

## USER'S ADOPTION AND INTENTION TO USE E-BANKING SERVICES IN PUBLIC SECTOR BANKS: AN EMPIRICAL STUDY

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### ABSTRACT

The 21st century has revolutionized the financial sector with the advent of information technology, creating innovative ways of handling monetary transactions. In India, e-banking is still emerging and holds untapped potential to reduce operational costs and strengthen the user-banker relationship. This study examines the factors influencing users' adoption and Intention to use online banking services in public sector banks in Chennai. A structured questionnaire was developed based on existing literature to collect data from 145 users of public sector banks in Chennai. The study employed inferential statistical tools to analyze the data, with correlation analysis being a primary method. The correlation analysis revealed a strong relationship (0.719) between perceived content quality and user response, indicating that user satisfaction with online banking services significantly impacts their Intention to adopt them. Further, it is suggested that Public Sector Banks enhance customer education on secure banking transactions, technology usage, and the benefits of technology in the banking industry to promote effective online banking services.

**Keywords:** Performance Expectancy, Perceived Content, Effort Expectancy, Perceived security, Perceived Trust and Behavioural Intention

### 1. INTRODUCTION

The Indian banking industry is a dynamic and diverse sector of public and private banks competing to secure a significant market share. Information technology's rapid progression and the internet's prevalent penetration have transformed traditional banking services into more advanced and customized e-banking platforms. This evolution has replaced the conventional brick-and-mortar banking system with a click-and-portal model, catering to the modern consumer's need for convenience and efficiency. As e-banking adoption grows, banks are under pressure to deliver high-quality services that attract and retain customers. The competitive nature of this industry necessitates an emphasis on customer-centric strategies, making providing superior e-banking services a crucial differentiator for banks. While numerous studies have explored aspects of Internet banking, these have often overlooked other vital components of e-banking, such as smartphone applications and e-banking robots. This study aims to bridge this gap by holistically examining the e-banking landscape, specifically focusing on the public sector banks in Chennai city. Moreover, bankers could utilize this empirical study's findings for policy implications regarding e-banking adoption and usefulness and for strategy formulation regarding customer value and loyalty enhancement through E-banking services. Moreover, future researchers could utilize this study to examine various factors regarding e-banking adaptation, customer value, and loyalty, particularly to public sector banks in Chennai City.

### 2. LITERATURE REVIEW

**Razi-Ur-Rahim, M, & Uddin, F (2021)** conducted to examine the crucial factors influencing the acceptance of online banking services among the young population, specifically students aged 20 to 30 studying at Central University in Uttar Pradesh, India. This study was steered using the model (TAM) and security, privacy, and internet connection quality. A sample size 318 was obtained using a multi-stage sampling technique and a survey method. To investigate the impact of the components, regression analysis was performed using SPSS 26.0. The results showed that parameters such as PU, PEOU, SP, and QIC were significant, supporting earlier research. PU has a greater effect on the acceptability of online banking systems among Indian students. With the growth of information technology in India, banks are implementing online platforms to provide services to their account users.

**Habili, M, Muharremi. O & Hoxhaj. M (2022)** identified a substantial influence on the literature on the adoption of online banking, encompassing socioeconomic, demographic, and other factors derived from the technology adoption model (TAM). We used primary data from surveys that different Albanian bank clients filled out for our empirical study. One of the main factors driving the increase in online banking apps and services is the declining desire to use cash. Other crucial elements include technical problems with the application, speeding up banking activities, and the degree of application security. The study's conclusions will assist banks in better understanding the needs of their clients and offer recommendations on how to streamline technological development strategies.

**Sharma, S, & Kaur, A (2023)** examined online banking consumers' opinions and identified various factors that influence client impressions of Internet banking. This study detailed Internet banking factors and challenges. Data was acquired from 100 respondents using a standardized questionnaire. Data analysis included correlation and factor analysis. Clustering identified respondents by cluster. Educational qualification and income do not significantly affect Internet banking intensity. Online banking services were mainly used for transaction data, money transfers, and account balance checks. The key obstacles to Internet banking are the lack of touch and feel, fear of cybercrimes, and worry of losing crucial information. Online banking users recognize five factors, according to factor analysis. Accessibility from home, website difficulties, time and cost issues, lack of personal touch and feel, and service quality. Accessibility from home, website difficulties, and service quality significantly impact client satisfaction with internet banking services.

### STATEMENT OF THE PROBLEM

To achieve the country's development goals, the government is implementing several new programs tailored to the needs of the people. Banks now compete in a very competitive industry, and to survive, they have begun to use IT. The Indian banking sector has expanded dramatically due to significant developments in information technology. E-banking is the product of this groundbreaking invention. Banks have considerable challenges, such as greater penetration and rapid expansion in the use of information technology. The banking sector may be able to kill two birds with one stone by leveraging IT. In technology, enormous progress has been made, helping to reduce the ecosphere to a global village and bringing about incredible transformations. As E-banking services have recently grown in the Chennai district, bank institutions must compete in the banking sector. Today, the e-banking business faces several obstacles and issues. The first and possibly most essential worry is security, as most transactions are online. Another challenge confronting the E-banking industry is the delivery service quality, which includes both delivery speed and delivery reliability, which caused many e-business failures in the previous dot.com era. The issue of client unfamiliarity with the internet, particularly relevant among seniors, has recently received attention. Many customers perceive they are in a disadvantageous position and are hesitant to conduct business online. This remains a significant concern since the bank must address client satisfaction. As a result, the primary focus of this study is on the adoption and knowledge of E-banking services at the Public Sector banks in the Chennai district.

### 3. OBJECTIVE OF THE STUDY

- To analyze the user's profile and perception of the criteria for selecting Online Banking service at the Public Sector Bank.
- To link the relationship between the dimensions of Online Banking services and User Response at the Public Sector Bank.
- To explore the most influencing attributes of online banking services and Intention to use the Public Sector Bank.

### 4. RESEARCH METHODOLOGY

This qualitative study explores the factors influencing user intention to adopt e-banking services, focusing on performance expectancy, effort expectancy, perceived security, perceived trust, technical quality, and perceived content. A systematic approach was adopted to collect and analyze data from 145 users of public sector banks, selected through authoritative sampling. An initial pilot survey involving 15 users was conducted to evaluate the dependability of the research instrument, and responses were associated with a five-point Likert scale ranging from 1 (SDA) to 5 (SA). The results of Cronbach's Alpha revealed that (Performance Expectancy =0.735), Effort Expectancy =0.859), (Perceived security =0.912), (Perceived Trust =0.833) (Technical Quality =0.784) (Perceived Content =0.812), (user response=0.756) and (Behavioural Intention=0.982)

### 5. DATA ANALYSIS AND RESULTS

**Table 1.** User Profile of e-banking services

Users Survey (n = 145)		
Description	Classification	Percent
Gender	Male (70)	48.3
	Female (75)	51.7
Monthly Income	Up to 15,000 (64)	44.1
	15,001 to 30,000(44)	30.3
	30,001 to 45,000(25)	17.2
	Above 45,000(12)	8.3

Family Type	Joint Family (50)	34.5
	Nuclear Family (95)	64.5

Table 1 reveals that the gender distribution indicates a near-balanced representation, with a slight majority of female participants. Besides, most respondents (74.4%) fall within the lower-income brackets (up to ₹30,000), indicating that e-banking adoption might largely depend on affordability and accessibility for middle to lower-income groups. Further, Nuclear families dominate the sample, reflecting a trend in urban areas like Chennai, where smaller family units are more common. A higher percentage of nuclear families suggests focusing on personalized and convenient digital banking solutions that cater to smaller households with potentially higher individual responsibility for financial management.

### Correlation Analysis

H<sub>0</sub>: There is no relationship between the dimensions of online banking services and user response at public sector banks.

**Table 2.** Relationship between User Response and Online Banking Service

Particular	Performance Expectancy	Effort Expectancy	Perceived security	Perceived Trust	Technical Quality	Perceived Content	User response
Performance Expectancy	1	(.755)	(.664)	(.619)	(.566)	(.560)	(.602)
Effort Expectancy		1	(.746)	(.650)	(.590)	(.543)	(.676)
Perceived security			1	(.722)	(.639)	(.604)	(.624)
Perceived Trust				1	(.797)	(.753)	(.646)
Technical Quality					1	(.727)	(.535)
Perceived Content						1	(.719)
User response							1

The correlation coefficient 0.797 indicates a strong positive relationship between Perceived Trust and Technical Quality. This means that as users perceive the technical quality of online banking services to improve, their trust in these services also increases. Besides, the p-value is less than 0.01, and the null hypothesis (which states there is no relationship between Perceived Trust and Technical Quality) is rejected in Table 2. This confirms that the relationship is statistically significant at the 1% level. Further, the correlation coefficient 0.719 signifies a strong positive relationship between Perceived Content and User Response. This implies that when users perceive the content provided in online banking platforms (e.g., information accuracy, relevance, and clarity) as high-quality, their engagement and satisfaction with the services are enhanced.

### Multiple Regression Analysis

Table 3 presents key factors influencing Online Banking Services and Intention to Use Public Sector Banks.

**Table 3.** MRA Summary of e-banking services Adoption among Users

Dependent Variable	Behavioral Intention (Y)
Independent Variables	1.Performance Expectancy(X1) 2.Effort Expectancy(X2) 3.Perceived security(X3) 4.Perceived Trust(X4) 5.Technical Quality(X5) 6.Perceived Content(X6) 7. User response(X7)
Multiple R-value	.789
R Square value	.622

F value	32.193
P value	.000

**Table 4.** Dimensions in Multiple Regression Analysis

The coefficient of  $X_3$  is (-.040), representing the partial effect of Perceived security on Behavioural Intention, holding

Model	Unstandardized Coefficients		Standardized Coefficients (Beta)	t	. sig
	B	Std. Error			
(Constant)	(1.207)	(1.295)		(.932)	(.353)
Performance Expectancy( $X_1$ )	(-.013)	(.087)	(-.012)	(-.146)	(.884)
Effort Expectancy( $X_2$ )	(.149)	(.103)	(.143)	(1.441)	(.152)
Perceived security( $X_3$ )	(-.040)	(.093)	(-.039)	(-.435)	(.664)
Perceived Trust( $X_4$ )	(.051)	(.113)	(.048)	(.452)	(.652)
Technical Quality( $X_5$ )	(.325)	(.091)	(.338)	(3.568)	(.000)
Perceived Content( $X_6$ )	(.035)	(.0970)	(.036)	(.364)	(.717)
User response( $X_7$ )	(.425)	(.094)	(.401)	(4.511)	(.000)

the other variables as constant. The estimated negative sign implies that such an effect is negative that Behavioural Intention would decrease by (-.040) for every unit decrease in Perceived security and this coefficient value is significant at a 1% level as shown in Table 4. Besides, the coefficient  $X_1$  is -.013, representing the partial effect of Performance Expectancy on Behavioural Intention, holding the other variables as constant. The estimated negative sign implies that such an effect is negative that Behavioural Intention would decrease by -.013 for every unit decrease in Performance Expectancy this coefficient value is significant at a 1% level and the coefficient of  $X_5$  is .325, which represents the partial effect of Technical Quality on Behavioural Intention, holding the other variable constant. The estimated positive sign implies that such impact is positive that Behavioural Intention would increase by .325 for every unit increase in Technical Quality and this coefficient value is significant at 1% level. Hence, the multiple regression equation is.

$$Y = 1.207 - .013X_1 - .149X_2 + .149X_3 + .051X_4 + 0.325X_5 + .035X_6 + 0.425X_7$$

## 6. CONCLUSION

The result of multiple regressions revealed that technical quality is the most dominating dimension of online banking services for public sector banks. It is suggested that PSB enhance customer education on secure banking transactions, technology usage, and the benefits of technology in the banking industry to promote effective online banking services. Additionally, it is recommended that PSB develop and implement more cutting-edge security protocols, enhance its utilization of technology for customer relationship management, and improve its online platform services. The study's findings show that continuous use of online banking services is positively influenced by effort expectancy, perceived trust, technical quality, perceived content, and user response. As a result, banks must build confidence in their services by implementing transparent privacy policies and an integrated security system. On the other hand, the performance expectancy associated with online banking, as well as the perceived security, have a negative impact on the Intention to use online banking services. As a result, banks can take notes from the findings and use them to retain existing online banking consumers and encourage further use. Moreover, the service provider must make all necessary arrangements to undertake this operation 24 hours a day, seven days a week, and provide clients with transparent and error-free service. Providing appropriate awareness to clients regarding the secure use of passwords and pin codes would undoubtedly prevent the many malpractices that can occur with online banking. The findings of this study will help to improve user-friendly technology in E-banking and build E-banking services based on the needs and desires of customers. So that banks can raise awareness and encourage the general public to use E-banking services in the future. Based on this study, the researchers recommend emphasizing security factors to maintain and attract more clients to use E-banking services. The current survey collects opinions from banking clients, not bank staff; future research will include bank personnel. Future research can duplicate the same study with the same samples at regular intervals to better understand the change in causal linkages between factors and their impact on the Intention to continue using online banking services. The current study might be expanded by categorizing the participants as early or late adopters based on their online banking experience and examining the change in Intention to continue using online banking services. Factors influencing the

inclination to continue using online banking services that are crucial in one culture may be less critical in others. Thus, future research could use the same approach while including cultural factors from other developing nations to gain a larger view.

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