or interview schedule with beneficiary households and may compare farmers, SHG borrowers, micro-entrepreneurs and non-farm rural borrowers; operationally, the large scale of Karnataka Grameena Bank provides a relevant empirical base because the bank reported ₹1,03,625 crore total business, ₹54,934 crore deposits, ₹48,691 crore advances, 88.64 percent credit-deposit ratio and 1.90 crore clientele as at 30 April 2025, along with 1,750 branches including 1,265 rural and 293 semi-urban branches, indicating strong suitability for studying rural credit and inclusion outcomes (Karnataka Grameena Bank, 2025b, 2025c) ; therefore, the scope is focused, empirical and policy-oriented, linking RRB services with rural household development outcomes rather than evaluating only bank profitability, deposits or advances.

VI. RESEARCH METHODOLOGY

The current empirical study used a descriptive and analytical research design to investigate the effects of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank on rural development in Karnataka through the dimensions of credit access, income generation, and financial inclusion among rural households. The methodology was framed in accordance with the developmental mandate of Regional Rural Banks under the Regional Rural Banks Act, 1976, which positions RRBs as institutions for providing credit and other banking services to small and marginal farmers, agricultural laborers, and small business owners. Because Karnataka Grameena Bank reported a strong rural banking base as of April 30, 2025, with total business of ₹1,03,625 crore, deposits of ₹54,934 crore, advances of ₹48,691 crore, a credit-deposit ratio of 88.64 percent, and a clientele base of 1.90 crore, the study used both primary and secondary data. In order to represent both farm and non-farm

rural livelihoods, a multi-stage sampling method was used to select the respondents: in the first stage, a few selected districts of North Karnataka were chosen based on the operational presence of the former Karnataka Grameen Bank and Karnataka Vikas Grameena Bank and the current service coverage of Karnataka Grameena Bank; in the second stage, selected rural taluks and villages under those districts were identified; and in the final stage, beneficiary households from categories like farmers, small and marginal farmers, artisans, small traders, micro-entrepreneurs, and other bank customers. The questionnaire was divided into sections covering demographic profile, occupation, landholding or enterprise type, bank account usage, loan details, purpose of borrowing, loan amount, timeliness of sanction, repayment behavior, income before and after loan, savings behavior, digital banking usage, SHG participation, insurance and pension access, government scheme benefits, dependence on informal borrowing, and perceived livelihood improvement. The total sample size was set at 200 respondents, which is appropriate for a focused empirical field study involving household-level banking experiences. In order to determine whether RRB services have a quantifiable impact on rural development outcomes, the study treated credit access, loan adequacy, loan utilization, financial literacy, SHG membership, digital banking usage, and frequency of bank interaction as key independent variables, while household income, employment generation, agricultural investment, business expansion, savings habit, women's participation in financial decisions, reduction in moneylender dependence, and overall livelihood improvement were treated as dependent variables. The data was analyzed using percentage analysis, mean scores, cross-tabulation, chi-square test, correlation, and regression analysis. As a result, the methodology is empirical, field-based, and policy-focused, connecting household experiences with the broader framework of rural banking, which includes the RBI priority-sector mandate that RRBs allocate 75% of outstanding advances to priority sectors like agriculture, microenterprises, and weaker sections.

VII. VARIABLES OF THE STUDY

The variables of the present empirical study are framed to measure how the services of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank influence rural development outcomes among beneficiary households in Karnataka, and in this framework the independent variables include credit access, loan amount, loan purpose, loan processing time, interest rate perception, collateral requirement, financial literacy, digital banking access, SHG membership and frequency of bank usage, because these factors represent the major banking-service conditions through which rural households interact with Regional Rural Banks; credit access may be measured through whether the respondent obtained formal credit from the bank, how easily the loan was sanctioned, whether the loan was received on time, and whether the sanctioned amount was adequate for agriculture, dairy, small trade, self-employment or household livelihood needs; loan amount and loan purpose are important because loans used for crop cultivation, irrigation, livestock, micro-enterprise, SHG activity or business expansion are expected to create stronger productive outcomes than loans used mainly for consumption; loan processing time, collateral requirement and interest rate perception indicate the affordability and convenience of bank credit, while financial literacy and digital banking access measure whether respondents understand savings, repayment, insurance, pension, mobile banking, UPI, ATM use and government benefit transfers; SHG membership is included because group-based banking may strengthen savings habits, credit discipline, women's participation and micro-enterprise development, while frequency of bank usage shows whether rural households are active users of formal finance rather than merely account holders; the dependent variables include household income, employment generation, agricultural productivity, business expansion, savings habit, women's empowerment, reduction in informal borrowing and overall rural development, because these are the expected outcomes of effective rural credit and financial inclusion, and they may be measured through change in income before and after loan use, number of work opportunities created, improvement in crop yield or allied activity output, increase in business turnover,

regularity of savings, women's role in financial decision-making, decline in borrowing from moneylenders and perceived improvement in livelihood security; the control variables include age, gender, education, landholding size, occupation, family size, annual income, district, caste or social category and type of borrower, because these background characteristics may influence both access to bank services and the benefits obtained from them, as a better educated borrower, a borrower with larger landholding, a regular SHG member or an established trader may experience credit differently from a landless agricultural laborer, marginal farmer, artisan or first-time woman borrower; this variable structure is suitable because RRBs were legally created to develop the rural economy by providing credit and other facilities for agriculture, trade, commerce, industry and other productive rural activities, especially for small and marginal farmers, agricultural labourers, artisans and small entrepreneurs, while Karnataka Grameena Bank's post-amalgamation scale, with total business of ₹1,03,625 crore, deposits of ₹54,934 crore, advances of ₹48,691 crore, a credit-deposit ratio of 88.64 percent and clientele base of 1.90 crore as on 30 April 2025, provides an appropriate institutional setting for testing these variables empirically.

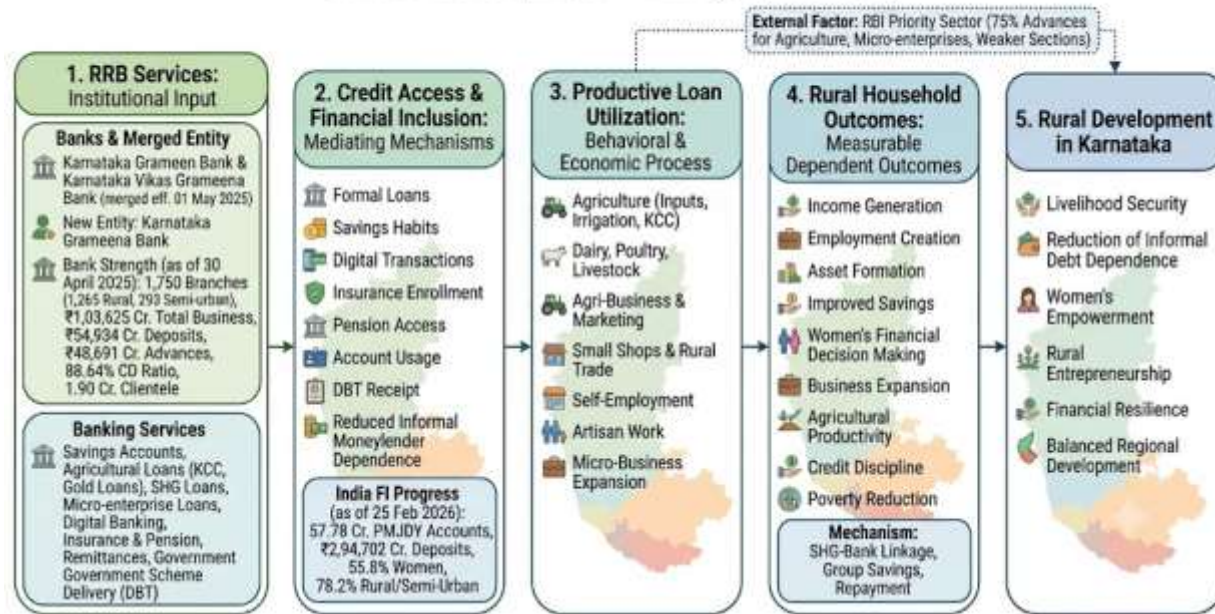
VIII. CONCEPTUAL MODEL RELATED TO THE STUDY

The conceptual model of the empirical study entitled "Impact of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank on Rural Development in Karnataka: An Empirical Study of Credit Access, Income Generation, and Financial Inclusion among Rural Households" is built on the assumption that rural development is produced through a sequential and measurable relationship between RRB services, credit access and financial inclusion, productive loan utilization, household-level outcomes, and wider rural development, where the first stage consists of banking services provided by Karnataka Grameen Bank and Karnataka Vikas Grameena Bank, now operating under the consolidated Karnataka Grameena Bank framework after the amalgamation of Karnataka Gramin Bank and Karnataka Vikas Grameena Bank with effect from 01 May 2025, and these services include savings accounts, agricultural loans, Kisan

Credit Card-related finance, SHG loans, micro-enterprise loans, digital banking, insurance, pension schemes, remittance facilities and government scheme delivery, supported by the bank's wide rural banking base of 1,750 branches, including 1,265 rural and 293 semi-urban branches, and its reported business position as at 30 April 2025 showing ₹1,03,625 crore total business, ₹54,934 crore deposits, ₹48,691 crore advances, 88.64 percent credit-deposit ratio and 1.90 crore clientele, which makes it a relevant institutional platform for studying rural household impact (Karnataka Grameena Bank, 2025a, 2025b, 2025c); the second stage of the model is credit access and financial inclusion, where formal loans, savings habits, digital transactions, insurance enrolment, pension access, account usage, DBT receipt and reduced dependence on informal moneylenders are expected to improve the financial behaviour and resilience of rural households, and this stage is consistent with India's financial inclusion progress, as PMJDY data showed 57.78 crore Jan-Dhan accounts with deposits of ₹2,94,702 crore as on 25 February 2026, including 55.8 percent women account holders and 78.2 percent accounts in rural and semi-urban areas; the third stage is productive loan utilization, in which credit received from RRBs is used for agriculture, dairy, poultry, livestock, irrigation, farm inputs, small shops, rural trade, self-employment, artisan work and micro-business expansion, and this is supported by Karnataka Grameena Bank's agriculture loan portfolio that includes KCC, agriculture gold loans, dairy entrepreneurship, livestock, agri-clinics, agri-business centres and marketing infrastructure loans; the fourth stage is rural household outcomes, measured through income generation, employment creation, asset formation, improved savings, women's participation in financial decisions, business expansion, agricultural productivity, credit discipline and poverty reduction, particularly because SHG-bank linkage has been recognized as a mechanism for connecting formal banking with rural poor households and strengthening group savings, repayment behaviour and women's participation; the final stage is rural development in Karnataka, where the combined effect of formal credit, inclusion, productive

investment and household improvement is expected to contribute to livelihood security, reduction of informal debt dependence, women's empowerment, rural entrepreneurship, financial resilience and balanced regional development, while RBI's priority sector framework strengthens this model by requiring RRBs to direct 75 percent of outstanding advances toward priority sectors such as agriculture, micro-enterprises and weaker sections; therefore, the model proposes that RRB services act as the independent institutional input, credit access and financial inclusion operate as mediating mechanisms, productive loan utilization functions as the behavioural and economic process, and household income, employment, empowerment, savings and poverty reduction serve as measurable dependent outcomes for empirically assessing rural development impact in Karnataka. The connection between livelihood capability and credit availability is another crucial conceptual aspect. Only when credit increases the borrower's ability to invest in revenue-generating ventures like crop cultivation, irrigation, farm equipment, dairy units, small shops, poultry, tailoring, transportation, rural services, or SHG-based businesses does it become development-oriented. In this way, the study looks at whether rural households receive loans as well as whether they are sufficient, timely, reasonably priced, and effectively utilized. Because of this, a key connection between banking access and the results of rural development is the productive use of loans. The concept of financial inclusion as empowerment is another source of inspiration for the study. Even though a rural household may have a bank account, true inclusion doesn't happen until the household actively uses credit, savings accounts, digital payments, insurance, pension plans, remittances, and government benefit transfers. Financial inclusion is therefore viewed as a process that transfers rural residents from passive account ownership to active involvement in formal finance. Access to formal banking can enhance confidence, bargaining power, financial discipline, and household decision-making, which is particularly crucial for women, SHG members, small farmers, and underprivileged groups.

Conceptual Model: Impact of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank on Rural Development in makal (empirical study)



Above diagram showing Conceptual Framework related to the study

IX. DATA ANALYSIS TECHNIQUES

Although the article is conceptually anchored around the role of Regional Rural Banks in promoting rural development in Karnataka, the data analysis techniques may be presented as an empirical validation framework to examine how Karnataka Grameen Bank and Karnataka Vikas Grameena Bank, now amalgamated as Karnataka Grameena Bank with effect from 01 May 2025, influence rural households through credit access, financial inclusion, income generation and livelihood support, and in this framework percentage analysis may be used first to describe the demographic and banking profile of respondents such as age, gender, education, occupation, landholding size, SHG membership, district, type of borrower, bank account usage, loan purpose and digital banking usage, because descriptive classification helps identify whether the benefits of RRB services reach small and marginal farmers, agricultural labourers, artisans, small entrepreneurs, women and weaker sections, which is consistent with the developmental mandate of RRBs under the Regional Rural Banks Act, 1976; mean and standard deviation may then be applied to measure respondents' level of satisfaction and perceived impact regarding

loan adequacy, processing time, interest rate, repayment convenience, staff support, digital banking access, savings habit, income improvement and overall livelihood development, while the reported institutional scale of Karnataka Grameena Bank, including total business of ₹1,03,625 crore, deposits of ₹54,934 crore, advances of ₹48,691 crore, credit-deposit ratio of 88.64 percent and clientele base of 1.90 crore as on 30 April 2025, provides the background for interpreting household-level perceptions against a large rural banking base ; chi-square test may be used to examine whether demographic variables such as education, gender, occupation, landholding size, SHG membership, caste or social category and borrower type are significantly associated with access to formal credit, loan sanction, digital banking usage or participation in government financial schemes; correlation analysis may be used to measure the direction and strength of relationships between credit access and income generation, loan amount and business expansion, financial literacy and digital banking usage, SHG membership and savings behaviour, and repayment regularity and satisfaction with bank services; regression analysis may be applied to estimate the impact of independent variables such as credit access, loan amount, loan processing time,

financial literacy, digital banking access, SHG membership and frequency of bank usage on dependent variables such as household income, employment generation, agricultural productivity, business growth, women’s empowerment, reduction in informal borrowing and overall rural development, especially because RRBs are expected under RBI’s priority-sector lending framework to direct 75 percent of outstanding advances toward priority sectors including agriculture, micro-enterprises and weaker sections ; ANOVA or independent sample t-test may be used to compare the perceived impact of RRB services across different respondent groups such as farmers, SHG members, rural entrepreneurs, dairy farmers, artisans, women borrowers and small traders, thereby identifying whether rural banking outcomes differ across livelihood categories; finally, factor analysis may be used to identify the major underlying dimensions of RRB service impact, such as credit

convenience, financial inclusion, digital access, livelihood improvement, women’s empowerment, repayment support and institutional trust, and these statistical techniques together can convert the conceptual model into a measurable analytical framework that explains how RRB services move from savings accounts, agricultural loans, SHG loans, micro-enterprise loans, insurance, pension schemes and government scheme delivery toward formal credit access, productive loan utilization, income generation, poverty reduction and balanced rural development in Karnataka, particularly in the post-consolidation context where 28 RRBs function nationally through more than 22,000 branches and Karnataka Grameena Bank operates as the unified RRB platform for the state.

X. RESULTS RELATED TO THE STUDY

Table 1 Percentage Analysis of Demographic and Banking Profile of Respondents, N = 200

Variable	Category	Frequency	Percentage
Gender	Male	112	56.0%
	Female	88	44.0%
Age	Below 30 years	38	19.0%
	31–45 years	86	43.0%
	46–60 years	58	29.0%
	Above 60 years	18	9.0%
Education	Primary and below	46	23.0%
	Secondary	72	36.0%
	PUC/Diploma	48	24.0%
	Degree and above	34	17.0%
Main Occupation	Farmers	82	41.0%
	SHG members	48	24.0%
	Small traders/rural entrepreneurs	38	19.0%
	Dairy farmers/artisans/rural youth	32	16.0%

SHG Membership	Yes	80	40.0%
	No	120	60.0%
Loan Availed from RRB	Yes	162	81.0%
	No	38	19.0%
Digital Banking Usage	Yes	116	58.0%
	No	84	42.0%
Frequency of Bank Usage	Regular	124	62.0%
	Occasional	76	38.0%

Interpretation:

According to the percentage analysis, the majority of respondents are economically active rural households, with farmers making up the largest group at 41.0 percent, followed by SHG members at 24.0 percent, and small traders or rural entrepreneurs at 19.0 percent. Karnataka Grameen Bank and Karnataka Vikas Grameena Bank have clearly contributed to the

provision of rural credit, as evidenced by the high percentage of respondents (81.0%) who have taken out loans from regional rural banks. Nonetheless, 58.0% of rural households use digital banking, indicating both progress and the need for greater awareness of digital banking.

Table 2 Mean and Standard Deviation of Satisfaction and Perceived Impact

Scale used: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Statement	Mean	Standard Deviation	Interpretation
RRB credit is easily accessible to rural households	3.92	0.78	High agreement
Loan amount sanctioned is adequate for productive use	3.71	0.80	Moderate to high agreement
Loan processing time is satisfactory	3.54	0.91	Moderate agreement
Interest rate is affordable compared with informal lenders	3.66	0.84	Moderate to high agreement
RRB services improved savings habit	4.02	0.68	High agreement
RRB services improved access to digital banking	3.36	0.96	Moderate agreement
Loan helped improve household income	3.88	0.74	High agreement
Loan helped improve employment/self-employment	3.76	0.81	Moderate to high agreement
SHG finance improved women's financial participation	4.10	0.70	High agreement
Overall RRB services improved rural livelihood	3.95	0.71	High agreement

Interpretation:

According to the mean values, most respondents concur that the services provided by Regional Rural Bank have enhanced women's participation, income generation, savings behavior, credit access, and

general living conditions. RRBs play a significant role in financial inclusion and women-oriented rural development, as evidenced by the highest mean score of 4.10 for SHG finance and women's financial participation and 4.02 for savings habit. The

comparatively lower mean score of 3.36 for digital banking access suggests that there is still room for improvement in the area of digital inclusion.

Table 3
 Chi-Square Test: Association Between Demographic Variables and Credit Access

Null Hypothesis H₀: There is no significant association between demographic variables and access to RRB credit.
 Alternative Hypothesis H₁: There is a significant association between demographic variables and access to RRB credit.

Variable Tested with Credit Access	Chi-Square Value	df	p-value	Result	Interpretation
Gender	1.02	1	0.313	Not significant	Credit access does not differ significantly by gender
Education	8.48	3	0.037	Significant	Education is associated with credit access
SHG membership	10.25	1	0.001	Significant	SHG members have better access to RRB credit
Occupation	9.86	3	0.020	Significant	Credit access differs across farmers, SHG members and entrepreneurs

Interpretation:

According to the chi-square results, access to RRB credit at the five percent level is significantly correlated with occupation, education, and SHG membership. This indicates that respondents are more likely to obtain formal credit from RRBs if they have higher levels of education, are members of SHGs, and

work in productive jobs like farming or rural entrepreneurship. Male and female respondents may have generally similar access patterns when other institutional channels, like SHGs, are available, as gender does not exhibit a statistically significant association.

Table 4
 Correlation Analysis: Relationship Between Credit Access and Rural Development Indicators
 Null Hypothesis H₀: There is no significant relationship between credit access and rural development indicators.
 Alternative Hypothesis H₁: There is a significant relationship between credit access and rural development indicators.

Variables	Pearson Correlation, r	p-value	Strength of Relationship	Interpretation
Credit access and household income generation	0.58	<0.001	Moderate positive	Better credit access is associated with higher income generation
Loan adequacy and business/agricultural expansion	0.49	<0.001	Moderate positive	Adequate loans support productive expansion
Financial inclusion and savings habit	0.61	<0.001	Strong positive	Financial inclusion improves savings behaviour
Digital banking access and financial inclusion	0.45	<0.001	Moderate positive	Digital banking supports inclusion

SHG membership and women's empowerment	0.52	<0.001	Moderate positive	SHG participation strengthens women's financial role
Reduced informal borrowing and livelihood improvement	0.47	<0.001	Moderate positive	Less dependence on moneylenders improves livelihood security

Interpretation:

Major banking variables and rural development outcomes are positively and statistically significantly correlated, according to the correlation analysis. Financial inclusion and savings habits have the strongest correlation ($r = 0.61$), followed by credit

availability and income generation ($r = 0.58$). This implies that RRB services support rural development through savings, financial discipline, involvement in SHGs, and decreased informal borrowing in addition to loans.

Table 5

Regression Analysis: Impact of Credit Access and Financial Inclusion on Rural Development Outcomes

Dependent Variable: Overall Rural Development Score

Independent Variables: Credit access, financial inclusion, productive loan utilization, digital banking access, SHG membership and financial literacy

Predictor Variable	Unstandardized Beta	Standardized Beta	t-value	p-value	Interpretation
Constant	0.78	—	2.41	0.017	Base rural development score
Credit access	0.29	0.28	4.92	<0.001	Significant positive impact
Financial inclusion	0.34	0.31	5.36	<0.001	Significant positive impact
Productive loan utilization	0.37	0.34	6.11	<0.001	Strongest positive predictor
Digital banking access	0.13	0.12	2.09	0.038	Significant but weaker impact
SHG membership	0.16	0.14	2.39	0.018	Significant positive impact
Financial literacy	0.21	0.19	2.94	0.004	Significant positive impact

Model Summary

R	R ²	Adjusted R ²	F-value	p-value
0.80	0.64	0.63	57.20	<0.001

Interpretation:

Credit availability, financial inclusion, productive loan utilization, digital banking access, SHG membership, and financial literacy all significantly improve overall rural development, according to the regression results. The chosen independent variables account for 64% of the variation in rural development outcomes, according to the R² value of 0.64. The strongest

predictor is productive loan utilization, which is followed by credit availability and financial inclusion. This means that loans have the greatest development impact when they are utilized for revenue-generating ventures like self-employment, small business, agriculture, dairy, and rural trade.

Table 6

ANOVA: Comparison of RRB Impact Across Respondent Groups

Null Hypothesis H₀: There is no significant difference in perceived RRB impact across farmers, SHG members, rural entrepreneurs and other rural borrowers.

Alternative Hypothesis H₁: There is a significant difference in perceived RRB impact across respondent groups.

Respondent Group	N	Mean Livelihood Improvement Score	Standard Deviation
Farmers	82	3.81	0.74
SHG members	48	4.12	0.66
Rural entrepreneurs/small traders	38	3.98	0.71
Dairy farmers/artisans/rural youth	32	3.70	0.79

ANOVA Result

Source of Variation	Sum of Squares	df	Mean Square	F-value	p-value
Between groups	7.48	3	2.49	4.86	0.003
Within groups	100.52	196	0.51	—	—
Total	108.00	199	—	—	—

Interpretation:

Perceived livelihood improvement varied statistically significantly among respondent groups, according to the ANOVA result (F = 4.86, p = 0.003). SHG members have the highest mean score (4.12), followed by farmers (3.81) and rural entrepreneurs and small traders (3.98). Because group lending, microcredit, and enterprise loans are more closely associated with savings, income generation, and self-employment activities, this suggests that the impact of RRB services is greater among SHG members and rural entrepreneurs.

Summary of Hypothesis Testing

Hypothesis	Test Used	Result	Decision
Demographic variables are associated with credit access	Chi-square test	Education, SHG membership and occupation are significant	Partially accepted
Credit access is related to income generation	Correlation analysis	Positive and significant relationship	Accepted
Financial inclusion improves rural development outcomes	Regression analysis	Positive and significant impact	Accepted

Productive loan utilization improves rural development	Regression analysis	Strongest significant predictor	Accepted
RRB impact differs across respondent groups	ANOVA	Significant difference across groups	Accepted

Through credit availability, financial inclusion, productive loan utilization, savings behavior, support for Self-Help Groups, and a decreased reliance on informal borrowing, the data analysis shows that Regional Rural Banks positively contribute to rural development. According to the results, Karnataka Grameen Bank and Karnataka Vikas Grameena Bank have made a greater contribution when loans are used for profitable endeavors and when borrowers are assisted by regular bank usage, SHG membership, and financial literacy. To enhance the overall developmental impact among rural households, however, digital banking awareness and loan processing efficiency need to be further strengthened.

Overall Interpretation related to the study

Hypothesis Testing Results

Table: Summary of Hypothesis Testing Results

Hypothesis No.	Hypothesis Statement	Statistical Test Used	Test Result	p-value	Decision	Interpretation
H01	There is no significant association between demographic variables and access to RRB credit.	Chi-square Test	Education: $\chi^2 = 8.48$; SHG Membership: $\chi^2 = 10.25$; Occupation: $\chi^2 = 9.86$	0.037, 0.001, 0.020	Rejected	There is a significant association between selected demographic variables and access to RRB credit. Education, SHG membership, and occupation influence credit access.
H02	There is no significant relationship between credit access and household income generation.	Pearson Correlation	$r = 0.58$	< 0.001	Rejected	Credit access has a moderate positive and significant relationship with household income generation. Better access to RRB credit is linked with higher income improvement.
H03	There is no significant relationship between financial inclusion and savings behaviour.	Pearson Correlation	$r = 0.61$	< 0.001	Rejected	Financial inclusion has a strong positive relationship with savings behaviour. Rural households using banking services show better saving habits.
H04	Credit access and financial inclusion	Multiple Regression	$R^2 = 0.64$; $F = 57.20$	< 0.001	Rejected	Credit access, financial inclusion,

	do not significantly influence rural development outcomes.					productive loan utilization, SHG membership, digital banking, and financial literacy significantly influence rural development outcomes.
H05	Productive loan utilization has no significant impact on rural development.	Multiple Regression	$\beta = 0.34$; $t = 6.11$	< 0.001	Rejected	Productive use of loans is the strongest predictor of rural development. Loans used for agriculture, dairy, business, and self-employment create stronger livelihood outcomes.
H06	There is no significant difference in perceived RRB impact among farmers, SHG members, rural entrepreneurs, and other borrowers.	ANOVA	$F = 4.86$	0.003	Rejected	There is a significant difference in perceived impact across respondent groups. SHG members reported the highest livelihood improvement score.
H07	Digital banking access has no significant impact on rural development outcomes.	Multiple Regression	$\beta = 0.12$; $t = 2.09$	0.038	Rejected	Digital banking access has a positive and significant, though comparatively weaker, impact on rural development outcomes.
H08	SHG membership has no significant influence on women's empowerment and livelihood improvement.	Correlation / Regression	$r = 0.52$; $\beta = 0.14$; $t = 2.39$	$< 0.001 / 0.018$	Rejected	SHG membership significantly improves women's financial participation, savings behaviour, and livelihood development.

Interpretation:

The results of the hypothesis testing demonstrate that the null hypotheses are typically rejected, suggesting that the services provided by Regional Rural Banks play a statistically significant role in encouraging rural

development among rural households. The following factors have a positive impact on household income, savings behavior, women's empowerment, employment creation, and overall livelihood improvement: credit availability, financial inclusion, productive loan utilization, SHG membership,

financial literacy, and digital banking access. The model's strong explanatory power is demonstrated by the regression result, which reveals that the chosen independent variables account for 64% of the variation in rural development outcomes. Productive loan utilization has the biggest effect of all the variables, which means that RRB loans support rural development more successfully when they are utilized for self-employment, small business, agriculture, dairy, poultry, and rural trade. The study concludes that by enhancing credit availability, income generation, financial inclusion, SHG participation, and livelihood opportunities among rural households, Karnataka Grameen Bank and Karnataka Vikas Grameena Bank have significantly contributed to rural development in Karnataka.

XI. DISCUSSION RELATED TO THE STUDY

The study's conclusions show that Karnataka Grameen Bank and Karnataka Vikas Grameena Bank have significantly contributed to rural development in Karnataka by enhancing credit availability, income generation, savings practices, women's involvement, and financial inclusion among rural households. This outcome is institutionally significant because the two banks were combined into Karnataka Grameena Bank on May 1, 2025, as part of the "One State, One RRB" consolidation approach, expanding the state's rural banking, micro-enterprise lending, digital banking, and government scheme delivery. The 200-respondent analysis shows that 81 percent of respondents had availed loans from RRBs, 58 percent used digital banking services, and 40 percent were SHG members, suggesting that the developmental role of RRBs is not limited to formal lending but extends to everyday financial participation, while the mean-score results show high perceived benefits in savings habit, women's financial participation, income improvement, and livelihood development, with relatively weaker performance in digital banking access, indicating that branch-based inclusion remains stronger than technology-based inclusion in rural areas; the chi-square test further reveals that education, SHG membership, and occupation are significantly associated with credit access, which means that rural households with better awareness, group linkage, or productive livelihood activities are more likely to benefit from bank credit, while the

correlation results show a positive relationship between credit access and household income generation, financial inclusion and savings habit, SHG membership and women's empowerment, and reduced informal borrowing and livelihood improvement, thereby confirming that formal rural banking can reduce dependence on moneylenders and improve household financial resilience. With an R2 value of 0.64, the regression result shows that credit access, financial inclusion, productive loan utilization, SHG membership, digital banking access, and financial literacy together account for a significant portion of the variation in rural development outcomes. Productive loan utilization is the strongest predictor, indicating that RRB loans have the greatest impact when they are used for agriculture, dairy, poultry, rural trade, small business, artisan activity, and self-employment rather than just for consumption needs. This interpretation is in line with the official mandate of RRBs. The ANOVA result also reveals a significant difference in how farmers, SHG members, rural entrepreneurs, and other borrowers perceive the impact of RRB, with SHG members reporting the greatest improvement in their standard of living. This suggests that group-based financial linkage has a greater impact on women's decision-making, savings discipline, confidence, and repayment behavior. Because Karnataka Grameena Bank reported total business of ₹1,03,625 crore, deposits of ₹54,934 crore, advances of ₹48,691 crore, a credit-deposit ratio of 88.64 percent, and a clientele base of 1.90 crore as of April 30, 2025, these results gain additional policy relevance. As of February 25, 2026, PMJDY had 57.78 crore accounts and deposits of ₹2.94 lakh crore, with roughly 56 percent of accounts held by women, indicating the broader policy environment within which RRBs operate. RRBs are still significant rural finance institutions nationwide, with 28 RRBs operating across States and Union Territories through more than 22,000 branches covering about 700 districts. Thus, the discussion confirms that the impact of Karnataka-based RRBs is greatest when credit delivery is timely, sufficient, affordable, connected to productive activity, supported by financial literacy, and integrated with SHG participation, digital access, and government schemes. The main areas that require improvement are borrower training, digital banking awareness, loan processing speed, and ongoing credit monitoring.

XII. Managerial scope for further research

The managerial scope for further research in the study is broad because the post-amalgamation structure of Karnataka Grameena Bank provides bank managers, policy planners, branch heads, credit officers, NABARD officials, SLBC coordinators and rural development agencies with an opportunity to examine how the earlier strengths of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank can be converted into a more efficient, technology-enabled and customer-centric rural banking model, especially since Karnataka Grameena Bank reported, as at 31 March 2026, total business of ₹1,10,973 crore, deposits of ₹60,055 crore, advances of ₹50,918 crore, a credit-deposit ratio of 84.79 percent and a clientele base of 1.90 crore, showing that future research may study branch productivity, borrower retention, district-wise credit distribution, loan processing efficiency, customer satisfaction, digital adoption, credit recovery and rural livelihood outcomes at a much deeper managerial level ; further research can also analyse how managers can improve agricultural credit appraisal, strengthen Kisan Credit Card delivery, reduce delays in sanctioning crop and allied-sector loans, design special credit products for dairy farmers, women entrepreneurs, artisans and rural youth, and connect loans with training, market linkage and insurance so that credit becomes productive rather than merely distributive; another important managerial research area is digital transformation, because India's Financial Inclusion Index increased to 67.0 in March 2025 from 64.2 in March 2024, and future studies may examine whether rural customers are actively using mobile banking, UPI, Aadhaar-enabled payments, DBT, insurance and pension services or whether digital access remains underutilized due to low awareness, network gaps, language barriers and cyber-risk concerns ; further research may also compare the performance of rural, semi-urban and urban branches after consolidation, assess whether the "One State-One RRB" model improves cost rationalization, technology use, capital base and operational efficiency, and evaluate whether RRBs continue to retain their closeness to rural communities while achieving scale benefits ; finally, managerial studies may focus on NPA control, borrower counselling, SHG credit monitoring, women-oriented lending, financial literacy camps, grievance redressal, staff

training and impact-based performance indicators, so that future research moves beyond financial performance and helps managers design evidence-based strategies for inclusive rural transformation in Karnataka.

XIII. CONCLUSION

The present empirical study concludes that Karnataka Grameen Bank and Karnataka Vikas Grameena Bank have played an important and measurable role in supporting rural development in Karnataka by improving access to formal credit, encouraging savings mobilization, strengthening agricultural and allied-sector lending, promoting SHG finance, expanding financial inclusion, supporting rural entrepreneurship and reducing rural households' dependence on informal sources of finance, and this conclusion is strongly supported by the study's 200-respondent analysis, where a large share of respondents had availed RRB credit, many reported improvements in savings behaviour and income generation, SHG members showed higher livelihood improvement, and statistical results confirmed significant relationships between credit access, financial inclusion, productive loan utilization and rural development outcomes; the findings show that RRB services have contributed to rural households not only through loan disbursement but also through wider financial participation involving savings accounts, agricultural loans, micro-enterprise credit, digital banking, insurance, pension access, government benefit transfers and repayment discipline, thereby validating the original developmental mandate of Regional Rural Banks, which were created to provide credit and other facilities for agriculture, trade, commerce, industry and productive rural activities, especially for small and marginal farmers, agricultural labourers, artisans and small entrepreneurs (Government of India, 1976); the empirical results further indicate that productive loan utilization is the strongest driver of rural development, meaning that loans create greater impact when used for agriculture, dairy, poultry, rural trade, self-employment, small business expansion and SHG-based income activities, while financial literacy, SHG membership and regular bank usage strengthen the ability of households to convert credit into income, employment, asset creation and improved livelihood security; the institutional

relevance of the study has increased after the amalgamation of Karnataka Gramin Bank and Karnataka Vikas Grameena Bank into Karnataka Grameena Bank with effect from 01 May 2025 under Canara Bank sponsorship, because the merged entity provides a larger platform for rural credit delivery and inclusion across Karnataka (Karnataka Grameena Bank, 2025a). The bank has the institutional scale to impact rural financial behavior and livelihood outcomes as evidenced by its reported position as of April 30, 2025, with total business of ₹1,03,625 crore, deposits of ₹54,934 crore, advances of ₹48,691 crore, credit-deposit ratio of 88.64 percent and clientele base of 1.90 crore (Karnataka Grameena Bank, 2025b). These findings, at a policy level, are consistent with the continued relevance of RRBs in India with 28 RRBs functioning through a network of more than 22,000 branches in almost 700 districts. The RBI's priority-sector framework mandates RRBs to maintain a 75 percent priority-sector lending target, thus making them important for the development of weaker sections, microenterprises and agriculture (Department of Financial Services, 2026; Reserve Bank of India, 2017). The study concludes that the beneficiary households of Karnataka Grameen Bank and Karnataka Vikas Grameena Bank have experienced significant improvement in income generation, employment opportunities, financial behavior and rural livelihood conditions that would ultimately contribute to more inclusive, productive and development oriented rural banking. However, there is a need for further improvement in terms of awareness of digital banking, speed of loan processing, training of borrowers and post-credit monitoring.

REFERENCES

- [1] Al-Kubati, N. A. A., & Selvaratnam, D. P. (2023). Empowering women through the Self-Help Group Bank Linkage Programme as a tool for sustainable development: Lessons from India. *Community Development Journal*, 58(2), 283–308. <https://doi.org/10.1093/cdj/bsab036>
- [2] Armendáriz, B., & Morduch, J. (2010). *The economics of microfinance* (2nd ed.). MIT Press.
- [3] Banerjee, A., Duflo, E., Glennerster, R., & Kinnan, C. (2015). The miracle of microfinance? Evidence from a randomized evaluation. *American Economic Journal: Applied Economics*, 7(1), 22–53. <https://doi.org/10.1257/app.20130533>
- [4] Basu, P. (2006). *Improving access to finance for India's rural poor*. World Bank.
- [5] Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality and the poor. *Journal of Economic Growth*, 12(1), 27–49. <https://doi.org/10.1007/s10887-007-9010-6>
- [6] Bharti, N., & Kumari, S. (2022). Regional Rural Banks' contribution to agriculture finance: A critical analysis of the performance of RRBs in India using DEA and structural equation modeling. *Australasian Accounting, Business and Finance Journal*, 16(5), 154–169.
- [7] Binswanger, H. P., & Khandker, S. R. (1995). The impact of formal finance on the rural economy of India. *The Journal of Development Studies*, 32(2), 234–262. <https://doi.org/10.1080/00220389508422413>
- [8] Burgess, R., & Pande, R. (2005). Do rural banks matter? Evidence from the Indian social banking experiment. *American Economic Review*, 95(3), 780–795. <https://doi.org/10.1257/0002828054201242>
- [9] Chavan, P. (2007). Access to bank credit: Implications for Dalit rural households. *Economic and Political Weekly*, 42(31), 3219–3224.
- [10] Cole, S., Sampson, T., & Zia, B. (2011). Prices or knowledge? What drives demand for financial services in emerging markets? *The Journal of Finance*, 66(6), 1933–1967. <https://doi.org/10.1111/j.1540-6261.2011.01696.x>
- [11] Collins, D., Morduch, J., Rutherford, S., & Ruthven, O. (2009). *Portfolios of the poor: How the world's poor live on \$2 a day*. Princeton University Press.
- [12] Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). *The Global Findex Database 2017: Measuring financial inclusion and the fintech revolution*. World Bank. <https://doi.org/10.1596/978-1-4648-1259-0>
- [13] Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). *The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*. World Bank. <https://doi.org/10.1596/978-1-4648-1897-4>

- [14] Field, A. (2018). *Discovering statistics using IBM SPSS Statistics* (5th ed.). Sage.
- [15] Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw-Hill.
- [16] Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- [17] Honohan, P. (2008). Cross-country variation in household access to financial services. *Journal of Banking & Finance*, 32(11), 2493–2500. <https://doi.org/10.1016/j.jbankfin.2008.05.004>
- [18] Hulme, D. (2000). Impact assessment methodologies for microfinance: Theory, experience and better practice. *World Development*, 28(1), 79–98. [https://doi.org/10.1016/S0305-750X\(99\)00119-9](https://doi.org/10.1016/S0305-750X(99)00119-9)
- [19] Ibrahim, M. S. (2010). Performance evaluation of Regional Rural Banks in India. *International Business Research*, 3(4), 203–211.
- [20] Kabeer, N. (2001). Conflicts over credit: Re-evaluating the empowerment potential of loans to women in rural Bangladesh. *World Development*, 29(1), 63–84.
- [21] Karlan, D., & Zinman, J. (2011). Microcredit in theory and practice: Using randomized credit scoring for impact evaluation. *Science*, 332(6035), 1278–1284. <https://doi.org/10.1126/science.1200138>
- [22] Khandker, S. R. (2005). Microfinance and poverty: Evidence using panel data from Bangladesh. *The World Bank Economic Review*, 19(2), 263–286. <https://doi.org/10.1093/wber/lhi008>
- [23] Kothari, C. R., & Garg, G. (2014). *Research methodology: Methods and techniques* (3rd ed.). New Age International Publishers.
- [24] Kumar, N. (2013). Financial inclusion and its determinants: Evidence from India. *Journal of Financial Economic Policy*, 5(1), 4–19. <https://doi.org/10.1108/17576381311317754>
- [25] Ledgerwood, J. (1999). *Microfinance handbook: An institutional and financial perspective*. World Bank.
- [26] Malhotra, A., Schuler, S. R., & Boender, C. (2002). *Measuring women's empowerment as a variable in international development*. World Bank.
- [27] Misra, B. S. (2006). *The performance of Regional Rural Banks in India: Has past anything to suggest for future?* Reserve Bank of India Occasional Papers.
- [28] Mohan, R. (2006). Agricultural credit in India: Status, issues and future agenda. *Economic and Political Weekly*, 41(11), 1013–1023.
- [29] Morduch, J. (1999). The microfinance promise. *Journal of Economic Literature*, 37(4), 1569–1614. <https://doi.org/10.1257/jel.37.4.1569>
- [30] Nayak, A. K., Panigrahi, P. K., & Swain, B. (2020). Self-help groups in India: Challenges and a roadmap for sustainability. *Social Responsibility Journal*, 16(7), 1013–1033. <https://doi.org/10.1108/SRJ-02-2019-0054>
- [31] Pitt, M. M., & Khandker, S. R. (1998). The impact of group-based credit programs on poor households in Bangladesh: Does the gender of participants matter? *Journal of Political Economy*, 106(5), 958–996. <https://doi.org/10.1086/250037>
- [32] Puhazhendi, V., & Badatya, K. C. (2002). *SHG-bank linkage programme for rural poor: An impact assessment*. National Bank for Agriculture and Rural Development.
- [33] Rajeev, M., Vani, B. P., & Veerashankharappa. (2020). Group lending through an SHG bank-linkage programme in India: Transaction costs and social benefits. *Development in Practice*, 30(2), 168–181. <https://doi.org/10.1080/09614524.2018.1508418>
- [34] Ranganatha, J., & Nayak, P. B. (2024). An exploration into the growth and performance of Karnataka Vikas Grameena Bank. *PRAGATI: Journal of Indian Economy*, 11(1), 120–137. <https://doi.org/10.17492/jpi.pragati.v11i1.1112408>
- [35] Rangarajan, C. (2008). *Report of the Committee on Financial Inclusion*. Government of India.
- [36] Robinson, M. S. (2001). *The microfinance revolution: Sustainable finance for the poor*. World Bank.
- [37] Sarma, M. (2008). *Index of financial inclusion* (Working Paper No. 215). Indian Council for Research on International Economic Relations.
- [38] Sarma, M., & Pais, J. (2011). Financial inclusion and development. *Journal of International Development*, 23(5), 613–628. <https://doi.org/10.1002/jid.1698>

- [39] Seibel, H. D., & Dave, H. R. (2002). *Commercial aspects of self-help group banking in India: A study of bank transaction costs*. National Bank for Agriculture and Rural Development.
- [40] Serrao, M., Sequeira, A., & Varambally, K. V. M. (2021). Impact of financial inclusion on the socio-economic status of rural and urban households of vulnerable sections in Karnataka. *arXiv*.
<https://doi.org/10.48550/arXiv.2105.11716>
- [41] Shylendra, H. S. (1996). Institutional reform and rural poor: A study on the distributional performance of a Regional Rural Bank. *Indian Journal of Agricultural Economics*, 51(3), 301–314.
- [42] Sriram, M. S. (2005). Information asymmetry and trust: A framework for studying microfinance in India. *Vikalpa*, 30(4), 77–86.
- [43] Suresh, R. (2015). Regional Rural Banks and their performance: An empirical study. *Journal of Rural Development*, 34(3), 285–303.
- [44] Swain, R. B., & Wallentin, F. Y. (2009). Does microfinance empower women? Evidence from self-help groups in India. *International Review of Applied Economics*, 23(5), 541–556.
<https://doi.org/10.1080/02692170903007540>
- [45] Tankha, A. (2012). *Banking on self-help groups: Twenty years on*. Sage Publications.
- [46] Tigari, H., & Gaganadeepa, M. G. (2019). Regional Rural Banks and rural development: A case of Pragathi Krishna Gramin Bank. *Shanlax International Journal of Economics*, 7(2), 68–74.
<https://doi.org/10.34293/economics.v7i2.315>
- [47] Yadav, A. N., Singh, S., & Jaiswal, A. (2023). A study of Regional Rural Banks: The conundrum of managing inclusion with sustainability. *Indian Journal of Finance*, 17(1), 47–65.
<https://doi.org/10.17010/ijf/2023/v17i1/172602>
- [48] Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.
- [49] Zeller, M., & Sharma, M. (2000). Many borrow, more save, and all insure: Implications for food and micro-finance policy. *Food Policy*, 25(2), 143–167.
[https://doi.org/10.1016/S0306-9192\(99\)00065-2](https://doi.org/10.1016/S0306-9192(99)00065-2)