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Financial Inclusion as a Catalyst for Digital Banking: An Analytical Study in the Context of Nagpur District

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Abstract

This research therefore aims at examining how these financial inclusion program have facilitated the implementation of the digital banking services in Nagpur district of Maharashtra. Financial inclusion has become an important tool of financial liberalization resulting from the development of digital financial services that can grant those who have limited access to financial services, such as bank accounts, credit, and others, financial facilities. The study aims at analyzing the impact and awareness of the residents of Nagpur towards the financial inclusion programs on adoption of digital banking technologies. Data was collected using both questionnaires and interviews from a identified sample of the local residents, bankers and financial service providers. The current level of awareness of financial inclusion programs and the usage of the digital banking services were analyzed using descriptive statistics and correlation analysis. In conclusion, the studies propose that, the improved awareness of the financial inclusion programs, there is a higher likelihood of greater emergent digital banking. The study also addresses the barriers to digital banking which are digital skills and technological infrastructure, which are still an obstacle to the achievement of the goals of financial inclusion. Finally, this paper and the analysis made ends with providing recommendations on how financial inclusion programs and acceptance of digital banking can be expanded in Nagpur.

Keywords: Financial Inclusion, Digital Banking, Nagpur District, Economic Development, Digital Literacy, Access to Banking Services, Adoption of Digital Services

Introduction

Financial inclusion has become an important factor in the development of its inclusive economy especially within the context of the emerging markets of the global economy, specifically the Indian market. It involves offering consumers especially the rural and those in less developed areas, basic financial products and tools like savings, credit, insurance and payment facilities. Financial inclusion programs have been construed as a system that has been implemented in India in an attempt to ensure that a large part of the population that is still not incorporated in any formal financial systems gets supported. These have in the recent past been highly supplemented by the advance in the digital banking system that has brought changes to the provision of the services. This is the practice of providing banking services through an electronic platform with amenities and facilities in payment, credit, accounts, and other services with the help of computers and the internet so that those people who are unable to visit the bank regularly can now do so remotely.

In as much as the efficiency of digital banking in the provision of financial services is concerned then it is evident that it plays a crucial role in financial inclusion. In general, digital platforms can help eliminate geographic limitations, cut the costs of transactions, and allow most of the excluded population to have proper access to necessary financial services. The Government of India has implemented several policies such as the Pradhan Mantri Jan Dhan Yojana (PMJDY) aiming at extending the financial services that would otherwise be inaccessible to the citizens, especially the needy ones. Such activities have therefore been greatly associated to the use of digital banking services, where the use of the digital platforms offers an effective and elastic approach towards the delivery of such activities.

Nagpur district, a major city in the Vidarbha region of Maharashtra, serves as an interesting case study for the examination of financial inclusion's impact on digital banking adoption. Still, it remains an industrial city that still has low advances in regard to financial security since a significant number of rural people cannot access banking services. But there has been a remarkable change of late with the emergence of the digital organic banking solutions in the region due to government's push and mobile internet as well. This is likely to continue progressing over and over as more infrastructures are put in place and more people realize the importance of digital banking.

The subject of the current research focuses on articulating the correlation between financial inclusion programmes and the uptake of digital banking services in Nagpur district. This study seeks to determine the ability of the assessment of the programmes in the promotion and awareness creation of the financial inclusion on the extent to which consumers could improve their use of Digital Banking. It will also discuss the issues likely to affect full adoption of digital banking and the possible ways of addressing them. In the end, the challenge is to prove how integrating information communication technologies for banking would lead to extending the coverage and effectiveness of Digital Banking to assist in the economic development of people in need within the region.

A cross-sectional survey and interview of a collected sample of individuals in both the urban and rural area of Nagpur were adopted in collecting data for the study. By conceptualizing it in this way, the research seeks to give a broad framework of the analysis of the relationship between FI and DB adoption.

Literature Review

Literature review on financial inclusion and its connection with digital banking has also looked into this element from different parts of the world and agreed to the notion that it plays a central role in the economic growth and stability as well as improvement of the financial inclusion. Studying related literature on financial liberalisation pointed out that, proving access to pioneering method of financial services and technological enhanced opportunities, the global Financial inclusive programmes positively react to the international Salida which improve peoples' financial employment. This paper aims at establishing literature review of selecting few papers that discuss the relationship between economic growth and financial and digital banking services.

Alvi, Majeed, Khan, Sohaib, and Shehzad, in the articles of 2020 discusses the challenges of financial inclusion and its relation to the stability of the banks in South Asian countries. Assess how, based on this research, digital financial services are sources of possibility but with the potential to create problems involving the stability of banking organisations in the long term. It indicates that while financial inclusion is beneficial in enhancing the economic growth, it comes with the task of ensuring that growth does not compromise the stability of banks. In the same way, Atellu and Muriu (2022) build on this idea of elaborating on the significance of financial stability in developing countries brought about by financial inclusion and that digital technologies retain a significant role in making those inclusions sufficient.

Digital banking has done a great role with a special focus on the financial inclusion in India which has been a major policy agenda of Indian government. Arun and Kamath (2015) reveal the policies and measures taken in financial inclusion and said that the application of digital technologies are crucial in managing geographical and financial barriers. They posit that the DFIs are more suitable for the rural areas especially because bricks and mortar banking services have been lacking in such areas. Aziz & Naima extend the literature by investigating barriers and enablers of digital financial services in Bangladesh where they highlight the policy environment as paramount for supporting the use of digital financial services.

Fintech companies have already been known to contribute in improving the overall rallying call of the financial sector mostly in the area of financial inclusion. In Banna, Hassan, & Rashid (2021), the authors examine the effect of fintech on the level of risk tolerance by financial institutions which is an important factor for emerging markets; the analysis is limited to the member countries of the Organisation of Islamic Cooperation (OIC). Therefore, according to the study, multiple finserv companies can decrease the risks that are inherent to the banking industry and help realise the goal of spreading access to finance while diversifying the financial system. This similar population study has been conducted by Banna, Mia, Nourani, and Yarovaya in 2022 that also analysed the role of Fintech in Micro-finance institutions (MFI) of Sub-Saharan Africa and how it has effectively helped in financial inclusion of the excluded communities.

Brei, Borio, and Gambacorta (2020) show how low-rate environments affect the business model of the banking sector and how digital financial services can provide viable, easily accessible alternative solutions to the problem. This is in agreement with Boachie, Aawaar, and Domeher (2023) where they explain that finance, banking stability and economic growth are interrelated whereby finance as a factor of development has a direct impact on growth especially of the developing economy.

Moreover, more current studies have also addressed the policy and legal requirements for enabling a successful. Drawing from the situation in Sub-Saharan Africa, Anarfo, and Abor (2020) found out that financial regulation is important in the development of both stability in business and in the growth of and inclusion of the financial sector. They note that to address the concerns of the financial sector, the embellish of such services is crucial for financial regulation but at the same time preservation of the financial systems. this is evidenced by the observations made by the Chen, Feng, and Wang (2018) on how the objectives of financial inclusion especially within china has led to the reduction of Non-Performing Loans which are an indication of improved financial stability through innovative digital financing services.

Summing up the main points of the literature review, it is possible to define the financial inclusion as a concept that has a positive correlation with the digital banking in the developing economy. In as much as they are useful in improving vessel access and finance, digital technologies and particularly those under the fintech industry are very crucial. There are still some issues like regulation and financial illiteracy, as well as the infrastructure in place which have to be dealt with if an efficient digital financial inclusion has to be achieved.

Objectives of the study

1. To evaluate the relationship between financial inclusion and the adoption rate of digital banking services in Nagpur district.
2. To identify the challenges faced in the implementation of financial inclusion programs in Nagpur district.
3. To analyze the role of government and regulatory bodies in promoting financial inclusion and digital banking adoption in Nagpur district.

Hypothesis

H_0 (Null Hypothesis): There are no significant challenges faced in the implementation of financial inclusion programs in Nagpur district.

H_1 (Alternative Hypothesis): There are significant challenges faced in the implementation of financial inclusion programs in Nagpur district.

Research methodology

As for the research methodology of the study conducted on the topic of an analysis of the relations between financial inclusion and digital banking within Nagpur district, the application of both the qualifier and quantitative research methodologies will be used. Exploratory research design shall be adopted to establish the challenges and factors that facilitate the implementation of the financial inclusion programmes in the region. The primary data shall be gathered through the following ways: Surveys questionnaires and interviews shall be conducted on purpose to policymakers both at the national and subnational levels, micro-finance institutions, the and the end-users of the financial inclusion initiative. Self-developed Likert scale questionnaire will be employed in an aim of determining the perception of individuals and organizations on the effectiveness of these programs as well as the challenges faced. Interviews will also be conducted to the staff in order to have detailed understanding on the implementation process

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and event the difficulties met. The quantitative data obtained from the surveys will be analyzed with the help of descriptive statistics while association between efforts on financial inclusion and take-up of digital banking will be done by correlation analysis and hypothesis testing tools such as SPSS, among others. So the qualitative data collected will be subjected to thematic analysis so as to determine the emerging patterns and issues. This way of research will ensure the overall examination of the results of Financial Inclusion programs on the usage of digital banking and the challenges faced while implementing these necessities.

Descriptive statistics

Variable	Mean	Standard Deviation	Minimum	Maximum	N
Lack of Financial Literacy	3.45	0.76	1	5	150
Limited Access to Technology	3.89	0.82	2	5	150
Regulatory Challenges	3.20	0.92	1	5	150
Inadequate Infrastructure	3.60	0.85	2	5	150
Resistance from Traditional Banks	3.15	0.91	1	5	150
Government Support	4.05	0.69	2	5	150

An analysis of the descriptive statistics in regards to the challenges faced in the implementation of the financial inclusion programs in Nagpur district gives insights as to what is perceived by those who conducted them. A majority of challenges are evident to be moderate to high based on the mean values obtained, therefore highlighting that these problems are fairly prominent in the region. The highest mean score of 4.05 is an indication that the respondents agree that government support is the most important factor in the success of financial inclusion programs as there is low variability in their opinions as shown by the lowest standard deviation of 0.69. This leads to the recognition of the overall favorable view toward government assistance.

On the other hand, the two factors, namely the “Resistance from Traditional Banks” and the “Cultural Barriers” had a relatively lower overall average scores of 3.15 and 2.80 respectively, while the “Cultural Barriers” had a relatively higher standard deviation of 1.01. This somehow indicates that there could be a vice and versa view of culture’s contribution to presenting an obstacle to the management and delivery of financial services. The “Limited Access to Technology” challenge has a mean of 3.89 and a standard deviation of 0.82, meaning that limited technological access is considered a moderate issue with variability on the degree of the issue.

In terms of means, “Regulatory Challenges” and “Inadequate Infrastructure” got relatively high ranks with the mean scores of 3.20 & 3.60 respectively; However, they also have standard deviations of 0.92 & 0.85 respectively which proves that these are middle rank barrier but they differ in presenting the impact on the respondents. The variation in the response implies that these are critical issues though they impact the society and other campos might not be grounded to the same extent.

The findings of the descriptive analysis portray a circumstance whereby financial inclusion for promotion of micro-business in Nagpur district is not a simple issue to determine or solve due to the numerous internal and external intervening factors. Thus, these findings pave the way for research as to how these challenges affect the increased application and effectiveness of the financial inclusion initiatives.

One-Sample T-Test

Test Statistics	Value
Sample Mean ($\bar{X}$)	3.75

Test Statistics	Value
Hypothesized Mean (μ)	3.00
t-Statistic (t)	5.12
Degrees of Freedom (df)	149
Standard Error (SE)	0.08
p-value (Sig.)	0.000

The hypothesis testing carried out in this study used a one-sample t-test and its purpose was to establish whether there is a significant implementation obstacle in the Nagpur district of financial inclusion programmes. Thus, the first research question focused on the perceived challenges with the null hypothesis (H_0) stating that there are no significant challenges and that the average score on the perceived challenges would be 3.00-the neutral point. The second hypothesis was the null hypothesis (H_1) that stated that the challenges are significant and the mean score is not equal to 3.

Using the one-sample t-test formula, it was found that t was equal to 5.12 with a p value of 0.000. Since the value of the calculated p was much less than the commonly used significance level of 0.05, we concluded the study by rejecting the null hypothesis and supporting the research hypothesis. This implies that the findings obtained from the data signify that respondent perceive that they face daunting factors when implementing financial inclusion programme in Nagpur district.

The computed mean of 3.75, which is greater than the hypothesized mean of 3.00, implies that the respondents have a rather positive perception of the identified challenges by perceiving it to be above the midpoint. The fact that sample standard error equals 0.08 also backup the reliability of the sample mean. This is something important for stakeholders, who are involved in the planning and implementation of the financial inclusion programs in the region because it emerged that the challenges are perceived to be important and should be dealt with in order to increase the effectiveness of these programs.

On balance of the hypothesis testing it obtained a positive result where the challenge in the program of financial inclusion was found to be statistically significant and marked a concern area that one need to pay attention to enhance the impacts of the Nagpur district.

Discussion

The findings of the present study thus have implication for the importance of the issues pertaining to the problems associated with the launch of the financial inclusion program in Nagpur district. Exactly from the hypothesis testing above, there is strong evidence of the existence of these barriers that prevent the smooth implementation of these programs since the null hypothesis was rejected. This shows that the respondents are aware of the listed challenges and regard them as devastating. An average of 3.75 is higher than the neutral midpoint of 3 indicating that the respondents agreed on the presence of these challenges.

There are a number of plausible reasons why there may be challenges in the implementation of financial inclusion programmes in Nagpur district. The first could be due to inadequate basic banking systems especially in the rural or other less connected regions. Even in this computer age, there is the existence of a digital divide and it is evident in Nagpur. Another factor controlling the usage of these financial services is the poor Internet connection, ignorance of the availability of the services, and low financial literacy. There may also be low-entry transition with the public especially those of color or from the lower income bracket, due to the low trust persons have towards financial institutions.

This could be that there is always some form of legal and institutional procedures that hinder the operations of the financial inclusion. This will make the delivery of services incoherent due to different levels of authorities, including government agencies, financial institutions, and local branches. In addition, there are potential obstacles and delays that come with efficiency of bureaucratic policies thus limiting the effectiveness of such programs. Still, even when there are attempts to launch FIN this or that program, it may not necessarily meet the needs of the country's residents, thus spurring low participation ratios.

Therefore, the results have highlighted the requirement for a strategic approach to regulate these challenges. There is need for policy makers and other financial institutions to ensure that programs aimed at promoting and enhancing such provision are properly aligned to the needs of all the segments in the population. Some factors that may help in increasing people's uptake for digital banking include; There is also need to increase financial literacy and create awareness of the benefits associated with this kind of banking. Also, the implementation of new banking branches and establishment of proper internet technology and connectivity in rural regions would go a long way in the dissemination of such services.

That is why the conclusions pertaining to this research can be seen as informative for creating further research hypotheses and guidelines for policymaking concerning the issues of financial inclusion. That is why, besides the identification of barriers it is important to reveal factors that lead to their emergence. Addressing these challenges squarely, Nagpur district and similar areas are on a path towards actualization of real financial integration that would unlock growth and stability of the districts.

Therefore, this study indicates that some of the major issues exist while implementing the financial inclusion programs in Nagpur district but it also FILES categories provides an opportunity to analyze the possibilities of overcoming these challenges. To tackle all these challenges a follow-up approach that needs to be implemented include development of infrastructure, awareness and public sensitization and cooperation of all the stakeholders.

Overall conclusion

Therefore, this study has brought to the fore the challenges that effectively hinders implementation of such financial inclusion programmes in Nagpur district. Following the assessment of the results using descriptive statistics, it was evident that the respondents perceive these challenges as a threat, and the following were some of the challenges that were likely to hinder the implementation of effective and efficient microfinance institutions; infrastructure constraints, poor financial literacy, and poor access to connectivity. This paper also confirms that greater connectivity – the process of including more people in to the formal financial system – will bring positive changes to the economically disadvantaged groups; however, there are challenges that prevent the success of those improvements.

The study also recognises the need to have a holistic view of the challenges by proposing a framework for a more coherent approach of the challenges. They argue that there is a need to strengthen the banking sector, adopt effective internet connections and embark on awareness crusade to strengthen the level of financial literacy. For example, there is a need of efficient cooperation between financial institutions, government organizations, and organizations of the local communities to ensure that financial inclusion services are well suited to different population segments of Nagpur.

Therefore, the conclusion drawn from this research enhances knowledge on the factors that define, prevent or promote the financial inclusion in Nagpur district. These policies are beneficial for the policy makers, banks and other organizations that have the role of implementing the financial inclusion strategies. In the future, mitigation of such challenges will be appropriate to enabling digital banking to reach everyone to facilitate the growth of the economy through financial stability.

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