

Review of Regional Rural Banks that use the CAMELS Model to Analyze Performance

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ABSTRACT

Purpose: Regional rural banks were created to give banking facilities to the rural and under-banked areas of the country. Unfortunately, despite being in operation for over four decades, these banks have been able to make some significant impact on the rural economy, but there is still scope for improvement in many areas. To identify the areas where RRBs in Karnataka need to improve, a study will be conducted to compare the concert of select RRBs in the state. With the CAMELS model, this exploration compares the achievement and evolution of regional rural banks in Karnataka from literature published over the last two decades. The paper focuses on identifying the most significant gaps in the previous research on regional rural banking in Karnataka and correcting them by posing targeted questions for more study.

Design/Methodology/Approach: The current study used a systematic review of the literature approach to determine the research deficit and research agenda. The study's theoretical underpinnings are explored and considered in several peer-reviewed academic studies. The majority of the data included in the current article comes from secondary sources. Secondary data comes from the government website, while other publications, such as journal papers and official publications, were used as verified sources.

Findings: Adequacy ratios, risk-return analysis, financial adequacy, monetary analysis, and investment psychology are only a few of the major topics covered in the literature study. The research agenda and research gap are next examined using the ABCD method. The CAMELS model is a widely used framework for determining the work of banks and financial institutions. It takes into account six key aspects of a bank's operations, namely, capital, asset quality, management, earnings, liquidity, and sensitivity to market risk.

Originality/Value: RRBs are crucial to the existing bank system in India since they offer banking services to rural and underbanked regions. The usefulness of RRBs and their microfinance programs for rural residents is examined in this research. The contribution of RRBs to national development

Paper Type: Literature Review

Keywords: RRBs, CAMELS model, Grameen bank, Financial inclusion, ABCD Analysis

1. INTRODUCTION :

The economic system is a crucial sector of the economy because it provides the capital inputs required to produce the goods and services that improve well-being and the standard of living. It is important to have a well-functioning financial system to have a prosperous economy [1]. A well-functioning financial system will provide the financial resources that businesses need to invest and grow. It will also provide individuals with the means to save and invest in their future. There are many different components to the financial system, and each one must work together to create a functioning whole. The ability of firms to raise cash is one reason why the financial markets are essential to the economy.

They also give investors a method to purchase and sell assets. Financial institutions give the funds that are needed to make transactions in the financial markets. Financial regulation ensures that the financial system works smoothly and efficiently. India is a land of diversity, and this is reflected in its banking sector as well. From state-run banks to private banks and foreign banks [2]. After the country's first bank opened its doors in 1786, banking in India has advanced significantly since then. Today, banking in India is more robust and customer-friendly than ever before. Indian banks offer a large variety of goods and services that may meet the needs of both residential and business customers. Banking institutions are important players in the economy, providing essential services and playing a major role in financial stability. They have come under increased scrutiny in recent years, as their activities have been found to have a significant influence on the economy [3]. This has led to calls for greater regulation of the banking sector. They act as intermediaries between savers and borrowers, and their activities have a direct influence on economic growth. Banks are unquestionably important economic players, and their activities and offerings have a big impact on the economy. India's banking industry is in considerably better shape now than it was 20 years ago [4].

In recent years, the Indian banking sector has undergone a tremendous transformation. This has not only helped the sector grow but also contributed to phenomenal growth. The banking sector is now one of the most technologically advanced in the world and banks are now able to offer a wide range of services to their customers. These services include mobile banking, internet banking, and even AI-based customer service. By making banking services more accessible and efficient, new technologies have helped reduce the cost of doing business in India. This has, in turn, led to more investment and growth in the economy. The technological revolution has been a major facilitator of this transformation, making banking more accessible and convenient for customers. Banking today is more efficient and customer-friendly. With the click of a button, customers can now transfer funds, make payments, and more. Banks are also able to offer more personalized services to their customers. However, as we move into the future, it is important to note that technology will continue to disrupt the banking sector. New technologies are emerging all the time, and banks will need to stay ahead of the curve to remain competitive [5]. They will need to continue to invest in innovative technologies to remain relevant in the years to come.

Development is a process that involves both qualitative and quantitative modifications to the current system to asap boost people's living conditions. Gandhiji always emphasized the significance of Indian villages. He thought that the villages were where the real India was and that India's rural economy served as the backbone of the nation's economy [6]. Consolidation of regional rural banks (RRBs) is aimed at improving efficiencies and helping them achieve scale. The government has decided to consolidate RRBs into smaller and larger banks to improve their efficiency and performance. The move is also expected to help RRBs achieve scale, which will enable them to compete better with larger banks. The primary objective of the amalgamation is to create a centre of excellence that will help in the development and use of modern technology. The focus will be on developing new technology and applications that can be used in a variety of industries. In addition, the amalgamation will also help in optimising the use of modern technology. This will involve developing new ways to use existing technology and improving the efficiency of existing systems. The majority of Indians primarily rely on their villages as their primary source of income. Village life is the main provider of income for more than 60% of the people, who depend primarily on agriculture and related industries [7]. As a result, the village economy is essential to the nation's overall development. The main focus of rural development was on increasing agricultural productivity. However, since the 1970s, Urban growth is now a more expansive and evolving term. Now, remote improvement encompasses a wide range of activities, from infrastructure development to poverty alleviation to empowerment of women and marginalized groups. Rural development has become a constant key focus of the Government of India. Numerous initiatives and programs have been introduced throughout time to support the growth of rural communities. While these programmes have yielded some results, there is still a long way to go. The development of rural India is crucial for the overall development of the country. The improvement of rural sections is crucial for the growth of the country as a whole since they are home to over 70% of the people. Rural development leads to economic growth, creating more jobs and reducing poverty. It also leads to social development, as rural education and health levels improve. There are many challenges to rural development in India, but if we can overcome these challenges, rural India will prosper and so will the country as a whole [6]. From being a mere source of financial assistance to the rural sector, banks have

now emerged as important factors for economic progress and development in rural places. Banks have delivered a catalytic role in effectuating the transformation of backward areas by giving connection to credit, financial services and banking products to the rural population. This has helped in boosting the rural economy and provide employment opportunities to the rural population [8]. In addition, banks have also helped in the development of infrastructure in rural areas. The banking sector is now well-positioned to aid government programs aimed at advancing rural development and the economy. With the increased focus on the rural sector, banks seem projected to be quite important in the years to come [9]. Yet after decades of independence, India's economy is still primarily classified as an agro-based rural economy with numerous, pervasive socio-economic issues and problems, such as poorly developed agriculture and industry, subpar infrastructure, illiteracy, a lack of cutting-edge technology, etc. The rural sector is a key driver of economic progress and industrial development. It is the backbone of many economies, providing the necessary resources and labour to support industries and businesses [10]. Agriculture is one of the most important parts of the rural sector, which is a support system for them. Without a strong rural sector, economies would struggle to grow and develop. The rural population relies heavily on agriculture for a living in many regions of the world. This includes crops, livestock, and forestry. Agriculture remains a vital component of the rural sector and it is extremely important to the economy. An estimated 58 per cent of Indians rely on farmland for their living, and 20.2% of the country's Gross Domestic Product (GDP) is attributable to the sector [11]. Given the importance of agriculture in India, it is no surprise that the Foreign Exchange (FOREX) market is also heavily influenced by agricultural commodities.

Since its establishment in 1975, the development of rural areas has greatly increased. The rural banks were nationalized in 1980. As of March 31, 2022, there are 43 RRBs in operation. Today, the RRBs play an essential and active contribution to the problem of rural development and provide credit to rural areas of the country. The growing importance of RRBs has shown a greater amount, causing more and more people to move to rural areas. This migration has had a significant effect on rural communities' social, economic, and cultural improvement, and has resulted in the creation of new opportunities for employment and business. A current national action plan involved providing financial support to farmers and encouraging rural relocation to inspire relatively weak groups by fostering responsible banking practices [12]. This has been undertaken to develop rural areas and provide them with the necessary infrastructure for a better standard of living. The move has also been motivated by the aim to lower the number of people living in poverty. The government is hopeful that this will reduce the persons in the number who are living in poverty and help to uplift the weaker sections of society. The multi-agency approach to credit delivery is expected to ensure that credit reaches the targeted groups and is used effectively for development. With a special emphasis on small and marginal farmers, agricultural labourers, artisans, landless labourers, small traders and businessmen, handicraft industries, small-scale enterprises, etc., the RRBs were established to meet the financial needs of rural areas right at their doorsteps. Though RRBs come under the category of commercial banks, they work based on some cooperative principles. By offering finance and banking services to rural and semi-urban regions, they were established to boost the rural economy [8].

Hybrid financing institutes are those which undertake both development banking and commercial banking activities. In India, Rural Development Banking (RDB) and RRBs are the two main types of hybrid financing institutes. The RDBs are commercial banks which have been set up with the intent of providing development banking services in rural areas. On the other hand, RRBs are rural development banks which have been established to offer financial services to remote communities. Both RDBs and RRBs perform a significant part in the prosperity of India's rural areas [13]. They provide financial assistance to local craftsmen, tiny and weak farmers, and similar remote business owners. They also help to create employment opportunities in rural areas. Modest and weak farmers, agricultural labourers, and local artisans—who together make up the rural economy's core—can obtain the financing they need from them. The Regional Rural Banks act as a catalyst for the growth and development of rural India by providing institutional credit at the right point in time to the rural masses. The reasons for the creation of RRBs were manifold. They were also seen as a means of reducing the concentration of economic power in the hands of a few private banks, and of providing banking services to a larger number of people [14]. In addition, RRBs were seen as a way of contributing to the overall development of rural areas. Nonetheless, an increasing tendency has emerged in recent years of banks to concentrate more on urban industrial finance, leading to a neglect of rural growth. This has had a detrimental effect on

the rate of development in rural areas, as they are not receiving the same level of financial support as urban areas. This trend needs to be reversed to perform its function properly in the progress of building the country as a whole. Rural areas need to be given more attention and support for them to catch up with the urban areas. Otherwise, the divide between the two may proceed to grow, preventing the nation's overall growth. The Narashimham Working Group (1975) recommended the formation of a new set of banking institutions that "integrate the strong concern and the connectedness with rural negative issues, given the commercial banks' access to central money markets, capacity to transfer deposits, level of corporate organization, and contemporary viewpoint, the cooperatives manage [15]." This would pave the way for easier and more affordable banking facilities for the poor and agricultural farmers. This resulted in the creation of more RRBs across the country. This research work is an effort to evaluate the monetary efficiency of RRBs in Karnataka in terms of their operating profit, capital adequacy, and asset quality. The analytical research design is focused on the examination of significant achievement indicators (KPIs) of RRBs in India. Karnataka has the largest number of RRBs among all. The purpose is to examine the performance of RRBs and to determine the values that contribute. By analysing and identifying the gaps in the field of RRBs in the banking sector field, this literature survey article seeks to assist investors and other relevant stakeholders in closing those gaps by suggesting an ideal research plan. The results of this work will aid researchers, bank management, and policymakers in identifying the overall operation of RRBs and developing strategies to enhance that performance. In particular, the study will focus on the impact of RRBs on employment, credit access, and financial inclusion in rural areas. To do this, the study will make use of secondary data from a variety of sources, including the World Bank, the RBI, and the National Sample Survey Office. The study will be investigative and discover the outdoors and provide policymakers with insight into the functions [16]. The findings of the study will be used to formulate policy recommendations on how to best improve the performance of RRBs and their impact on the rural economy. Currently, the village economy is not doing well. Farmers are having a difficult time making ends meet due to the crisis in the agricultural sector.

2. OBJECTIVES OF SCHOLARLY REVIEW :

The purpose of this is to explore the literature related to Regional Rural Banks. It reviews the history and evolution of RRBs in India, their structure and organization, their role in the rural economy, and the challenges they face. The current study is an effort to search, categorize and evaluate the current and accessible literature on RRBs in Karnataka and also to understand their role in promoting growth in the state. To explain the data and fundamental concepts of RRBs, a variety of research articles were evaluated. These articles ranged in topics like- knowing the origin, developmental, examination, pre-post-merger, etc. The specific findings of each article are thoroughly explained to provide a comprehensive understanding of RRBs. Furthermore, the implications of these findings are discussed to better assess the role of RRBs in the current market. The RRBs are necessary because it has mandated of taking banking services and providing credit to the rural sector. The review reveals that, though RRBs were established to develop banking in rural and semi-urban areas, they have not achieved the desired results. The study also points out that, these banks have not sufficiently addressed the credit needs of farm workers and small-scale farmers.

The following are the main goals of this literature review:

- (1) To compile the RRBs-related literature that has already been published.
- (2) To identify the issues RRBs are facing.
- (3) To develop sound recommendations for improving RRB performance, which would improve rural inhabitants' socioeconomic standing.
- (4) To describe how RRBs have aided in the growth of rural agriculture as a source of income, increased job possibilities, and decreased rural poverty.
- (5) To use the CAMELS model to comprehend how RRBs have changed over time depending on their financial performance.
- (6) Making a study project and applying ABCD analysis to it.

3. RESEARCH METHODOLOGY :

The relevant literature for the current study was gathered using several computer-based collections and significant research depositaries, which include Google Scholar, Research Gate, Academia, Social

Science Research Networks (SSRN), ShodhGanga, Bielefeld Academic Search Engine (BASE), as well as books, book chapters, RBI publications, websites, and research papers, has been used. The study mostly covers a period of around two decades. A few papers that have been published since 1978 are also included. The search terms exist in the article title, keywords, or abstracts, and various article types—including case studies, research papers, review papers, conceptual papers, and working papers—are included as study samples. The research papers were found using a database search that was based on the study statement, research objectives, abstract, and keywords. The title, source of reference, the facts given, and the abstract were examined first to see if the article was appropriate for the literature review. The chosen article was also looked at to see if it fit in with the template literature review.

4. RELATED RESEARCH WORKS :

The Secondary data from scholarly publications serve as the foundation for this review study in its entirety. In this section, we will briefly describe these research contributions in the field of Banking Innovation, Regional Rural Banking, the CAMELS model and RRBs in Karnataka. A summary of some of the most important research contributions is listed. The discussion will begin with descriptive and then a few discussions in a tabular format by providing a focus and outcome of the findings.

4.1 Descriptive Focus:

Descriptive related paper on Regional Rural Banks' Performance, Productivity, Challenges, Issues, and Efficiency Method about Banking Liberalization and Rural Development:

(1) The author asserts that there was a comparable amount of indirectness surrounding the critical topic of RRB lending rates. These costs must now be comparable to those of the largest cooperatives. The "small farmers' window" services and the differential interest rate program are not accessible to RRBs. Even though it is often the case that credit availability is more important than its cost, all financial institutions must adhere to this regulation. It is challenging to understand the logic of a system where a farmer may borrow from a CB at a lower rate of interest than from an RRB or a cooperative society when it is acknowledged that the borrowers from the CBS are likely less weak than those borrowing from the special rural institutions. Additionally, this study has demonstrated how, Finance marketplaces in remote areas are competitive, particularly from sponsor banks and private sector CBS, the process of amalgamation has greatly decreased administrative costs and enabled economies of scale. Currently, about 86 RRBs are functioning throughout the nation. (Datta, 1978) [17].

(2) The purpose of the author in this paper is to give a quick synopsis of the expansion of agriculture over the previous 15 years before analyzing which policy instruments were or were not effective during this period and their potential future contribution to improving agricultural performance in terms of overall growth and equity. (Dantwala, 1978) [18].

(3) It is essential for the personnel management in RRBs to be studied and suggestions to be made to improve their policies. The Author has suggested some necessary changes which, if implemented, would go a far mile in guaranteeing the openness and accountability of RRBs. (Khandelwal, 1986) [19].

(4) To examine rural loan markets within the framework of the imperfect information paradigm, the essays in this symposium use empirical and theoretical methodologies. The authors explain how this method might help policymakers understand the perplexing features of these markets while also assisting them in determining the successes and failures of particular initiatives. But many of these projects haven't produced the desired outcomes, partly because they were founded on a lack of understanding of how the rural credit market functions. (Bell, 1990) [20].

(5) Researcher investigated several aspects of RRBs, such as management, expansion, recovery challenges, losses, and viability. Years of experience in the banking industry led him to feel that some RRB policies should be developed based on the suggestions of the government-established committee. He also discussed how the government was undermining the independence of RRBs. One of the main pillars of RRB growth was encouraging access to banking services in remote and unbanked communities. It was intended that by creating RRBs in these places, more people would have access to

banking services, which would increase economic activity in these areas. He was a fervent supporter of this type of development and thought it would have a good effect on the lives of many people (Velayudham & Sankaranarayanan, 1990) [21].

(6) According to his research, Regional Rural Banks (RRBs) have been receiving subsidies to help them cover the costs and risks of lending farmers crop loans. The subsidies, however, have fallen short of covering all of the expenses and risks, and as a result, RRBs have continued to suffer losses on their portfolios of agricultural loans. For RRBs to fully cover the costs and risks involved with offering crop loans to farmers, the RBI and NABARD have been collaborating to find a means to raise the subsidy levels (Gadgil, 1994) [22].

(7) The following recommendations were provided by the research on the viability of rural banking, Firstly- Growing the firm's size by accumulating more assets as well as liabilities; higher working capital results in lower per-unit management costs. Secondly- Change the institution's or unit's mix of assets and liabilities while taking into consideration the return and cost attached to each asset and obligation, respectively. This must be done by each unit and institution while taking into account the opportunities and limitations present in their respective fields of endeavour. Thirdly- The growing influence of unrelated income or non-fund-based revenue is too great for even rural banking institutions to ignore. To increase revenue, each rural banking institution must diversify its portfolio of non-fund and non-asset-based businesses. Modernizing rural banking is also required to move away from asset-based operations and toward ones that are not asset-based. Fourthly- To guarantee that every financial institution may determine the price of its product to meet its cost of funds, which includes a return on equity, the cost of operations, and risk costs, interest rate deregulation for cooperative banks and RRBs must also include commercial banks. Lastly- Another tactic for attempting to increase borrowing is to reevaluate the cost of alternative borrowing choices (Satish & Gopalakrishna, 1997) [23].

(8) Only a cross-section of Indian banking during the fiscal year 1995–1996 is examined in the research given below. It delivers insightful information but also allows the possibility for development. It specifically offers little insight into the dynamics of cost efficiency in the years that follow developments in the banking sector. Given the critical role that branch expansion, or lack thereof, plays in exploiting scale economies in Indian banking, it would be especially important to be able to discern between branch expansion inside metro regions vs. in rural areas. These are a few of the concerns that will be dealt with by more studies employing a panel- information about Indian financial activities (Srivastava, 1999) [24].

(9) According to the report, India's rural banking industry has made great progress in terms of quantity, but quality is another matter. There are still several challenges in providing high-quality financial services to rural populations. It's crucial to develop products and services that cater to rural consumers' needs to narrow this gap. Overall, it is important to recognize that policymakers have not yet created a banking structure and operating system that satisfies agriculturalists' needs for lending and savings while simultaneously advancing agriculture (Shivamaggi, 2000) [25].

(10) The author has examined how well it performed at maximizing profits between 1992 and 2000. In terms of performance, his analysis showed that domestic public banks outperformed both private sector and foreign banks. According to the study's results, financial measures were to blame for the performance convergence of public and private sector banks in the post-reform era (Mohan & Ray, 2004) [26].

(11) The study shows that, just as financial liberalization had the impact of substantially hurting the formal credit system. All landless, low-income, middle-class, scheduled caste, and tribal households, as well as other vulnerable rural population subgroups, must have widespread access to special loans and subsidies. It is also necessary to restart differential interest policies. Banks that do not adhere to these public interest objectives shall face fines rather than being compelled to purchase RIDF bonds. Priority sector requirements must be adhered to. In general, the hole left by the decline in formal sector loans was filled by the informal sector. Agricultural reform is required to stop usury. The working

people in rural India to live, there must be a dramatic change in banking policy (Ramachandran & Swaminathan, 2005) [27].

(12) In his work, he has made an effort to investigate the problems with RRBs and their causes, whether they are unique to the RRBs of certain sponsor Banks or state-specific. He suggests parent Banks of the loss-making RRBs be given a deadline so that no noticeable improvement is observed, the sponsor Banks may be replaced by the recommendations of the Sardesai committee. He believes that the state or the sponsor Banks are not the only sources of the issues (Misra, 2006) [28].

(13) Using data from 192 institutions for the years 1996 to 2002, the paper assesses the changes in total Scale efficiency, technological efficiency, and factor productivity in regional rural banks. The analysis indicated that there were substantial economies of scale among rural banks in addition to comparing each bank's assets to the number of its branches. During the liberalization era, rural banks discovered that increasing their total factor output was more profitable than offering services. The study discovered that banks in both financially prosperous and sparsely populated areas saw much higher productivity development. Throughout the research period, rural banks' effectiveness generally converged (Reddy, 2006) [29].

(14) According to the survey, RRBs' general situation in India is not particularly promising. The author pointed out that the small pool of potential borrowers created by the low credit-deposit ratio continues to be a barrier to improved RRB performance. The author also recommended that the government may boost the industry further by increasing the deposit insurance cap and taking a few other measures, such as lowering deposit rates, raising lending rates, or selectively calling in loans. The author also suggested that bank management take remedial measures to enhance the performance and credit-deposit ratio. He said that banks should concentrate on improving consumer experiences, coming out with fresh goods and services, and growing their clientele (Sura & Jasvir, 2006) [30].

(15) Contrary to what is often believed, which argues that the credit rebound started in 2004, this research examines and focuses on lending to agriculturists. It suggests that after 2000, a real recovery took place. The development of indirect finance, whose scope has been broadened to encompass several new varieties of agricultural loans, was primarily responsible for the credit boom. In addition, although there has been an increase in direct lending to agriculture, a significant increase in the share of large loans utilized to support agribusiness-oriented firms rather than poor and marginal farmers has also been noted (Ramakumar & Chavan, 2007) [31].

(16) A conversation opposing the merger of RRBs has started. He said that the RRB mergers and restructuring will hurt needy, Modest and insignificant farmers, landless labourers, and craftspeople. He claims that the rapid de-amalgamation of RRBs is necessary for the rural poor. The regional banks have been produced using this specific mandate of offering credit going rural and agricultural sectors. However, due to these changes, these banks are now required to focus on profitability and efficiency, rather than on their original mandate (Kumar, 2008) [32].

(17) The paper's author has made an attempt to evaluate how well RRBs have performed in India, which has improved after the merger. Even though there are fewer RRBs, the branch network has expanded. Over the years after the merger, the RRBs now serve more districts. Total capital funds have increased considerably since the merger in the years 2005–2006. The banks' excellent usage of credit in rural areas is shown in the rising credit-deposit ratio over time (Ibrahim, 2010) [33].

(18) The proliferation of loans must be understood in the context of the pervasive agrarian crisis, which led significant parts of rural society to endure increasing social strain if the researcher is to understand the development and impact of microfinance in Andhra Pradesh. This helps dispel several important fallacies that are part of the neoliberal narrative about microfinance (Taylor, 2011) [34].

(19) As per the Author's view, transparency must be maintained in operations to develop better relations between bankers and customers. He also states that this would help in preventing any type of fraudulent

activity. Furthermore, he believes that a good relationship between the two parties can only be established if both of them maintain a high level of transparency. The viability for questioning the viability of RRBs is their lack of flexibility. They are required to operate within the guidelines set by the central government, which limits their ability to respond to the changing needs of their communities. Additionally, their smaller size means that they are less able to raise capital, which can limit their lending capacity (Soni & Kapre, 2012) [35].

(20) The focus of this report was to assess RRBs monetary standing as of March 31, 2011. Rural banks must eradicate their lack of transparency in business practices that cause a biased connection involving bankers and clients. To solve this issue, banking employees should engage with consumers more. In places where clients cannot access financial services, banks should build branches. If they want to keep their current clientele and draw in new ones (Soni & Kapre, 2013) [36].

(21) By comparing RRBs' revenue and costs to those of other RRBs and those of the nation's Scheduled Commercial Banks, the authors aimed to ascertain the financial standing of RRBs in India. Two samples are compared using a non-parametric statistical test known as the Mann-Whitney U test. In this case, the Mann-Whitney U test was used to compare the revenue and expenditure of banks. The Mann-Whitney U test revealed no statistically relevant variation among the groups of two samples of the variables Regional Rural Banks and Indian State Cooperative Banks (Verma & Pandian, 2013) [37].

(22) The research examined several findings to establish a connection between these rural unorganized sectors and formal revenue sources. They also conducted an industry-wide analysis of the level of variability that rural unorganized businesses experience and how it can influence their ability to secure finance. Strangely, formal lending institutions do not seem to be particularly interested in the assets in the unorganized rural sector despite their high volatility. This issue has a substantial impact on business and entrepreneurial effectiveness, which in turn affects formal relationships and financing availability. The general state of affairs is still worrying. It is hard to see how a country's economic situation could ever remain unattached from fundamental legal and political concerns, that appear to constitute the core of the formal-informal debate and have a big influence on the production organization that is linked. This showcases a few key areas of conversation which could be beneficial for emerging nations as a whole (Kar & Dutta, 2014) [38].

(23) The findings indicated the bank might maintain a good growth rate in advances and deposits, while also expanding its reach to rural areas. India, which has an agricultural economy and a greater number of rural than urban residents, needs financial assistance in addition to rural-friendly policies to develop its rural areas. RRBs in different fields have greatly aided the development of rural and agriculturally reliant poor people. The bank's thrust areas have all steadily gotten better. Overall, the performance of Andhra Pragathi Gramina Bank was found to be successful and appreciable (Rao & Rao, 2014) [39].

(24) The banks should offer more term loans to the agriculture industry to order to support it. In general, the author focuses on and concludes that there are several ways that Non-agricultural activities indirectly support rural areas. RRBs would raise the ratio in lending given to this sector. This conclusion may be very helpful to remote bank organizations including regulators in building and defining the right debt framework because RRBs are a crucial part of India's rural finance system (Santhi & Ganesan, 2015) [40].

(25) Even though each RRB is distinct, he concludes that they all adhere to the identical creation process, reorganization design and combination of guidelines. The paper assessed various effects of several elements affecting RRBs' efficacy. However, capital and stability are more important than payments and borrowing or the parent banks' net profits. One of the primary reasons for this is the nation's overwhelming reliance on parent banks for its financial and commercial endeavours, which results in a high percentage of non-performing assets, poor loan and advance recovery, and insufficient integration of the nation's financial systems. RRBs have struggled on a practical level whenever a dispute of commercial values has existed between sponsor banks and RRBs (Bhattacharya & Dutta, 2016) [41].

(26) The author of this work made an effort to investigate the significant factors that affect how well the chosen Indian Regional Rural Bank performs. In this work, Data Envelopment Analysis is used to empirically evaluate the effectiveness of a sample of 35 Regional Rural Banks in India. To identify the variables influencing efficiency, the Variable Return to Scale (BCC) method and then the Tobit regression method have both been considered. The results show that there have been variations in the technical efficacy of RRBs in India during the course of the research, and that, among the many factors that have contributed, the number of Branches and Fixed Assets have had little to no discernible impact (Chanu & Das, 2016) [42].

(27) The author concluded that, when compared to other commercial banks' performance, the AGVB and the MRB's overall progress is not sufficient. The study's new conclusion is that the AGVB & MRB should investigate the viability of opening additional branches to serve the financial requirements of rural, isolated, and landlocked areas. This might assist to boost economic activity in these areas by giving clients in these areas better access to financial services and goods. A few of the factors that will require to have considered ordering to determine the practicality of such a strategy are the prospective demand for services in these locations, the costs of creating and managing branches in these regions, and the availability of staff. However, expanding AGVB & MRB's presence there would undoubtedly be advantageous to the communities these offices serve (Bhandari, 2017) [43].

(28) The new small finance banks will change the Indian banking sector as more businesses compete in the market for rural financial services. These banks' present challenges include developing a portfolio of liability products, observing the legal requirements for the cash reserve ratio, improving the digital link with a substantial rural clientele base, and developing affordable banking solutions (Jayadev, et al., 2017) [44].

(29) The author explains to save Rural Banks, the government needs to take stronger remedial action. RRBs are crucial in rural areas because they lend money to tiny, poor growers and others who are less fortunate economically so that commerce, industry, and agriculture can flourish. the financial viability has been considered because of its constrained firm flexibility, lower loan size, subpar loan recovery rate, and substantial risk in loans and advances. Rural banks must open up more about how they operate to break the unequal link between the banker and the customer. Employees in the banking industry should interact with customers more frequently to address this problem. There has been a notable increase in the number of branches, deposit mobilization, and loan deployment by Regional Rural Banks (RRBs) in India's rural areas. This action will encourage the expansion of regional enterprises and provide these areas with much-needed liquidity. The government's choice to inject new capital into RRBs is also a positive step because it will let them scale up their lending activities (Kumar, et al., 2017) [45].

(30) The author states that the RRBs are owned by three stakeholders - the central government, the state government, and the commercial banks and the Indian banking sector is diversified. It comprises a large number of public sector banks, private sector banks, foreign banks, cooperative banks and regional rural banks. While the public and private sector banks have a well-established presence across the country, the RRBs play a significant part in providing bank operations in rural areas and semi-urban locations (Jha, 2018) [46].

(31) The study found that RRBs are crucial to the socioeconomic advancement of rural impoverished people. Regional disparities in India's banking infrastructure have significantly decreased as a result of RRBs' quick development. To provide financial aid to underbanked and unbanked people, the government and backed commercial institutions should establish a robust network. Through awareness campaigns and camps, banks should make an effort to educate the public about the subsidies and programs (Reddy, 2018) [47].

(32) In general, the author says that the RRB has made tremendous strides in terms of branch development, deposit mobilization, rural development, and rural loan deployment with the lowest

income levels. As a consequence, RRB offers a trustworthy bank system. To ensure lucrative the administration must implement a few efficient corrective actions. The growth of agriculture, trade, and industry depends on lending to people with a low level of income and small, marginal farms (Sekhar, 2018) [48].

(33) The author emphasizes inclusive growth and claims in their conclusion that financial inclusion is what drives it. This inclusive growth starts in rural areas, where regional rural banks take the lead despite several challenges. To advance financial inclusion, there are now more financial institutions in rural areas than there were in 2005. Additionally, by dramatically increasing the number of accounts throughout the course of its existence, the Pradhan Mantri Jan Dhan Yojana concentrates its efforts on expanding financial inclusion (Shekhar & Verma, 2018) [49].

(34) The author highlights that when analyzed regionally, RRBs in India show a substantial disparity, and it is advocated that adjustments be based on regional opinions. The government must promote awareness based on the socioeconomic resources made accessible by the region and coordinate financial services at the regional level properly. The writer It is also vital to pay attention to the makeup and the direction of the advances and credit that the RRBs are giving to the various locations. The only organization in India that can deliver professional banking services to the underprivileged and rural economy is the RRB. Their financial feasibility and sustainability must occasionally be reevaluated as a result (Bhandari, 2019) [50].

(35) Small farmers in particular and other marginalized groups now have a platform provided by RRBs to receive loans directly at their door. The researcher asserts in the paper that the RRBs delivered the KCC plan to the farmers and effectively implemented it. Additionally, it has been highlighted that improvements have been made during the study period in both. The number of cards issued, as well as the amount sanctioned and distributed, have varied during the course of the research for the KCC plan at the agency level (Kaur & Dhaliwal, 2019) [51].

(36) The authors' research indicates that CAR has a 2.35% positive impact on ROA. BPRs are free to grow their business without danger when CAR is greater than 8%. Additionally, a high CAR has a strong positive impact on ROA. ROA is impacted negatively by LDR by 1.88%. The number of loans routed also affects the growth of credit income. This suggests that BPR's capacity for generating income has also grown. ROA is significantly negatively impacted by OCOI by 16.18%. Pre-tax profit decreases with every rise in operating costs, which also lowers ROA. Pre-tax earnings are impacted by operating costs. NPL does not significantly affect ROA. The excellent CAR ratio of the rural bank, which mitigates credit risk, explains the 6.5% NPL level does not affect ROA (Sofyan, 2019) [52].

(37) The farmers are still due a considerable sum of money. The research for the study reveals that beginning in the first year it began, there has been an upward trend in the increasing percentage of banks' activities in lending for agricultural reasons. The degree of significance is 1%, the R square value is 1, the trend value is high, the trend line is upward from the years 2020–21 to 2025–2030, and the trend value is high. The loan balance has increased by a total of 40 years and is currently above 30% due (Krishnan & Ravikumar, 2020) [53].

(38) This article discusses the innovative techniques used by these banks' employees to mobilize deposits, expand lending, and recover loans. The challenge these bank personnel face while attempting to promote their services to the rural clientele. The study's conclusions can aid government officials in understanding the difficulties small rural banks face while attempting to assist impoverished and disadvantaged groups in society. The information from this article may be utilized to develop innovative initiatives that will help these institutions reach their hardest-to-target customers in rural areas (Rehman, 2020) [54].

(39) The researcher claims in his conclusion that the bank further offers its clients a solvency certificate, pooled money, insurance goods, gold coins, and other extras. Today's banking system is rather developed and well-prepared, and it includes both traditional banks and cutting-edge financial firms.

The Indian banking industry is rapidly growing, and outdated banking procedures are being replaced with new ones that are simple, accurate, and quick. The impressive growth is being seen by Indian financial institutions, which indicates enormous expansion (Haralayya, 2021) [55].

(40) The author of the study concludes that the problem of rural poverty and unemployment requires a diverse strategy. It's wonderful that this bank includes promoting rural development and decreasing rural poverty among its objectives. However, there is a critical need for the RRBs Act of 1976 to be updated, for close coordination between the Branch Manager Block Administrator, and personnel. These are the decision-makers and concerned authorities. Financially solid projects must be eligible for loans. enlist the aid of other governmental organizations. All of these things—a different approach to hiring, staffing in RRB's languages, the ability to engage with illiterates, and the availability of appropriate training materials for beneficiaries—are required (Baboo, 2022) [56].

(41) This study investigates how rural local banks affect digital literacy. The findings demonstrate that banks influence India's economic growth and level of technological competence. Financial and technological literacy may help fight poverty and boost the economy. Awareness of their usage and training in using digital banking can benefit rural populations (Gautam & Kanoujiya, 2022) [57].

(42) The author of the research suggests that to enhance overall rural development, development organizations should promote innovation in both the agricultural and non-agricultural sectors. The invention might deal with the system, management, business process, or technological issues. Although the credit should be given on a commercial basis, it should also develop a program to improve the ability of the participants. Micro-Enterprises and SHGs should engage in any legal economic activity to raise their revenue levels (Shah & Soni, 2022) [58].

(43) This study provides a starting point for learning how rural clients perceive banking services. The most important element of financial inclusion is financial literacy. Rural residents are now considering banks for their savings and a range of services, even though they are less aware of government programs and the benefits of banking services. Additionally, because of their low levels of education, inhabitants of rural areas are unaware of modern technologies, including the internet and mobile banking. Banks must thus launch campaigns to address these issues and increase public awareness of the financial services accessible in rural areas (Rao, et al., 2022) [59].

5. NEW RELATED ISSUES :

An overview of current and important study-related subjects is provided as a focus and outcome in form of a summary which is given in the table below. Many pertinent academic research articles to gain a greater grasp of the research's work in important areas were evaluated. The important findings are provided in the tables after a systematic literature analysis is carried out by us using the Google Scholar database to examine publications released between 2008 to 2022 using the keywords "RRBs in India," "CAMELS model in the banking sector," "Grameen bank in Karnataka," and "Financial inclusion in RRBs" findings are shown in table 1.

Table 1: Contributions of Researchers for the Performance Evaluation of RRBs in India.

S. No	Field of Research	Focus	Outcome/Observation	References
1	Performance evaluation of regional rural banks in India	From 2001–2002 to 2013–2014, the author has attempted to look at the financial outcomes. It illustrates an effective expansion strategy providing better banking services to rural populations.	The authors of the study concluded although the number of RRB branch premises declined. This was achieved by integrating RRB branches with sponsoring banks. Deposit mobilization increased considerably. Banks should construct branches in	Sivaiah, (2016). [60]

			locations where customers cannot receive financial services.	
2	A Comparative Study of Regional Rural Banks in Maharashtra State	The work was conducted to analyze the financial inclusion status of MGB in the study area. MGB has been successful in reaching the rural masses.	The Maharashtra Grameen Bank (MGB) accepted and disbursed most deposits and loans to borrowers. It has accepted and disbursed most deposits and loans to borrowers. Aside from that, MGB was the biggest bank in Maharashtra in terms of branch presence, district coverage and productivity.	Kopra, (2017). [61]
3	Performance Evaluation of Regional Rural Banks	By providing loans to small, marginal farmers and other economically deprived populations.	The regional imbalance in banking infrastructure. It is necessary to end the opaque business practices of rural banks, which lead to an unequal dynamic between bankers and customers.	Kumar, et al., (2017). [62]
4	Role of Small Finance Banks in the Inclusive Growth of our Economy	The writer explains that in rural areas and other unbanked places, there is a huge unmet need that must be satisfied. It is seen to be crucial to experiment to meet this unmet need for financial services.	The concept would need to be contextualized to meet the demands of customers in a nation like India, where there are several marketplaces and consumer groups. To maintain the survival of specialized banks, a balance between long-term viability and financial inclusion objectives must be struck.	Kittu & Chittawadagi, (2018). [63]
5	Growth and performance of RRBs in India	Research has shown a positive impact and particularly increasing availability to loan and banking services.	The article has taken a closer look towards the RRB development and effectiveness in India and Haryana and discusses some suggestions on how they can further improve their operations. However, there is still room for improvement in terms of RRBs' investment efficiency. This has been a major impediment to economic growth and has prevented many small businesses from getting started or expanding.	Kumar, et al., (2019). [64]
6	Development of RRBs	The author tries to convey that rural development is essential to	Rural banks and branches are predicted to meet the increasing expectations of their customers in rural	Yepuri & Durga, (2020). [65]

		the growth of the national economy.	areas. It is vital to apply unique models in product design and delivery approaches through increased use of technology and related procedures to reach all rural residents. In rural areas, providing a range of financial services and goods would boost bank earnings and encourage rural development.	
7	Role of Regional Rural Banks	Researcher made an effort to find out the effectiveness of their development pattern, how they disperse credit and their geographic location. Currently, it spans 487 districts scattered over 26 states, effectively encompassing the whole nation. Madhya Pradesh has the most RRBs (among the 26 states), with 19, followed by Bihar (16), and Uttar Pradesh (36). Together, the three states account for 36% of all RRBs in India.	In contrast, the quantity of banks varies per state. The state with the most banks is Uttar Pradesh, which has 36; Goa, Sikkim, and Delhi do not yet have any RRBs. Additionally, both the sponsored bank and the bank administration must modify the remedial action to order to improve the bank's credit-deposit ratio. Due to the need to reduce the gap between the C-D ratio.	Barot & Japee, (2021). [66]
8	Consolidation on the Profitability of RRBs	The current study set out to unbiasedly examine how mergers impacted the workings.	The findings showed that the post-merger era saw a large boost in return on equity. The results of the current study, therefore, support the theories of mergers and acquisitions how it has improved.	Chaudhary & Kaur, (2021). [67]
9	RRBs Contribution to Agriculture Finance:	In terms of both their financial performance and their capacity to finance weaker industries like agriculture and micro businesses.	The results also reveal a negligible relationship between non-performing assets and the weaker components' financial performance. This study found that RRBs suffered from insufficient benchmarking when compared to the traditional banking system. They need greater help to boost financing for agricultural and rural regions.	Bharti & Kumari, (2022). [68]

10	RRBs Show Factors Significantly Affecting Perceptions of "Quality of Service"	They have been essential to rural institutional finance in terms of geographic reach, client reach, business volume, and support for the expansion of the rural economy.	Their success over the past three decades is notable in part because of the quick growth of their retail network in rural regions.	Das, (2022). [69]
11	Promoting financial literacy.	This study's goal is to determine how regional rural banks in India poverty and countryside prosperity are impacted reduction.	The outcome suggests that the government and local rural banks & should concentrate. It is important for both financial inclusion and regional rural banks. Both of these are essential for reducing poverty and promoting rural development.	Kuranal & Ravi kumar, (2022). [70]
12	An Analysis of Operating Expenses in Regional Rural Banks	To investigate SHGB's running costs as it is essential to know how the bank is doing overall, especially regarding operating costs, nine years after the merger.	The results of the analysis suggest that Sarva Haryana Garmin Bank should reduce its labour-related operational costs as they are increasing year over year relative to the number of employees. Bank could cut these costs by investing in the training and development of its human resources.	Prakash, (2022). [71]
13	Performance evaluation of RRBs	This analysis has the aim to evaluate NABARD's performance analysis. The financial institution NABARD was founded by the Indian government to encourage sustainable rural development and agriculture throughout the country.	The bank's financial stability is assessed to have been good during the study period in this article. By boosting its capital, the bank can, nevertheless, reduce the ratio of loans to deposits.	Vijayalakshmi & Priya, (2022). [72]

Table 2: Key study findings for the CAMELS model in the banking industry are summarized below-

S. No.	Field of Research	Focus	Observation	References
1	Application of Camel Model	They employed arithmetic mean and t-test to conduct a comparative analysis.	In comparison to Sapthagiri Grameena Bank, authors found that Andhra Pragathi Grameena Bank performed better in safeguarding the interests of creditors, the quality of earnings, and in cases involving TA/DA. However, Sapthagiri Grameena Bank (SGGB)	Reddy & Prasad, (2011). [73]

			showed strong performance in the ratios of asset quality and profit per employee.	
2	Growth Pattern of RRBs in India using Camel Model	This article looks at the rural banks' profitability during ten years, from 1997–1998 to 2006–2007. It examines the pattern of net profit margins and returns on equity for these banks and examines the contributing elements to their impressive performance	The report observes that rural Indian banks have been quite lucrative overall, with high net profit margins and returns on equity. They have profited from several things, including government assistance, a keen emphasis on expansion, and competent management. The performance, quality earnings, and liquidity of the bank were determined using CAMEL, a ratio-based approach for evaluating bank efficiency. Because of this, RRB earnings have significantly aided in the expansion of RRBs in India.	Nair & Thirumal, (2012). [74]
3	Analysis of banks using the CAMELS model	The valuation and financial stands of a few private banks from 2007 to 2017 have been evaluated in the current study.	In the CAMEL Model, Axis Bank outperforms the other banks evaluated in the research, while IndusInd Bank should improve some of its weakest areas. Authorities at the associated lowest-ranking banks should take the right steps and look for a solution to address their deficiencies.	Kumar & Malhotra, (2017). [75]
4	RRBs of Maharashtra State Using CAMEL Method	The Author specifically concentrates on one of the states. The Maharashtra Gramin Bank (MGB), provides services to small and marginal farmers.	The growth of the rural sector by offering loans and advances to small and domestic businesses, trade, commerce, and agriculture. Despite NPAs and lending to priority sectors, the MGB developed its branch network throughout the rural areas of six districts in Maharashtra. It also performed well via its deposits and advances.	Kopra & Shrivastava, (2018). [76]

5	Financial soundness using the CAMEL model	This study aimed to analyse the stability by applying the CAMEL model.	The findings emphasize the institutions under scrutiny advantages and disadvantages, emphasizing the necessity for bank decision-makers to express concerns about how to strengthen and improve their soundness. The results of the survey showed that Punjab National Bank, State Bank of India, and IDBI had the best overall financial performances, respectively.	Krishnakumare, et al., (2018). [77]
6	Reliability of Chosen Public Banks.	The focus of the study is using the CAMELS model to evaluate the performance of public sector banks during five years, from 2012 to 2016.	According to the study's findings, no mathematically noticeable changes in the functioning selected public banks during the investigation. Furthermore, it may be concluded that banks with low rankings need to step up their game.	Kumar & Alam, (2018). [78]
7	Bank Efficiency using the CAMEL model	The current analysis makes use of data from the years 2005–2006 through 2014–2015 to pinpoint factors that influence bank efficiency.	According to the study's findings, Kotak Mahindra Bank came in last among private-sector banks, while HDFC Bank came at the top. The findings of the regression research show that Management Efficiency is second in importance to Earnings Quality in terms of hurting the efficiency of some banks.	Marvadi, (2018). [79]
8	Evaluation of Selected Bangladeshi Private Commercial Banks Using CAMEL Method	The focus was on the 17 typical private commercial banks that were chosen as samples. The data for the research came from the annual reports of the banks throughout that time.	Eastern Bank ranked top among the selected banks using the CAMEL grading methodology, according to the results of this comparative study.	Rahman & Islam, (2018). [80]
9	Corporate governance and performance of financial institutions Using CAMEL	Examining the relationship between corporate governance and	The final result is The PLS findings suggest that corporate governance and company performance	Wakaisuka-Isingoma, (2018). [81]

	Method	financial institution performance is the study's primary Focus.	have a significant positive relationship. In addition, the findings indicate that the board profile, information transparency, ownership structure, and financial openness are all factors that impact financial institution performance.	
10	Analysis of Scheduled Commercial banks Using CAMEL Method	The major goal of the study is to evaluate Indian commercial banks' soundness in light of the Bankometer framework. A popular tool for evaluating the performance of financial institutions is the Bankometer framework. Using information from 62 organizations gathered between 2009 and 2018, the state of Indian banks is examined.	The findings demonstrated that the new private and foreign sector banks in India had the best financial standing and performance. The findings demonstrate that the examined banks are thought to have exceptional asset quality, solid capital bases, and the capacity to manage debt well.	Chauhan & Kumar, (2019). [82]
11	Impact of Purchases and Mergers	In this study, the efficiency of business banks was assessed regarding the consequence with a focus on State Bank for India (SBI), ICICI Bank, HDFC Bank, and Kotak Mahindra Bank.	According to the study's findings, ICICI Bank outperformed all other banks following the merger and acquisition, followed by HDFC Bank, SBI, and Kotak Mahindra Bank. Even if these banks aren't doing well, Kotak Mahindra Bank has a better PBT than ABI, which is worse.	Agarwal, et al., (2020). [83]
12	Analysis of the Financial Performance of New Banks in the General Private Sector	The study paper's objective is to assess the performance of India's new generation of private banks using the CAMEL model approach.	According to the report, the three new-generation private sector banks with the greatest levels of efficiency are Bandhan Bank, HDFC Bank, and IDBI Bank. This proves that Bandhan Bank started offering fair competition to the established private sector banks as soon as it was granted permission to	Biswas & Bhattacharya, (2020). [84]

			establish a universal bank.	
13	A Non-Parametric Study- Public and Private Sector	The study was carried out for a small group of commercial banks, including 6 SBI and its affiliates, 20 banks that represent the public sector, and 20 banks from the private sector	According to the study, the factors that influenced net profit were completely random for just three years.	Jothikumar, (2020). [85]
14	Public Sector Banks' Performance using CAMEL Model	In this study evaluation is based on their financial health and operational efficiency.	According to the study, 13 banks out of the studied institutions were able to attain a CAR% that was higher than the 12% standard established by the RBI for public sector banks. The other banks were able to get an average CAR of about 11%. The Bank of Baroda was able to win the capital adequacy requirement with a CAR% average of 13.33.	Singhal, (2020). [86]
15	Performance of RRBs using CAMEL Model	The examination of Assam's performance is the main topic of the article. In terms of short-, long-, and profitable solvency Gramin Vikash Bank, Maharashtra Gramin Bank, and Karnataka Vikash Gramin Bank.	The outcome of the study concludes that the Gramin Banks of Maharashtra, Karnataka, and Assam all demonstrate impressive financial success.	Selvakumar & Abima, (2020). [87]
16	Evaluating Financial Performance	To grasp the concept of financial success, this article gives real research on the use of the CAMEL model for evaluating financial outcomes.	The CAMEL model is a valuable tool for evaluating financial outcomes. It can help lenders and investors identify risks associated with a company and make informed decisions about whether or not to lend to or invest in a company.	Thummalapenta & Gugloth, (2020). [88]
17	Study on Model and Camel Analysis of Banking	This study was undertaken to investigate the banking sector and its players to protosteale insights	The study showed that the banking sector is facing various challenges, including increased regulation, disruptive technologies, and	Haralayya & Aithal, (2021). [89]

		that can help formulate strategies for the future	changing customer needs. However, the sector is also ripe with opportunity, and there are several ways that banks can capitalize on these opportunities to stay ahead of the curve.	
18	Financial Performance of Banks Using CAMELS Rating System	The research intends to analyze the Indian banking sector's financial and operational performance.	It was discovered that the banks in both businesses did quite well. Public sector banks scored better than private sector banks in sensitivity and liquidity evaluations. As a result, it might be said that the public sector banks preserved their long-term solvency position.	Meraj & Sudha, (2021). [90]
19	Utilizing the CAMEL model, the efficiency of consolidated public and private sectors.	The primary goal was to compare how the public sector performed previously and following their merger.	Report even after joining, public-sector banks were still unable to compete with private-sector banks in terms of overall performance. It also demonstrated that there is a significant performance gap between certain combined public and private banks.	Parvin & Nirmala, (2021). [91]
20	Theoretical Perspective on The Issue of Banking Sector Reforms in India's Problems and Prospects.	Banking System has undergone adjustments to strengthen the nation's GDP and modernize the sector.	The results demonstrate that India has made significant progress toward the goal of a cashless society. The use of accounting software has assisted banks in further integrating their operations to better their operations. Globally, the financial system is evolving.	Valecha & Garg, (2021). [92]
21	The CAMEL Model as a Benchmark to Assess India's NBFC Shadow Banks.	For this research, the top 10 NBFCs were picked based on market capitalization criteria. The study's time frame is from 2016–17 to 2020–21.	According to the CAMEL Approach, Bajaj Finance, which had the greatest market capitalization among the remaining 9 NBFCs, has been reduced to seventh place, demonstrating how the study shows the intricate operation of the modern economy.	Barodawala, (2022). [93]
22	A Camel Model Study of Sarva Haryana	Offering rural loans to the rural section	According to this analysis, Sarva Haryana Gramin	Gupta & Jain, (2022). [94]

	Gramin Bank's Performance in Haryana.	of society is the main objective of RRBs. The total number of RRBs decreased following mergers, reaching 82 in March 2011.	Bank outperformed other banks in terms of asset quality and capital sufficiency. The performance of the bank's earning quality ratio, liquidity ratio, and managerial efficiency were all below average.	
23	The financial efficiency of India's rural regional banks.	A substantial effort was made in the research study to employ several numbers of well-known characteristics, including the geographic distribution, loan distribution, and development pattern of the RRBs.	RRB has managed in achieving its objectives, which include generating employment in remote regions and cutting borrowing expenses distribution there, and giving disadvantaged rural populations who rely on private lenders access to affordable credit.	Kurunal & Ravikumar, (2022). [95]

Table 3: Key study findings for the Grameena banking industry in Karnataka are summarized below-

Sl. No	Field of Research	Focus	Observation	References
1	Trends in deposit and credit development of RRBs.	This study examines changes in deposits and credit deployments over the course of the post-reform era.	It was found that RRBs in the State of Karnataka continued to give agricultural credit priority while issuing loans. Additionally, RRBs had favoured personal loans over credit for "other small-scale firms" including rural artisan businesses.	Onkar & Palash, (2010). [96]
2	Inclusion in Karnataka.	This study is to develop a tool that will enable researchers to evaluate the level of operationalization of No-Frills (NF) accounts created during the inaugural financial inclusion effort of the state of Karnataka.	This study examined the degree of financial inclusion while also evaluating the operationalization of the fundamental NF accounts. The generated OI may be used to evaluate both the achievement of each bank's objectives as well as the level of performance of each parameter for the banks/districts. The values of the Index can be used to guide the adoption of follow-up strategies. The operationalization index (OI), which fills the urgent need for a barometer to	Rai & Saha, (2010). [97]

			monitor the actions under financial inclusion, may be of significant assistance for effective financial inclusion.	
3	Factors influencing agriculture diversification	The study was carried out across the state of Karnataka to assess the factors influencing the diversification of agriculture in various districts.	It concluded that the amount of rainfall, RRBs, and literacy rates were the common factors that contributed to the diversification of agriculture over both periods. Several of the factors were found to have altered between the first and second periods.	Rathod, et al., (2012). [98]
4	Performance evaluation	This article seeks to assess the Karnataka Vikas Grameena Bank's contribution to lending to Karnataka's crucial sectors using the criterion of loan distribution to various essential sectors, including agriculture, related industries, SSI units, commerce, and services.	In comparison to other rural businesses, the analysis shows that the KVG Bank has provided the most money to agriculture, which has greatly aided the sector's expansion. The bank's tiny priority sector advances to related industries should also be emphasized since they show how unconcerned it is with these activities.	Baligatti & Danappanavar, (2016). [99]
5	Development of SHG by RRBs under SGSY	Evaluation of the financial position of Self-Help Group (SHG) members who have access to Swarnajayanti Gram Swarojgar Yojana funding was the study's main objective. A random sample of 200 respondents from the four Regional Rural Banks in two states was chosen.	When SHG members were connected to credit, the examination found that work produces income, development and diversification, individual savings, earnings level, macroeconomic, and capital accumulation all dramatically increased.	Das, (2016), [100]
6	Analysis of Sector-wise Lending by Pragathi Grameena Bank	The study evaluates the success of the Pragathi Grameena Bank in the state of Karnataka's priority sector advance and the break-up analysis of sector-specific loans.	The agriculture industry has gotten a bigger proportion of funding under the priority sector than the non-agricultural sector. The study also showed that the bank commonly lends for agricultural purposes; nevertheless, there is no relationship between short-term loans and medium-term loans.	Laxmisha, (2017). [101]

7	Productivity efficiency of RRBs	In the study, the productivity effects aims of RRBs were contrasted and studied throughout the course of the 22-year pre-and post-merger eras.	In conclusion, it can be said that, compared to before the merger, the productivity of RRBs operating in southern India has greatly risen.	Shashikant, (2017). [102]
8	Intensification of SHG member's through RRB	This study intends to determine the changes women experience after joining SHGs and to look at how well SHGs are managed in Hassan District.	According to the study, there are improvements in leadership skills, writing and speaking abilities, understanding of social welfare, a decline in the rate of migration to urban regions, a decrease in dealings with money lenders, and a reluctance to adopt bad habits. The positive changes rural women experience also include an improvement in lifestyle, which is closely related to SHG operation.	Vijayakumar & Babu, (2018). [103]
9	Micro Finance in Karnataka	This article explores microfinance as a cutting-edge tool for economic development designed to assist women in low-income strata in overcoming the challenges and opportunities of poverty	It is concluded, has had the most impact on how the microfinance business operates in India. using techniques that enhance the lending platform's usability and quicken the loan generation and review processes It enhances the overall user experience for the borrower while also streamlining the process for the loan partner.	Girish & Veerabhadrappa, (2020). [104]
10	Financial performance of RRBs	Analysis of the short-term, long-term, and profitability performance of the Assam Gramin Vikash Bank, Maharashtra Gramin Bank, and Karnataka Gramin Vikash Bank has been done.	The strongest banking network is provided by RRBs. The financial statement analysis utilizing financial metrics reveals conditions of chosen RRBs are all stable.	Selvakumar & Abima, (2020). [105]
11	Loans and Advances of PKGB	You may learn about the difficulties and issues that banking system users who are interested in agriculture face, as well as how banks function, by studying this paper.	The outcome shows that aside from offering the concession price of entertainment to educational loans, the mortgage program run via the PKGB is particularly attractive.	Haralayya, (2021). [106]
12	Analysis of RRBs	This article attempts to evaluate the efficiency of RRBs in terms of both their financial performance and	The results show financial RRBs gained tremendous fortune than agriculture. The outcomes show a	Bharti & Kumari, (2022). [107]

	their capacity to carry out their mandate of supporting weaker financial, agricultural, and microenterprise sectors.	substantial, association of agricultural and microenterprise loans and the monetary health of the RRBs.	positive between and	
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6. CURRENT STATUS :

Currently, there are RRBs in operation in almost every state in India. In addition, the Government of India has been working to advance the infrastructure of these banks and to make them more accessible to rural populations. As a result, the RRBs are now better equipped to serve the needs of their communities. Despite these advances, however, regional rural banks still face many challenges. They are often understaffed and underfunded, which can limit their ability to provide adequate services. RRBs need to improve their working in terms of earning power and property value. The government is aware of these challenges and is taking steps to address them.

7. IDEAL SOLUTION, DESIRED STATUS & IMPROVEMENTS REQUIRED :

The literature review indicates that limited research has been performed in this area. The discussions in this paper aim to provide possible explanations for the lack of research in this area by providing insights from relevant literature. The researchers have access to data on all facets of RRB's growth in the rural economy as well as the financial factors that affect all facets of rural life. One has to be able to evaluate the monetary standing to discover answers. Considering future studies may be on how rural finance affects the rural community. The goal ability to judge the financial standing and inform residents about the loans they get. Because the majority of people in underdeveloped regions are ignorant of the benefits of RRBs and their situation in terms of finances, rural people are unaware of the interest rates being paid on their loans and their benefits. The government has set up several programmes to promote people in formal banking. However, there a lot of room for improvement.

8. RESEARCH GAP :

In recent years, the role of RRBs in Karnataka has come under scrutiny. There is a lack of clear understanding of their performance and how they are evaluated. This research gap must get tackled in order to enhance quality effectiveness. The lack of clear understanding of the performance and evaluation of RRBs in Karnataka is one of the key Research Gaps. Even though a lot of research has been done on Regional Rural Banks (RRBs) in India, very little is known about their performance and evaluation in the state of Karnataka. To fill this gap in the literature, this study attempts to evaluate the performance of RRBs in Karnataka using multiple performance indicators. This study aims to fill this gap by conducting performance and evaluation of RRRBs in Karnataka using the CAMELS model. The results of this study will provide valuable insights into the effectiveness of RRRBs in Karnataka and how they can be improved. This study is important as it helps to fill a research gap on the matter. There is currently a lack of research on the topic, which this study helps to address. Furthermore, the study will help to improve our understanding and could potentially lead to discoveries.

9. RESEARCH AGENDA :

In India, the banking sector is undergoing a period of transition and growth. Regional Rural Banks (RRBs) represent a crucial component of this industry and perform a key function in providing banking services to rural areas. Karnataka is one of the states where RRBs are present, and in this study, we will be considering the CAMELS model to assess such competence. Thoroughly assessing the performance of Regional Rural Banks in Karnataka is the major goal behind this study project and also to understand their relative strengths and weaknesses. This study will be conducted using Secondary evidence must typically be gathered from several sources, including the websites of the RRBs, the Reserve Bank of India, and other published reports. The data will then be analysed using appropriate statistical techniques. The CAMELS model is a tool that is often used to assess the performance of banks. By looking at all of these factors, we can get a comprehensive picture of how well an RRB is performing. Whereas the findings shall remain useful for policy-makers, stakeholders, and other interested parties in understanding the performance of RRBs in Karnataka and it will also help in understanding the

current state of RRBs in Karnataka and identifying areas of improvement. It will also be valuable in benchmarking the performance of Karnataka's RRBs against other banks in India and around the world. The study will seek to address the subsequent research inquiries:

- (1) How has the performance of RRBs in Karnataka compared with each other?
- (2) What are the main factors driving the soundness and stability performance of RRBs in Karnataka using the CAMELS model?
- (3) What are the challenges faced by RRBs in Karnataka?

10. ANALYSIS OF RESEARCH AGENDA :

There have been several studies on regional rural banking, according to a review of all the pertinent literature. The bulk of studies involving the issue is done, although employing different approaches. This study's goal is to provide a thorough analysis of the following:

- (1) Analysing the performance of RRBs in Karnataka and how they have been able to provide banking services to a vast majority of remote families and their contribution to the development of rural areas in the state.
- (2) Determine the origins and progression of RRBs.
- (3) Analyze the effectiveness of Karnataka's RRBs and identify the areas where they need to improve.

11. RESEARCH PROPOSAL :

After researching the current condition of RRBs in rural regions and examining the literature, it has been determined that additional effort must be made to improve the condition of these facilities by carefully examining their financial situation.

- a) Proposed Title: Analysis of the Performance of Regional Rural Banks using CAMELS model.
- b) The study comprises the financial statements of the RRBs, Notifications of RRBs, and RBI guidelines.
- c) Objectives:
 - (1) To make recommendations for RRB performance that would enhance the socioeconomic standing of rural residents.
 - (2) To provide a profile of Karnataka RRBs and evaluate their difficulties.
 - (3) To conduct a comparative performance analysis.

12. ABCD LISTING :

ABCD analysis is a method of evaluating a given area to identify its advantages, benefits, constraints, and disadvantages [108]. It can help individuals to identify the most important factors of a problem or situation and develop solutions that are both effective and efficient. While the ABCD analysis is a valuable tool, it is important to keep in mind that it is only one tool that should be used in conjunction with others to make informed decisions [109-112]. By using this framework, you can evaluate a proposal from multiple perspectives and identify potential areas of concern or risk. This information can then be used to adjust the proposal accordingly or to address these risks before they become issues [113] [114].

12.1 Advantages:

- (1) They help to promote financial inclusion in rural areas.
- (2) They help in easier access to government programs.
- (3) They provide banking and credit services at a cheaper cost.
- (4) They help to create the Productivity of Particular RRBs in.
- (5) They improve the standard of living.
- (6) They help to promote the growth of small businesses in rural areas.
- (7) They can help to diversify your portfolio and reduce risk.

12.2 Benefits:

- (1) They help in providing a safe and secure environment for transactions
- (2) They offer a wide range of services
- (3) They help in allowing customers to earn interest on their deposits
- (4) They offer loans at competitive rates

- (5) They help to promote financial inclusion
- (6) They support the growth and development of rural areas
- (7) They help in lowering the reliance on revenue from only agriculture by fostering the growth of micro-businesses.

12.3 Constraints:

- (1) Lack of formal education and awareness.
- (2) They are only able to lend to small businesses that are located in their district
- (2) Lack of efficient communication
- (3) Lack of skilled manpower
- (4) Lack of updated technology
- (5) Lack of financial resources

12.4 Disadvantages:

- (1) The high degree of regulation applicable to RRBs can limit their ability to respond quickly to changes in the marketplace.
- (2) They may be less accessible than other banking options. This is because there are typically fewer branch locations and ATMs.
- (3) The size of RRBs can also be a disadvantage, as they may lack the resources of larger banks and may find it more difficult to compete with customers.
- (4) They may have less favourable interest rates. This is because they typically don't have as much negotiating power when it comes to setting interest rates.
- (5) RRBs are also subject to the whims of the political environment, as they are often created or supported by government agencies. This can make them subject to sudden changes in policy that can impact their operations.

13. FINDINGS :

The findings of the study on Regional Rural Banks (RRBs) indicate that RRBs have made significant progress in terms of operational and financial performance. However, there are some disparities in the performance of RRBs across regions and states. The study also found that the majority of RRBs are not adequately capitalised, which could limit their ability to support the growth of rural economies.

- (1) Rural communities need financial inclusion, and Regional Rural Banks (RRBs) are ideally suited to supply it.
- (2) To guarantee the success of RRBs, the RBI, NABARD, and the government must work together more closely.
- (3) The CRRB advises the government to inject capital into RRBs to strengthen their financial stability.
- (4) The committee suggests that RRBs concentrate on enhancing their technology and personnel.

14. SUGGESTIONS :

- (1) Increases in capital funds for RRB recapitalization.
- (2) Lowering regulatory costs while also boosting the productivity & profitability of RRBs through the incorporation of IT.
- (3) Government strategies for branch expansion in less developed than distant locations should be set up to give rural Indians access to banking services.
- (4) RRBs are required to transfer employees and retrain them in response to demand. RRB employees should adhere to modern banking norms.
- (5) undoing should be made available to small borrowers including farmers, artisans, and proprietors of small businesses.
- (6) The rural bank's customers should use the bulk of the deposits to boost local economies, create employment, and more.
- (7) The government must actively involve RRBs in fostering the establishment of self-help groups in rural regions.
- (8) The government must take proper measures against defaulters and refrain from saying anything that might raise the NPA ratio in rural banks.
- (9) In rural areas, financial institutions should follow a regular timetable for interest rates.

(10) In addition to strengthening their successful recovery measures, RRBs must monitor the growth of loans and develop effective credit administration based on a credit evaluation.

(11) Regional borrowers might benefit from a simpler application process for loans thanks to the RRBs. For rural clients to be persuaded to use banking services, RRBs must establish trustworthy relationships with them.

15. LIMITATIONS :

The review paper's concentration on the performance assessment of RRBs in Karnataka results in several inherent constraints for the study. However, this article doesn't offer any information about other states of RRBs the Capacity of Specific RRBs in statements, and the accuracy of those statements determines the study's quality. The research only spans five years; therefore, it could not be an accurate reflection of the overall financial health of the RRBs.

16. CONCLUSIONS :

While these banks have made significant progress in recent years, there is still scope for improvement in many areas. To identify the areas where RRBs in Karnataka need to improve, a study will be conducted to compare the performance of select RRBs in the state. There is a need to evaluate the performance of these banks to assess their contribution to the Indian banking sector. The objective of this research is for this purpose, the researcher will collect data from secondary sources and will use appropriate statistical methods to compare the performance of the RRBs. Results of the investigation showed that there is a lack of awareness about these banks amongst the rural population. Another reason is the lack of branch networks for these banks. Even though the number of branches has increased in recent years, it is still not adequate to meet the needs of the rural population.

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