International Journal on Recent and Innovation Trends in Computing and Communication
ISSN: 2321-8169 Volume: 11 Issue: 11
***Article Received:** 10 September 2023 **Revised:** 20 October 2023 **Accepted:** 30 October 2023*

Fostering Rural Development through Improved Financial Inclusion in Thoothukudi District: The Involvement of Commercial Banks.

[1]Mrs. M. Sumaiya, [2]Dr. M. Vairavan
[1]Reg.No: 21112051012003
Ph.D.Research Scholar (Full Time)
PG and Reasearch Department of Commerce
G.Venkataswamy Naidu College, Kovilpatti
(Affiliated to ManonmaniamSundaranar University Tirunelveli, Tamil Nadu,India)

[2]Research Supervisor
Assistant Professor
PG and Research Department of Commerce
G.Venkataswamy Naidu College, Kovilpatti
(Affiliated to ManonmaniamSundaranar University Tirunelveli, Tamil Nadu, India)

Abstract
This research delves into the dynamics of economic growth and development in Thoothukudi District, Tamil Nadu, India, with a specific focus on the role of commercial banks in fostering financial inclusion and rural development. The study explores the challenges faced by rural communities in accessing formal banking services and examines the effectiveness of current financial inclusion initiatives. Utilizing a mixed-methods research design, including surveys and factor analysis, the research identifies three dimensions of financial inclusion: Utilization, Approach, and Quality of Services. The findings indicate positive perceptions regarding the convenience and accessibility of banking services, with room for improvement in documentation processes, communication, and the adoption of digital banking. Confirmatory Factor Analysis validates the dimensions, revealing good to very good fits. The study concludes with actionable recommendations for banks to enhance their role in promoting sustainable rural development, emphasizing technological innovation, improved communication, and a customer-centric approach.

Keywords: Banks, Utilisation, Approach, Quality of Services, Financial Inclusion.

Introduction

The dynamics of economic growth and development have undergone significant transformations in recent years, with an increasing emphasis on fostering inclusive progress across diverse geographic landscapes. Rural areas, often the backbone of economies, play a pivotal role in this narrative. Thoothukudi District, nestled in the southern part of Tamil Nadu, India, exemplifies the challenges and opportunities that characterize rural regions in the contemporary development paradigm. Recognizing the intrinsic link between financial inclusion and rural development, this research delves into the role of commercial banks in enhancing the economic landscape of Thoothukudi District.

As rural communities continue to grapple with various socio-economic hurdles, the need for comprehensive financial inclusion becomes more pronounced. Financial inclusion, encapsulating access to formal banking services, credit, and insurance, is not merely a means of economic empowerment but a catalyst for holistic development. The involvement of commercial banks in this process becomes paramount, considering their extensive reach, resources, and potential to drive positive change. This study aims to shed light on the mechanisms through which commercial banks can contribute to and amplify the trajectory of rural development in Thoothukudi.

Thoothukudi's unique socio-economic fabric, characterized by a mix of agricultural dependence, small-scale industries, and traditional livelihoods, presents a compelling case study for examining the impact of financial inclusion strategies. By scrutinizing the current state of financial inclusion in the district and assessing the involvement of commercial banks, this research endeavors to provide insights into the challenges faced by rural communities and the opportunities that lie in leveraging banking institutions as catalysts for change.

In this context, the research explores the strategies employed by commercial banks to extend their services to rural populations, the effectiveness of existing financial inclusion initiatives, and the resultant impact on local economic development indicators. Through a multidimensional analysis, the study seeks not only to identify gaps in the current financial landscape but also to propose recommendations for optimizing the role of commercial banks in fostering sustainable rural development in Thoothukudi District.

As study embark on this exploration, the ultimate goal is to contribute to the ongoing discourse on rural development, financial inclusion, and the crucial role that commercial banks can play in shaping a more equitable and prosperous future for the residents of Thoothukudi District and beyond.

Statement of the Problem

Thoothukudi District, situated in the southern part of Tamil Nadu, India, epitomizes the complex and multifaceted challenges that rural communities face in their pursuit of sustainable development. Despite being endowed with abundant natural resources and a resilient populace, the district grapples with persistent socio-economic disparities that hinder progress. A critical concern within this context is the limited financial inclusion experienced by a significant portion of the rural population, leading to a series of interconnected problems that impede holistic development.

The majority of Thoothukudi's rural populace remains underserved by formal financial institutions, with limited access to basic banking services such as savings accounts, credit facilities, and insurance products. This lack of access hampers the ability of individuals and communities to efficiently manage their finances, plan for the future, and mitigate economic risks.Agriculture is a pivotal component of Thoothukudi's economy, and the majority of the population relies on farming and allied activities for their livelihoods. However, a dearth of accessible credit facilities constrains the agricultural sector, hindering investments in modern farming practices, technology adoption, and the overall enhancement of productivity.

A considerable segment of the rural population in Thoothukudi lacks adequate financial literacy and awareness about the benefits and mechanisms of formal banking. This knowledge gap further exacerbates the challenges of financial exclusion, as individuals may be unaware of available services or may lack the confidence to engage with banking institutions.The prevalence of financial exclusion contributes to the perpetuation of poverty and income inequality in Thoothukudi. Without access to financial tools that facilitate asset accumulation, investment, and risk management, marginalized communities find themselves trapped in cycles of poverty, hindering the overall socio-economic development of the district.

The potential of technological innovations for extending financial services to remote areas remains underutilized in Thoothukudi. The slow adoption of digital banking and electronic payment systems further marginalizes rural communities, limiting their ability to participate in the broader economic landscape.While commercial banks play a crucial role in driving financial inclusion, there is a need to assess the alignment of their initiatives with the specific needs and nuances of Thoothukudi's rural communities. Understanding the challenges faced by commercial banks in catering to local requirements is imperative for devising effective strategies.In light of these interrelated challenges, this research endeavors to comprehensively analyze the current state of financial inclusion in Thoothukudi District, with a specific focus on the role of commercial banks. By addressing these issues, the study aims to formulate actionable recommendations that can enhance financial inclusion and, subsequently, contribute to the broader goal of fostering sustainable rural development in the region. The following are the research questions for the particular problem,

- What is the extent of financial exclusion in Thoothukudi District, particularly concerning access to basic banking services, credit, and insurance among rural communities?
- How does the existing infrastructure support or hinder the penetration of financial services in Thoothukudi, and what role does infrastructure play in limiting the reach of commercial banks?
- To what extent does the absence of diverse economic opportunities contribute to the economic stagnation in Thoothukudi, and how can commercial banks play a role in fostering economic diversification?
- What is the effectiveness of current financial inclusion initiatives, if any, in Thoothukudi District, and how do these initiatives align with the

unique needs and aspirations of the local population?

- How do residents of Thoothukudi perceive the role of commercial banks in their community's development, and what tangible impacts, if any, have been observed as a result of the involvement of commercial banks?
- What policy and regulatory challenges exist that may hinder or facilitate the active participation of commercial banks in improving financial inclusion and rural development in Thoothukudi?
- To what extent are local communities engaged in financial decision-making processes, and how can enhanced community involvement empower residents to actively participate in and benefit from financial inclusion initiatives?
- How sustainable are the current financial inclusion interventions in Thoothukudi, and what measures can be taken to ensure the long-term viability and impact of these initiatives?

Addressing these research questions will provide a comprehensive understanding of the multifaceted challenges hindering rural development in Thoothukudi and will guide the formulation of strategic recommendations for enhancing financial inclusion through the active involvement of commercial banks.

Review of Literature

Financial inclusion, defined as the accessibility and availability of a range of financial services to all members of an economy, has emerged as a critical driver of rural development globally. In the Indian context, the intersection of financial inclusion and rural development gains heightened significance, with a particular focus on districts such as Thoothukudi. This review of literature navigates the multifaceted landscape of financial inclusion, emphasizing the pivotal role of commercial banks in fostering economic growth and empowerment within rural communities.

Numerous studies have emphasized the pivotal role of financial inclusion in fostering rural development. The accessibility of financial services, including credit, savings, and insurance, has been identified as a key driver for poverty alleviation and economic growth in rural areas (Demirgüç-Kunt&Klapper, 2013; Beck, Demirgüç-Kunt, & Levine, 2007). This foundational literature underscores the need for inclusive financial practices to empower rural communities.

Research has explored the impact of commercial banks on rural economies, highlighting their potential to act as catalysts for development. Commercial banks, with their extensive reach and financial expertise, play a crucial role in channeling resources to rural areas (Aryeetey et al., 2010). Studies have investigated the positive correlation between increased commercial banking activities and enhanced economic growth in rural regions (Dehejia& Montgomery, 2014).

Specific to the Indian context, literature delves into the challenges faced in achieving financial inclusion in rural areas. Factors such as limited infrastructure, low financial literacy, and social barriers have been identified as impediments to the successful implementation of inclusive financial practices (Duflo& Banerjee, 2019; Morduch, 1999). Understanding these challenges is crucial for designing effective interventions.

The literature also explores various government initiatives aimed at promoting financial inclusion in rural India. Schemes like PradhanMantri Jan DhanYojana (PMJDY) and Direct Benefit Transfer (DBT) have been instrumental in increasing the penetration of banking services in remote areas (World Bank, 2018). Evaluating the effectiveness of these initiatives provides insights into the role of policy in shaping financial inclusion.

Case studies from other regions or districts that have successfully implemented financial inclusion strategies involving commercial banks offer valuable lessons. Exploring cases where partnerships between commercial banks and local communities have led to sustainable rural development can provide a roadmap for similar interventions in Thoothukudi District (CGAP, 2017; Access to Finance Rwanda, 2016).

With the advent of technology, the literature explores the role of digital financial services in enhancing rural financial inclusion. Mobile banking, fintech solutions, and innovative digital payment systems have the potential to overcome traditional barriers and bring banking services closer to rural populations (Jack & Suri, 2011; Mas & Radcliffe, 2010).

Social capital has been identified as a crucial factor in the success of financial inclusion initiatives. Studies have explored the importance of community networks and trust in facilitating the adoption of banking services in rural areas (Gugerty&Karlan, 2007). Understanding the social dynamics can inform strategies that leverage existing networks for improved financial inclusion outcomes.

In suggestion, the review of literature provides a comprehensive foundation for understanding the interconnected elements of financial inclusion, rural development, and the role of commercial banks. Drawing from theoretical frameworks, empirical studies, and case analyses, this synthesis lays the groundwork for the proposed research in Thoothukudi District.

International Journal on Recent and Innovation Trends in Computing and Communication
ISSN: 2321-8169 Volume: 11 Issue: 11
***Article Received:** 10 September 2023 **Revised:** 20 October 2023 **Accepted:** 30 October 2023*

Methodology

This research utilizes a mixed-methods research design, incorporating both qualitative and quantitative approaches, with the objective of gaining a comprehensive understanding of the role played by commercial banks in promoting financial inclusion for rural development in Thoothukudi, Tamil Nadu, India. Quantitative data is gathered through structured surveys administered to rural residents in Thoothukudi, covering aspects of financial access, usage, and satisfaction with banking services. A random sample of households and individuals is selected for the survey, ensuring representation from diverse socio-economic backgrounds. The survey employs a stratified random sampling approach, dividing Thoothukudi into strata based on geographic location and socio-economic status. Within each stratum, a random sample of households is chosen. For interviews, a purposive sampling technique is employed to select knowledgeable and relevant stakeholders.

The collected survey data is analyzed using statistical software such as SPSS and AMOS. Descriptive statistics, including mean, median, and frequency distributions, are computed to analyze patterns and trends related to financial inclusion in rural Thoothukudi. Exploratory Factor analysis and Confirmatory Factor Analysis are utilized to identify factors influencing financial inclusion.

Results and Discussion

The researcher has categorized the dimensions of financial inclusion into three subcategories: *Utilization, Approach, and Quality Services*. The objective of this study is to gain insights into respondents' utilization of financial services provided by commercial banks. To achieve this goal, the researcher has devised 15 statements, distributing them equally among the three subheadings, with five statements under each category.

Table 1: Dimensions of Financial Inclusion

Code	Statements	SA	A	NO	SDA	DA	Total
	Utilization						
UT1	Banksprovideconvenienttimingforbankingtransacti ons	210	163	129	64	66	**632**
UT2	BanksensuretheavailabilityoffundsinATMforcusto mers ‘usage.	189	196	124	68	55	**632**
UT3	Usageofbusinesscorrespondentsbythebankoffereds ervices atyourdoorstep	149	222	153	63	45	**632**
UT4	Banksprovidessufficientoffersandservicesforfinanc ial management.	165	146	192	74	55	**632**
UT5	Banksareusedforeasewayofhandlingof money	182	158	169	62	61	**632**
	Approach						
AP1	Banksprovideconvenientaccesstoserviceslikeoverd raft, ATMs,andmore.	154	178	164	71	65	**632**
AP2	Banksofferaccessofloan,mortgages,investmentand retirementplanningin asingle place.	153	177	170	76	56	**632**
AP3	Banksprovidesimplifieddocumentationforconvenie ntaccess ofall services.	153	171	170	82	56	**632**
AP4	Bankgivescontacttoeasy approachwithbusiness correspondents,managersand officers.	153	159	176	88	56	**632**
AP5	ThroughonlineandE-bankingservices,banksarefilltheir gaps,andextendingfinancialservicestoremoteplaces .	153	165	158	94	62	**632**
	Quality Services						
QS1	Banksprovideaccurateanderrorfreetransactionstosu stain customer trust.	145	217	119	93	58	**632**

QS2	Banksactquicklyandefficientlyhandlethetransactionsof transferofaccountsandotherrequests.	147	185	143	99	58	**632**
QS3	Banksprovideeffectivecommunicationregardingaccount information and important update	145	132	192	118	45	**632**
QS4	Banksprovideeffective resolutionsregardscomplaints	120	157	123	174	58	**632**
QS5	BanksprovideRupayDebit cardservicesforruralcustomers	148	147	131	172	34	**632**

Source: Computed Primary Data (SPSS Output)

The table 1 presents data on various dimensions of financial inclusion, with responses categorized into Strongly Agree (SA), Agree (A), No Opinion (NO), Strongly Disagree Agree (SDA), Disagree (DA), and a Total count. The dimensions are divided into three categories: Utilization, Approach, and Quality Services.

A significant number of respondents (210) strongly agree that banks provide convenient timing for transactions, with a total of 632 responses.Respondents show a balanced opinion regarding the availability of funds in ATMs, with 196 agreeing, 189 strongly agreeing, and 632 responses in total.The majority (222) agree that the usage of business correspondents for doorstep services is prevalent, totalling 632 responses.The responses are evenly distributed, indicating mixed opinions on whether banks provide sufficient offers and services for financial management.A notable number (182) strongly agree that banks are used for the ease of handling money, with 632 total responses.

A balanced response indicates that banks provide convenient access to services like overdrafts and ATMs, with 632 total responses.Respondents are divided on whether banks offer access to loans, mortgages, and other services in a single place.Opinions are divided regarding simplified documentation for accessing banking services.There is a mixed response regarding easy access to business correspondents, managers, and officers.A substantial number (165) agree that online and e-banking services bridge gaps and extend financial services to remote places.

Respondents are divided on whether banks provide accurate and error-free transactions to sustain customer trust.Opinions are mixed regarding the quick and efficient handling of transactions, including account transfers and other requests.A notable number (192) of respondents strongly agree that banks provide effective communication regarding account information and important updates.Responses are varied on whether banks provide effective resolutions for customer complaints.A mixed response is observed regarding the provision of Rupay Debit card services for rural customers.

Reliability Statistics of Dimensions of Financial Inclusion

Reliability analysis is a statistical method used to assess the consistency and stability of measurement instruments or variables. In the context of dimensions of financial inclusion, such as Utilization, Approach, and Quality of Services, reliability analysis can help ensure that the measurements or survey items used to assess these dimensions are reliable and provide consistent results in table 2.

Table 2 :Reliability Statistics of Dimensions of Financial Inclusion

Dimension	Cronbach's Alpha	N of Items
Utilization	.877	5
Approach	.985	5
Quality of Services	.884	5

Source: SPSS output

The Utilization dimension exhibits a high level of internal consistency, as indicated by a Cronbach's Alpha of 0.877. This suggests that the items within this dimension are reliably measuring a common underlying construct related to financial inclusion.

The Approach dimension shows an exceptionally high level of internal consistency, with a Cronbach's Alpha of 0.985. This implies strong reliability among the items in measuring the intended aspect of financial inclusion.

The Quality of Services dimension demonstrates a good level of internal consistency, with a Cronbach's Alpha of 0.884. This indicates that the items within this dimension reliably measure a coherent concept related to financial inclusion.

International Journal on Recent and Innovation Trends in Computing and Communication
ISSN: 2321-8169 Volume: 11 Issue: 11
Article Received: *10 September 2023* ***Revised:*** *20 October 2023* ***Accepted:*** *30 October 2023*

In general, higher Cronbach's Alpha values suggest greater internal consistency among the items within each dimension. Researcher can have confidence in the reliability of the survey instrument for assessing different aspects of financial inclusion, as reflected in these high Cronbach's Alpha values.

Exploratory Factor Analysis (EFA)of Dimensions of Financial Inclusion

Exploratory Factor Analysis (EFA) serves as a powerful statistical method in the field of data analysis, particularly in uncovering underlying patterns and structures within a dataset. As a dimensionality reduction technique, EFA aims to identify latent factors that explain the observed variance in a set of variables. Unlike confirmatory factor analysis, EFA does not rely on pre-established hypotheses about the relationships between variables, making it a valuable tool for researchers seeking to explore the intricate interconnections within their data. This method proves instrumental in uncovering the hidden dimensions influencing observed phenomena, contributing to a deeper understanding of complex systems and aiding in the development of more refined measurement models. In this exploration, study delve into the fundamental concepts, methodologies, and applications of Exploratory Factor Analysis, shedding light on its significance in extracting meaningful insights from diverse datasets.

Table 3 :KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.763
Bartlett's Test of Sphericity	Approx. Chi-Square	11434.968
	df	105
	Sig.	.000

Source: SPSS output

The table 3 is related to a factor analysis, specifically presenting results from the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's Test of Sphericity.The KMO measure assesses the suitability of the data for factor analysis. It ranges from 0 to 1, with higher values indicating better suitability. In this case, a KMO value of 0.763 suggests that the dataset is reasonably adequate for factor analysis. Generally, a KMO value above 0.6 is considered acceptable.In this case, the extremely low p-value (0.000) suggests that the correlation matrix is significantly different from an identity matrix. Therefore, there is evidence to reject the null hypothesis, indicating that the variables are correlated and suitable for factor analysis.

Table 4 :Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.869	32.462	32.462	4.721	31.474	31.474	4.712
2	3.401	22.673	55.135	2.954	19.694	51.168	2.961
3	3.324	22.159	77.294	3.034	20.228	71.396	3.152

Source: SPSS output

Extraction Method: Maximum Likelihood.

Table 4 presents the results of a factor analysis, specifically focusing on the Total Variance Explained through different stages of the analysis, including Initial Eigenvalues, Extraction Sums of Squared Loadings, and Rotation Sums of Squared Loadings.

Factor 1 (Utilization) explains an initial eigenvalue of 4.869, contributing to 32.462% of the total variance. After extraction, the factor still explains a substantial amount of variance (31.474%). The cumulative percentage indicates that Factor 1 alone explains 32.462% of the variance in the data.

Factor 2 (Approach) explains an initial eigenvalue of 3.401, contributing to 22.673% of the total variance. After extraction, the factor retains its explanatory power, accounting for 19.694% of the variance. The cumulative percentage indicates that Factors 1 and 2 combined explain 55.135% of the total variance.

Factor 3 (Quality of Services) explains an initial eigenvalue of 3.324, contributing to 22.159% of the total variance. After extraction, the factor retains its explanatory power, accounting for 20.228% of the variance. The cumulative percentage indicates that Factors 1, 2, and 3 combined explain 77.294% of the total variance.

Table 5 :Pattern Matrixof Dimensions of Financial Inclusion

Statements	Factor		
	Utilization (F1)	**Approach (F2)**	**Quality of Services (F3)**
UT1	.888	.046	.051
UT2	.976	.034	.032
UT3	.694	.010	.004
UT4	.655	.013	.018
UT5	.549	-.068	.042
AP1	.031	.943	.040
AP2	.014	.988	.007
AP3	.001	.985	.001
AP4	.016	.959	.016
AP5	.021	.948	.035
QS1	.097	.008	.953
QS2	.053	.020	.951
QS3	.061	.015	.773
QS4	.031	.009	.706
QS5	.061	.013	.530

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.

The table 5 represents a pattern matrix derived from a factor analysis related to the dimensions of financial inclusion. The analysis seems to have identified three factors labelled as Utilization (F1), Approach (F2), and Quality of Services (F3). Each row in the table corresponds to a specific statement (UT1 to QS5), and the values in the matrix represent the factor loadings for each statement on the identified factors.In summary, the analysis identifies three factors (Utilization, Approach, and Quality of Services) and provides insights into how each statement contributes to these factors. The interpretation should be based on the context of the study and the specific meaning of each factor in the financial inclusion domain.

Confirmatory Factor Analysis of Dimensions of Financial Inclusion

This study aims to employ Confirmatory Factor Analysis to explore and validate the dimensions of financial inclusion. By doing so, study seek to enhance our understanding of the complex interplay between various aspects of financial inclusion and evaluate the reliability and validity of existing conceptual models. Through this analytical approach, study aim to contribute to the refinement of measurement tools and frameworks used to assess financial inclusion, fostering more accurate and nuanced insights into the factors influencing financial well-being.

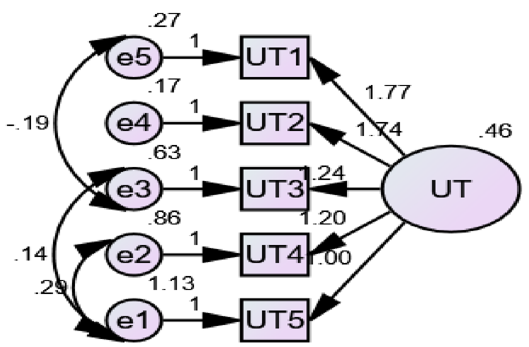

Figure 1 : Utilisation

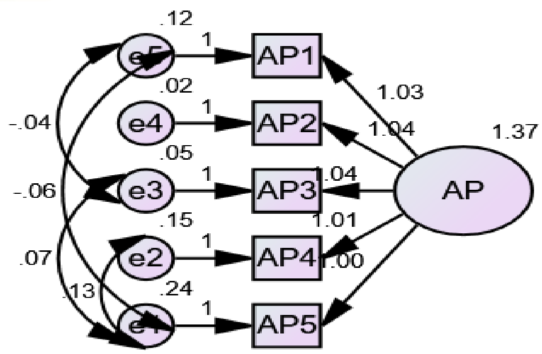

Figure 2 : Approach

International Journal on Recent and Innovation Trends in Computing and Communication
ISSN: 2321-8169 Volume: 11 Issue: 11
Article Received: 10 September 2023 Revised: 20 October 2023 Accepted: 30 October 2023

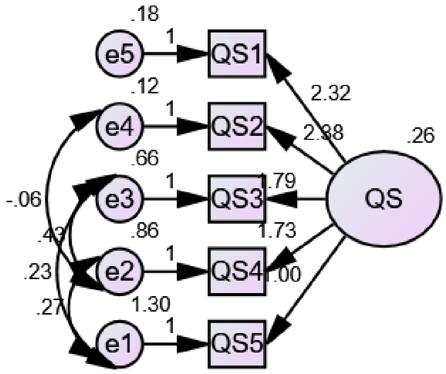

Figure 3 : Quality of Services

Table 6 : CFA Results of Dimensions of Financial Inclusion

Dimension	*CMIN/DF*	*GFI*	*AGFI*	*CFI*	*TLI*	*RMSEA*
Utilization	3.620	.995	.966	.997	.987	.064
Approach	1.286	.999	.988	1.000	1.000	.021
Quality of Services	1.819	.999	.983	1.000	.997	.036

Source: AMOS output

The table 6 presents the results of Confirmatory Factor Analysis (CFA) for different dimensions of Financial Inclusion, using various fit indices.The Utilization dimension has a good to very good fit according to the various fit indices, suggesting that the chosen factors adequately represent the concept of utilization in financial inclusion.The Approach dimension exhibits an excellent fit across all fit indices, indicating that the chosen factors effectively represent the concept of approach in financial inclusion.The Quality of Services dimension demonstrates a very good to excellent fit across all fit indices, suggesting that the selected factors effectively represent the concept of service quality in financial inclusion.

In summary, based on the provided fit indices, the CFA results for the dimensions of Financial Inclusion (Utilization, Approach, and Quality of Services) indicate good to very good fits, suggesting that the chosen factors adequately represent their respective concepts.

Key Findings and Suggestions

Based on the results, it seems like the study focuses on evaluating the utilization, approach, and quality of services offered by banks. Here are some suggestions based on the findings:

- Banks can further improve the convenience of banking transactions by extending working hours, providing online support, and ensuring quick and efficient services.
- Banks should continue to ensure the availability of funds in ATMs and may consider expanding the ATM network to enhance accessibility for customers.
- Banks could increase awareness about the services offered by business correspondents to promote their usage, providing customers with doorstep services.
- Banks can introduce more diverse financial management services, such as personalized investment plans, retirement planning, and educational resources to empower customers in making informed financial decisions.
- Banks should focus on continuous improvement in user interfaces, providing user-friendly mobile apps, and enhancing customer education to make money handling even more convenient.
- Simplifying documentation processes can further improve customer experience, making it easier for them to access various banking services without unnecessary paperwork.
- Banks should prioritize accurate and error-free communication to build and sustain customer trust. Additionally, enhancing the efficiency of complaint resolution processes is crucial for maintaining a positive customer experience.
- Continue investing in online and E-banking services to bridge gaps and extend financial services to remote areas, ensuring inclusivity and accessibility.
- Maintain and improve the efficiency of transaction handling, especially concerning account transfers and other customer requests.

***Article Received:** 10 September 2023 **Revised:** 20 October 2023 **Accepted:** 30 October 2023*

- The study suggests positive outcomes for Rupay Debit card services, banks can consider expanding and promoting these services, especially in rural areas.

Conclusion

The study highlights several positive aspects of banking services, including convenience, accessibility, and the provision of quality services. However, there are areas for improvement to meet evolving customer expectations and technological advancements. To remain competitive and enhance customer satisfaction, banks should focus on technological innovation, improved communication, and a customer-centric approach. By addressing the suggestions mentioned above, banks can create a more seamless and efficient banking experience, ensuring long-term customer trust and loyalty.

References

1. Access to Finance Rwanda. (2016). Access to Finance Rwanda Annual Report 2015. Access to Finance Rwanda.
2. Arumugam, T., Hameed, S. S., & Sanjeev, M. A. (2023). Buyer behaviour modelling of rural online purchase intention using logistic regression. International Journal of Management and Enterprise Development, 22(2), 139-157.
3. Arumugam, T., Sethu, S., Kalyani, V., Shahul Hameed, S., & Divakar, P. (2022). Representing Women Entrepreneurs in Tamil Movies. American Journal of Economics and Sociology, 81(1), 115-125. https://doi.org/10.1111/ajes.12446 .
4. Aryeetey, E., Gockel, F., Mensah, S., & Schmidt, M. (2010). Financial deepening in the West African Economic and Monetary Union (WAEMU). African Development Review, 22(3), 478-492.
5. Banerjee, T., Trivedi, A., Sharma, G.M., Gharib, M. and Hameed, S.S. (2022), "Analyzing organizational barriers towards building postpandemic supply chain resilience in Indian MSMEs: a grey-DEMATELapproach", Benchmarking: An International Journal, https://doi.org/10.1108/BIJ-11-2021-0677 .
6. Beck, T., Demirgüç-Kunt, A., & Levine, R. (2007). Finance, inequality, and poverty: Cross-country evidence. Journal of Economic Growth, 12(1), 27-49.
7. CGAP. (2017). Banking Agents in Emerging Markets: A Handbook for Regulators and Supervisors. Consultative Group to Assist the Poor.
8. Dehejia, R., & Montgomery, H. (2014). The political economy of rural-urban differences: A study of banking in India. Journal of Development Economics, 109, 191-205.
9. Demirgüç-Kunt, A., &Klapper, L. (2013). Measuring Financial Inclusion: Explaining Variation in Use of Financial Services across and within Countries. Brookings Papers on Economic Activity, 279-340.
10. Duflo, E., & Banerjee, A. (2019). The ABC of financial literacy. American Economic Journal: Applied Economics, 11(3), 1-28.
11. Gugerty, M. K., &Karlan, D. (2007). The economics of group lending. Journal of Development Economics, 84(2), 513-533.
12. Hameed, S. S., & Madhavan, S. (2017). Impact of Sports celebrities endorsements on consumer behaviour of low and high Involvement consumer products. XIBA Business Review (XBR), 3(1-2), 13-20.
13. Hameed, S. S., Madhavan, S., & Arumugam, T. (2020). Is consumer behaviour varying towards low and high involvement products even sports celebrity endorsed. International Journal of Scientific and Technology Research, 9(3), 4848-4852.
14. Jack, W., & Suri, T. (2011). Mobile money: The economics of M-PESA. NBER Working Paper No. 16721.
15. Kathikeyan, M., Roy, A., Hameed, S. S., Gedamkar, P. R., Manikandan, G., & Kale, V. (2022, December). Optimization System for Financial Early Warning Model Based on the Computational Intelligence and Neural Network Method. In 2022 5th International Conference on Contemporary Computing and Informatics (IC3I) (pp. 2059-2064). IEEE.
16. Mani, M., Hameed, S. S., & Thirumagal, A. (2019). IMPACT OF ICT KNOWLEDGE, LIBRARY INFRASTRUCTURE FACILITIES ON STUDENTS'USAGE OF E-RESOURCES-AN EMPIRICAL STUDY. Library Philosophy and Practice (e-journal), 2225.
17. Mas, I., & Radcliffe, D. (2010). Mobile Payments Go Viral: M-PESA in Kenya. Innovations: Technology, Governance, Globalization, 4(2), 91-118.
18. Morduch, J. (1999). Between the State and the Market: Can Informal Insurance Patch the Safety Net? The World Bank Research Observer, 14(2), 187-207.