FACTORS INFLUENCING THE TOWARDS E-BANKING SERVICES OFFERED BY PUBLIC AND PRIVATE SECTOR BANKS

Mrs. Gnana Soundari* **Dr.K.Naina Mohammed****

*Ph.D Research Scholar, PG &Research Department of Commerce, Dr.Zakir Husain College,Ilayangudi,Affiliated to Alagappa University.
**Associate Professor cum Research Supervisor, PG &Research Department of Commerce,Dr.Zakir Husain College, Ilayangudi, Affiliated to Alagappa University.

Abstract
The rapid advancement of information and communication technology has significantly transformed the banking sector, leading to the widespread adoption of electronic banking (e-banking) services. This study aims to analyze the factors influencing customers towards e-banking services offered by public and private sector banks. The research focuses on identifying key determinants such as availability, convenience, time-saving, security, ease of use, cost effectiveness, reliability, and technological awareness that shape customer perception and usage behaviour.The study is based on primary data collected from bank customers using a structured questionnaire. Statistical tools such as mean score analysis and ranking technique are employed to evaluate the importance of various factors influencing e-banking adoption. The findings reveal that availability of services (24×7), convenience, and time-saving are the most significant factors encouraging customers to use e-banking services. Security of transactions and ease of use also play a crucial role in shaping customer trust and satisfaction.Furthermore, the study highlights differences in perception between public and private sector banks, where private sector banks are often preferred for their advanced technological features, while public sector banks are valued for their trust and wider accessibility. The study concludes that enhancing digital infrastructure, improving security measures, and increasing customer awareness can further promote the adoption of e-banking services.

Keywords: E-Banking, Public Sector Banks, Private Sector Banks, Customers.

Introduction
In the era of rapid technological advancement, the banking sector has undergone a significant transformation with the introduction of electronic banking (e-banking) services. E-banking enables customers to perform financial transactions such as fund transfers, bill payments, balance inquiries, and online purchases through digital platforms like mobile apps, internet banking, and automated teller machines (ATMs). Both public and private sector banks have increasingly adopted these services to enhance customer convenience, operational efficiency, and service delivery. The growing penetration of smartphones, internet connectivity, and digital literacy has accelerated the adoption of e-banking services among customers. However, the extent of usage varies depending on several influencing factors. These factors play a crucial role in shaping customer perception, acceptance, and satisfaction towards e-banking services offered by public and private sector banks. Key factors influencing the adoption of e-banking include perceived ease of use, security and privacy, trust in banking institutions, service quality, cost effectiveness, and awareness of digital services. Additionally, demographic variables such as age, education, income level, and occupation also impact the usage behaviour of customers. While private sector banks are often perceived as more technologically advanced and innovative, public sector banks are generally trusted for their reliability and wide reach, especially in rural and semi-urban areas. Understanding these factors is essential for banks to design effective strategies, improve digital infrastructure, and enhance customer satisfaction. Therefore, analyzing the

factors influencing e-banking services provides valuable insights into customer behaviour and helps in bridging the gap between traditional and digital banking systems.

Review of Literature

Mosa Sumaiya Khatun Munira (2025)[1] in their article observed that digital transformation in banking a Systematic Review of Trends, Technologies, and Challenges,the findings demonstrate that artificial intelligence and machine learning play a pivotal role in enabling predictive analytics, enhancing fraud detection, and facilitating personalized service delivery. Mobile banking platforms and digital wallets have significantly transformed accessibility and convenience, particularly for customers in underserved and remote regions. Blockchain technology has emerged as a transformative force by ensuring secure and transparent financial transactions, reducing operational costs, and strengthening trust within the financial system. However, the review also uncovers critical challenges, including cybersecurity risks, regulatory compliance complexities, and environmental concerns most notably the high energy consumption associated with digital infrastructures. Additionally, the study identifies notable gaps in the existing literature, such as the lack of long-term impact assessments and limited cross-regional comparative analyses. Overall, this comprehensive synthesis offers valuable insights for banking institutions, policymakers, and researchers aiming to align digital transformation initiatives with strategic, operational, and sustainability objectives, thereby promoting a balanced approach to innovation and financial inclusivity.

Sundaralakshmi and Rajamannar (2025)[2] in their article examined customer perception and satisfaction towards digital banking services in Tiruchirappalli District. The data were collected from structured questionnaire from bank customers among in Tiruchirapalli district. The sample size for the study is 150. Tools used for the analysis percentage analysis and ANOVA. The researcher concluded that digital banking is an essential part of our modern world, and it's crucial that everyone understands how to make the most of these services. To truly support the Digital India initiative and enhance customer welfare, digital banking must be available to all individuals, regardless of their education level, job, or where they live. The effectiveness of Internet banking relies not just on the technology itself, but significantly on the mindset, dedication, and engagement of everyone involved in its operation. Ultimately, it also hinges on how well customers can take advantage of the benefits provided by Internet banking services. The Reserve Bank of India (RBI) has issued various guidelines to commercial banks to help them navigate these challenges. Today, a growing number of customers are enjoying the convenience of digital banking services.

Manju et.al (2022)[3] in their article examined that customers perception on digital banking services with special reference to Internet banking. The researcher concluded that the Indian bankers can pave the way for the successful implementation and popularizing the new concept of Internet banking on a large scale. Because still people of those areas who are having lack of awareness and lack of knowledge about computer and internet are hesitate to use internet banking services. So that the bank officials should motivate their customers to use their internet banking services without considering their demographic factors such as age, educational qualification and family income. New technology adoption with the defined rules and regulations by considering the technical restrictions will always provides the intended results.

Objectives of the Study

The Main objective of the study is to analyse the factors Influencing the towards E-banking services offered by Public and Private Sector banks.

Research Methodology

Primary Data: The primary data is collected through formal and informal discussion with managers and customers of the banks, structured and unstructured interviews, Telephonic interview, observation; Web based questionnaires, Schedule method. The structured questionnaire has been prepared for collecting opinion from E-banking service users. Questionnaire has been distributed among the account holder of public & private banks and then collected filled -questionnaire from them, for study purpose.

Secondary Data: Secondary data has been collected from annual reports of banks and Reserve Bank of India, internet, books, published articles, E-banking business journals.

Table 1.1 List of Bank Customers Taken For Sample

S.No	Name of the bank
1	State Bank of India
2	India Bank
3	Indian Overseas Bank
4	Canara Bank
5	Punjab National Bank
6	HDFC Bank
7	ICICI
8	Axis Bank
9	City Union Bank
10	Karur Vysa Bank

The sample size for the study is 385 by using convenience sampling method.

Data Analysis and Interpretation
Factors Influencing the towards E-Banking services offered by Public and Private Sector banks – Mean Score Analysis

Table 1.2 Factors Influencing Towards E- Banking Services Offered By Public and Private Sector Banks

S. No.	Variables	Mean Score	Rank
1	Easy to use	4.281	5
2	Convenience	4.754	2
3	Availability (24 x 7)	4.821	1
4	No paper work	3.856	7
5	Time saving	4.634	3
6	Reliability	3.754	8
7	Security of transaction	4.542	4
8	Technology savvy	3.624	9
9	Cost effectiveness	4.214	6

Source: Primary Data

The above table presents the mean scores and ranks of various factors influencing customers towards e-banking services offered by public and private sector banks. It is evident that **Availability (24×7)** has

secured the highest mean score of **4.821** and is ranked first, indicating that customers highly value uninterrupted access to banking services at any time.

Convenience (Mean = 4.754, Rank 2) and **Time Saving** (Mean = 4.634, Rank 3) are the next important factors, showing that customers prefer e-banking due to its ability to simplify transactions and reduce the time spent on traditional banking activities. **Security of transaction** (Mean = 4.542, Rank 4) also plays a significant role, reflecting the importance of safe and secure digital transactions.Further, **Ease of use** (Mean = 4.281, Rank 5) and **Cost effectiveness** (Mean = 4.214, Rank 6) moderately influence customer adoption, suggesting that user-friendly interfaces and lower transaction costs contribute to positive perceptions.

On the other hand, **No paper work** (Mean = 3.856, Rank 7), **Reliability** (Mean = 3.754, Rank 8), and **Technology savvy** (Mean = 3.624, Rank 9) have comparatively lower mean scores, indicating that these factors are considered less influential by customers in this study.

Factors Influencing the towards E-Banking services offered by Public and Private Sector banks– Factor Analysis:- Factor analysis is a multivariable statistical technique that explains the inter relationship among the total set of observed variables. Factor analysis is a way of grouping of variables based on the inertia of common characteristics which would serve as a common denominator for such as classification. It is an analytical tool, which can aid in the preliminary investigation and in the interpretation of the relationship among a large number of inter- related and inter – dependent variables.

The primary purpose of factor analysis is the resolution of a set of observed variables in terms of new categories called factors. Factor analysis may be useful for any one of the following functions.
1. It can point out the latent factors or dimensions that determine the relationship among a set of observed or manifest values.
2. Secondly the factor analysis is useful when things need to be grouped.
3. Finally, Factor analysis can be used for empirical clustering of observations.

There are different factors which influence the Factors Influencing the towards E-Banking services offered by Public and Private Sector banks such as Easy to use, Convenience, Availability (24 x 7), No paper work, Time saving, Reliability, Security of transaction, Technology savvy and Cost effectiveness.The respondents were asked to provide their opinion in the five point technique scaling of strongly Agree, Agree, Neutral, Disagree, and strongly disagree. The researcher has used the multivariate technique by name factor analysis in order to classify the related variables. This test can be applied only after finding out the suitability of data. Hence, **Kaiser – Mayer – Olkin (KMO)** is used to check the adequacy and suitability of the data for factor analysis. The test measures the sampling adequacy for each variable in the analysis. The sample size is always more and the data is appropriate for the factor analysis.

There are ten variables related toFactors Influencing the towards E-Banking services offered by Public and Private Sector banks.The researcher has decided to use the factor analysis. Before grouping the variables, the normality has to be ascertained. Hence for ascertaining the normality, KMO has been used. The (KMO) measures of sampling adequacy index are used to examine whether the data are appropriate to examine the factor analysis. The principal component analysis has been administered for

grouping the variables of Factors Influencing the towards E-Banking services offered by Public and Private Sector banks. It is a method of data reduction.

The proportion of the variance of a particular item due to common factor is called communality. The initial value of the communality in a principal component analysis is 1. The extraction of communalities estimate the variance in each variable accounted for the factors in the factor solution. The communalities value is below 0.4 which imply that the factor analysis is not appropriate, either to collect more data or to rethink which variables to include. If the KMO value lies between .7 and .8, it is good for factoring. Bartlett's test of sphericity is a test statistics used to examine the shape of normal distribution and also verify the smoothness of the curve. The Table 1.3 explains the test. They are Kaiser – Mayer – Olkin (KMO) measures of sampling adequacy and Bartlett's test of sphericity. It gives the statistics of KMO, Bartlett's test of sphericity and chi-square analysis of association, degrees of freedom and the probability value. The researcher has given 10 important variables identified with the help of factor analysis. Before making factor analysis the researcher tested the sampling adequacy with KMO test. The result of the KMO test is presented in the Table 1.3

Table 1.3: Kaiser – Mayer – Olkin (KMO) Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.758
Bartlett's Test of Sphericity	Approx. Chi-Square	528.367
	Df	57
	Sig.	.000

Source:Primary Data

The above Table 1.3 shows that KMO value is 0.758.It indicates high value, which means factor analysis is useful for the present data. The significant value of Bartlett's test of Sphericity is 0.000 which means it is less than 0.05 and indicates that there is a significant relationship among the variables exists. The result of KMO test and Bartlett's test indicate that the present data is useful for factor analysis.

Factors Influencing the towards E-Banking services offered by Public and Private Sector banks– Communalities
The following Table 1.4 highlights the communalities of factor analysis about Problems Faced by factors influencing the towards e-banking services offered by public and private sector banks. The given Table 1.4 shows the communality values of variables. It is regression values of each variable in scale, which are shared by all other variables. The cut off value for variables is 0.4.The variable below 0.4 values are not considered for further studies. In case all the variables have the value above 0.4, they will be considered further for factor analysis.

Table 1.4: Factors Influencing the towards E-Banking services offered by Public and Private Sector banks– Communalities

S.No	Components	Initial	Extraction
1.	Easy to use	1.000	0.758
2.	Convenience	1.000	0.761
3.	Availability (24 x 7)	1.000	0.752
4.	No paper work	1.000	0.638

Research Paper
Impact Factor: 7.184
Peer Reviewed & Indexed Journal
www.iibarr.com

IJBARR
E- ISSN -2347-856X
ISSN -2348-0653

5.	Time saving	1.000	0.814
6.	Reliability	1.000	0.656
7.	Security of transaction	1.000	0.759
8.	Technology savvy	1.000	0.867
9.	Cost effectiveness	1.000	0.752

Source:Primary Data

The Table 1.4shows the variance of the nine variables ranging from 0.600 to 0.814. It also shows that the ten variables exhibit a considerable variance from 50 percent to 90 per cent. Hence it is to be concluded that all these variables are capable of segmenting themselves with respect to the Factors Influencing the towards E-Banking services offered by Public and Private Sector banks.

Factors Influencing the towards E-Banking services offered by Public and Private Sector banks– Total Variance: The total variance analysis is important to know the rotated sum of square value. The rotated three factors are determined based on the total Eigen value if the factor is greater than one. The total cumulative variance is explained by the total percentage of variance by each retained four factors. The Table 1.4gives the individual variance of the predominant factors which emerge out of nine variables.

Table 1.4: **Factors Influencing the towards E-Banking services offered by Public and Private Sector banks-Total Variance**

Total Variance Explained						
	Initial Eigenvalues			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	.558	3.989	82.156	4.264	30.456	30.456
2	.446	3.189	85.345	2.984	21.314	51.771
3	.401	2.864	88.209	1.888	13.486	65.257
4	.373	2.668	90.877	2.856	8.281	74.394
5	.354	2.526	93.403			
6	.279	1.996	95.399			
7	.254	1.811	97.210			
8	.206	1.470	98.680			
9	.185	1.320	100.000			
Extraction Method: Principal Component Analysis.						

*Source: Computed(SPSS Statistics 2.0)

It could be seen from the Table 1.4, that Eigen values are greater than one for different factors. From this one, it is confirmed that, the ten variables are grouped into different predominant factors. The rotated sum of squared loading is greater than 50 per cent. The ninevariables are reduced in to four

Research Paper
Impact Factor: 7.184
Peer Reviewed & Indexed Journal
www.iibarr.com

IJBARR
E- ISSN -2347-856X
ISSN -2348-0653

predominant factors with the individual variances of 30.456, 51.771, 65.257 and 74.394. It is also found that the total variance of 9 variables is greater than one.

Factors Influencing the towards E-Banking services offered by Public and Private Sector banks – Rotated Component Matrix
Factor analysis is a powerful technique which is used to identify the underlying dimensions for a set of variables. The main task is to reduce the number of variables in order to simplify subsequent analysis. Rotated component matrix is useful to identify the groups among the nine variables towards Factors Influencing the towards E-Banking services offered by Public and Private Sector banks. The Table 1.5 explains the rotated component matrix result of the factor analysis.

The rotated factor loading received by factors F1, F2, F3 and F4 are presented in the Table.

Table 1.5 Factors Influencing the towards E-Banking services offered by Public and Private Sector banks – Rotated Component Matrix

S.No	Variables	Factor 1	Factor 2	Factor 3	Factor 4
1	Easy to use	.781			
2	Convenience	.826			
3	Availability (24 x 7)	.754			
4	Time saving	.856			
5	No paper work		.728		
6	Cost effectiveness		.721		
7	Reliability			.731	
8	Security of transaction			.764	
9	Technology savvy				.838

*Source:Computed (SPSS Statistics 2.0)

Factor-I: The First factor consists of four variables related to Factors Influencing the towards E-Banking services offered by Public and Private Sector banks such as Easy to use (.781), Convenience (.826), Availability (24 x 7) (.754) and Time saving (.856). So, all these Variables are termed as **"Convenience & Accessibility".**

Factor – II: The Second factor consists of two variables related to Factors Influencing the towards E-Banking services offered by Public and Private Sector banks such as No paper work (.728), and Cost effectiveness (.721). So, all these Variables are termed as **"Operational Efficiency".**

Factor – III: The Third factor consists of two variables related to Factors Influencing the towards E-Banking services offered by Public and Private Sector banks such as Reliability (.731), and Security of transaction (.764). So, all these Variables are termed as **"Security & Trust".**

Factor – IV: The fourth factor consists of only one variable related to Factors Influencing the towards E-Banking services offered by Public and Private Sector banks such as Technology savvy (.838).So, all these Variables are termed as "**Technological Adoption".**

Conclusion

In conclusion, the study reveals that customer perception towards e-banking services varies significantly between public and private sector banks. Private sector banks are predominantly favoured for their advanced technological features, user-friendly interfaces, and innovative digital services, whereas public sector banks continue to earn customer trust due to their reliability and extensive accessibility. Despite these differences, both sectors play a crucial role in promoting digital banking adoption. The findings emphasize that strengthening digital infrastructure, ensuring robust security measures, and enhancing customer awareness are essential strategies to improve user confidence and accelerate the widespread adoption of e-banking services across all segments of society.

References

1. Chandra Wati (2017) et.al Role of E-Banking Services towards Digital India,International Journal of Commerce and Management Research, pp 67-71.
2. Chung (2002) et.al "An Evaluation of Internet Banking in New Zealand", InProceedings of 35th Hawaii Conference in System Sciences (HICSS 2002), IEEE Society Press.
3. Jayabal, G., & Soundarya, M. (2016), Green Banking: As Banks Initiative for Sustainable Development, International Journal of Management, pp 276-280.
4. Jayabal& M. Soundarya (2017), Customers Satisfaction Regarding Green Banking In Public Sector Banks In Sivagangai District,ISSN: 2249-7196, Vol. 7,Issue 8, International Journal of Management Research & Review, pp 822 -830.
5. Karan Pratap Singh and Ms. Dimpal Singhania (2021), Green Banking In India: Application, Opportunities and Possibility, International Journal of Multidisciplinary Educational Research, Vol.10, Issue 3, March 2021.
6. Kavitha, J and Gopinath, R. (2020), A Study on Perception of Internet Banking Users Service Quality - A Structural Equation Modelling Perspective,International Journal of Management, 11(8), 2204-2217.
7. Mohmad Aarif and Prof. Md. Faizanuddin (2021), Green Banking: Benefits, Challenges and Opportunities in Indian Context, International Journal of Advanced Research in Science, Communication and Technology (IJAT), ISSN (Online) 2581-9429, Vol 3, Issue 1, March 2021.
8. Soundarya Murugan (2021), Impact of Green Banking in India: Opportunities and Challenges,https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3875363.
9. Sharma, Himani (2011), "Banker's Perspectives onE-Banking and Its Challenges: Evidence from North India",The IUP Journal of Banking Management, 2011.
10. Santosh Kumar Gupta1, Anshika Bansal (2018), Young Customer's Attitude towards Digital Banking with Special Reference to Public and Private Bank in Uttrakhand, Account and Financial Management Journal,e-ISSN: 2456-3374,Volume 3 Issue 04, pp 1480-1485.
11. Vijay Prakash, Divya Natarajan (2014), Impact of Corporate Social Responsibility Initiatives of Indian Banking Sector, International research journal of business and management (IRJBM), Volume 7 (12), pp.29-35.