

Exploring Challenges and Opportunities in Digital Banking within the Indian Context

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Abstract :

This qualitative study examines the impact of in-branch efforts by banks on transitioning customers from traditional branch banking to digital banking in India. Through in-depth semi-structured interviews with senior bank executives representing both public and private sector banks, the study employs qualitative content analysis to analyze the gathered data. The responses from the interviews are categorized into four main themes: in-branch communication with customers, digital transformation of branches, customer-centric initiatives, and redefined roles of branch staff. These themes highlight the potential avenues for encouraging customers to migrate to digital banking. The paper emphasizes the necessity of integrated cultural and organizational changes within banks to instill confidence and trust among customers regarding digital banking. Overall, the study underscores the importance of strategic initiatives and organizational adaptations to facilitate the adoption of digital banking in India.

Introduction :

In recent decades, banks have heavily invested in technology to enhance customer experience and reduce costs. Various digital banking channels such as ATMs, internet banking, mobile banking, and digital kiosks have been introduced to provide high-quality services with the aim of boosting profitability and cutting operating expenses. However, despite efforts to shift customers towards these modern channels, banks have struggled to achieve the expected reduction in operating costs. This challenge is particularly pronounced in emerging economies like India, where only a small percentage of the rural population utilizes the internet for digital payments.

India has witnessed significant IT expenditure growth in the securities and banking sector, reaching \$9.1 billion in recent years and expected to rise to \$11 billion by 2020. However, the return on investment in technology by Indian banks remains low compared to US banks, primarily due to the slow acceptance of digital banking. The high cash transaction costs, equivalent to 1.7% of Indian GDP, pose a considerable burden on the economy. To address this, the Indian government launched the 'Digital India' campaign in 2015 to promote digital empowerment, resulting in a significant increase in digital identities and internet connections among citizens.

The digitization initiative aims to integrate remote rural areas into the formal financial sector through electronic banking channels, fostering economic development. Despite the potential benefits, the adoption of modern banking channels is hindered by a lack of awareness and knowledge among customers. Efforts are needed to educate and encourage customers to embrace digital banking services fully. Overall, there is a pressing need to positively influence customer perceptions and facilitate their migration to digital channels for the advancement of the banking sector in India.

Banks in India need to understand that making huge investments in technology is not enough unless most bank customers adopt it for banking transactions. As rightly argued by Shaikh and Karjaluoto (2016) that digital banking is much more than an innovative banking channel and a convincing marketing strategy. The term digitisation has brought a significant change in how banks understand and satisfy its customers' needs. In India, efforts have been made by the banks to persuade customers to adopt digital banking channels such as intensive digital marketing campaigns to educate customers about modern channels, but still, the adoption rate is not as expected (Patel and Patel 2018). Since bank branches provide an opportunity to the bank to communicate and persuade customers personally by demonstrating the proposed benefits of adopting modern banking channels, the present study exhibits the need for Indian banks to focus upon implementing serious in-branch effort. It is the high time for banks to identify cost-effective in-branch strategies to connect the masses with digital banking channels, though this area is under-researched. In this regard, the present study attempts to evaluate the bank executives' perceptions regarding the effectiveness of in-branch efforts of banks to persuade the customers to adopt and use digital banking channels.

The earlier studies conducted in the area of digital banking have mainly explored the attitude of customers and antecedent variables that matter to customers while using digital banking channels or the factors impacting the intention of customers' to use the modern banking channels (Montazemi and Qahri-Saremi 2015; Szopiński 2016; Alalwan et al. 2017; He et al. 2019). But surprisingly, rarely a study in India has given attention to study the impact of the bank's initiatives within the branch to encourage customers to adopt modern banking channels.

The present study tries to close this research gap by answering the following research question:

Reserch questions

How In-branch experience and technological initiatives can contribute to the adoption of digital banking channels by customers.

To answer this research questions, we draw on TAM (technology acceptance model) to analyse how in-branch efforts of banks can contribute to enhancing customers' perceived usefulness (PU) and ease of use (PEOU) which positively influences customers' attitude towards

technology acceptance. Also, the analysis is guided by additional antecedents' variables identified by extended TAM proposed by various researchers and scholars in the context of adopting self-service banking technology.

The empirical data for the qualitative study are based on in-depth interviews conducted with 22 bank executives from public and private sector banks in northern urban India. The recent report by Vater et al. (2019) strongly highlights the struggle for banks at present to migrate customers to digital channels. Due to huge investments involved in the digital banking platform, ensuring the adoption and usage of these channels is an important goal of the banks. The study elucidates the need to transform future bank branches by identifying cost-effective strategies and segmenting the branch customers on the basis of their banking needs and preferences. The present study contributes to the literature by studying how personalisation and in-branch initiatives should be strengthened by the bank managers to build customers' initial trust in digital banking channels. The study also contributes to identifying various integrated cultural and organisational obstacles particularly in public sector bank branches which hinder the customers' adoption of digital banking. The study begins with a review of the literature on customer technology acceptance for banking transactions. In the later section, we describe the conceptual framework for analysing interview data based on TAM (Davis 1989) and its extensions propounded in context of adopting self-service banking technology, followed by research methodology section. The following section describes the findings in terms of identified themes and concludes with the discussion of findings.

Status of digital banking adoption in India

Technology has transformed the banking industry worldwide. However, the adoption rate of technology-enabled banking services varies across countries (Takeddine and Sun, 2015). In India, nearly all banks offer digital banking services to customers as a strategic tool to survive in the market (Safeena et al., 2014). With the increased investment in technology by financial service providers in India, it is crucial to understand customer perceptions and design strategies accordingly (Roy et al., 2017).

Post-demonetisation (invalidation of large currency notes), the Government of India launched various efforts to migrate customers to digital payment channels from cash (e.g., e-Wallets, Unified Payment Interface, Aadhaar-enabled payment system, etc.). According to the Reserve Bank of India (RBI) report on digital transactions, the total volume of non-cash transactions in India increased from 228.9 million in 2004–2005 to 1.9 billion in 2016–2017. Despite this rapid growth, the largest public sector bank (SBI) in India reported only 5.86% mobile banking users and 9.69% Internet banking users in its recent annual report for 2016–17. Thus, merely informing or spreading awareness is not enough to shift customers towards digital banking; changes in the implementation process are necessary, and successful implementation depends

on how well these technological advancements are communicated to customers (Sarel and Marmorstein, 2002).

The most significant challenge in India is not only migrating customers from traditional banking channels to digital channels but also connecting unbanked masses with the mainstream banking system using digital finance. While digital mediums have increased global financial inclusion from 51% in 2011 to 69% in 2017 (Global Findex Database, 2017), the adoption and use of digital banking channels in developing and emerging economies remain lower compared to developed economies. In high-income economies, 91% of adults use digital payment methods, while in developing economies, only 44% of adults make digital payments through their accounts (Global Findex Database, 2017).

India is an emerging economy where the launch of the digitisation campaign (2015) and implementation of demonetisation (2016) rapidly shifted a significant portion of the population from traditional banking channels to digital channels. However, issues such as education, lack of infrastructure, and strong Internet connectivity hinder the adoption of digital banking channels in India (Tiwari, 2019). While 80% of Indians have a bank account (The Economic Times, 2018a, b), the World Bank reported in 2017 that 48% of the total 310 million accounts opened in India from 2014 to 2017 are inactive. The lower-than-anticipated regular usage of digital mediums for banking transactions calls for more in-depth and critical research on formulating strategies and practices to migrate customers to technology-enabled banking channels based on factors that matter most to customers.

The literature on digital banking primarily examines customer attitudes and factors affecting the acceptance of digital banking services. However, scant literature is available on understanding the significance of in-branch efforts of banks to migrate customers to adopt digital banking channels, particularly in India. In this study, in-branch efforts refer to "the services provided at the branch level to make customers comfortable with digital channels by imparting first-hand knowledge of technology-enabled banking services." Effective communication with customers at the branch to persuade them to use digital banking channels can make a difference in their perception and attitude (Sarel and Marmorstein, 2002).

Previous studies have reported high bank branch footfall in Indian banks, with an average bank customer making 28 branch visits per year, compared to developed countries (Schofield and Chew, 2013). Encouraging customers to change their current banking channels is challenging, as customer intention to use contactless payment systems is highly influenced by habit (Karjaluo et al., 2019). Therefore, banks can educate their customers about online banking channels in the branch using interactive kiosks and tablets. Incentives for using online banking channels can also persuade customers to use these channels in the future (Accola, 1996).

In a recent study, in-branch ATMs and kiosks were identified as effective tools to migrate customers to digital channels (Yu and Hughes, 2016). Bank branches serve as the best platform to interact with customers and positively influence them, as the best customer experience at the branch travels across other banking channels (Cognizant, 2016). Therefore, the study highlights the need for banks to recognize the potential of in-branch initiatives to persuade customers to use technology-enabled banking channels and improve their online banking customer base by convincing existing branch-visiting customers about the usefulness of digital banking channels.

TAM and digital banking adoption

To analyze the impact of in-branch efforts on the adoption of digital banking in India, the study draws upon the technology acceptance model (TAM) (Davis, 1989). TAM is a highly accepted model for studying user attitudes towards technology by analyzing perceived usefulness (PU) and perceived ease of use (PEOU). TAM provides a valid approach for understanding the adoption of digital banking in the Indian context. Additionally, the analysis is guided by additional antecedents' variables identified by extended TAM proposed by various researchers in the context of self-service banking technology adoption.

Methodology

The current study attempts to qualitatively analyse the perceptions of the bank executives from public and private sector banks in India, working at branch level and well-versed with the bank's operational and marketing strategies. Face-to-face interviews were conducted to collect the responses from the respondents between October 2017 and February 2018. The purpose is to get deeper insights into what bank executives perceive, experience and believe regarding the effectiveness of in-branch efforts on consumers' attitude to adopt technology-enabled banking channels.

There are two reasons for selecting the qualitative approach: the dearth of empirical research (Hirschman [1986](#)) in India on exploring the potential of in-branch efforts to promote digital banking channels and the flexibility which qualitative approach extends to deeply investigate complex relationships (Healy and Perry [2000](#)).

Sample selection

Bank executives were selected from the public sector (State Bank of India, Punjab National Bank) as well as the private sector (Axis and HDFC). Bank executives have been selected as respondents as they possess a better understanding of ground reality due to extensive experience of the banking industry. Geographically, the study concentrates on two states from the Northern part of India where information technology (IT) hubs of north India are situated. As in most of the qualitative studies, purposive sampling technique was used to select the

respondents from various banks. In total, 35 bank executives representing senior management from public and private banks were approached, but 13 bankers refused to participate in the study. Sample organisations (Banks) selected for the study represent the top banks in India in terms of market share and IT investment.

Data collection and analysis

In total 22 face-to-face interviews were conducted, out of which 12 were with public sector managers and 10 with private sector bank managers. The high response rate (62%) indicates the willingness of bankers to share their experiences and perceptions on the topic. One interviewee from public sector bank had previous work experience with a private sector bank. This helped to attain the unique set of perspectives regarding differences among in-branch practices of public and private sector banks in India. Most of the interviews lasted for an average of 25–30 min. Interviews were conducted in the English language. Most of the bank managers were not comfortable with the tape recording of the interview, so detailed notes were prepared to record the responses of the managers. During the fieldwork, it was observed that most of the bank branches were quite busy and the staff was fully occupied specifically in case of the public sector banks. Due to heavy rush and long queues in most of the bank branches, it was hard to take the time of bank managers for interview. However, with repeated visits and strong potential of the subject matter for improving banking experience, we managed to get insights of bank managers on the topic.

During interview sessions with bank executives basically, three areas were covered

1. (1) Their perception regarding technological interventions in the banking industry and how technology has changed working experience in the bank;
2. (2) In-branch efforts undertaken by the bank for persuading customers to use innovative digital banking channels if any;
3. (3) Can these efforts bring a positive change in customers' attitude and perception towards technology-enabled banking channels and how?

The interviews were semi-structured in nature, and various other related questions were asked loosely to allow flexibility and get maximum insights. Appendix Table [3](#) gives an outline of the semi-structured interview.

Qualitative content analysis technique (Mayring [2000](#)) was used for the analysis of interview data. Extensive notes were prepared during interview sessions. Varieties of responses received during interviews were clubbed into four main themes using NVIVO 9 software, based on data reduction, display and conclusion-drawing processes (Miles and Huberman [1984](#)).

For the analysis purpose, both inductive and deductive technique was used for identifying themes. Firstly, using the deductive technique the TAM aspects were explored based on the research question and theoretical concepts (Davis [1989](#); Lee et al. [2007](#); Yap et al. [2010](#)) and then the codes were identified. Following the coding process, the second, third and fourth author refined the codes based on their suggestions but did not identify new codes. An inductive approach was used to connect the codes and identify themes relating to in-branch communication, branch staff roles, customer-centric initiatives and digitally driven branches with the human touch. Table [2](#) provides an overview of the coding criteria and theme identification process of the study.

Findings

Communication at the branch to educate customers about online banking channels with either self-service technology like Internet kiosks or specialised bank staff was the dominant factor reported by interviewees. Majority of interviewees believe that effective communication at branch level to guide customers for using technology to fulfil their banking needs can bring a positive change in customers' perception, specifically in rural and semi-urban areas where customers rarely have hands-on experience in computers and Internet.

It is worth mentioning that no direct question regarding communication was asked to respondents during the interview. However, 13 out of 22 bankers agreed that communication with customers at the branch is a key effort to bring positive change in current trends. A typical comment from Banker 1 was:

There is no better approach than interacting with customers about modern technology-based banking channels; it is as much important as handling their (customers) queries at the branch. As banks have already invested hugely in technology.... its acceptance is pertinent to banks.

Most of the bankers in rural and semi-urban areas were highlighting the need for live demonstration at bank branches and communicating the benefits of online banking channels to customers. But surprisingly, when asked about live demonstration practices at their institutions, there were only a few bankers who agreed to have interactive screens in the bank to educate customers about using digital banking. A colleague from the same bank argued that:

There is need to make strategical changes, with shrinking staff level and heavy branch footfall it is next to impossible for us (Bankers) to initiate personalise interactive sessions with customers regarding how to use technology-enabled banking channels. Dedicated digital tech experts in every branch especially in rural branches can help customers to make maximum use of online banking channels (Banker 6).

Conclusion

This study significantly contributes to the literature by examining bank managers' perceptions of in-branch efforts on the adoption of digital banking channels in India. However, there are several limitations that could be addressed in future research to enhance our understanding of this topic.

One avenue for future research is to explore customers' perceptions regarding the impact of in-branch efforts on their adoption of digital banking channels. Understanding customers' attitudes and behaviors towards technology adoption can provide valuable insights for banks to improve their strategies.

Additionally, future research could focus on developing a comprehensive model for the impact of in-branch initiatives on customers' adoption of digital banking. This model could be empirically tested to validate its effectiveness in predicting customers' behavior towards digital banking channels.

Furthermore, considering the ongoing COVID-19 pandemic, future research could investigate the impact of this crisis on digital banking and mobile payments acceptance in India. The pandemic has accelerated the shift towards remote banking services, and understanding how this has influenced customers' behaviors and preferences is essential for banks to adapt their strategies accordingly.

Lastly, future research could explore the potential of modern agent network-based payment models in reaching financially excluded populations. Examining whether these new models complement or compete with established digital channels can provide valuable insights for policymakers and financial institutions.

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