

# The Impact of E-Banking on Commercial Banks: A Literature Review

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**Abstracts:** The banking industry has enjoyed the ride of emerging technology to undergo significant changes. Banks are among the biggest beneficiaries of the IT revolution and have largely adopted Information Technology solutions for rendering banking services to their customers. The primary objective of this study is to examine the existing literature regarding the impact of E-banking on commercial banks and to identify gaps within the current body of knowledge. The published studies between 2018 and 2022 were evaluated. Researchers evaluated the eligibility of the studies, extracted data from the included studies, and assessed the risk of bias and quality of the study in an independent manner. Initially, 949 references were retrieved, but ultimately, only 10 articles satisfied the inclusion criteria for the analysis and were deemed eligible. All selected articles' objectives, methodologies, outcomes, and recommendations have been analyzed and synthesized. Based on the evaluation and analysis of the articles, The implementation of electronic banking has brought about a multitude of advantages for commercial banks. Some of the benefits encompassed in this list are financial savings achieved via the implementation of automated processes, enhanced levels of consumer interaction and contentment, and the ability to extend market presence to segments that were previously neglected. Moreover, the advent of digitalization in the banking industry has facilitated banks in accommodating evolving client expectations and effectively competing in an ever-expanding digital landscape. However, the findings derived from this comprehensive examination of existing literature provide a fundamental basis for future research and informed decision-making processes. Consequently, these insights empower commercial banks to prosper within the ever-evolving and technologically advanced financial landscape of the 21st century.

**Keywords:** Electronic Banking, Commercial Bank, Literature review

## 1. INTRODUCTION

In today's technology driven landscape electronic banking (e banking) has emerged as a game changer, greatly impacting banks worldwide. The implementation of e banking has brought about changes, within these banks. Scholars such as Thowfeek et al. (2020) emphasize the efficiency and cost effectiveness that comes with e banking. By automating transactions and processes not have operational expenses been reduced but errors have also been minimized and transaction speed enhanced. Additionally, e banking enables banks to provide account access, to customers around the clock (Chaimaa et al., 2020).

To cater to the increasing need, for banking services commercial banks have had to make investments in technological infrastructure. This includes the development of internet banking platforms, mobile applications and ATM networks (Ha, 2018). As a result, there has been a transformation in the structure of banks, with the establishment of units specifically focused on e banking.

The rise of E-banking has prompted banks to reevaluate and adjust their strategic methods. Scholars, like Shanmugam and Chandran (2022) highlight that e-banking has empowered banks to extend their influence beyond branches and broaden their range of products thereby fostering the creation of ground breaking services. This strategic transition, towards platforms has enabled banks to strengthen their stance in the market (Cuesta et al., 2015).

In addition, the rise of e banking has also pushed banks to prioritize cybersecurity measures (Eleyan et al., 2022). Banks are now investing resources in ensuring the protection of customer information and maintaining client trust by safeguarding their digital infrastructure.

E banking has completely transformed the way customers interact with banks. It offers them freedom and ease, in handling their finances allowing them to effortlessly access their accounts transfer money and make payments from any location, with an internet connection (Rao et al., 2022). Moreover, e-banking has enhanced the transparency of banking activities by empowering customers to monitor their transactions in time.

Ritu et al. (2023) say that e-banking has also pushed banks to personalise their services through data analytics and AI-powered tools. This makes the whole customer experience better and makes customers more loyal. On the other hand, the rise of e-banking has made it necessary for banks to offer strong customer service both online and offline to answer questions and deal with problems (Ibrahim & Daniel, 2019).

As e-banking has become more popular, private banks have had to deal with new rules and regulations. Bora and Baruah (2020) say that governments and financial regulators have had to change to keep up with the changes in digital banking. They've put in place tighter rules to make sure that customer data is safe and private and to stop financial crimes like money laundering and fraud. This has caused compliance costs for banks to go up because they have to spend more on new tools and people who know how to follow regulations. Also, compliance risks have grown in cross-border e-banking, which means that regulatory bodies need to work together on an international level.

However, the goal of this literature review is to give a full picture of how e-banking has affected commercial banks by looking at what different scholars and experts have found. E-banking includes a wide range of digital banking services, such as online banking, mobile banking, electronic funds transfer, and automated teller machines (ATMs), which have become important parts of how banks work today. This review will look at how e-banking has changed private banks' strategic, operational, and customer-centred goals.

## **2. METHODOLOGY**

Researchers systematically reviewed the field of E-banking in commercial banks to improve services, following the guidelines outlined in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA). The study employed the PRISMA approach to ensure a rigorous review process.

The primary objective of this research was to curate and analyze articles within the domain of E-banking in commercial banks, with the aim of enhancing services. Researchers specifically concentrated on articles published between 2018 and 2022. Encompassing a period of close to 5 years, this timeframe was chosen to facilitate the compilation of a comprehensive overview of E-banking's role in commercial banks.

As part of the Sphere project, which focuses on evidence-based practices, significant research efforts were entailed in establishing such evidence bases. Articles published prior to 2022 were included in this search.

The search was limited to Scopus for journal articles and conference proceedings with significant discussion and details on the impact of E-banking in commercial banks. The following keywords were used to identify all relevant articles following a qualitative analysis of relevant keywords. (E-banking OR Electronic Banking) AND (Commercial banks). After reviewing the title and abstract of 949 articles, the full text of the articles was reviewed.

In this study, PRIMSA identified four stages in the search and findings: preliminary screening, screening of studies, identifying eligible studies, and identifying included studies. The initial screening process involves

developing search queries and finding relevant articles from different databases based on them. The screening study phase removes duplicates and ineligible papers, while the eligible study phase eliminates articles based on the subject matter criteria. This final step generates a list of 10 articles to be reviewed. As shown in Fig. 1, this process is detailed.

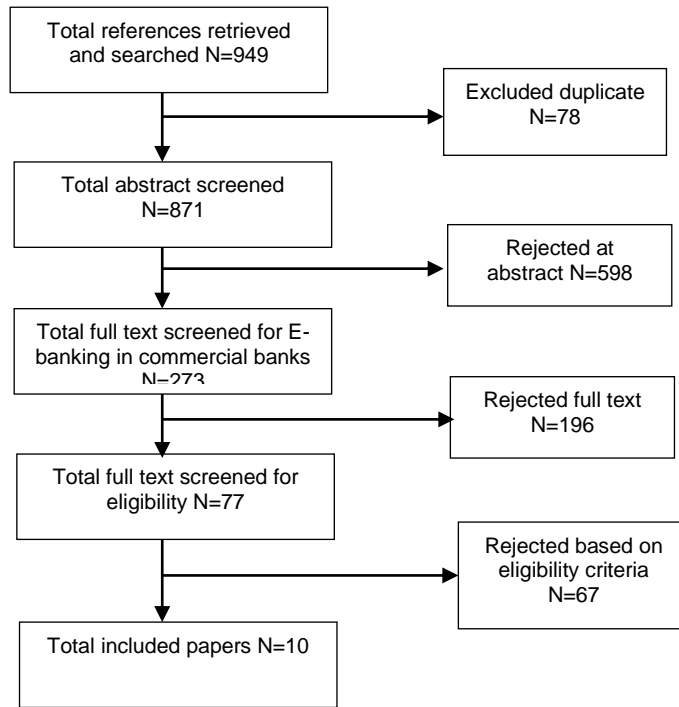


Figure 1: Study selection process overview

### 3. RESULTS AND DISCUSSION

The aims, results, conclusions, and methods used in previous studies are depicted in Table 1 below.

Table 1: Content review of the selected articles

Author	Purpose	Methodology	Results	Recommendation
(Chowdhury et al., 2022)	The goal of this study is to look at how the pandemic has changed the e-banking system in Bangladesh.	Quantitative	The study found that the e-banking security service facility, customer knowledge of e-banking, and the e-banking infrastructure facility were all important factors in improving the quality of bank e-services.	Empirical study is needed to make decisions about how to improve the e-banking services of a bank in the future. The ideas from the study will be used to make a plan for how to use and plan for E-Banking in Bangladesh in the future.
(Le, 2022)	The goal of this study is to look at the relationship between different aspects of e-banking service quality	Quantitative	The data show that reliability, efficiency, and ease of use; responsiveness and communication; and security and privacy all have a big effect on customer	To make this study even bigger, the author suggests that the research scope be expanded to include business customers who use this service or that the research scope be

	and customer satisfaction. This will help us figure out which factors may affect customer happiness.		satisfaction, with the effectiveness of e-banking services offering the most customer satisfaction.	expanded to the whole banking system to get a bigger picture.
(Lu, 2022)	This study looks at how cashless payments (ATM, internet banking, mobile banking, credit card, debit card, charge card, and e-money) affected the success of eight local commercial banks in Malaysia from 2005 to 2018.	Quantitative	The results show that in the first wave of progressive growth, cashless payments have a big effect on banks' ability to make money, but they don't have much of an effect on how well banks do their jobs.	This study says that future research could look into how long-term cashless payments affect how well banks do. This can be measured with Tobin's q model, which looks at the financial success of banks on the market to get a better idea of how they will do in the long run.
(Liao et al., 2021)	This article's goal is to look at what makes enterprise e-banking work well and why, as well as what that means for business processes.	Quantitative	The empirical results show that firms' happiness has a big impact on how trustworthiness, utilitarian value, and usability affect firms' plans to keep using business e-banking services. The empirical results also show that it is important for commercial banks to offer trustworthy and reliable corporate e-banking services that make it easy for businesses in different industries to do banking work and transactions online.	As mobile banking becomes an important new service channel, more research can be done to look at the effects of different attributes and how improvements to relevant attributes might encourage firms to use mobile business banking services.
(Hossain, 2021)	This study looks at the link between state-owned private banks in Bangladesh that use e-banking and how well their finances are doing.	Quantitative	The research results show that the adoption and use of e-banking has a big negative effect on the return on assets, return on equity, and net interest margin of banks in the year they adopt it. But the result also shows that e-banking has a big good effect on return on assets in the year after it starts being	To confirm and add to the results of this study, more research could be done on the same subject using a full set of data from both private and state-owned commercial banks in Bangladesh.

			used.	
(Souiden et al., 2021)	This study is a thorough look at the services offered by mobile banks. Its major goal is to give an up-to-date review of this type of services, which is becoming more popular.	Review	The results show that the TAM (technology of acceptance model) and the UTAUT (unified theory of acceptance and use of technology) are still the main conceptual frameworks and models that experts use and modify to explain why people use or want to use mobile banking.	Future studies should look into the direct and indirect effects of society on the use of m-banking and try to figure out how they work.
(Sharma et al., 2020)	The goal of this study is to find out how cultural values of users in Fiji affect people's plans to use internet banking (IB).	Quantitative	The empirical findings show that the levels of performance expectations, effort expectations, social influence, and conditions that make it easy to use IB have a positive effect on IB adoption, while perceived risk has a negative effect on IB usage intentions. It was found that IB intention has a good effect on usage behaviour, which in turn has an effect on customer satisfaction.	The suggestions for future research in this study give experts challenging ideas for how to improve their work in the years to come.
(Wadesango, 2020)	This study tried to find out what effect digital banking has on how well business banks in Zimbabwe do financially.	Quantitative	The study showed that the return on assets (ROA) at CBZ, a commercial bank in Zimbabwe, was going up because more customers were putting money into their accounts through digital banking systems.	The study says that bank management should improve digital banking to help private banks do better financially.

(Nyiranzabamwita & Harelimana, 2019)	The goal of the study was to find out how electronic banking changed how commercial banks in Rwanda served their customers.	Quantitative	The study found that customer service at Bank of Kigali could be explained by the probability of 0.0374 for internet banking, the probability of 0.0004 for mobile banking, and the probability of 0.0010 for electronic tax. These probabilities are each expected to be less than 10%.	The study suggested that clients be made more aware of how to use and benefit from internet banking services. This could be done through public awareness programmes that teach people more about the service.
(Chipeta & Muthinja, 2018)	This piece looks at how 42 commercial banks in Kenya have done financially in relation to their use of new financial ideas.	Quantitative	The results show that financial innovations have a big effect on how well banks do financially, and that firm-specific factors are more important than industry factors when it comes to figuring out how well a firm is doing financially right now.	The authors suggest that future research try to find out if financial innovation is more related to past or future success.

Bui and Luong (2023) say that e-banking has the ability to improve financial inclusion by giving underserved and remote populations access to banking services. Scholars have pointed out that mobile banking, in particular, has been a key way to reach people in poor countries who don't have bank accounts. Customers can do basic banking tasks like transferring money and paying bills without going to a traditional bank office. They can do this by using their mobile phones and digital wallets. But there are still worries about the digital gap, access to technology, and digital literacy, which banks and policymakers need to keep an eye on.

In the age of e-banking, it is very important for commercial banks to keep their customers' trust and keep their good image. (Inegbedion et al., 2020) says that security breaches or data breaches can have serious effects, such as losing the trust of customers and hurting a bank's image. Customers are getting more and more careful about where they put their money and personal information. So, private banks have had to focus on openness, accountability, and doing business in an honest way to keep their good name and keep customers coming back. This needs both strong security measures and clear communication with customers about what is being done to keep their data safe.

E-banking has changed the interaction between customers and banks in big ways. Customers can now access their accounts, move money, and pay bills from anywhere with an internet connection (Rao et al., 2022). This gives them more control and makes it easier to manage their money. E-banking has also made banking more open by letting customers keep track of their own activities in real time.

Ritu et al. (2023) say that e-banking has also pushed banks to personalise their services through data analytics and AI-powered tools. This makes the whole customer experience better and makes customers more loyal. On the other hand, the rise of e-banking has forced banks to offer strong customer support services, both online and offline, to answer customers' questions and address their worries (Ibrahim & Daniel, 2019).

The rise of e-banking has also made the financial field more competitive. (Chmielarz & Zborowski, 2018): Fintech startups and tech giants have entered the market and are now competing with standard commercial banks. These new companies use technology to offer banking services that are new, customer-focused, and often

cheaper and easier to use. In order to stay competitive, traditional banks have had to come up with new ideas and work with fintech companies. This competition has led to improvements in financial technology, which help customers by giving them more options and better services.

All of the reviewed articles stress that e-banking has a number of important benefits for commercial banks. In the first place, e-banking has saved a lot of money. Banks can cut costs by automating routine transactions and getting rid of the need for real branches. Online and mobile banking often have lower fees than standard banking services, so customers also save money. These savings on costs have helped commercial banks make more money generally.

Enhanced client engagement and satisfaction are emphasized as significant advantages in the existing body of the review. E-banking offers consumers the advantage of accessing their accounts and doing transactions at their leisure, regardless of time and location. Furthermore, the utilization of data analytics and artificial intelligence has enhanced the customer experience through the implementation of personalized services that cater to individual preferences. The enhanced convenience and individualized service offered by commercial banks have contributed to the development of customer loyalty and retention, ultimately resulting in financial advantages for these institutions.

Although e-banking in commercial banks offers numerous advantages, the evaluated studies also highlight several notable downsides linked with this practice. One of the primary worries in contemporary society is to the increased susceptibility to cybersecurity attacks and the potential occurrence of data breaches. The digital infrastructure of electronic banking renders financial institutions susceptible to a range of cyber threats, such as phishing, malware, and ransomware.

## **CONCLUSION**

The impact of e-banking on commercial banks in the current period of rapid technical progress is of significant importance and should not be underestimated. The advent of electronic banking has had a profound impact on the strategy, operations, and client relationships of commercial banks worldwide. The literature analysis offers a thorough perspective on the diverse effects of e-banking within the crucial domain of the financial industry.

The implementation of electronic banking has brought about a multitude of advantages for commercial banks. Some of the benefits encompassed in this list are financial savings achieved via the implementation of automated processes, enhanced levels of consumer interaction and contentment, and the ability to extend market presence to segments that were previously neglected. Banks have utilised data analytics and artificial intelligence (AI) techniques to provide customised services, hence augmenting the entire customer experience and cultivating client loyalty. The advent of digitalization in the banking industry has facilitated banks in accommodating evolving client expectations and effectively competing in an ever-expanding digital landscape.

Nevertheless, it is imperative to recognise that the transition to electronic banking is not devoid of obstacles and disadvantages. The existing body of literature has underscored many concerns pertaining to cybersecurity dangers, data privacy issues, and the digital divide that affect customers. In order to reduce these risks, it is imperative for banks to consistently allocate resources towards the implementation of effective security measures and adherence to regulatory compliance. In addition, it is imperative to acknowledge and tackle the existing discrepancies in digital access and literacy in order to guarantee that the advantages of electronic banking are accessible and fair for all individuals.

In summary, electronic banking has fundamentally transformed the commercial banking sector, offering a wide range of prospects and obstacles. In light of the ongoing evolution of technology, it is imperative for banks to maintain a state of agility, adaptability, and responsiveness in order to effectively address the constantly shifting demands and expectations of their clientele. The findings derived from this comprehensive examination of existing literature provide a fundamental basis for forthcoming investigations and informed decision-making processes.

Consequently, these insights empower commercial banks to prosper within the ever-evolving and technologically advanced financial landscape of the 21st century.

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