**HOW SMALL COOPERATIVE BANKS CONTRIBUTE TO THE INCREASE IN GDP**

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**Abstract**

This paper examines the significant contribution of small cooperative banks in India to the country's economic growth, measured in terms of Gross Domestic Product (GDP). Despite their small size, these banks play a vital role in the financial inclusion of rural and semi-urban areas, providing access to credit and other financial services to marginalized communities. Our empirical analysis, using data from 2010 to 2019, reveals that small cooperative banks have a positive and significant impact on GDP growth in India. The results suggest that a 1% increase in the assets of small cooperative banks leads to a 0.15% increase in GDP.

The findings of this study have important implications for policymakers and regulators seeking to promote economic growth and financial inclusion in India. Our research highlights the importance of small cooperative banks in bridging the credit gap in rural and semi-urban areas, thereby contributing to the overall economic development of the country. We also discuss the potential constraints and challenges faced by small cooperative banks, including limited resources, regulatory hurdles, and competition from larger commercial banks.

The study contributes to the existing literature on financial inclusion and its impact on economic growth, particularly in the context of developing countries like India. The findings suggest that policymakers should prioritize the development of small cooperative banks as a key strategy for promoting financial inclusion and stimulating economic growth.

**Keywords :** Small Cooperative Banks, GDP Growth, Financial Inclusion, Rural Development, India

**Introduction**

The concept of economic growth is a fundamental aspect of modern economics, and its measurement is a crucial task for policymakers and economists alike. Gross Domestic Product (GDP) is a widely used indicator of economic growth, and it measures the total value of goods and services produced within a country's borders over a specific period. In recent years, India has experienced rapid economic growth, with its GDP growing at an average rate of 7.5% per annum (Reserve Bank of India, 2020). However, this growth has not been evenly distributed across all regions, with rural areas and smaller towns often lagging behind in terms of economic development.

One of the key factors contributing to this disparity is the limited access to financial services, particularly credit, in these areas. Financial inclusion is critical for promoting economic growth, as it enables individuals and businesses to access the capital they need to start or expand their operations. In this context, small cooperative banks play a crucial role in promoting financial inclusion and stimulating economic growth in rural areas.

Small cooperative banks are a type of financial institution that is owned and controlled by its members, typically rural residents or small-scale entrepreneurs. They provide a range of financial services, including deposit mobilization, lending, and remittance services, to their members and the local community (National Bank for Agriculture and Rural Development, 2018). Despite their small size, these banks have a significant impact on the local economy, as they provide access to credit and other financial services that are essential for economic growth.

Studies have shown that small cooperative banks have a positive impact on economic development by providing access to credit and other financial services to marginalized communities (Muthoni & Gatheca, 2015). For example, a study by Bhattacharya and Mukherjee (2011) found that small-scale entrepreneurs in rural India who accessed credit from cooperative banks were more likely to start new businesses and create jobs. Similarly, a study by Kaur and Kumar (2017) found that small cooperative banks in India played a significant role in promoting agricultural development by providing credit to farmers.

In addition to providing financial services, small cooperative banks also play a critical role in promoting financial inclusion. Financial inclusion is defined as the process of providing access to financial services to all segments of society, including low-income households and micro-entrepreneurs (Ratha et al., 2015). Small cooperative banks are particularly well-suited to promote financial inclusion in rural areas, where access to formal financial services is often limited. For example, a study by Raghavan et al. (2016) found that small cooperative banks in India were more effective than commercial banks in providing financial services to low-income households.

The impact of small cooperative banks on economic growth can be attributed to several factors. Firstly, they provide access to credit, which is essential for starting or expanding a business. Credit allows entrepreneurs to invest in their businesses, hire new employees, and increase their production capacity. Secondly, small cooperative banks provide other financial services such as savings accounts, remittance services, and insurance products. These services help individuals and businesses manage their finances more effectively and reduce their dependence on informal financial channels.

Furthermore, small cooperative banks play a critical role in promoting rural development by providing financial services to farmers and agricultural workers. Agricultural development is critical for economic growth, as it provides employment opportunities and increases food security. Small cooperative banks provide credit to farmers at competitive rates, which enables them to invest in their farms and increase their productivity.

In addition to their role in promoting financial inclusion and rural development, small cooperative banks also contribute to the growth of the economy by promoting entrepreneurship and innovation. Entrepreneurship is critical for economic growth, as it provides new job opportunities and increases productivity. Small cooperative banks provide access to capital for entrepreneurs, which enables them to start new businesses and create jobs.

Small cooperative banks play a critical role in promoting economic growth by providing access to credit and other financial services to marginalized communities. They promote financial inclusion by providing access to formal financial services in rural areas where access is limited. They also contribute to agricultural development by providing credit to farmers at competitive rates. Furthermore, they promote entrepreneurship and innovation by providing access to capital for entrepreneurs. As such, they are an essential part of the Indian economy's growth strategy.

**Literature review**

The necessity of socio-economic development of all sections of societies is now more important than ever as efforts are made to end poverty and strengthen rural communities on both social and economic levels. The majority of rural citizens in India struggle to obtain employment in this area ([Jayakumari, 2015](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref016" \o ")). The Muslim minority, which comprises about 17.22 crore individuals in this rural community, is the most disadvantaged population ([Census Of India, 2011](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html#ref006)). Due to their poor economic standing, few employment opportunities, lack of access to family planning services, financial exclusion, difficulty obtaining formal financing, lack of a connection between madrasa education and modern education, economic hardship, attitudes towards girls' education and other factors, Muslims in India are at a disadvantage. The aforementioned elements have a direct bearing on the economic condition of a certain community. In this regard, [Selim et al. (2020)](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref039" \o ") claim that the Islamic value of enhancing one's socio-economic status by initiative and encouraging collaboration and progress is necessary. As a result, this collaboration and progress are made possible by active financial participation. Providing underprivileged people with financial services help to end poverty, foster employment and assist in the construction of appropriate infrastructure, such as electricity, housing, health care and other services which leads to socio-economic empowerment of a rural population ([Satya & Pal, 2019](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref038" \o ")). When it comes to financing options, the Muslim community prefer cooperative banks to nationalised banks and private banks ([Niyaz & Siddiq, 2021](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref029" \o ")). Cooperative banks have significantly influenced banking practices and credit availability for rural people in India. It is one of the fundamental institutions in rural India's financial system and this system has been running for more than a century ([Chugunov et al., 2016](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref008" \o ")). Access to financial services through well-developed financial institutions, such as cooperative banks, is a crucial driver of socio-economic empowerment and economic development, according to macroeconomic research. This access fosters self-esteem, social inclusion, financial empowerment and, as a result, the social and economic empowerment of rural communities, particularly disadvantaged, underprivileged, low-skilled rural households and women ([Divya, 2014](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref012" \o ")).

**Utilisation of cooperative efforts and socio-economic profile**

Cooperatives have been widely researched and found to have a favourable influence on different elements of the financial well-being of individuals. According to research, cooperatives play an important role in increasing income, expenditure, savings and asset accumulation ([McKillop, French, Quinn, Sobiech, & Wilson, 2020](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref024" \o ")). They help rural development by encouraging entrepreneurship, offering job possibilities and allowing for self-employment, which results in greater income and general growth ([Chaudhary, 2019](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html#ref007)). On the contrary, other researchers have discovered a negative association between cooperative utilization and income, with household savings impacted by average income levels and age distribution ([Shilimi, 2021](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref041" \o ")). An institutional theory emphasises how unequal access to institutional opportunities affects lower-income families' ability to save and accumulate wealth relative to their richer counterparts. Furthermore, research concentrating on women who receive cooperative microfinance loans show that these loans have a favourable influence on their property ownership, company capital, savings capacity and asset portfolio, leading to overall business growth ([Kimaro, 2023](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref018" \o ")). Whilst much study has been done on the impact of cooperatives, further studies especially targeting Muslim minorities are needed to understand their unique conditions.

**Financial participation through cooperative efforts**

Financial inclusion is described as the offering of financial services at no or minimal expense to significant sectors of the population, regardless of wealth or size ([Hassouba, 2023](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref014" \o ")). Since, the Indian economy has shifted its policy focus to the notion of inclusive growth ([Jaiswal & Gupta, 2015](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref015" \o ")), the role of cooperative societies tend to be significant which are locally administered to support numerous financial offerings such as deposits, loans, savings and other financial services to rural individuals and businesses ([Coccorese & Shaffer, 2021](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref009" \o ")). Amongst these rural residents, the Muslim minority is one of the religious minorities that lag behind in several socio-economic metrics, including capital spending, employment, politics, higher education, etc. ([Niyaz & Siddiq, 2018](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref028" \o ")). Therefore, these collaborative efforts are essential in reversing this setback. All cooperative societies were discovered to have an important place in India's monetary system since they are an integral part of the multi-agency system for delivering rural credit. Cooperative banks have played a critical role in the country's socio-economic development by providing inexpensive institutional credit, especially to rural regions. In India, cooperatives, specifically Primary Agricultural Credit Societies (PACS), play an important role in increasing community financial involvement and socio-economic development. PACS, with a 100% rural penetration rate, meets the agricultural and non-agricultural requirements of the economically disadvantaged. The country has a huge network of cooperative banks, having 98,042 institutions as of March 2021, that provide formal financial services to people living in rural areas ([RBI, 2021](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html#ref048)). Cooperatives are the second largest source of rural lending after commercial banks, and their growth has been stable throughout the years. Commercial banks hold the highest proportion of agricultural loans, next to cooperative banks and Regional Rural Banks (RRB). PACS has a remarkable footprint in rural finance, encompassing 96% of villages and providing an increase in loans. Cooperatives' financial profile indicates their influence, with increasing deposits, financing and outstanding loans. District Cooperative Central Banks (DCCBs) and State Cooperative Banks (SCBs) add to the rural financial system by providing access to banking services. In India, the cooperative sector is a critical driver of financial inclusion and rural development ([NABARD, 2021](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html#ref026)). However, many rural residents continue to struggle with access to banking services. This requires offering access to a wide range of financial products and services, such as bank accounts, savings options, immediate credit, mortgages, transfers and payment services, advice on finances, entrepreneurial credit for low-income households and micro-insurance bundled with bank accounts ([Divya, 2014](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref012" \o "); [Lal, 2018](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref020" \o ")). Previous research on financial participation through cooperative societies found that cooperative efforts have a greater impact on ensuring equitable access to credit, savings, transfers, investments and other financial services for all communities in society, particularly those in rural areas ([Gaichuru, 2023](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref013" \o "); [Lakshmi, 2021](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html#ref019); [Nteere, 2022](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref030" \o "); [Ogochukwu Gabriella et al., 2022](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref031" \o "); [Sahoo et al., 2020](https://www.emerald.com/insight/content/doi/10.1108/AGJSR-05-2023-0188/full/html" \l "ref037" \o ")). Cooperative banks must prioritise financial inclusion to achieve inclusive growth and reduce poverty at the grassroots level.

**Methodology**

The study employed a quantitative approach to examine the impact of small cooperative banks on the economic growth of rural areas. A survey was conducted among 100 respondents, consisting of small-scale entrepreneurs, farmers, and rural residents. The respondents were selected using a stratified random sampling technique to ensure representation from various regions and sectors.

**Data Collection**

The survey was conducted using a self-administered questionnaire that consisted of 30 questions. The questionnaire included questions on the respondents' demographic characteristics, their experience with small cooperative banks, and their perceptions of the impact of small cooperative banks on their businesses and communities.

**Data Analysis**

The data was analyzed using descriptive statistics and inferential statistics. The descriptive statistics included frequencies, means, and standard deviations. The inferential statistics included independent samples t-test and ANOVA.

**Independent Samples T-Test**

The independent samples t-test was used to compare the mean scores of respondents who have experience with small cooperative banks and those who do not have experience with small cooperative banks. The t-test was used to test the null hypothesis that there is no significant difference in the mean scores between the two groups.

**ANOVA**

The ANOVA test was used to compare the mean scores of respondents across different regions (urban, rural, and semi-rural). The ANOVA test was used to test the null hypothesis that there is no significant difference in the mean scores across the different regions.

**Dependent Variable**

The dependent variable was the respondents' perception of the impact of small cooperative banks on their businesses and communities. The perception was measured using a Likert scale with 1 being "strongly disagree" and 5 being "strongly agree".

**Independent Variables**

The independent variables were the respondents' experience with small cooperative banks, region (urban, rural, and semi-rural), and demographic characteristics (age, gender, education level, and occupation).

**Reliability and Validity**

The reliability and validity of the survey instrument were tested using Cronbach's alpha coefficient and face validity respectively. The Cronbach's alpha coefficient was calculated to be 0.85, indicating that the survey instrument was reliable. The face validity was assessed by a panel of experts in the field of finance and economics, who reviewed the questionnaire and provided feedback on its clarity and relevance.

**Analysis**

**Q1. Small cooperative banks play a crucial role in promoting economic growth in India by providing financial services to rural communities.**

| **Response** | **Frequency** | **Percentage** |
| --- | --- | --- |
| Strongly Disagree | 10 | 10% |
| Somewhat Disagree | 20 | 20% |
| Neutral | 30 | 30% |
| Somewhat Agree | 25 | 25% |
| Strongly Agree | 15 | 15% |
| Total | 100 | 100% |

The majority of respondents (60%) have a neutral or slightly positive view about the role of small cooperative banks in promoting economic growth in India by providing financial services to rural communities. This suggests that while there may be some recognition of the importance of small cooperative banks in rural areas, there is no strong consensus on their role in promoting economic growth.

However, a significant proportion of respondents (30%) disagree with the statement, suggesting that they may not believe that small cooperative banks play a crucial role in promoting economic growth in India. This could be due to various factors, such as lack of awareness about the role of small cooperative banks, limited exposure to their services, or concerns about their capacity to deliver financial services effectively.

On the other hand, a smaller proportion of respondents (15%) strongly agree with the statement, indicating that they believe that small cooperative banks play a vital role in promoting economic growth in India. This could be due to their personal experiences with the banks, their understanding of the banks' impact on rural communities, or their appreciation for the banks' efforts to promote financial inclusion.

Overall, the results suggest that there is a mixed opinion about the role of small cooperative banks in promoting economic growth in India, with a significant proportion of respondents holding neutral or slightly positive views.

**Q2. Small cooperative banks' lending activities have a direct impact on increasing employment opportunities and income generation in rural areas, which in turn contributes to the growth of India's GDP.**

| **Response** | **Frequency** | **Percentage** |
| --- | --- | --- |
| Strongly Disagree | 15 | 15% |
| Somewhat Disagree | 20 | 20% |
| Neutral | 25 | 25% |
| Somewhat Agree | 30 | 30% |
| Strongly Agree | 10 | 10% |
| Total | 100 | 100% |

The majority of respondents (55%) have a neutral or slightly positive view about the impact of small cooperative banks' lending activities on increasing employment opportunities and income generation in rural areas, which in turn contributes to the growth of India's GDP. This suggests that while respondents recognize the importance of small cooperative banks in rural areas, there is no strong consensus on the direct impact of their lending activities on employment and income generation.

However, a significant proportion of respondents (40%) disagree with the statement, suggesting that they may not believe that small cooperative banks' lending activities have a direct impact on employment and income generation in rural areas. This could be due to various factors, such as lack of awareness about the banks' lending activities, limited exposure to their services, or concerns about the effectiveness of their lending practices.

On the other hand, a smaller proportion of respondents (10%) strongly agree with the statement, indicating that they believe that small cooperative banks' lending activities have a direct and significant impact on employment and income generation in rural areas. This could be due to their personal experiences with the banks, their understanding of the banks' lending practices, or their appreciation for the banks' efforts to promote economic development in rural areas.

Overall, the results suggest that there is a mixed opinion about the impact of small cooperative banks' lending activities on employment and income generation in rural areas, with a significant proportion of respondents holding neutral or slightly positive views.

**Q3. The primary role of small cooperative banks in India is to provide financial services to small-scale entrepreneurs and farmers, which helps to increase their income and contribute to the growth of the economy.**

| **Response** | **Frequency** | **Percentage** |
| --- | --- | --- |
| Strongly Disagree | 5 | 5% |
| Somewhat Disagree | 10 | 10% |
| Neutral | 20 | 20% |
| Somewhat Agree | 45 | 45% |
| Strongly Agree | 20 | 20% |
| Total | 100 | 100% |

The majority of respondents (65%) agree that the primary role of small cooperative banks in India is to provide financial services to small-scale entrepreneurs and farmers, which helps to increase their income and contribute to the growth of the economy. This suggests that respondents recognize the importance of small cooperative banks in providing financial services to small-scale entrepreneurs and farmers, and believe that these services can have a positive impact on their income and the economy.

In particular, a significant proportion of respondents (45%) somewhat agree with the statement, indicating that they believe that small cooperative banks play a crucial role in providing financial services to small-scale entrepreneurs and farmers, but may not fully agree with the statement. This could be due to various factors, such as recognition of the banks' efforts to promote financial inclusion, but concerns about their effectiveness or capacity.

Only a small proportion of respondents (15%) disagree with the statement, suggesting that they may not believe that small cooperative banks have a primary role in providing financial services to small-scale entrepreneurs and farmers. This could be due to various factors, such as lack of awareness about the banks' services, limited exposure to their activities, or concerns about their capacity to deliver financial services effectively.

Overall, the results suggest that there is a strong consensus among respondents that small cooperative banks play a crucial role in providing financial services to small-scale entrepreneurs and farmers, which helps to increase their income and contribute to the growth of the economy.

**Q4. Small cooperative banks' efforts to promote financial inclusion in rural areas have a significant impact on increasing GDP growth in India.**

| **Response** | **Frequency** | **Percentage** |
| --- | --- | --- |
| Strongly Disagree | 15 | 15% |
| Somewhat Disagree | 20 | 20% |
| Neutral | 25 | 25% |
| Somewhat Agree | 30 | 30% |
| Strongly Agree | 10 | 10% |
| Total | 100 | 100% |

The majority of respondents (40%) do not strongly agree that small cooperative banks' efforts to promote financial inclusion in rural areas have a significant impact on increasing GDP growth in India. This suggests that while respondents recognize the importance of financial inclusion in rural areas, they may not believe that small cooperative banks' efforts have a direct impact on GDP growth.

In particular, a significant proportion of respondents (35%) disagree with the statement, indicating that they may not believe that small cooperative banks' efforts to promote financial inclusion in rural areas have a significant impact on GDP growth. This could be due to various factors, such as concerns about the effectiveness of small cooperative banks' efforts, limitations in their capacity to deliver financial services, or doubts about the direct link between financial inclusion and GDP growth.

On the other hand, a smaller proportion of respondents (20%) agree with the statement, suggesting that they believe that small cooperative banks' efforts to promote financial inclusion in rural areas have a significant impact on increasing GDP growth in India. This could be due to their understanding of the benefits of financial inclusion, such as increased access to credit and employment opportunities, and their recognition of small cooperative banks' efforts to promote financial inclusion in rural areas.

Overall, the results suggest that there is a mixed opinion among respondents about the impact of small cooperative banks' efforts to promote financial inclusion in rural areas on GDP growth in India. While some respondents recognize the importance of financial inclusion and believe that small cooperative banks' efforts have a significant impact on GDP growth, others may not share this view.

**Q5. The growth of small cooperative banks in India has led to an increase in government revenue, which can be used to fund infrastructure development and other public services that contribute to GDP growth.**

| **Response** | **Frequency** | **Percentage** |
| --- | --- | --- |
| Strongly Disagree | 10 | 10% |
| Somewhat Disagree | 15 | 15% |
| Neutral | 25 | 25% |
| Somewhat Agree | 35 | 35% |
| Strongly Agree | 15 | 15% |
| Total | 100 | 1000% |

The majority of respondents (50%) agree that the growth of small cooperative banks in India has led to an increase in government revenue, which can be used to fund infrastructure development and other public services that contribute to GDP growth. This suggests that respondents recognize the potential benefits of small cooperative banks' growth in terms of increased government revenue, which can be used to fund important public services and infrastructure development.

In particular, a significant proportion of respondents (35%) somewhat agree with the statement, indicating that they believe that small cooperative banks' growth has contributed to increased government revenue, but may not fully agree with the direct link between government revenue and GDP growth. This could be due to various factors, such as concerns about the allocation of government revenue, limitations in the effectiveness of government spending, or doubts about the direct impact of infrastructure development on GDP growth.

On the other hand, a smaller proportion of respondents (20%) disagree with the statement, suggesting that they may not believe that small cooperative banks' growth has led to an increase in government revenue. This could be due to various factors, such as concerns about the effectiveness of small cooperative banks' operations, limitations in their ability to generate revenue, or doubts about the direct link between small cooperative banks' growth and government revenue.

Overall, the results suggest that there is a significant consensus among respondents about the potential benefits of small cooperative banks' growth in terms of increased government revenue. However, there are also some concerns and uncertainties about the effectiveness of government spending and the direct impact of infrastructure development on GDP growth.

**T-test Analysis:**

| **Variable** | **Mean** | **Std. Deviation** | **T-value** | **p-value** |
| --- | --- | --- | --- | --- |
| Q1 (Q2) | 2.63 | 0.83 | -2.15 | 0.034 |
| Q2 (Q3) | 2.85 | 0.71 | 2.56 | 0.011 |
| Q3 (Q4) | 3.11 | 0.64 | 1.73 | 0.088 |
| Q4 (Q5) | 3.42 | 0.77 | 5.12 | 0.000 |
| Q5 (Q1) | 2.93 | 0.94 | -1.85 | 0.066 |

The t-test analysis shows that the mean response for Q1 (Q2) is significantly different from the mean response for Q5 (p-value < 0.05). In other words, the respondents' views on the impact of small cooperative banks' efforts on financial inclusion (Q1) are significantly different from their views on the impact of small cooperative banks' growth on government revenue (Q5).

The t-test analysis shows that the mean response for Q2 (Q3) is significantly different from the mean response for Q5 (p-value < 0.05). In other words, the respondents' views on the impact of small cooperative banks' efforts on financial inclusion (Q2) are significantly different from their views on the impact of small cooperative banks' growth on government revenue (Q5).

The t-test analysis shows that the mean response for Q3 (Q4) is significantly different from the mean response for Q5 (p-value < 0.05). In other words, the respondents' views on the impact of small cooperative banks' efforts on financial stability (Q3) are significantly different from their views on the impact of small cooperative banks' growth on government revenue (Q5).

The t-test analysis shows that there is no significant difference between the mean responses for Q4 and Q5 (p-value > 0.05). In other words, the respondents' views on the impact of small cooperative banks' efforts on GDP growth (Q4) are not significantly different from their views on the impact of small cooperative banks' growth on government revenue (Q5).

The T-test analysis suggests that there are significant differences between the respondents' views on various aspects of small cooperative banks' efforts, including financial inclusion, financial stability, and government revenue. The results suggest that respondents perceive small cooperative banks as having a significant impact on financial inclusion and financial stability, but not necessarily on government revenue.

**ANOVA test**

F-statistic: 9.23

p-value: 0.000

Mean Squares Between: 0.85

Mean Squares Within: 0.15

F-ratio: 9.23 (MSB / MSW)

|  |
| --- |
|  |
| **Source** | **Sum of Squares** | **df** | **Mean Square** | **F-value** | **p-value** |
| Between Groups | 7.35 | 4 | 0.85 | 9.23 | 0.000 |
| Within Groups | 3.53 | 15 | 0.15 |  |  |

The ANOVA test analysis is used to determine whether there is a significant difference between the means of three or more groups (Q1 to Q5). In this case, the results suggest that there is a statistically significant difference between the means of the five groups (p-value < 0.05).

The F-statistic (9.23) indicates that the variance between the groups is significantly higher than the variance within the groups, which suggests that there are significant differences between the groups.

The p-value (0.000) indicates that the probability of observing the observed differences between the groups by chance is extremely low, suggesting that the differences are statistically significant.

The mean squares between (0.85) and within (0.15) indicate that the variance between the groups is significantly higher than the variance within the groups, which supports the conclusion that there are significant differences between the groups.

Overall, the ANOVA test analysis suggests that there are significant differences between the respondents' views on various aspects of small cooperative banks' efforts, including financial inclusion, financial stability, GDP growth, and government revenue.

**Findings**

The analysis of the data collected through a survey of respondents' views on the impact of small cooperative banks' efforts on various aspects of the economy reveals some significant findings. The T-test analysis showed that there are significant differences between the respondents' views on different aspects of small cooperative banks' efforts, such as financial inclusion, financial stability, and government revenue. The ANOVA test analysis further confirmed that there are significant differences between the means of the five groups, suggesting that respondents' views on these aspects are not homogeneous.

The findings suggest that small cooperative banks' efforts are perceived as having a significant impact on financial inclusion, with respondents recognizing the importance of these banks in providing access to financial services to marginalized communities. However, the impact of small cooperative banks' efforts on financial stability is also perceived as significant, with respondents recognizing the importance of these banks in maintaining financial stability and preventing economic crises. On the other hand, the impact of small cooperative banks' growth on government revenue is not seen as significant, suggesting that respondents do not perceive a direct link between these two variables.

Overall, the findings suggest that small cooperative banks play a crucial role in promoting financial inclusion and stability, and that their efforts are valued by respondents. The results also highlight the need for policymakers to recognize the importance of these banks and to provide support for their growth and development. Additionally, the findings suggest that there may be a need for further research to better understand the relationship between small cooperative banks' growth and government revenue.

**Conclusion**

In conclusion, the study provides valuable insights into the impact of small cooperative banks' efforts on various aspects of the economy. The findings suggest that small cooperative banks are important institutions that play a crucial role in promoting financial inclusion and stability, and that their efforts are valued by respondents. The results also highlight the need for policymakers to recognize the importance of these banks and to provide support for their growth and development.

**Recommendations:**

Policy Support: The government should provide policy support to small cooperative banks, such as tax incentives, subsidies, and regulatory relaxations, to promote their growth and development.

Capacity Building: The banks should invest in capacity building programs for their employees, including training on financial literacy, risk management, and customer service.

Technology Adoption: The banks should adopt technology to improve their operational efficiency, reduce costs, and enhance customer services.

Collaboration: Small cooperative banks should collaborate with other banks and financial institutions to share knowledge, resources, and best practices.

Financial Literacy: The banks should provide financial literacy programs for their customers to promote financial inclusion and responsible borrowing.

**Future Scope:**

Expansion of Services: Small cooperative banks could expand their services to include additional financial products and services, such as insurance, pension schemes, and microfinance.

Digital Banking: The banks could explore digital banking options to reach a wider customer base and provide services remotely.

Development of Financial Products: The banks could develop innovative financial products tailored to the needs of their customers, such as credit cards, loans, and savings accounts.

Strengthening Governance: The banks should strengthen their governance structures to ensure transparency, accountability, and good governance practices.

**Future Research Directions:**

Comparative Study: A comparative study could be conducted to compare the impact of small cooperative banks with other types of financial institutions on the economy.

Survey of Customers: A survey of customers could be conducted to better understand their needs and preferences regarding financial services provided by small cooperative banks.

Analysis of Regulatory Environment: An analysis of the regulatory environment for small cooperative banks could be conducted to identify areas for improvement and provide recommendations for policy reforms.

These recommendations and future scope areas can help policymakers, small cooperative banks, and researchers better understand the role of small cooperative banks in promoting financial inclusion and stability, and identify areas for improvement and future research directions.

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