Payment Banks in India: Review and Research Agenda

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Payment banks were established in order to pave the way for a cashless system and hasten India’s transition toward a cashless economy. This was accomplished by accelerating India's path toward a cashless economy. The incorporation of Payment banks into the Indian banking sector can be interpreted as a paradigm change within the context of a differentiated banking model. This study employs 'payment banks' literacies as its research object, delving into and presenting the trends in scholarly interest in the field through the use of bibliometric analysis. In addition, the study combines a content analysis methodology to improve upon the features' limitations and to propose a future focus, all with the goal of serving as a point of reference for both academic study and practical application.

Keywords
Payment banks, Banking, Payment Services, Literature Review, Bibliometric Analysis
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Payment banks were established in order to pave the way for a cashless system and hasten India’s transition toward a cashless economy. This was accomplished by accelerating India’s path toward a cashless economy. The incorporation of payment banks into the Indian banking sector can be interpreted as a paradigm change within the context of a differentiated banking model. This study employs ‘payment banks’ literacies as its research object, delving into and presenting the trends in scholarly interest in the field through the use of bibliometric analysis. In addition, the study combines a content analysis methodology to improve upon the features’ limitations and to propose a future focus, all with the goal of serving as a point of reference for both academic study and practical application.

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1. Introduction

The Indian banking industry has undergone distinct phases from the establishment of formal banking in the 18th century to banking sector reform in 1991 and the present era of modern banking. It has a journey from class banking to mass banking then universal banking to differentiated banking today (Mishra, 2019). Payment banks have a recent origin and are an example of differentiated banks in India. Through these phases, the Indian banking industry witnessed remarkable changes, it is one of the fastest expanding in the world, yet it has challenges when trying to include everyone in the industry regardless of their financial capacity (Sha et al., 2022). Reserve Bank of India granted the in-principle approval for setting up payment banks to 11 entities (RBI Grants In-principle Nod for 11 Payments Banks, 2015). Payment Banks are like any other banks, but they operate on a small scale and provide payment and remittance services only without involving any credit risk. While providing payment and remittance services. Initially, they were only permitted to receive deposits of up to ₹100,000, but this limit was eventually expanded to ₹200,000. The Reserve Bank of India has raised the daily maximum balance limit for payments banks to ₹2 lakhs in April 2021. Previously, the ceiling was ₹1 lakh. This choice was made to expand financial inclusion (RBI Increases Maximum Balance Limit to Rs 2 Lakh for Payments Banks, 2021).

In addition, payment banks were empowered to issue ATM cum debit cards and provide services of online banking and mobile banking. However, they won’t be allowed to lend or issue credit to their customers. The committee on “Comprehensive financial services for small businesses and low-income households” headed by Dr. Nachiket More was constituted by RBI in September 2013. The committee submitted the report in January 2014. One of the most prominent recommendations was the establishment of payment banks or specialized banks that would focus on serving small enterprises and those of lower socioeconomic status (Asthana, 2014).

Payment banks are a recently developed and newly introduced type of bank that are designed to offer small savings accounts in addition to payment and remittance services to migratory workers, low-income households, small enterprises, unorganized sectors, and others. Because they are not empowered to carry out lending activities, payment banks are not authorized to carry out lending activities. It
will face competition from existing banks, and their profitability will remain a struggle as they will be working on a low margin (Mahajan & Sharma, 2017); nonetheless, the ever-growing client base with their expectations of simpler banking services will push bankers to put more effort.

As per the RBI’s ‘Operating Guidelines for Payments Banks’ (Reserve Bank of India - Notifications, n.d.), Payment banks can only accept savings and current deposits. According to the Licensing Guidelines, the total limit per customer cannot exceed the prescribed limit. Nonetheless, the RBI will not object if payment banks enter into agreements with other scheduled commercial banks (SCB) to sweep excess funds into a customer account opened at that bank. This agreement should be implemented only with the customer's express consent. Payments Banks are not required to offer passbooks for deposit accounts, although they can provide a paper account summary for a fee upon request. Moreover, companies may transmit account details using more user-friendly channels like SMS and/or online banking, and they must provide electronic confirmation by SMS/e-mail/printed documentation for all account transactions.

Many scholars have addressed various aspects including benefits and challenges before the payment banks for example, these banks serve basic banking needs, but awareness, infrastructure, customer support, security, and technology are important issues customers face (Myilswamy & Hamsalakshmi, 2022). Moreover, Payment banks are a suitable investment strategy for vulnerable groups to get affordable financial products and services because digital innovation is feasible and adaptable to current economic and technological conditions (Patel & Shah, 2022). These aspects have further motivated the author to study the payment banks’ research in this connection. The objective of this study is to provide a comprehensive review of the body of literature in the area of payment bank research. This study contributes to the existing research in the following ways, first, it synthesizes the trend and status of existing research and assimilates it to offer a holistic overview and highlighted important themes such as behavioural intention, mobile financial services, and corporate governance as future research dimensions. Second, managers and policymakers may use these future dimensions to improve the financial services offered by payment banks.

1.1. Prior studies in the area of payment banks

The lack of financial inclusion necessitated the establishment of specialized banks to serve unbanked areas and small businesses (Kishore, 2015). Although the introduction of payment banks in India will undoubtedly alter the landscape, others worry about the financing needs of the unbanked if these institutions are restricted to traditional banking activities (Abid, 2017). Payment Banks are expected to revolutionize financial services by offering prompt services at reasonable prices (Agarwal, 2016). The awareness can increase the use of payments bank for example small business owners, migratory workers, and those in low-income brackets have willingness to use payment banks if informed of their presence. The public, however, does not yet have enough information, thus the government or payment banks must implement a comprehensive awareness drive (Iyer et al., 2017). Payments banks can accept micro savings but not microloans, and low-interest spreads have been a major reason for their failure also commissions from transfer payments are insufficient to cover the high costs of providing services in rural areas (Ashta & Pillarisetti, 2020). Unawareness, distrust, and an unmet need for payment bank services have been recognized as the key contributors to low adoption by consumer groups such as migrant workers and small merchants (Pramani & Iyer, 2022). These studies highlight several aspects including the role of payments in financial inclusion, its competition, driving factors, and reasons for failures, which further influence us to prepare a comprehensive overview of research in this field. In addition, this study proposes three broad research questions (RQs). (RQ1) What are the trend and present status of research in the area of payment banks? (RQ2) What are significant themes that have been explored by the scholars in the selected domain? And (RQ3) what research context can be included by the scholars in their future research?

2. Methodology

The use of quantitative approaches to research is the primary emphasis of this research study. We follow the bibliometric methodology to review the body of literature in the area of payments bank research. This method has been widely employed across domains to facilitate literature review reviews (Yadav & Dangi, 2022), also in order to quantify the production of an author, research theme, institution, sources and country, scholars employ this approach as a subset of the systematic literature review (Kushwaha & Badhera, 2022). We used the Scopus database for data collection as it includes abstracts and citations for more than 22,000 academic publications, including books, scientific journals, and
conference proceedings from more than 5000 publishers (Pinto et al., 2019), thus providing wide coverage. The next step followed is to define the search string(s) that has been applied to select relevant literature, those strings include a mix of keywords such as ‘payment’ and ‘bank’ and ‘india’. Further, the search is narrowed down to title, abstract, or keywords to list the related publications from the Scopus database. The initial search lists 254 documents. Significantly, inclusion and exclusion criteria have been employed to extract the publications with an exclusive focus on the research theme and business domain. The following keywords and filters/limits have been applied to extract the relevant articles for the review (see Table 1).

The data extracted have been analyzed using the ‘R Bibliometrix Package’ (Aria & Cuccurullo, 2017), which resulted that the extracted data comprise of 105 documents, from 70 sources and 210 authors with 384 keywords and 3962 references. The time span for the study comprises from 2015, as RBI has given licenses to payment banks in the same year. This study aims at offering a comprehensive review of research on payments banks and is the first to employ this method to identify trends, status, and a future research agenda for further research.

2.1. Bibliometric analysis and review

To review trends and the current status of scholarly contributions in the area of payments bank research, we followed performance analysis to comprehend the most relevant sources, citations, scientific productions, and countries.

2.1.1. Trends and performance analysis

The trend in terms of annual scientific production in the selected domain revealed that the maximum number of studies (29) were produced in 2019 also there are significant publications almost every year (Fig. 1). In 2023, two publications have reported till the date of the data collection (February 12, 2023).

Most relevant publication outlets in terms of the number of documents published have been presented in Fig. 2. The “International Journal of Applied Business and Economic Research”, “Finance India”, “Indian Journal of Finance” are among the most relevant sources in payment bank research.

These top 10 sources (Fig. 2) have published over 36% of articles in the selected domain of research.

To evaluate the trend, we have also analyzed the proportion of scientific production in different areas of research based on Scopus analysis. Business and management areas include the highest proportions of 32% followed by economics, econometrics, and finance at about 29% (Fig. 3).

To broaden performance analysis, we have used countries’ scientific production as well as countries’ total citations. India is leading in both in terms of most cited countries and most scientific productions (Fig. 4a and b). This may happen as the payments bank model has been conceptualized by RBI and we have also included the Payments banks in India as the primary base for our analysis.

2.1.2. Documents, citations, and content analysis

This section includes the most influential documents that have the highest citations and citations per year (Table 2), the list has been prepared based RStudio’s ‘Bibliometrix’ analysis and content analysis, which helped authors to identify the scholarly impact in terms of citations. And, also to exclude some articles that are not directly related to the research domain. Singh et al. (2017) discovered a positive association between consumer preference and satisfaction; based on satisfaction, they prefer using all its services and choose wallets and online transactions over traditional banking. Perceived credibility is the most influential element among those that drive the use of payment banks in India,

Table 1. Search strings and filters.

<table>
<thead>
<tr>
<th>Keywords strings and filters</th>
<th>Article Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>(TITLE-ABS-KEY(Payment bank) AND TITLE-ABS-KEY(india)) AND PUBYEAR &gt;2014 AND PUBYEAR &lt;2024 AND (LIMIT-TO (SUBJAREA,&quot;BUSI&quot;) OR LIMIT-TO (SUBJAREA,&quot;ECON&quot;) OR LIMIT-TO (SUBJAREA,&quot;SOCI&quot;)) AND (LIMIT-TO (DOCTYPE,&quot;ar&quot;) OR LIMIT-TO (DOCTYPE,&quot;re&quot;)) AND (LIMIT-TO (SRCTYPE,&quot;j&quot;)) AND (LIMIT-TO (LANGUAGE,&quot;English&quot;))</td>
<td></td>
</tr>
</tbody>
</table>
and it also plays a significant role in encouraging underbanked and unbanked customers to adopt new services like payment banks (Gupta et al., 2019). Payment service providers have shown that mobile-based solutions can be useful. Traditional banks in India are now trying to reach people in rural areas by offering mobile-based banking services (Kandpal & Mehrotra, 2019). According to Chodorow-Reich et al. (2019), as a result of demonetization in India, less money was withdrawn from ATMs and alternative payment methods were adopted more rapidly in districts. Notably, Demonetization reduced ATM withdrawals and accelerated the use of electronic payment methods like POS and mobile banking; likewise, digital payment tools supplement this (Fouillet et al., 2021).

The "Pay As You Go" model has an edge over other business models in India because of conditions such as increased digital transactions, a consolidated telecom sector, a smartphone user base, private sector partnerships, and global competitors joining the industry (Yadav et al., 2019). Somville and Vandewalle (2018) found while studying the spending habits of rural Indian villagers, that households were more likely to save when their income was deposited directly into a bank account rather than being received in cash. Also, the most important factor that enables cashless payments is deposits into accounts (Mukhopadhyay, 2016). Digital payment systems boosted several innovative tools that have been developed to facilitate smooth customer transactions in India,
although, problems with accessibility and usability persist (Barik & Sharma, 2019).

2.1.3. **Keywords and thematic analysis**

While previous sections helped to answer the first research question to evaluate trends and the status of research in the selected domain. This section focuses on answering RQ2. We used keywords analysis to identify the trend topics used by analyzing authors’ keywords in the payments bank research domain. Fig. 5a and b shows that financial inclusion and India were the most trending topic with the highest frequency whereas banking, demonetization and e-banking were other trending keywords. Similarly, word cloud also verifies similar trend keywords along with other trending keywords like the cashless economy, corporate governance, and covid-19.

With similar lines of analysis, Fig. 6 has been generated based on the author’s keywords co-occurrence analysis, which shows 48 items in nine different clusters.

Financial inclusion, banking, digital financial inclusion, cashless economy, and demonetization are the prominent keywords with the highest frequency and link strength. Furthermore, we broaden the review by following a thematic analysis (Fig. 7). The

![Fig. 4. a. Countries scientific production. b. Countries total citations. Source: Authors compilation using RStudio.](image-url)

### Table 2. Articles with total citations and total citations per year.

<table>
<thead>
<tr>
<th>Authors</th>
<th>Papers</th>
<th>Total Citations (TC)</th>
<th>TC per Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singh et al. (2017)</td>
<td>“Consumer preference and satisfaction of M-Wallets: a study on North Indian consumers”</td>
<td>95</td>
<td>13.57</td>
</tr>
<tr>
<td>Gupta et al. (2019)</td>
<td>“Factors influencing adoption of payments banks by Indian customers: Extending UTAUT with perceived credibility”</td>
<td>57</td>
<td>11.40</td>
</tr>
<tr>
<td>Kandpal and Mehrotra (2019)</td>
<td>“Financial Inclusion: The Role of Fintech and Digital Financial Services in India”</td>
<td>44</td>
<td>8.80</td>
</tr>
<tr>
<td>Chodorow-Reich et al. (2019)</td>
<td>“Cash and the Economy: Evidence from India’s Demonetization”</td>
<td>39</td>
<td>9.75</td>
</tr>
<tr>
<td>Yadav et al. (2019)</td>
<td>“Pay-As-You-Go financing: A model for viable and widespread deployment of solar home systems in rural India”</td>
<td>37</td>
<td>7.40</td>
</tr>
<tr>
<td>Somville and Vandewalle (2018)</td>
<td>“Saving by Default: Evidence from a Field Experiment in Rural India”</td>
<td>18</td>
<td>3.00</td>
</tr>
<tr>
<td>Barik and Sharma (2019)</td>
<td>“Analyzing the progress and prospects of financial inclusion in India”</td>
<td>14</td>
<td>2.80</td>
</tr>
<tr>
<td>Chauhan et al. (2021)</td>
<td>“Adoption of electronic banking services in India: an extension of UTAUT2 model”</td>
<td>11</td>
<td>5.50</td>
</tr>
<tr>
<td>Mukhopadhyay (2016)</td>
<td>“Understanding cashless payments in India”</td>
<td>10</td>
<td>1.25</td>
</tr>
<tr>
<td>Fouillet et al. (2021)</td>
<td>“Demonetization and digitalization: The Indian government’s hidden agenda”</td>
<td>10</td>
<td>3.33</td>
</tr>
</tbody>
</table>

Source: Authors compilation based on RStudio.
four quadrants include four different types of topologies which depict different relevance for the research. For example, basic themes cover a wide range of topics; emerging themes depict themes that are developing or declining; niche themes highlight topics with limited significance (low density), and motor themes showcase topics at a more advanced stage in the research (Della Corte et al., 2019). Hence, financial inclusion, behavioural intention, mobile financial services, banking and cashless are important topics that should be considered by scholars in their future endeavours. These themes have the highest score in terms of both centrality and density (Table 3). Themes intermediaries, e-wallets, and points of sales are either emerging or declining with low-rank centrality and density (Table 3). The theme, non-performance assets exist in niche themes due to the reason that the payment banks are not designed to grant credit. Similarly, e-banking and awareness are between the basic themes and emerging or declining themes. Shadow banking and corporate governance fall under basic themes which may cover wide areas of scope in relation to the research in the selected domain.

Fig. 5. a: Trend topics using author’s keywords. b: Word cloud using author’s keywords. Source: Authors compilation using RStudio.

Fig. 6. Keywords co-occurrence analysis. Source: Authors compilation using VOSViewer.
3. Conclusions and implications

The literature on payment banks was reviewed through the use of bibliometrics and content analysis in this study. The first research question (RQ1) was addressed with a trend and performance analysis that detailed the quantity and quality of scientific output each year, the leading research journals in the field, the distribution of articles across scholarly fields, and the number of citations and publications in each country. The year 2019 saw the highest amount of publications ever. When it comes to academic journals in the chosen field, "International Journal of Applied Business and Economic Research" stands out as the best option. One of the frequently referenced works is Singh et al. (2017)'s publication. In terms of both scientific output and citation frequency, India ranks first. RQ2 was answered with the help of document, theme, and content analysis. Users' preferences and levels of satisfaction with wallets (Singh et al., 2017) were found to be important factors in the content analysis. Users' perceptions of the credibility of payment banking services (Gupta et al., 2019) also played a role in getting them to use them. Some of the issues highlighted by the authors include the increasing prevalence of digital payment methods and tools, as well as direct bank account transfers (Barik & Sharma, 2019; Mukhopadhyay, 2016; Somville & Vandewalle, 2018). Scholars focused mostly on themes related to financial inclusion, digital banking, e-banking, behavioural intention, and e-wallets (payment systems). In a similar spirit, the content analysis assisted the author in identifying the themes that should be explored further. Moreover, these areas of importance highlighted by the study based on review and analysis may be used by managers, service providers, and researchers for designing financial products and improving the services offered. Similarly, service providers and policymakers should take these aspects into their consideration, while framing operating guidelines concerning these products and services. Finally, the highlighted themes will also help the researchers to explore them in their future studies.
4. Limitations and future dimensions

This study is not free from limitations; rather, it shares certain similarities with other studies in that regard. In this study, bibliometric analysis was utilized to conduct a review of previously published literature using the Scopus database. Even though this database contains comprehensive coverage of research articles, researchers doing subsequent studies might take into consideration the inclusion of additional databases. Similarly, the citation counts are derived from the information that was gathered from Scopus, which means that they can be different when compared to the results of using Google Scholar or similar platforms.

The widespread acceptance of payment banking services has been found to be influenced by several factors; while this has resulted in the simplification of transactions, issues about payment banking’s accessibility and usability continue to exist (Barik & Sharma, 2019). This study provides a summary of the following future dimensions for researchers. Based on the findings of the keyword and topic analysis, the significance of payment banks in promoting financial inclusion is substantial. However, the areas of behavioural intention and mobile financial services have the most opportunity for future investigation because they emerged as motor themes with high importance for research. The review uncovered several major themes, two of which are corporate governance and shadow banking, both of which should be the focus of future research on payment banks. Also, ”demonetization” has emerged as one of the most commonly used words throughout research. Therefore, its relationship and comparison with the predominant factors in relation to payment bank services may in the future be proved to be a significant contribution by academics.

References


