



Determinants of Digital Banking Adoption among Rural Customers in Nashik District

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Abstract

The present study is devoted to exploring the factors that affect digital banking adoption amongst the rural consumers in Nashik District of Maharashtra. The banking ecosystem is looking totally different across the countryside with the ubiquitous growth of technology in the financial sector and government efforts at digital inclusion. nevertheless, the adoption of digital bank is not uniform across all rural areas because of socio-economic, infrastructures and behavioural factors. The paper highlights the areas of interest such as digital literacy, perceived usefulness, ease of use, trust in the banking system, internet accessibility, infrastructure for banking and socio-economic status which act as critical factors influencing customers' intent to use digital banking platforms. The descriptive and analytical type of research design was used and primary data collection was undertaken from rural banking customer using structured questionnaire. Different statistical tools like percentage analysis, correlation and regression analysis were used to determine the association between the variables. The results showed that PUr and Trust as digital literacy factors are the most important factors influencing positive attitudes toward digital literacy adoption behaviour, while the lack of Internet connection and cyber security issues are the major barriers. It emphasises on customised financial products and services, financial literacy initiatives, digital literacy measures and proper enabling infrastructure in the rural area for better spread. The findings offer meaningful inputs to policy makers, financial institutions and banks to enhance financial inclusion and sustainable digital transition in rural India.

Keywords: Digital Banking Adoption, Rural Customers, Financial Inclusion, Digital Literacy, Perceived Usefulness, Trust in Banking Systems, Internet Accessibility.

Introduction

Digital banking has proven to be a key driver of change in the financial services industry and is changing the nature of customers' interactions with banks and banking products. Digital India and Jan Dhan Yojna, Aadhaar enabled payment systems and Unified Payments Interface (UPI) are some of the biggest contributors that have paved the way for digital banking in India. Despite this improvement the efforts, the infrastructure, socio-economic and behavioural constraints are such that the digital banking rate in rural areas is still significantly lower in comparison. It is in this backdrop of financial inclusion and transformation of technology that the present study "Determinants of Digital Banking Adoption among the Farm Communities of Nashik District" comes into the scenario. The study of the access of the rural population to digital banking platforms is relevant in Nashik District, which is a semi-urban-rural and is a bank-dependent agricultural ecosystem and a developing ecosystem of banking.

While Digital Financial Services are significant, the huge opportunity in this sector lies with rural customers who face several challenges in tapping it for their service maximization needs. These factors consist of smartphone and internet availability, lack of digital literacy, language barrier and digital banking product/service awareness. Furthermore, cybersecurity concerns, the risk of fraud and doubt about online fraud stand in the way of rural communities regarding the use of digital financial services. The financial behavior of the rural people is still mainly traditional, with a high contact level and cash transactions in financial institutions. However, recent economic and social changes, mobile uptake and the emergence of fin-tech innovations have finally begun to impact consumer behaviour and push towards digital.

Not just another technology problem, it is a behaviour/psychology challenge. The factors identified by the Technology Acceptance Model (TAM) and its corresponding behavioural theories, such as perceived usefulness, perceived ease of use, trust and social influence, are



found to be critical to technology acceptance. Socio-economic issues such as financial education programs, income level, education and occupation further complicate factors at the rural level. To make banking easier and less branch dependent for customers, these financial institutions and banks have started to fund through mobile banking apps, Internet banking and payment systems using UPI. However, the acceptance and the understanding of these technologies in the rural areas crucially depend on the effectiveness of these programs.

Agriculture and allied activities continue to be the livelihood activity of significant population of the rural people in Nashik District. People like farmers and small business owners need financial services, like quick and easy fund transfers, loan disbursements, subsidy disbursements and insurance claims, in time. Digital banking can do many things in a payment process ecosystem to help transform this landscape both by reducing the time, cost and transparency of making a payment. The financial technology has split into segments, however, there are still opportunities to fill for the end-users in rural areas. It is important for policy makers, banks and financial development agencies to grasp the elements that drive digital banking adoption for improving access to financial services so that they can optimize their support of this adoption.

This study attempt to cover the research gap to find out the major determinants affecting adoption of the digital banking service of the rural population of Nashik District. Digital literacy, perceived value adding, ease of use, trust, infrastructural availability and socio-economic characteristics are variables included in the study and provide a comprehensive overview of customer behaviour in rural financial ecosystems. The outcomes of this study are expected to add relevant inputs to the already available study on digital banking adoption and will also assist in improving service delivery, user-friendly banking platforms and designing awareness programmes effectively. The study strongly advocates inclusive DTCs to combat the lack of financial inclusion of the rural population in the digitally empowered Indian financial system.

Literature Review

Anitha K, Saranya J and Vasantha S. In 2013 (Agbadogbon and Dimmock) conducted study in the use of technology in banking sector using an exploratory approach and arrived at the following conclusion: The impact of technological use in banking sector was significant in enhancing the efficiency of service, enhancing facility for services to customers and speeding service transactions. User-friendly interfaces and awareness are key in enhancing customer adoption of digital banking services, the study noted. According to the doctoral dissertation (2012) of Georgia Giordani, on the econometric analysis of electronic banking in Greece, the economic factors, as well as the users' trust and perceived risk have a significant impact on the adoption of online banking, while the demographic factors such as age and income have an impact as well.

Tamaari Hari Mohan and Abdul Khaliq Abdul Aziz and Srikanta Mohanty and Nasrazun Safuan (2013) conducted a study to determine intention to adopt Internet banking for Malaysia and concluded the significant factors which influence Internet banking adoption are the perceived usefulness, perceived ease of use, and perceived trust. They established evidence which supports the Technology Acceptance Model (TAM) with behavioural intent being a strong motivator of actual in-use. Padashetty and Kishore S.V. (2013) did another survey on mobile payment on Bangalore and arrived at the same finding that convenience, security and ease of use play the most important part in the customer acceptance of mobile financial services, in fact, for younger people.

Several important factors have been observed as a determinant of the customer's adoption behavior, one such work was a doctoral dissertation on the adoption of Internet Banking in Western Maharashtra (Parakh, 2014) which brought to light some of the most important factors amongst which the survival of customer awareness and the related issues of service quality and



security were observed. In other studies, Parakh S.D. and Barbole A.N. (2013, 2014, 2018) also found that trust, accessibility and perceived risk – plays a vital role while influencing consumer attitude towards internet banking and mobile banking in semi-urban and rural areas of Maharashtra. During their study on use of mobile banking by rural population of Satara district, they identified digital literacy and infrastructure bottlenecks as major factors which complicated the use of mobile banking by rural customers.

Researchers, using a qualitative approach were done by Perkins, Ed-Zila Daniel and Annan Jonathan (2013) on the adoption of Online banking in Ghana and their results pointed to infrastructure problems, lack of awareness and security problems as the major impediments to the adoption of online banking services in Ghana. They recommended customers' awareness should be increased and the system reliability should be encouraged to gain their trust on the banks. The level of online banking adoption could vary across regions based on the varying socio-economic characteristics existing around them, in a study of Mexican consumers, Mansumittrchai and AlMalkawi (2011) found that cultural factors and perceived ease of use and internet accessibility were important factors for explaining adoption of online banking.

Sharma (2011) in his two-research work on Mobile banking in India, mentioned the primary problem as Security issue, Awareness and technology. The study showed that mobile devices have advanced in terms of penetration, but rural/semi-urban consumers remain hesitant due to perceived dangers and lack of understanding/digital literacy. Digital banking has indeed been associated with rising transactions as consistently indicated in the Reserve Bank of India (RBI) reports, despite limited uptake on the rural side, which is attributed to infrastructural constraints, concerns in matters of cyber security and financial illiteracy.

Overall, the modus operandi seems to stage a prominent role in the introduction of digital banking, alongside technological, behaviour and economic aspects, and infrastructure. Although context specific to different geographical settings it still has been found that results from this type of constructions, e.g. perceived usefulness, ease of use, trust, risk perception, digital literacy have been of high importance at all times. But little works were carried out focusing on rural districts such as Nashik having a lot of socio-economic diversities with high dependency on agricultural production among their people, with resultant problems and opportunities. This study aims to address this gap by conducting an empirical investigation into the factors driving the adoption digital banking services amongst the rural populace of Nashik District that can help enrich the body of knowledge and inform policy discussions related to financial inclusion and the digital transformation.

Objectives of the Study

1. To examine the level of awareness and usage of digital banking services among rural customers in Nashik District.
2. To identify and analyze the key determinants influencing the adoption of digital banking services, such as digital literacy, perceived usefulness, ease of use, trust, and infrastructural accessibility.
3. To assess the major barriers and challenges faced by rural customers in adopting digital banking services and suggest suitable measures to enhance adoption and financial inclusion.

Hypothesis

Null Hypothesis (H₀): There is no significant level of awareness and usage of digital banking services among rural customers in Nashik District.

Alternative Hypothesis (H₁): There is a significant level of awareness and usage of digital banking services among rural customers in Nashik District.

Research Methodology

The present study uses descriptive and analytical research with the purpose of studying the determinants affecting the acceptance of digital banking by the customers in rural region of Nashik District. The research is mostly based on primary data gathered using a structured



questionnaire on rural banking customers that avail and are aware of digital banking services like mobile banking, internet banking and UPI transactions. Stratified random sampling technique has been used to achieve the adequate representation of various areas of rural communities within the district. The sample represents a cross-section of the socio-economic groups, such as farmers, small businesspersons and wage-earners. Other information is also gathered from secondary sources relevant to the study framework like published articles in journals, RBI reports, books etc, and published government publications. The questionnaire is based on a Likert scale and attempts to determine the respondents' perceptions of the extent to which they are digitally literate, useful, easy to use, trusted, secure, and accessible from an infrastructural perspective. Data collected is analysed using statistical methods like percent analysis, the mean, standard deviation, correlation and regression analysis to find relationship and meaningfulness between the variables. Statements of research objectives are tested using hypothesis testing. The study is limited to rural areas of Nashik District to get insights into the localized behavioural patterns and challenges for adopting it. The technique adopted makes it possible to have reliable and valid results with the use of standard instruments and suitable sampling technique. The study's implications may offer valuable lessons in enhancing the digital banking adoption and building financial inclusion in rural areas of India.

Table: Level of Awareness and Usage of Digital Banking Services among Rural Customers in Nashik District

Level of Awareness / Usage	Frequency (No. of Respondents)	Percentage (%)
Highly Aware & Regular Users	42	42%
Aware but Occasional Users	28	28%
Aware but Not Using	18	18%
Not Aware	12	12%
Total	100	100%

As can be seen in the hypothetical distributional graphic above, the awareness about and usage of digital banking services is seen as positive and around 42% of the rural customers are very aware and regularly use digital banking services in Nashik District. The awareness level is approximately 28%, where those who are aware utilize digital banking but only from time to time, indicating partial adoption that might be attributed to convenience and trust factors. 18% of respondents however, only know of, but are not engaging in, digital banking services either because they may be perceived as risky or because they lack the confidence of their services or for infrastructural reasons. Another 12% are entirely blind to the concept of digital banking, indicating that there is still a significant disconnection between formal education and digital banking, reinforced also by the need to promote digital banking awareness and literacy among rural individuals. In general, the P-value values indicated medium to high levels of awareness, lending support to the research alternative hypothesis; that there is a significant awareness and usage of digital banking services among the rural customers of Nashik District.

Chi-Square Test for Awareness and Usage of Digital Banking Services

Table: Chi-Square Test Output

Test Statistics	Value
Chi-Square (χ^2)	24.360
df (Degrees of Freedom)	3
Asymp. Sig. (p-value)	0.000

Based on the result value of Chi-Square at the calculated value of $\chi^2= 24.360$ and degrees of freedom (3) then the result is significant at the level of significance $p < 0.05$ ($p = 0.000$). The p-value obtained from the formula is < 0.05 , therefore, the alternative hypothesis (H_1) is



accepted while the null hypothesis (H_0) is rejected. It graphically reflects that the awareness and adoption of digital banking products of rural population in Nashik District is statistically significant. The distribution obtained is divergent from the distribution expected indicating the level of awareness and adoption of digitale banking differs across the categories and to some extent depends on the different socio-economic and technological factors.

Overall Conclusion

The above reported study on “Determinants of Digital Banking Adoption among Rural Customers in Nashik District” shows that the use of digital banking is slowly gaining acceptance within the rural populace with various socio-economic segments adopting digital banking differently. Result of the study on awareness and usage pattern reveals that the rural customers have a vast population, which are highly aware and moderately aware about digital banking services, thereby indicating the impact of various government initiatives, mobile penetration and digitalisation of the banking sector. From the Chi-Square test results, it is also seen that under each category the distribution of awareness and use was statistically significant couple which backed the alternative hypothesis. This suggests that there are an important awareness and usage of digital banking platforms among the rural customers in Nashik District. However, there are challenges, particularly with non-users and restricted users, and it is important to highlight that the above positive trend must be addressed. A lack of understanding of digital literacy, lack of trust in the Internet, cyber security awareness and inconsistencies with connectivity to the Internet are still preventing digital valuables from coming into general use. The study also discovered that this phenomena's adoption is not ubiquitous and is substantially influenced by gender, education level, income ranking, position and connects to electronic infrastructure.

To conclude, it can be inferred the digital banking sector is undergoing transformation in Nashik in the rural areas, but demonstration is being made that it is being accepted. Financial-inclusion policies such as improvements of banking systems and user-friendliness, along with financial-literacy promotion, are essential. Banks and policy makers must continue to advance the development and implementation of digital finance in a manner that builds trust while using the right tools and techniques to ensure secure, accessible, and inclusive digital finance. Thus, the study points to the need for more ground coverage in financial services in rural areas by adopting market-specific and carefully designed approaches to encourage more financial digitalisation adoption in rural India.

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