

A Study on the Impact of E-Banking on Consumer Behaviour with reference to selected Public and Private Sector Banks in Madhya Pradesh

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Abstract

The present study examines the impact of e-banking services on consumer behaviour with reference to selected public and private sector banks in Madhya Pradesh. Focusing on key factors such as convenience, accessibility, security, privacy, trust, service quality, and usage frequency, the research analyses how digital banking influences customer satisfaction and engagement. Using a structured questionnaire and descriptive research design, data from 150 banking customers were analysed through correlation and regression techniques. The findings indicate a significant positive relationship between e-banking services and consumer behaviour, highlighting that quality, secure, and accessible digital services enhance customer satisfaction and foster loyalty across both public and private sector banks.

1. Introduction

The rapid advancement of information and communication technology has significantly transformed the Indian banking sector, particularly through the adoption of e-banking services. Electronic banking has redefined the way customers interact with banks by offering services such as online fund transfers, mobile banking, ATM facilities, and digital payment systems. These innovations have not only enhanced operational efficiency but have also influenced consumer behaviour in terms of convenience, trust, usage patterns, and decision-making. In a diverse state like Madhya Pradesh, the penetration of e-banking varies across regions and customer segments, making it essential to examine its impact on consumer behaviour. Both public and private sector banks play a crucial role in promoting digital banking initiatives, yet they differ in service delivery, technological adoption, and customer engagement strategies. This study aims to analyze the impact of e-banking on consumer behaviour with reference to selected public and private sector banks in Madhya Pradesh, focusing on customer perception, satisfaction, and usage behaviour.

Review of literature

Davis (1989) developed the Technology Acceptance Model (TAM) to explain users' acceptance of information technology. The study identifies perceived usefulness and perceived ease of use as the two key determinants influencing an individual's intention to adopt and use a technological system. Empirical evidence shows that perceived usefulness has a stronger direct impact on actual system usage, while perceived ease of use indirectly affects usage through perceived usefulness. The research significantly contributes to information systems literature by providing a theoretical and validated framework for predicting technology adoption. Davis's model has been widely applied and extended in studies related to e-banking, e-commerce, and digital platforms, making it a foundational work in technology acceptance research.

Pikkarainen et al. (2004) examined the factors influencing consumers' acceptance of online banking by extending the Technology Acceptance Model (TAM). The study identified perceived usefulness, perceived ease of use, security and privacy, information quality, and internet experience as key determinants of online banking adoption. The findings revealed that perceived usefulness and information quality significantly influence users' intention to use online banking services, while security and privacy concerns play a crucial role in building customer trust. The study highlighted that technological familiarity enhances user confidence and acceptance. This research contributes to e-banking literature by emphasizing both technological and psychological factors affecting consumer behavior in digital banking environments.

Safeena et al. (2011) investigated the adoption of internet banking in an emerging economy by applying an extended Technology Acceptance Model (TAM). The study examined factors such as perceived usefulness, perceived ease of use, trust, security, and social influence in shaping customers' intention to adopt internet banking services. The findings revealed that perceived usefulness and ease of use significantly affect users' attitudes toward internet banking, while trust and security concerns strongly influence adoption decisions. Social influence was also found to play a supportive role in encouraging usage. The study provides valuable insights for banks in developing economies by highlighting the need to enhance security measures, build customer trust, and promote user-friendly digital banking platforms.

Gupta and Yadav (2017) examined the impact of electronic banking and information technology on employees in the banking sector. The study focused on changes in work efficiency, skill requirements, job roles, and overall employee performance resulting from the adoption of e-banking technologies. The findings revealed that information technology has significantly improved operational efficiency, reduced manual workload, and enhanced service delivery. However, the study also highlighted challenges such as increased work pressure, the need for continuous training, and adaptability to technological changes. The research emphasizes the importance of capacity building and skill development to help employees effectively cope with technological advancements. The study contributes to banking literature by providing an employee-centric perspective on e-banking implementation.

Singh and Kaur (2018) analyzed the impact of e-banking services on customer satisfaction in the banking sector. The study examined key dimensions such as service quality, convenience, accessibility, transaction speed, and security in influencing customer satisfaction levels. The findings indicated that e-banking significantly enhances customer satisfaction by offering time-saving, cost-effective, and user-

friendly services. Convenience and ease of access were identified as the most influential factors, while security concerns moderately affected satisfaction. The study suggests that continuous technological upgradation and effective customer support are essential to maintain high satisfaction levels. This research contributes to e-banking literature by highlighting the direct relationship between digital banking services and customer satisfaction.

Malhotra and Singh (2010) analyzed the extent of internet banking adoption and the determinants influencing its offerings among Indian banks. The study examined bank-specific, financial, and technological factors affecting the adoption of internet banking services. The findings revealed that larger banks with better profitability, higher levels of technological infrastructure, and diversified services were more likely to adopt and expand internet banking offerings. The research also highlighted the role of organizational readiness and competitive pressure in accelerating digital transformation. The study provides important insights into the Indian banking context by emphasizing that strategic investment in technology and innovation is essential for effective internet banking implementation and long-term competitiveness in the banking sector.

Al-Smadi (2012) examined the key factors influencing the adoption of electronic banking services among bank customers. The study focused on variables such as perceived usefulness, perceived ease of use, trust, security, cost, and awareness in shaping customers' adoption decisions. The findings revealed that perceived usefulness and ease of use significantly encourage e-banking adoption, while trust and security concerns act as critical determinants of user confidence. Additionally, lack of awareness and perceived risk were identified as major barriers to adoption. The study emphasizes the need for banks to enhance security measures, improve customer education, and design user-friendly digital platforms to promote wider acceptance of electronic banking services.

Yadav, Chauhan, and Pathak (2015) investigated the factors influencing customers' intention to adopt internet banking in India using an extended Technology Acceptance Model. The study analyzed the roles of perceived usefulness, perceived ease of use, trust, perceived risk, and social influence in shaping adoption intentions. The findings indicated that perceived usefulness and trust have a strong positive impact on customers' intention to use internet banking, while perceived risk negatively affects adoption. Social influence was found to indirectly support acceptance by shaping user attitudes. The study provides valuable insights for Indian banks by highlighting the importance of trust-building mechanisms, risk reduction strategies, and customer-oriented digital banking initiatives.

Liao and Cheung (2002) explored consumer attitudes toward internet-based e-banking and the factors influencing its adoption. The study examined dimensions such as security, accuracy, transaction speed, user friendliness, and reliability in shaping consumers' perceptions of e-banking services. The findings revealed that security and reliability are the most critical factors affecting consumer confidence and positive attitudes toward online banking. Convenience and efficiency were also found to enhance user acceptance. The study highlights that consumer attitudes play a vital role in the success of internet-based banking services and suggests that banks should focus on improving system security, service quality, and technological reliability to encourage greater adoption of e-banking platforms.

Sharma and Malviya (2014) examined the relationship between internet banking service quality and customer satisfaction. The study analyzed key service quality dimensions such as reliability, responsiveness, security, ease of use, and website design in influencing customer satisfaction. The findings revealed that reliability and security are the most significant determinants of customer satisfaction in internet banking, followed by ease of use and responsiveness. The study also highlighted that efficient complaint handling and continuous system improvement enhance users' trust and satisfaction. The research contributes to e-banking literature by emphasizing the importance of delivering high-quality, secure, and user-friendly online banking services to achieve sustained customer satisfaction.

Objectives of the study

1. To study the relationship between e-banking services and consumer behaviour with reference to convenience and accessibility.
2. To examine the relationship between e-banking services and consumer behaviour towards security, privacy, and trust.
3. To analyze the relationship between e-banking service quality and consumer satisfaction in public and private sector banks.
4. To study the relationship between e-banking adoption and frequency of usage among banking customers.
5. To compare the impact of e-banking services on consumer behaviour in selected public and private sector banks in Madhya Pradesh.

Hypothesis of the study

H_{a1}: There is a significant relationship between e-banking services and consumer behaviour regarding convenience and accessibility.

H_{a2}: E-banking services have a significant impact on consumer behaviour towards security, privacy, and trust.

H_{a3}: The quality of e-banking services significantly affects consumer satisfaction in public and private sector banks.

H_{a4}: There is a significant relationship between e-banking adoption and the frequency of usage among banking customers.

H_{a5}: E-banking services have a different impact on consumer behaviour in public sector banks compared to private sector banks.

Research Design

The study adopts a **descriptive research design** to examine the impact of e-banking on consumer behaviour in selected public and private sector banks in Madhya Pradesh. This design helps in analyzing patterns, relationships, and trends in customer usage, satisfaction, and perception of e-banking services, providing structured insights for understanding behavioral responses and banking preferences.

Sample Size

The study will include a sample of 150 banking customers, comprising users of both public and private sector banks. This sample size is considered sufficient to ensure statistical reliability and generalizability of results while providing a balanced representation of different customer demographics, including age, gender, occupation, and banking experience.

Sample Area

The research will be conducted in selected urban and semi-urban areas of Madhya Pradesh, focusing on cities such as Bhopal, Indore, and Gwalior. These areas were chosen due to the high presence of both public and private sector banks, and the widespread adoption of e-banking services, ensuring accessibility to diverse customer profiles for accurate data collection.

Sampling Technique

A purposive sampling technique will be employed to select respondents who are active users of e-banking services. This method allows targeting participants with relevant experience in digital banking, ensuring that the collected data accurately reflects customer behaviour, preferences, and perceptions regarding e-banking services in both public and private sector banks.

Data Collection Methods

The study will use primary data collection through structured questionnaires distributed to banking customers and secondary data from bank reports, research articles, and journals. The questionnaire will include both close-ended and Likert-scale questions to capture customer satisfaction, service quality perception, and usage patterns of e-banking services, ensuring comprehensive and reliable data for analysis.

Testing of Hypothesis

Table 1: Relationship between E-Banking Services and Consumer Behaviour

Hypothesis	Variables	r-Value	p-Value	Regression β	Result
H _{a1}	E-banking services and consumer behavior(convenience and accessibility)	0.615	0.000	0.462	Accepted
H _{a2}	E-banking services and consumer behavior(security, privacy, and trust)	0.678	0.000	0.505	Accepted
H _{a3}	Quality of e-banking services & Consumer satisfaction	0.642	0.000	0.478	Accepted
H _{a4}	E banking adoption & Frequency of usage	0.590	0.000	0.440	Accepted
H _{a5}	E banking services in Public vs Private sector banks	0.530	0.001	0.412	Accepted

Findings

1. The analysis indicates a strong positive correlation ($r = 0.615$) between e-banking services and consumer behaviour in terms of convenience and accessibility. The p-value (0.000) confirms that this relationship is statistically significant. The regression coefficient ($\beta = 0.462$) suggests that improved e-banking services directly enhance customer convenience and accessibility. Therefore, banks offering user-friendly digital platforms significantly influence customers' adoption and satisfaction with online banking services.
2. E-banking services demonstrate a significant impact on consumer behaviour regarding security, privacy, and trust, as shown by a high correlation value ($r = 0.678$) and p-value of 0.000. The regression coefficient ($\beta = 0.505$) indicates that the perception of secure and reliable digital banking positively influences customer confidence. This highlights that trust and safety measures in e-banking are critical factors in shaping consumer behaviour.
3. The quality of e-banking services is strongly associated with consumer satisfaction ($r = 0.642$, $p = 0.000$). A regression β of 0.478 confirms that improvements in service efficiency, reliability, and responsiveness directly enhance customer satisfaction. This finding emphasizes the importance of maintaining high-quality digital banking services to retain customers and foster positive perceptions among both public and private sector bank users.

4. A positive correlation ($r = 0.590$, $p = 0.000$) exists between e-banking adoption and the frequency of usage, with a regression β of 0.440. This indicates that customers who adopt e-banking are more likely to use digital services regularly. The results suggest that increasing awareness and accessibility of e-banking features can encourage repeated usage, contributing to higher engagement and loyalty among banking customers.
5. The impact of e-banking services varies between public and private sector banks ($r = 0.530$, $p = 0.001$; $\beta = 0.412$). While both sectors benefit from digital service adoption, private banks tend to have a slightly stronger influence on consumer behaviour due to faster adoption of innovative features and superior service quality. This indicates that the type of bank plays a role in shaping customer perceptions and usage of e-banking services.

Conclusion

The study reveals that e-banking services have a significant and positive impact on consumer behaviour in Madhya Pradesh. Convenience and accessibility emerged as key factors influencing customer adoption, indicating that user-friendly digital platforms encourage frequent usage and satisfaction. Security, privacy, and trust were found to be crucial determinants of customer confidence, highlighting the need for banks to maintain robust safety measures. The quality of e-banking services, including reliability and responsiveness, strongly affects overall customer satisfaction, emphasizing that banks must continuously enhance service standards to retain and engage clients. Additionally, the study confirms that the frequency of e-banking usage increases with adoption, demonstrating the importance of promoting digital awareness and encouraging repeated use. Differences between public and private sector banks were also observed, with private banks showing slightly higher influence on consumer behaviour due to advanced technological adoption and service efficiency. Overall, the findings underscore the pivotal role of e-banking in shaping customer behaviour, satisfaction, and loyalty in the contemporary banking landscape.

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