

Factors Affecting Adoption of E-Banking Services

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ABSTRACT

Technology has succeeded in making many aspects of life easier for today's societies (Rust & Oliver, 1994). More importantly, it has become a critical component in improving the overall quality of services, particularly E-Banking services (Joseph & Stone, 2003). E-banking is said to rely on the exchange of information between customers and providers via technological means rather than face-to-face interaction (Darwish & Lakhtaria, 2011). Indeed, Indian banks are strategically using advances in E-Banking services to retain and attract clients, and as a result, they are making large investments in implementing the most recent E-Banking strategies to maintain and augment their competitive advantage. The study has examined the effect of technology in the adoption of e-banking services. The findings revealed that demographic wise users are more concerned with perceived usefulness, perceived ease of use, attitude, subjective norms, perceived behaviour control, perceived risk and intention to use. The study has chosen 500 users across India to know the factors affecting adoption of e-banking services.

Keywords: *perceived usefulness, perceived ease of use, attitude, subjective norms, perceived behaviour control, perceived risk and intention to use.*

INTRODUCTION

The power of internet has brought about a dynamic change in the advancement of technology, and it continues to make inventions and make access feasible and affordable for the general public. The barriers to technical accessibility have now vanished because one now has the power and ability to use in a broader context. People are more at ease when using the applications. As a result, it is preferable for practitioners and researchers to delve deeper into understanding people's intentions, such as why people resist using technology, how they respond to technology, and how we can implement technology in society by convincing them that these technologies are for their benefit rather than their detriment. Intention models on the determinants of user behaviour have been proposed as a

potential theoretical foundation for research by information systems researchers from social psychology (Swanson, 1982).

Theory of Reasoned Action (TRA)

The Theory of Reasoned Action, a widely studied model from social psychology, is concerned with the determinants of consciously intended behaviours (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). It is made up of attitudinal, social influence and intention variables when it comes to predicting behaviour.

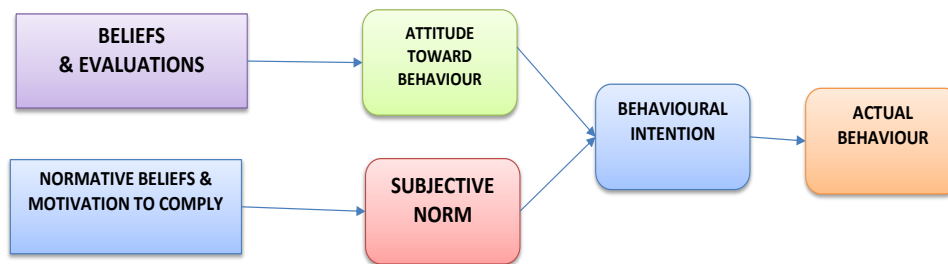


Figure 1: Theory of Reasoned Action

Individuals' Behavioural Intention (BI) to perform behaviour is hypothesised by TRA and determined by the individual's Attitude toward performing the Behaviour (ATB) and Subjective Norm (SN), which is the overall perception of what relevant others think the individual, should or should not do. The importance of ATB and SN in predicting BI will vary depending on the behavioural domain. For behaviours where attitudinal or personal-based influences are stronger (e.g., purchasing something for personal consumption only), ATB will be the dominant predictor of BI, whereas SN will have little or no predictive efficacy. However, for behaviours with strong normative implications (e.g., purchasing something that others will use), SN should be the dominant predictor of BI and ATB will be of lesser significance (Ajzen & Fishbein, 1980).

Theory of Planned Behaviour (TPB)

If the behaviour under study is not fully voluntary, there is a problem, even if the predictability of the TRA is strong across studies. Sheppard et al. (1988) addressed two theoretical issues in their paper. To begin, it is critical to distinguish between behaviour and intention. This is difficult because, in addition to one's intentions, a variety of factors influence how the behaviour is carried out. Second, there is no provision in the model for determining whether the probability of failing to perform is due to one's behaviour or one's intentions. To address these issues, Ajzen (1985) expanded the Theory of Reasoned Action by including another construct called perceived behavioural control, which predicts

behavioural intentions and behaviour. The Theory of Planned Behaviour is the name given to the extended model (TPB). By taking control-related factors into account, TRA assumes that the behaviour being studied is completely under the performer's volitional control (Madden et al., 1992). TPB, on the other hand, extends TRA's boundary conditions to more goal-directed actions.

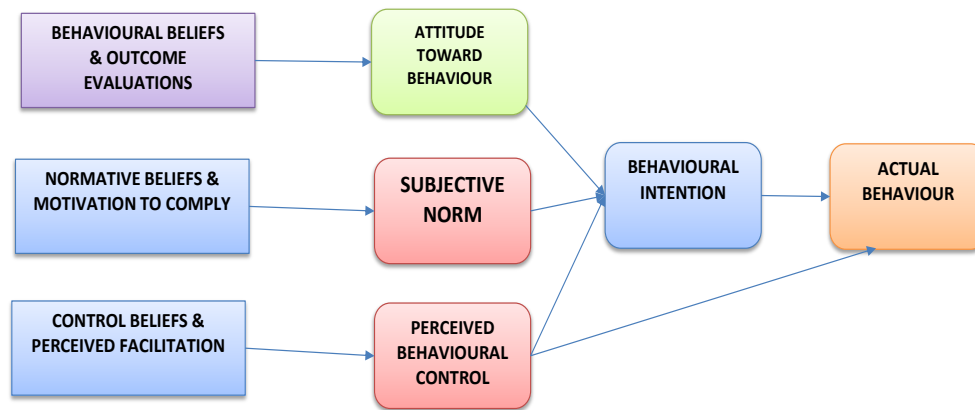


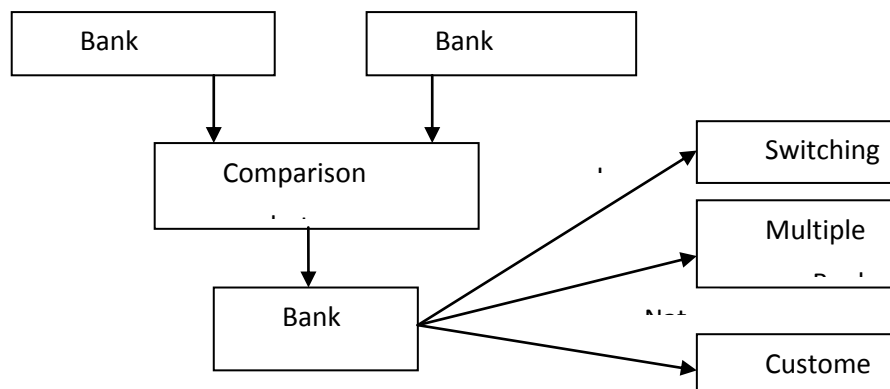
Figure 2: Theory of Planned Behaviour (TPB)

Perceived Behaviour Control (PBC) is an exogenous variable that has a direct effect on actual behaviour as well as an indirect effect on actual behaviour through intentions. The indirect effect is predicated on the assumption that Perceived Behaviour Control (PBC) has motivating effects on behavioural intentions. People's intentions to perform the behaviour may be low even if they have favourable attitudes and/or subjective norms about performing the behaviour if they believe they have little control over performing the behaviour due to a lack of necessary resources and opportunities. According to the empirical evidence provided by Bandura, people's behaviour is strongly influenced by their confidence in their ability to perform the behaviour. The structural link from Perceived Behaviour Control (PBC) to Behavioural Intentions (BI) reflects control's motivational influence on actual behaviour via intentions.

There are numerous factors that contribute to the image of expectations that customers have in their minds. Customers' prior experiences with a particular service provider play a significant role in shaping their expectations. Customers may base their pre-purchase expectations on factors such as word-of-mouth comments, new stories, or the firm's marketing efforts if they have no relevant prior experience. It is also heavily influenced by competing services within the same industry or related services within a different industry. Over time, certain norms for what to expect from service providers in a given industry emerge. Customer experience and supplier-controlled factors such as advertising, pricing,

and the physical appearance of the service facility and its employees reinforce these norms. Customer expectations may also differ by industry, reflecting industry reputations and previous experience. Different demographic groups may have different levels of experience (like different age, gender, education and occupation). The model below explains how different actions can result in varying levels of customer satisfaction when using IT-based services in a bank.

Figure– 3: Decision making Model of E- Banking Services



Source: Adopted from Moutinho L., Smith A.(2000)

RATIONALE OF THE STUDY

True, banking practises have evolved through several stages, from telephone banking to the most recent mobile banking, and there is a trend to develop innovative banking practises gradually. High competition among banks also produces better results in order to gain a large number of customers. From the perspective of banking managers, learning about e-banking practises is critical. As a result of such investigations, they will have a better understanding of their current situation and a clear path for the future. Measuring satisfaction is also important from the perspective of customers for a variety of reasons, including the fulfilment of needs and desires, making customers' lives more and more convenient, and customers' participation in bank decision-making processes, among others. Furthermore, the findings of this study will reveal whether e-banking practises can increase efficiency in banking activities over traditional banking practises, as well as how far banks can reduce costs while increasing volumes. It also makes things easier for policymakers. The findings of this study assist academics in improving their understanding of the applicability of e-banking practises in today's Electronic based banking world, as they produce knowledge for the next generation.

REVIEW OF LITERATURE

With a number of studies converging to show a relationship between E-Banking service and customer satisfaction, the question becomes the following: What aspects or dimensions of E-Banking services affect consumer behaviour and in what ways? Our review of the literature reveals that these aspects could be grouped under efficiency, reliability, privacy and security, and responsiveness and communication.

Jhavar N, Agrawal B and Kumar A (2023) mentioned the concept of Advancement of Mobile Payment System in India: A Collaborative Efforts of Government & Stakeholders uses a mixed-methods approach, combining the available secondary data with qualitative insights gained through the review of literature. The study looks at the stakeholders' significant contributions to increased digital literacy, grassroot advocacy, social acceptance and trust, innovation and entrepreneurship, digital ecosystem and infrastructure, etc. The findings demonstrate the government's proactive engagement in promoting mobile payment systems through programmes like Digital India, demonetization, and the rollout of the Unified Payments Interface (UPI). The study also highlights the important contributions made by several parties, including financial institutions, technology firms, telecommunications corporations, and retailers. Their joint initiatives to create reliable payment infrastructure, create user-friendly applications, and form alliances have significantly improved the usability and dependability of mobile payment systems

Kumar, R. and Smriti, A. (2021) emphasise the concept of e-banking that allows banking transactions such as fund transfers, loan and EMI payments, deposit and withdrawal of cash to be completed virtually using the internet. E-banking is an important part of today's banking functionality. When compared to physical banking, electronic banking is assumed to be safer and more secure. The current study was undertaken to describe the current state of e-banking in India and to investigate the challenges and opportunities of e-banking. The banking industry is increasing customer satisfaction and loyalty with the help of e-banking. Banks should provide convenience to their customers, which means offering services through multiple distribution channels and making online services more accessible to customers.

B.H. Singh (2020) examined the various online services offered by major public and private banks in India and to assess their impact on customer satisfaction. Internet banking is the use of digital age infrastructure to create opportunities in

both the local and global markets. IT enables significant cost reductions in transactions as well as the development of new types of banking opportunities that address time and distance constraints. Internet banking provides banking opportunities that are local and global, as well as immediate. Internet banking is a payment system that allows customers of banks and other financial institutions to conduct a variety of financial transactions via the websites of those institutions. Internet banking has numerous advantages over traditional banking delivery methods. Karthikeyan P. and Soniya K. (2019) stated that effective banking system depends upon the economy. The flexibility of the banking system promotes the strengthening of the Indian economy, resulting in a sound economy. For the last decade, the banking system has faced numerous challenges as a result of technological advancements posed by both internal and external factors. The study discovered that banks' efficiency is determined by their use of technology, and it also examined the factors that influence the adoption of technology for e-banking services. The study concludes that the working conditions in the banking sector are unfavourable because employees are dissatisfied and have difficulty adopting bank culture, leaving them unable to meet the expectations of their customers.

In his study, Kaushik, D. (2019) investigated how, since the late 1990s, Internet banking has piqued the interest of banks, securities trading firms, brokerage houses, insurance companies, regulators, and lawmakers in developing countries. With the rapid and significant growth of electronic commerce, it is obvious that electronic (Internet) banking and payments are likely to advance. According to studies, the impact of Internet banking on cost savings, revenue growth, and increased customer satisfaction on the industry is enormous, and it can be a potential tool for developing a sound strategy. The study fills significant knowledge gaps about consumers' perceptions of Internet banking, traces its current growth, and forecasts the likely scenario. In this paper, data from a survey of Internet banking consumers and service providers (banks) that offer Internet banking are presented, and a functional model for maximising value to consumers is developed, which the banks may choose to adopt Internet banking strategically. Kumar, R. (2019) concluded in his study that Internet banking has had a significant impact on India's banking system. With its extensive network, Indian banking offers a wide range of E-Banking services to customers. E-touch is now used for the majority of banking transactions. E-Banking, with the help of technology, is modernising the bank's entire system. SBI and ICICI banks play

critical roles in the Indian banking industry. The study aims to provide information on various E-banking services as well as the most recent developments in E-Banking from 2010-11 to 2015-16. The study also focuses on the challenges that the banking industry has faced in implementing E-banking with the help of IT.

Vuković, M., Pivac, S., Kundid, D. (2019) in their study stated that electronic banking and electronic commerce in today's dynamic environment have become an inevitable aspect of financial services therefore the need of acceptance and use of this kind of technology increases. The purpose of this research is to identify whether the motivation for using the Internet banking in the city of Split, Croatia, can be explained by perceived ease of use and perceived usefulness as the main elements of the technology acceptance model. The results showed that both elements of the technology acceptance model influence the acceptance of the Internet banking. Srilatha, T. R. and Sudhakar, A. (2018) stated that in India adoption of technology has made a rapid pace, especially in financial sector. Technology has emerged as a fundamental tool for bringing about change in the operational functions of banks and in the delivery of societal services. The entire landmark has been converted from brick and mortar to digital, with no costs incurred. Because of the way people are adopting technology and conducting online transactions on a daily and frequent basis, the definition of banks has completely changed. This study covered all aspects of providing IT services to stakeholders in relation to the issues and challenges that banks face.

RESEARCH GAP

E-banking services have gained traction in the digital era, and demand is increasing on a daily basis as companies strive to meet customers' expectations. Because of technological advancement, innovative methods have played an important role in determining customer attributes and implying such methods to make more innovative. Digitalization has brought many new issues to the banking sector and has put the world on one step. Many studies have been conducted on e-banking services because of their accessibility, security, authenticity, quick transactions, confidentiality, and so on. In this study, such studies were reviewed and the factors related to e-banking services were investigated.

OBJECTIVE OF THE STUDY

1. To analyze the effect of demographic variables on adoption of E-Banking by users.

RESEARCH METHODOLOGY

The stratified random sampling technique was used in the study because the population was heterogeneous and included students, business people, service people, retirees, and households. A self-administered online questionnaire using this sampling method was used to collect data from a sample of respondents (e-banking users) who were either directly or indirectly involved in the online banking service in Indore, Hyderabad, Mumbai, Gurgaon, Pune, Aurangabad, and other cities between January and March 2022. In addition, to achieve a more balanced finding among internet banking users, a total of 750 questionnaires were distributed to online banking customers at major banks in selected cities, including private and public banks. Out of 750, 549 questionnaires were returned but some of them were uncompleted so approx... 500 questionnaires were chosen for further investigation. The study looked at adoption factors of e-banking services interact (Perceived, usefulness, perceived ease of use, perceived risk, subjective norms, intention to use, attitude and perceived behaviour control). Each measurement construct in this study had three to five items that were scored on a five-point scale ranging from strongly disagree (1) to strongly agree (5). This study's measurement constructs were adapted from previous studies.

RESULTS

Factors related to Adoption of e-banking services

Table 1: Reliability Statistics

Cronbach's Alpha	N of Items
.925	23

The scale for the factors related to Adoption of e-banking services are Perceived, usefulness, perceived ease of use, perceived risk, subjective norms, intention to use, attitude and perceived behaviour control and the reliability is .925 means that scale is excellent.

H₀₁: There is no significant difference in the adoption of e-banking services between male and female users.

Table 2: T-Statistics on Gender and Adoption of e-banking services

Adoption of e-banking services	Gender	N	Mean	SD	df	t-value	p-value
Perceived Usefulness	Male	348	12.8966	2.75737	498	1.173	0.241
	Female	152	12.5658	3.20734			
Perceived Ease of Use	Male	348	12.3305	2.59405	498	2.626	0.009*
	Female	152	11.6579	2.72371			
Attitude	Male	348	12.9023	2.72393	498	2.934	0.003*
	Female	152	12.0987	3.02037			
Subjective Norms	Male	348	11.6638	2.93035	498	2.304	0.022*
	Female	152	11.0658	2.54671			
Perceived Behaviour Control	Male	348	12.8391	2.37360	498	3.318	0.001*
	Female	152	12.0000	2.69412			
Perceived Risk	Male	348	15.5287	6.05706	498	3.235	0.001*
	Female	152	14.0000	4.23326			
Intention to Use	Male	348	12.2385	2.77349	498	3.694	0.000*
	Female	152	11.2895	2.58275			

*significant at 0.05

From the table, it shows that for the factors related to the adoption of e-banking services, Perceived Ease of Use, Attitude, Subjective Norms, Perceived Behaviour Control, Perceived Risk and Intention to Use, difference is observed as the p-value is less than 0.05 so it can be stated that there is a difference in the factors related to the adoption of e-banking services between male and female except for the Perceived Usefulness. Hence, for these adoption factors of e-banking services, the null hypothesis is not accepted but for the Perceived Usefulness, the null hypothesis is accepted and concluded that there is no significant difference in the Perceived Usefulness of male and female users towards e-banking services.

H₀₂: There is no significant difference in the adoption of e-banking services between married and unmarried users.

Table 3: T-Statistics on Marital Status and Adoption of e-banking services

Adoption of e-banking services	Marital Status	N	Mean	SD	df	t-value	p-value
Perceived Usefulness	Married	251	12.1195	3.16127	498	5.383	0.000*
	Unmarried	249	13.4779	2.43805			
Perceived Ease of Use	Married	251	11.5100	2.71641	498	5.365	0.000*
	Unmarried	249	12.7470	2.43219			
Attitude	Married	251	12.3705	2.97492	498	2.283	0.023*
	Unmarried	249	12.9478	2.66876			
Subjective Norms	Married	251	11.4104	2.57273	498	-.568	0.571
	Unmarried	249	11.5542	3.07141			
Perceived	Married	251	12.1992	2.52669	498	3.490	0.001*

Behaviour Control	Unmarried	249	12.9719	2.42201			
Perceived Risk	Married	251	15.8645	4.84702	498	3.233	0.001*
	Unmarried	249	14.2570	6.18516			
Intention to Use	Married	251	11.3108	2.65613	498	5.363	0.000*
	Unmarried	249	12.5944	2.69560			

***significant at 0.05**

From the table, it shows that for the factors related to the adoption of e-banking services, Perceived Usefulness, Perceived Ease of Use, Attitude, Perceived Behaviour Control, Perceived Risk and Intention to Use, difference is observed as the p-value is less than 0.05 so it can be stated that there is a difference in the factors related to the adoption of e-banking services between married and unmarried except for the Subjective Norms. Hence, for these adoption factors of e-banking services, the null hypothesis is not accepted but for the Subjective Norms, the null hypothesis is accepted and concluded that there is no significant difference in the Subjective Norms of married and unmarried users towards e-banking services.

H₀₃: Education wise there is no significant difference in the adoption of e-banking services among users.

Table 4: ANOVA on Education and Adoption of e-banking services

		Sum of Squares	df	Mean Square	F	Sig.
PU	Between Groups	36.065	3	12.022	1.431	.233
	Within Groups	4167.127	496	8.401		
	Total	4203.192	499			
PEU	Between Groups	8.573	3	2.858	.406	.749
	Within Groups	3494.489	496	7.045		
	Total	3503.062	499			
ATT	Between Groups	21.838	3	7.279	.903	.440
	Within Groups	3998.680	496	8.062		
	Total	4020.518	499			
SN	Between Groups	4.821	3	1.607	.200	.897
	Within Groups	3992.017	496	8.048		
	Total	3996.838	499			
PBC	Between Groups	41.391	3	13.797	2.219	.085
	Within Groups	3084.081	496	6.218		
	Total	3125.472	499			
PR	Between Groups	105.338	3	35.113	1.118	.341
	Within Groups	15578.614	496	31.408		
	Total	15683.952	499			
IUSE	Between Groups	33.856	3	11.285	1.498	.214
	Within Groups	3737.894	496	7.536		
	Total	3771.750	499			

From the table, it shows that for the education wise users' adoption towards Perceived Usefulness, Perceived Ease of Use, Attitude, Perceived Behaviour Control, Subjective Norms, Perceived Risk and Intention to Use, the null hypothesis is accepted as p-value is greater than 0.05 which is insignificant and concluded that there is no significant difference in the education wise users' adoption towards e-banking services.

CONCLUSION

In India, the frontier for banking is IT-enabled banking services. Because of the rapid growth in users and the expansion of network coverage, this technology has become an important platform for providing banking services to customers. Technological advancement is a primary driver of economic growth. It refers to shifts in the input-output relationships of manufacturing activities. As the economy progresses from lower to higher stages of development, production techniques evolve from simpler to more modern and complicated. The role of information and communication technology (ICT) and its impact on productivity, both at the micro and macro levels, has recently become a topic of discussion in economics. ICT is defined as the technology of accessing, storing, processing, transferring, and delivering information via electronic means. The review of theory and empirical evidence indicates that technology is not a panacea; rather, it is a tool for efficiency that requires planning, organisational capabilities, managerial skills, and entrepreneurship to make it work. The role of information technology in organisational performance remains a mystery. Because of the high information content of the product as well as the high information intensity of processes, the financial services sector has made significant investments in ICT. In this day and age, the contribution of information technology to an organization's performance is being questioned. In this context, the study seeks to examine the impact of information technology on the performance of the Indian banking industry.

RECOMMENDATIONS

Financial sector reforms aided the impressive growth of India's banking industry. However, in the current global competitive environment, where IT is assisting tremendous advancements with efficiency improvements, India's banking sector reforms are complete. E-banking is the automatic delivery of services to a customer's office or home by a bank. A bank's competitive position in the industry is determined by the quality, range, and price of its e-services. Customers should be educated and made aware of the benefits of using e-

channels. Employees of banks should also be fully informed about the use of e-channels so that they can effectively guide customers. A few strategies for increasing their awareness of the use of e-channels are provided below.

- ❖ Banks should organise education campaigns about the use of online banking, as well as the security and privacy of their accounts, using communication media such as posters, publications, radio, television, lectures, seminars, and trainings, among other things.
- ❖ Conduct information security awareness programmes for bank employees to help them maintain a secure banking institution, such as implementing and enforcing a strong password policy and regularly updating passwords for banking systems, preferably monthly.

Implications

The findings of this study were useful to IT companies and developers in better understanding the determinants of factors perceived useful in e-banking services in order to improve their applications to what consumers truly want from them. After understanding consumers' perceptions, it is possible to develop effective marketing strategies to promote their applications with positive images. Instead of learning from consumers all over the world, it is necessary to make some concessions to local perceptions as well. Since our study focuses on the adoption level of e-banking services but it would be more helpful if marketing mix elements would also have been studied. It would give an overview of how banks are acting in transition countries.

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