

Perception Of Internet Banking Users In Dharmapuri District, Tamil Nadu

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Abstract

This study explores the perceptions of internet banking (IB) users in Dharmapuri District, Tamilnadu using the Technology Acceptance Model (TAM) with service quality as an external variable. IB, driven by advances in information technology, offers benefits such as 24/7 access for customers and cost reduction for banks. While IB is widely adopted in developed countries, it is still emerging in India, particularly in Tamilnadu. With growing internet usage and e-commerce, the study aims to fill the research gap by analyzing factors influencing IB adoption. It provides insights and recommendations to enhance service quality and promote IB use in the region.

Keywords: *Internet Banking, SEM, Technology, Easy to Use, Service Quality*

Introduction

The rise of information technology (IT) has revolutionized the banking industry, enabling banks to transition from traditional service delivery methods to modern, technology-driven approaches. IT has particularly fueled the growth of Internet banking (IB), which has expanded rapidly since the early 2000s in many countries. By offering IB services, traditional financial institutions aim to reduce operational costs, enhance customer service, retain clients, and increase market share (Lichtenstein & Williamson, 2006). Internet banking is defined as “the delivery of banking services through the open-access computer network (Internet) directly to customers’ home or private address” (Yiu et al., 2007: p.337).

IB benefits both banks and customers. For customers, it provides the convenience of 24/7 banking from any location with high accuracy (Kesharwani & Bisht, 2012), and reduces transaction costs (Çelik, 2008). For banks, the advantages include maintaining a profitable customer base, reducing costs, improving customer relationships, and extending the reach of banking services (Çelik, 2008).

In 2016, online banking penetration in Europe showed that 16 countries had more than 50% of their populations accessing online banking sites, with Norway leading at 91%, followed by Denmark (88%), Finland (86%), the Netherlands (85%), and Sweden (83%) (Online banking, n.d.). In the UK, the proportion of individuals using IB doubled from 30% in 2007 to 60% in 2016 (Share of individuals, n.d.). In the U.S., digital banking penetration rose from 50% in 2013 to 57.1% in 2016, with projections reaching 60.2% by 2018 (Penetration of digital, n.d.).

In developed Asian regions such as Hong Kong, Japan, Singapore, South Korea, and Taiwan, IB penetration grew from 58% in 2011 to 92% in 2014. Meanwhile, in emerging Asian economies, including China, India, Indonesia, Malaysia, the Philippines, Thailand, and Vietnam, penetration increased from 10% in 2011 to 28% in 2014 (Barquin & Vinayak, 2015). Although IB is widely practiced in developed countries like the U.S., the U.K., and parts of Europe, it remains in its early stages in emerging markets such as India (Bashir & Madhavaiah, 2014). The increasing penetration of the internet and the rise of e-commerce in India present significant opportunities for banks to attract internet users to IB.

However, existing research on IB in India remains limited. Specifically, there has been no study, to our knowledge, exploring the perceptions of IB users in the state of Tamilnadu. The State Bank of Travancore, a leading bank in Tamilnadu with a market share of 19.78%, recorded 171,000 new IB registrations in the 2015-16 financial year, reflecting a 19.62% growth over the previous year (State Bank of Travancore, 2016). This trend highlights the growing adoption of IB among banking customers in Tamilnadu, signaling the need for research to better understand their perceptions.

This study aims to fill this gap by investigating the perceptions of IB users in Tamilnadu, using the technology acceptance model (TAM) and incorporating service quality as an external variable. The study is organized as follows: the

next section reviews the relevant literature and develops the hypothesized model, followed by a discussion of the materials and methods used. The subsequent section presents the results and their practical implications. The study concludes by addressing limitations and providing recommendations for future research.

Review of literature

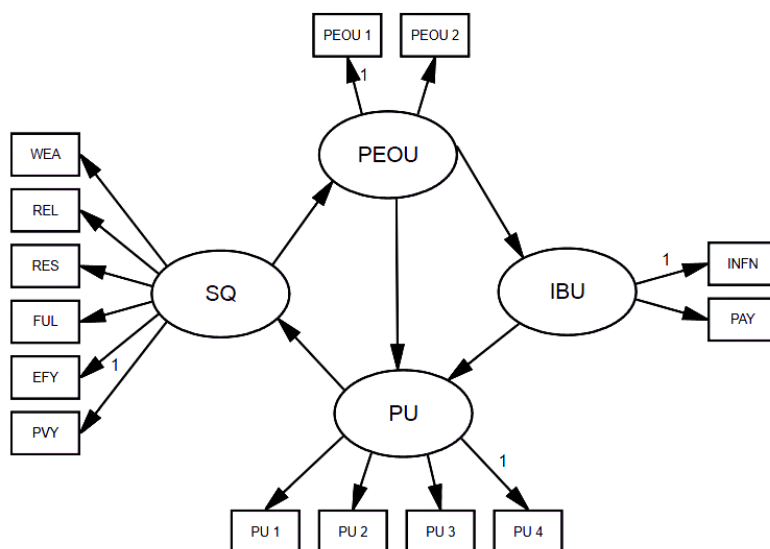
While numerous theoretical models aim to explain the acceptance, adoption, and usage of new technologies, the Technology Acceptance Model (TAM), developed by Davis (1989), remains the most widely used and validated model across various contexts and technologies (Venkatesh & Davis, 2000). Over time, researchers have introduced antecedent variables to the core TAM constructs—perceived ease of use (PEOU) and perceived usefulness (PU). For instance, Kent et al. (2005) incorporated trust as an antecedent to TAM variables, discovering that trust positively influences both PEOU and PU, leading them to suggest that TAM be expanded to include trust.

Sabah et al. (2009) introduced control variables such as social influence and service awareness, which impacted PU, as well as computer self-efficacy and internet connection quality, which affected PEOU. They found significant correlations between these variables and both PU and PEOU. Aldas-Manzano et al. (2009) explored the role of product involvement, demonstrating that it significantly enhances PEOU. Edwin et al. (2006) tested a model where PEOU and perceived web security were independent variables, while PU and attitude were intervening variables, and intention to use was the dependent variable. Their findings showed that PU is a primary determinant of a customer’s intention to use internet banking (IB), with PEOU acting as a secondary determinant, mediated through PU rather than directly influencing intention. Additionally, perceived web security was found to be a significant and direct determinant of a customer’s intention to adopt IB.

George & Kumar (2013) integrated perceived risk into the TAM framework and examined its impact on customer satisfaction with IB services. Their study contributed to the growing body of research that extends TAM by incorporating additional variables to enhance its predictive power.

The current study builds on TAM as the theoretical foundation for explaining IB usage, with service quality introduced as an external variable. Service quality is particularly crucial in this context, as it is a key factor in fostering customer loyalty and attracting new customers (Camilleri et al., 2014). The proposed model focuses on service quality due to its recognized importance in maintaining and growing a customer base.

Conceptual Model and Hypotheses Development



- H1a: Perceived ease of use has a positive effect on Internet banking use.
- H1b: Perceived usefulness has a positive effect on Internet banking use.
- H1c: Perceived ease of use has a positive effect on perceived usefulness.

H2a: Service quality in Internet banking has a positive effect on perceived ease of use.

H2b: Service quality in Internet banking has a positive effect on perceived usefulness.

Research Methodology

This study utilized a quantitative approach, employing a questionnaire survey to gather primary data. The questionnaire was divided into two sections: the first focused on the socio-demographic characteristics of the respondents, while the second addressed the measures for the research constructs. The study adopted measurement items from previous research, with minor modifications to fit the specific context of this study. All constructs were measured on a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree).

To examine the relationships in the proposed conceptual model, the survey was conducted using a purposive sampling technique, targeting specific internet banking users in Dharmapuri District. A total of 195 responses were collected, of which 148 were valid and usable for analysis. The Structural Equation Model (SEM) was employed to assess the measurement model.

Result and Analysis

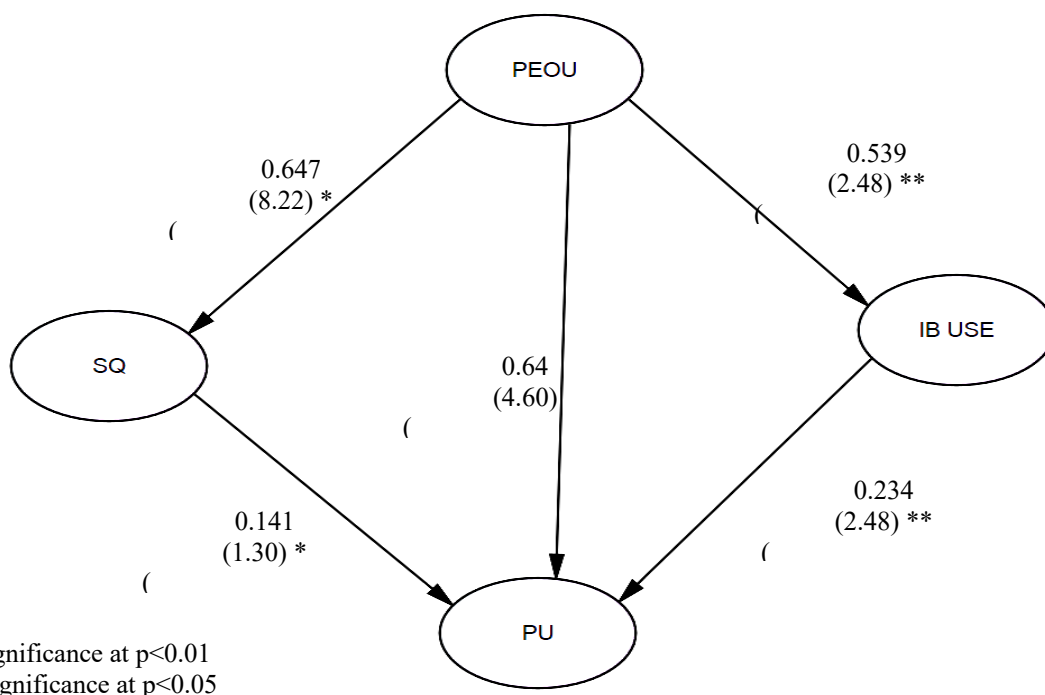
Cronbach's Alpha and Standardized Regression Weight Score for Variables

Factor	Acronym	Scale Items	FL	EV	C
Perceived Usefulness (PUL)	PUL 1	IB saves time	0.790	3.77	0.80
	PUL 2	IB is available at any time	0.723		
	PUL 3	IB is accessible from anywhere	0.742		
	PUL 4	IB is less expensive	0.609		
Fulfilment (FUL)	FUL 1	Web pages load promptly	0.718	3.12	0.79
	FUL 2	Log in to IB website is fast	0.722		
	FUL 3	The webpage neither locks nor freezes while processing transactions	0.801		
	FUL 4	The site provides a confirmation of services requested quickly	0.763		
Payment Services (PAY)	PAY 1	Fund transfer (RTGS/NEFT)	0.798	2.84	0.71
	PAY 2	Mobile recharging	0.746		
	PAY 3	Pay direct and indirect taxes	0.798		
	PAY 4	Booking for train/bus/flight or movie tickets	0.698		
	PAY 5	Online shopping	0.677		
Efficiency (EFY)	EFY 1	Finding what I need is easy and simple	0.721	1.80	0.73
	EFY 2	Easy options for cancelling transactions	0.718		
	EFY 3	IB website always satisfies all my service needs	0.742		
Reliability (REL)	REL 1	I trust IB services presented in the bank's website	0.789	1.60	0.77
	REL 2	The bank delivers IB services as promised	0.753		
	REL 3	The website is updated continuously	0.742		
Website Attributes(WE A)	WEA 1	The website contains useful help facility	0.727	1.44	0.70
	WEA 2	The website design is attractive	0.789		
Responsiveness (REL)	REL 1	Bank takes care of IB complaints quickly	0.795	1.30	0.81
	REL 2	There is quick response from bank to customer queries	0.739		
Informational Services (INF)	INF 1	Check balances	0.745	1.12	0.69
	INF 2	View account statement/transaction	0.789		

		history			
Privacy (PVY)	PVY 1	Personal information is secured and protected in the bank's site	0.777	1.03	0.74
	PVY 2	The bank will not misuse my personal information	0.659		
Perceived Ease of Use (PEOU)	PEOU 1	IB is easy to use	0.632	1.00	0.69
	PEOU 2	To become skillful in using IB is easy	0.692		

Structural Model

The conceptual model for this study depicts with the six variables and the ten hypotheses formulated with regard to links between the variables.



Hypotheses	Path	Path Coefficient	Conclusion
H1a	Perceived ease of use → Internet banking use	0.539	Supported
H1b	Perceived Usefulness → Internet banking use	0.234	Supported
H1c	Perceived ease of use → Perceived Usefulness	0.64	Supported
H2a	Service Quality → Perceived ease of use	0.647	Supported
H2b	Service Quality → Perceived Usefulness	0.141	Not Supported

The study found that service quality (SQ) indirectly affects Internet banking usage (IBU) through perceived ease of use (PEOU) and perceived usefulness (PU). To enhance SQ, banks should focus on key dimensions like fulfillment, efficiency, reliability, website attributes, responsiveness, and privacy.

- Fulfillment can be improved by speeding up login/logout times and page loading, which can be aided by faster internet connections and proper computer settings. Banks can educate customers about ways to improve internet speed through posters and information in branches.
- Privacy can be strengthened by informing customers about the use of advanced security technologies like VeriSign and public key infrastructure (PKI). Banks should also promote virtual keyboards to protect users from keylogger software.

- Responsiveness can be improved by training at least one branch employee in internet banking (IB) to handle customer issues and provide hands-on guidance.
- Reliability is enhanced by assuring customers that the bank's website is secure (e.g., through HTTPS or a green address bar) and by delivering on promises made online.

The study also found that PEOU directly impacts IBU, highlighting the need for banks to create user-friendly websites with clear navigation, helpful tools, and the option to cancel transactions. Additionally, PU has a direct effect on IBU, indicating that customers value the benefits of IB over traditional banking. Banks should emphasize these advantages to encourage IB usage. In summary, improving ease of use and perceived usefulness will drive higher IB adoption.

Suggestions

- Improve key dimensions like fulfillment, efficiency, website design, and privacy to ensure a smoother and more reliable IB experience.
- Conduct educational campaigns to show customers that internet banking is easy to use, reducing perceived complexity.
- Emphasize the convenience and advantages of IB over traditional banking methods, such as time-saving and 24/7 access.
- Reassure customers by promoting the bank's robust security measures (e.g., SSL, virtual keyboards) to increase trust in the platform.
- Ensure that staff are well-trained to handle IB-related

Conclusion

This study aims to understand the perceptions of internet banking (IB) users in Dharmapuri District, Tamilnadu by applying the technology acceptance model (TAM) with service quality as an external variable. The findings reveal that both perceived ease of use (PEOU) and perceived usefulness (PU) directly influence IB usage (IBU), with PEOU also having an indirect effect through PU. Service quality dimensions—such as fulfillment, efficiency, reliability, website attributes, responsiveness, and privacy—indirectly affect IBU through the TAM variables.

The study offers practical insights, suggesting that banks can promote IB more effectively by improving service quality perceptions and raising customer awareness that IB is easy to use and beneficial. Since TAM was introduced over two decades ago, researchers have tested it in diverse contexts, and this study adds to the literature by validating a modified TAM with service quality as a predictor of IBU in Kerala.

Additionally, the modified TAM model could be applied to other online services, such as e-commerce, online shopping, or mobile banking. A key contribution of this study is its successful use of the latent variable "IBU," operationalized through two observed variables—information services and payment services—which represent a new contribution to the existing research.

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