

Factors Influencing Customer's Decision to use Electronic Banking Services in Bangladesh: An Empirical Study

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Abstract

The financial sector has significantly been transformed by the trends and advancements in information and communication technology over the last couple of decades. These disruptions fueled by technological advancements along with usefulness, easier accessibility, digital literacy, trustworthiness have expedited the E-banking system's advancement. The disruptive technologies provided innovative ways to do things with a range of wit and imaginative approaches that has helped to raise both customer level satisfaction and company productivity. This study looks at the factors influencing in raising the trends of acceptability of electronic banking services in Bangladesh. This study also covered the existing e-banking services in Bangladesh and the marketing viewpoint on their acceptability. The data have been gathered for an empirical investigation was used to construct online questionnaires. There are 110 valid responses to a five-point Likert scale questionnaire. For the statistical analysis, a structural equation model (SEM) technique was adopted. Four aspects are tested: security and privacy, perceived ease of use, perceived utility, and social norms. The model was verified through the demonstration of the importance of customers' perceived utility and acceptance of e-banking services in Bangladesh in building trust in the use of electronic banking. The outcomes could help the Bangladeshi government and commercial banks develop further trust and other e-banking standards. This study uses the TAM model in modified form to find significant empirical findings on Bangladesh's e-

banking acceptability. It also offers a model that incorporates the key elements required for an examination of e-banking acceptability.

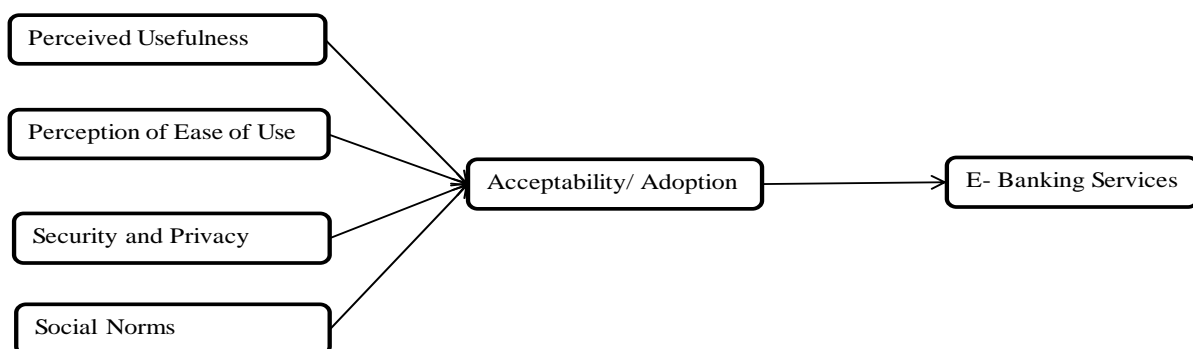
Key Words: Financial inclusion; Customers' acceptance; E-banking; Digital economy; Banking sector; TAM model.

1. Introduction

Recent years have seen a significant shift in the banking sector due to rapid technological advancements. Digital payments and blockchain technology have fundamentally altered the way financial organizations operate and engage with their customers. One of the most significant consequences of technology on the banking sector is the shift towards digitization. Thanks to the advancement of online and mobile banking, clients can now access a range of financial services from the convenience of their computers or cellphones. Financial inclusion is the capacity of individuals and organizations to use appropriate financial products and services to meet their ongoing needs and to send payments in a flexible and sustainable way using cash, credit, savings, and insurance premiums (Rashid, 2020). E-banking is the term for banking services that let users conduct financial and/or physical transactions at any time and from any location. It is accomplished by combining information technology and communication, especially with regard to cellphones and internet accessibility. The quick adoption of i-banking and mobile app-based banking has customers enthralled with its ease, rising user comfort, cost-effectiveness, and time-saving capabilities (Alam et al., 2021). E-banking is now a prevalent phenomenon. Nowadays, e-banking is a crucial component of the economies of the industrialized world. Since the banking industry can greatly boost economic growth by offering efficient financial services, every country needs a robust banking sector (Salehi et al., 2008). As technology spreads quickly throughout the world, an increasing number of commercial transactions are now made online. Users have greater accessibility and functionality at all times banks to the internet, mobile devices, and computer hardware. Bangladesh is not an exception and gains from this onslaught of technical progress as well. Technology is more pervasive in modern society's digitalized world than ever before (Kumar et al., 2023). Mobile devices are used by Bangladeshis to read the news, take online courses, and communicate with others online, and most importantly it conduct cashless transactions via e-banking services (Kumar, 2022). In Bangladesh, e-banking is quickly developing.

Today, e-business and e-commerce are integral components of company strategy and a significant driver of the expanding global economy. The upgrading its banking system is crucial (Damanpour & Damanpour, 2001). E-banking services provide both customers and businesses with a number of advantages. They can easily do cashless transactions anywhere, at any time. Bangladeshi people and companies, however, have a skeptic stance and are not yet totally satisfied with the comprehensiveness of this service due to the increased security concerns over e-banking. The level of adoption of e-banking is directly influenced by how well-liked it is among Bangladeshis. In particular, the Technology Acceptance Model (TAM) is one of three well-known models in the field of technology adoption that this study empirically assesses for applicability (Davis, 1989). This study's objective is to assess Bangladeshis' adoption of e-banking using the elements of the technological acceptance model (TAM). In order to comprehend perceptions and trust issues, the TAM, which is related to how valuable and usable technology is seen to be, takes into account societal norms, security, and privacy as variables. These elements have an immediate impact on Bangladeshi level of adoption.

Figure1: The research's conceptual framework



Source: The Giovanis, Biniotis, and Polychronopoulos (2012) study served as the foundation for the study's conceptual framework.

2. Literature Review and Hypotheses Development

The use of digital payment systems, such as interbank payment systems and mobile financial services, increased significantly in FY22. Compared to the prior fiscal year, digital payments increased by 18% and 37%, respectively, in terms of volume and value in FY21. Paperless transactions like real-time gross settlements (RTGS), Bangladesh electronic funds transfer networks (BEFTN), and internet banking fund transfers (IBFT) are mostly to blame for the volume growth. When it comes to value, BEFTN, ATM transactions, and IBFT are the main drivers of growth. Compared to paper-based transactions (like BACPS), the number of paperless digital payments is growing faster. A favorable digital payment ecosystem has encouraged an increase in the use of all major digital payment modes, particularly paperless methods (Islam et al., 2025).

In Bangladesh, the majority of the population is uneducated, and it is evident that they are not tech-savvy. Nonetheless, a large number of the literate group suffer from computer fear. So, these people cannot have faith in online banking services (Islam 2022). The banking industry in Bangladesh has developed since the preceding era in all relevant ways (Kumar, 2016). Recently, private and foreign commercial banks began providing e-banking services (Huda & Chowdhury, 2017). This industry is aware that banks provide superior customer services and draw clients by using or launching cutting-edge technologies (Hasan et al., 2010). Thanks to their unrivaled returns, e-banking services can gain users' trust, keep them around, and develop profitable relationships with them (Nupur, 2010). Even with some of the present challenges, e-banking nevertheless shows a commitment to the future. Bangladeshi banks will find it challenging to stay open without e-banking (Abdullah et al., 2016; Rahaman, 2016). It is asserted that by making use of electronic banking and trade, producers and consumers can actively contribute to increasing GDP (Mohiuddin, 2014).

Ghalandari (2012) Comprehensive, enticing, and insightful efforts should also be made to increase consumers' understanding of these advantages. According to Ghallab & Huiming (2022), people's acceptance of electronic banking services was directly impacted by their perception of the dangers and rewards, the usability of websites, and their awareness of electronic banking. Poon (2008) found that WAP, GPRS, and 3G functionalities on mobile devices have no discernible effect on the uptake of electronic banking services. The findings also show that, in relation to various age, income, and educational groups, users' approval of e-banking services is significantly influenced by privacy, security, and convenience considerations. Amini et al. (2011), there are six elements that may influence whether or not people adopt Internet banking: PU, PEOU, CSE, perceived risk, accessibility to the Internet, and connection quality (Desiyanti et al., 2026).

Lallmahamood (2007) The main reasons people seem to be reluctant to use these amenities are security, trust, and privacy. They utilize Internet banking for convenience, usability, and time savings. This could also mean that people believe privacy protection and security issues are part of the whole service that online banking service providers offer. The sector will gain from other elements, including the degree of password security and the bank's function as an electronic payment gateway for online transactions, which will boost consumer confidence. Mousa et al. (2021), consumers are happy utilizing the online banking services that banks offer. According to the opinions of the respondents, two significant elements that affected the higher adoption of e-banking services were flexibility and trust. In addition to the criteria looked at in this study, the development of the online banking system needs to take into account other elements related to the customer satisfaction model in order to maximize consumer benefit and progress the industry (Islam et al., 2025).

Now the people prefer online banking services over branch banking because of their dependability, affordability, speed, security, safety, ease of use, and error-free system (Omar et al., 2011). The concurrent finding demonstrates how adoption decisions of online banking services are influenced by issues related to security, lack of trust and awareness, issues with ATMs, etc. Khare et al. (2012). Convenience factors influence Indian consumers' use of online banking. Internet banking is perhaps more convenient for the younger clientele. The sentiments of men and women regarding their preference for online banking are different. Banks have the ability to allay clients' concerns and create campaigns that reassure them about the security of online banking and transactions. Chaniotakis & Lympelopoulou (2006) adoption behavior with respect to internet banking in a country with low Internet penetration, such as Greece, offers useful insights into the factors that affect consumer behavior. The major factors influencing the uptake of online banking include accessibility to the internet, convenience of use, security, and privacy (Abbasi et al., 2017). Youssef et al. (2017), the TAM is a strong indicator of how well accepted Internet banking services are in emerging nations. The primary goal is to assess how well each model explains Bangladeshi clients' adoption of online banking (Islam et al., 2026).

1.1. Perceived Usefulness (PU)

E-banking enables users to conduct banking-related tasks like money transfers, loan management, fixed deposit account opening, and other tasks online. Infrastructures like account aggregation and data import into personal accounting software can be used by users to manage their own money (Al-Sharaf et al., 2017). Consumers' requirements for various capabilities have a significant impact on how they view e-banking software and services. To deliver more in-demand services, e-banking systems must incorporate new features and tactics as technology develops, which will change how advantageous they are perceived (Giannantonio & Hanson, 2014). If consumers find advantages like speed, portability, and simplicity appealing, they are more inclined to use e-banking.

However, if the specific banking services do not offer a multitude of benefits, improve users' lifestyles, or assist users in efficiently managing transactions, customers are less likely to embrace e-banking (Ali et al., 2020). A significant influence on attitudes toward and plans to use Internet banking was perceived utility (Youssef et al., 2017). The findings also demonstrate that perceived ease of use has a positive effect on views on the use of Internet banking in the Saudi Arabian market. Adepoju & Adeniji (2020), customers' perceptions of the value of e-banking indicate that they give e-banking channels more weight, suggesting that respondent's value technology's utility highly. Grabner-Kräuter & Breiteneker (2011) The results validate the significance of perceived innovative attributes in relation to the adoption of online banking. Gianniotis (2019) shows that while the intention to utilize e-banking is adversely correlated with perceived risk, it is positively correlated with reported enjoyment and ease of use.

Hypothesis H1: Customers' adoption of E-banking services and their perception of its usefulness are associated with each other.

2.2. Perceived Ease of Use (PEOU)

Customers' acceptance of e-banking is just as important to its success as backing from banks or governments. Ali et al., (2020) consumers decide whether or not to use a product, thus they are more likely to use a service if it can succinctly outline its benefits and how it fulfils their needs. According to Davis (1989) PEOU as the degree to which "a person believes that the usage of the system will not entail any mental effort." The PEOU of a new system, according to the TAM, determines how people feel about it. PEOU considers the ease with which customers can utilize e-banking, including e-banking apps, concepts, procedures, features, and designs. PEOU is one of the major factors influencing how quickly e-banking services are accepted, according to numerous research (Rehman et al., 2019; Bagchi et al., 2023). Customers are more likely to accept and use e-banking services than traditional services, according to Echchabi et al. (2019). Additionally, the results demonstrated that the main factors influencing the clients of Oman's Islamic banks' decision to select e-banking are relative advantage, self-efficacy, ease of use, and facilitating conditions. Despite this uncertainty, Islamic bank customers wanted to use online banking services (Islam et al., 2026).

Hypothesis H2: Customers' acceptability of utilizing e-banking services is positively associated with their perception of the services' ease of use.

2.3. Security and Privacy

The importance of security and privacy as well as how they impact the level of popularity of e-banking services have been shown by numerous research (Tan & Teo, 2000). Privacy is one of the primary obstacles to using e-services. Concerns regarding e-banking services' security and privacy are growing among customers (Agbozo et al., 2018). Hussain et al., (2017) found customers are growing less certain and hesitant to use their bank accounts online due to the lack of security in e-banking services. Consumers use electronic services (e-services) more frequently when they feel safe and secure doing so, which has led to the recent explosive rise of goods and services offered online (Taherdoost, 2017b; Kumar et al., 2022). Hence, one of the key aspects that determines how well clients accept e-banking is security and privacy. It might be argued that customers won't utilize e-banking services unless they feel they are secure (Kumar & Gupta, 2020). Owoseni & Adeyeye (2014), a person's opinion of web security was a direct correlate of their intention to practice online banking. According to Geetha & Malarvizhi (2012), the rising adoption of e-banking services by Indian clients was impacted by various variables, such as privacy, security, and knowledge levels. The findings show that customers are ready to adopt online banking; they desire the security of their banking transaction.

Hypothesis H3: Customers' adoption of e-banking services is positively associated with security and privacy.

2.4. Social Norms

Social norms are described as a person's perceptions of acceptable behaviour that are influenced by the views and deeds of the majority of the significant individuals in their life, such as their close friends, family members, and co-workers, whether consciously or unconsciously (Alam & Khan, 2018). Several studies show that social norms positively influence the likelihood of utilizing e-services and the adoption of online banking (Hapuarachchi & Samarakoon, 2020). Ikechukwu and Singhry (2020) propose that behavioural intention to use internet banking services is more positively impacted by performance expectancy, effort expectancy, social influence, and reliability than security. The growth of e-banking in Mauritius has been described by Ramesh et al. (2019) as legal, security, socio-cultural impediments, management, infrastructure, and banking issues. The study's conclusions clarify a few significant topics about the identification of obstacles to the growth of e-banking that have not been covered by earlier research conducted in Mauritius. First, this study aims to offer a model with six components based on theory and literature that covers nearly all barriers and hurdles and can be helpful for further research.

Hypothesis H4: Customers' approval of e-banking services is positively associated with societal norms.

An essential research question addressed in this study is why e-banking hasn't been fully adopted in Bangladesh. In other words, Bangladeshi banks continue to carry out the majority of their banking operations using conventional techniques in spite of the global rise of IT. The purpose of the research is to ascertain why emerging countries like Bangladesh are not seeing as much innovation in technology. This study intends to evaluate e-banking's economic potential, outline how Bangladesh's banking sector currently accepts e-banking services, and highlight the benefits and reach of e-banking over the existing system.

3. Research Methodology

For this study, the researcher employed quantitative research methods. A deliberate, well-structured set of questions was developed and utilized for further analysis. Additionally, all respondents received the structured questions in exactly the same order, which made it possible for researchers to gather the responses and do an objective study. Also, this enables researchers to confidently compare things closely and accurately, particularly when comparing various sample group types or variations between survey periods. Sampling is the procedure used to get data on a whole population by merely looking at a sample of a representative group (Kabir, 2016). The group of individuals who are pertinent to the study is known as the target population (Creswell, 2003). This study concentrated on 110 bank account holders in Bangladesh who have an internet connection and must conduct banking transactions on a regular basis. Participants in the study are bank clients who use internet banking. Taherdoost (2017) claims that sampling biases can be eliminated by selecting a random sample of a suitable size. For the investigation, both primary and secondary data were used. The researcher chose the following three techniques from among the many options for gathering primary data: observation, interviewing, and library work. Secondary data can be collected more rapidly and at a lower cost than primary data. A variety of sources, including media stories, publications from domestic and foreign research organizations, books, journals, articles, seminar papers, public records, and statistics, were used to gather secondary data. The questionnaire for this study was split into two distinct sections with structured survey questions that included demographic factors and constructs. The Technology Acceptance Model (TAM), which focuses on Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Security and Privacy (SP), and Social Norms (SN) with additional components like Acceptability/Adaption, is used in this questionnaire to gauge e-banking services uptake in Bangladesh. A 5-point Likert scale (Strongly Disagree to Strongly Agree) is used. Researchers use structured questions in which participants are asked the same questions individually and fundamentally in the same ways to gauge Bangladesh's level of adoption of e-banking services. Every piece of information obtained from the online survey was tested and analyzed using Smart PLS version 3.28. To support the study's premise, some crucial statistical techniques will be used, including descriptive statistics, validity, reliability, factor analysis, correlations, and regression analysis.

4. Analyzing and Interpreting Data

The basis for the analysis and interpretation of this study is provided by the respondent profiles and the results of multiple analyses derived from the comments provided by the respondents via the questionnaire.

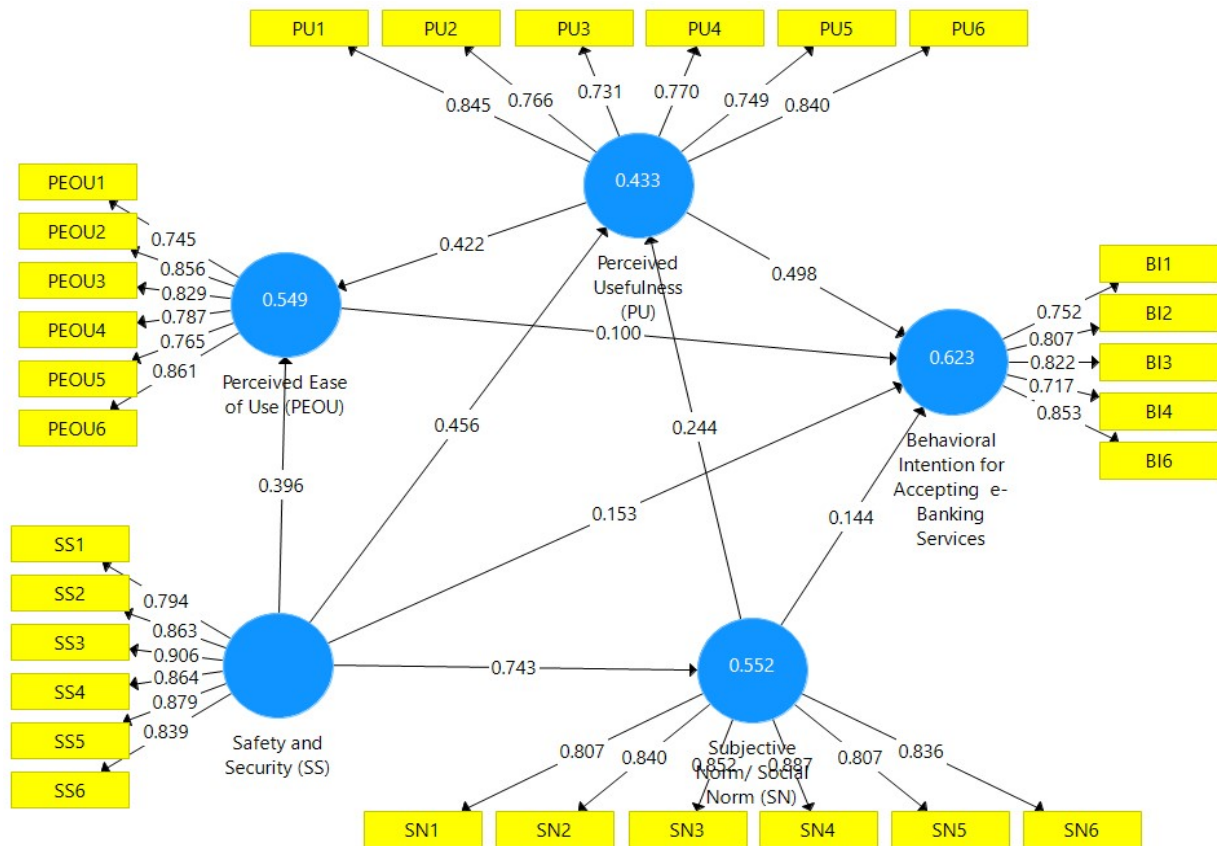
Table 1: Demographic profile of the Respondents

Subject	Criteria	Frequency	Percentage
Gender	Male	98	89.10
	Female	12	10.90
Occupation	Private bank customer	70	63.64
	Public bank customer	40	36.36
Educational Qualification	Post graduate	86	78.2
	Graduate	20	18.2
	Under Graduate	4	3.4

Source: Personal survey

The table above shows the respondents' demographic information, with 98 (89.10%) male and 12 (10.90%) female. The majority of the respondents private bank cusmtomer 70 (63.64%); 40(36.36%) were public bank customer. Out of 110 respondents, 86 (78.2%) were post graduate degree holders; 20 (18.2%) were graduate and only 4 (3.4%) were under graduate.

Figure 2: Structural Model of the study



Source: Source: Personal survey /PLS output

Table 2: Represent R Square Value of the study

Subject	R Square	R Square Adjusted
Behavioral Intention for Accepting e-Banking Services	0.623	0.609

Source: Personal survey /PLS output

R² was computed using a structural equation modeling method known as smart PLS (partial least squares). The R² is a measure of a model's ability to explain phenomena (Shmueli & Koppius, 2011). "In-sample predictive power" is another term for the R² (Becker et al., 2013). The R² value's range remains 0 to 1. According to Hair et al. (2011), endogenous latent variables in the structural model with R² values of 0.75, 0.50, or 0.25 are classified as substantial, moderate, or weak, respectively. More power in an explanation is indicated by a higher value. The study's representation of R² results is 0.623.

Table 3: Represent F Square Value of the study

Subject	Behavioral Intention for Accepting e-Banking Services	Comment
Perceived Ease of Use (PEOU)	0.011	no effect
Perceived Usefulness (PU)	0.314	medium effect
Safety and Security (SS)	0.023	small effect
Subjective Norm/ Social Norm (SN)	0.022	small effect

Source: Personal survey /PLS output

The effect sizes of the predictor constructs are assessed using Cohen's f² (f-square): Gignac & Szodorai (2016) and (Hair et al., 2014) suggested various effect statuses based on F² values. When the F² value is less than 0.02, "no effect," The values 0.02-0.15 denote a "small effect," numbers between 0.15 and 0.35 denote a "medium effect," while numbers above 0.35 denote a "large effect."

Table 4: Construct Reliability and Validity of the study

Subject	Cronbach's Alpha	rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)
Behavioral Intention for Accepting e-Banking Services	0.851	0.859	0.893	0.627
Perceived Ease of Use (PEOU)	0.893	0.902	0.919	0.654
Perceived Usefulness (PU)	0.875	0.879	0.906	0.616
Safety and Security (SS)	0.928	0.933	0.944	0.736
Subjective Norm/ Social Norm (SN)	0.916	0.920	0.934	0.703

Source: Personal survey /PLS output

In general, Cronbach's alpha should fall within a range of 0.70 or above (Nunnally, 1978). However, for advanced research, appropriate values for the calculation range from 0.70 to 0.90 (Hair et al., 2010). The average variance extracted (AVE) value is 0.50 or higher than 0.50, and the composite reliability (CR) value is 0.70 or higher than 0.70. It's acceptable to accept both values (Kumar et al., 2023). According to the results, composite reliability values (0.893, 0.919, 0.906, 0.944, and 0.934) are displayed. The average variance retrieved has the following average values: 0.627, 0.654, 0.616, 0.736, and 0.703. The findings substantiate the claim that convergent validity has been proven.

Table 5: Cross loadings of the Data

Subject	Behavioral Intention for Accepting e-Banking Services (BI)	Perceived Ease of Use (PEOU)	Perceived Usefulness (PU)	Safety and Security (SS)	Subjective Norm/ Social Norm (SN)
BI1	0.752	0.357	0.524	0.487	0.474
BI2	0.807	0.446	0.650	0.520	0.494
BI3	0.822	0.557	0.570	0.465	0.422
BI4	0.717	0.455	0.541	0.459	0.429
BI6	0.853	0.654	0.659	0.606	0.592
PEOU1	0.514	0.745	0.556	0.464	0.544
PEOU2	0.532	0.856	0.590	0.613	0.600
PEOU3	0.465	0.829	0.539	0.582	0.569
PEOU4	0.512	0.787	0.502	0.461	0.423
PEOU5	0.358	0.765	0.422	0.519	0.480
PEOU6	0.636	0.861	0.630	0.577	0.513
PU1	0.584	0.532	0.845	0.511	0.444
PU2	0.556	0.536	0.766	0.416	0.423
PU3	0.484	0.452	0.731	0.455	0.318
PU4	0.641	0.475	0.770	0.448	0.381
PU5	0.619	0.560	0.749	0.594	0.608
PU6	0.616	0.601	0.840	0.550	0.523
SN1	0.458	0.536	0.435	0.601	0.807
SN2	0.453	0.477	0.420	0.594	0.840
SN3	0.472	0.496	0.392	0.563	0.852
SN4	0.521	0.581	0.546	0.672	0.887
SN5	0.569	0.485	0.513	0.602	0.807
SN6	0.585	0.650	0.586	0.684	0.836
SS1	0.512	0.549	0.531	0.794	0.613
SS2	0.578	0.549	0.612	0.863	0.611
SS3	0.452	0.572	0.458	0.906	0.633

SS4	0.727	0.705	0.639	0.864	0.674
SS5	0.521	0.523	0.518	0.879	0.641
SS6	0.476	0.492	0.489	0.839	0.647

Source: Personal survey /PLS output

Item reliability refers to the consistency or dependability of a measurement instrument, such as a test or survey, in terms of its items (questions or statements). It indicates how well the items that make up a test measure the same underlying construct or trait. High item reliability means that the items produce similar results under consistent conditions and they are effectively capturing the same concept. Henseler et al., (2015) recommended that indicators reliability should be assessed by investigating factor loadings, with each indicator's perfect standardized loading surpassing or equal to 0.70 or more. From the above table shows that the each item of cross loading value is greater than 0.70. It is excellent for further analysis.

Table 6: Represent Discriminant Validity (Fornell-Larcker) Criterion

Subject	Behavioral Intention for Accepting e-Banking Services	Perceived Ease of Use (PEOU)	Perceived Usefulness (PU)	Safety and Security (SS)	Subjective Norm/ Social Norm (SN)
Behavioral Intention for Accepting e-Banking Services	0.792				
Perceived Ease of Use (PEOU)	0.631	0.808			
Perceived Usefulness (PU)	0.748	0.675	0.785		
Safety and Security (SS)	0.645	0.665	0.637	0.858	
Subjective Norm/ Social Norm (SN)	0.613	0.647	0.583	0.743	0.838

Source: Personal survey /PLS output

The discriminant validity of the AVE is demonstrated when its square root exceeds the correlations with all other variables (Fornell & Larcker, 1981). Hair et al. (2017) state that discriminant validity in PLS path modeling can be utilized to confirm, through the use of its own indicators, that a reflective idea has the strongest associations. The HTMT technique is recommended by Roemer et al., (2021) for determining discriminant validity. However, as the HTMT calculation results are (0.792, 0.808, 0.785, 0.858, and 0.838) less than 0.90, it can be concluded that the discriminant validity of two thinking concepts has been established.

Table 7: Discriminate Validity of Construct of Heterotrait-Monotrait Ratio (HTMT)

Subject	Behavioral Intention for Accepting e-Banking Services (BI)	Perceived Ease of Use (PEOU)	Perceived Usefulness (PU)	Safety and Security (SS)	Subjective Norm/ Social Norm (SN)
Behavioral Intention for Accepting e-Banking Services	--				
Perceived Ease of Use (PEOU)	0.707				
Perceived Usefulness (PU)	0.859	0.751			

Safety and Security (SS)	0.711	0.722	0.694		
Subjective Norm/ Social Norm (SN)	0.684	0.708	0.632	0.800	--

Source: Personal survey /PLS output

Franke & Sarstedt (2019) assert that establishing discriminant validity is necessary if the HTMT value falls significantly below the critical value of 0.9. Henseler, Ringle, and Sarstedt (2015) compare this method's enhanced performance with the Fornell-Larcker criterion and the evaluation of (partial) cross-loadings using Monte Carlo simulation analysis. Since every value in this study is less than 0.90, it can be examined further.

Table 8: Represent Model _ Fit Summary

Subject	Saturated Model	Estimated Model
SRMR	0.080	0.083
d_ ULS	2.813	2.972
d_ G	1.715	1.730
Chi-Square	901.471	905.779
NFI	0.692	0.690

Source: Personal survey /PLS output

The SRMR is the discrepancy between the correlation matrix that the model suggests and the actual correlation. A value of less than 0.10, or 0.08 in a more cautious version of the data, is considered a satisfactory fit (Hu and Bentler, 1999). Henseler et al. (2015) provide the SRMR as a goodness-of-fit statistic for PLS-SEM to avoid model misspecification. In this model, the SRMR value is 0.0080. It fits really well most of the time. Consequently, the NFI generates values between 0 and 1. When the NFI is closer to 1, the fit is better. For further information, see Lohmöller & Lohmöller (1989) on the NFI computation of PLS path models. In this model, the NFI value is 0.0.692. It fits really well most of the time.

Table 9: Represent Collinearity Statistics (VIF)

Contract	VIF
BI1	1.898
BI2	2.136
BI3	2.361
BI4	1.668
BI6	2.299
PEOU1	1.779
PEOU2	2.564
PEOU3	2.312
PEOU4	2.114
PEOU5	2.042
PEOU6	2.697
PU1	2.692
PU2	2.148
PU3	2.117
PU4	1.809
PU5	2.182
PU6	2.569
SN1	2.468
SN2	4.448
SN3	4.872
SN4	3.589
SN5	2.352
SN6	2.782
SS1	2.147
SS2	3.001
SS3	4.628
SS4	2.705
SS5	3.751
SS6	3.279

Source: Personal survey /PLS output

Each indicator's collinearity was assessed using its variance inflation factor (VIF) values; each indicator's VIF value should be less than 5 (five) (Hair et al., 2010). Table 9 displays the results of the VIF values. The value suggests that there is no collinearity. The VIF values this kind of collinearity during evaluation.

Table 10: Structural path analysis result and testing hypothesis

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Perceived Usefulness (PU) -> Behavioral Intention for Accepting e-Banking Services	0.498	0.499	0.096	5.191	0.000
Perceived Ease of Use (PEOU) -> Behavioral Intention for Accepting e-Banking Services	0.100	0.112	0.134	0.744	0.457
Safety and Security (SS) -> Behavioral Intention for Accepting e-Banking Services	0.153	0.139	0.100	1.537	0.125
Subjective Norm/ Social Norm (SN) -> Behavioral Intention for Accepting e-Banking Services	0.144	0.146	0.091	1.591	0.112
Perceived Usefulness (PU) -> Perceived Ease of Use (PEOU)	0.422	0.421	0.078	5.427	0.000
Safety and Security (SS) -> Perceived Ease of Use (PEOU)	0.396	0.404	0.085	4.665	0.000
Safety and Security (SS) -> Perceived Usefulness (PU)	0.456	0.453	0.087	5.262	0.000
Safety and Security (SS) -> Subjective Norm/ Social Norm (SN)	0.743	0.745	0.060	12.420	0.000
Subjective Norm/ Social Norm (SN) -> Perceived Usefulness (PU)	0.244	0.250	0.093	2.614	0.009

Source: Personal survey /PLS output

Table 10 demonstrates that ($t = 5.191, p < 0.001$) does not support H1: Perceived usefulness (PU) and adoption of e-banking services are positively correlated. The outcome in this instance suggests that the alternative hypothesis is accepted. This indicates that e-banking service acceptance was significantly influenced by perceived usefulness (PU). Once more, acceptability of e-banking services is positively correlated with perceived ease of use (PEOU), a finding that is not corroborated by H2 ($t = 0.744, p < 0.457$). Thus, the outcome suggests that the null hypothesis is accepted. It indicates that acceptance of e-banking services was not significantly influenced by perceived ease of use (PEOU). It is not supported by H3, however, there is a positive correlation between acceptability of e-banking services and security and privacy (SP) ($t = 1.537, p < 0.125$). The outcome lends credence to accepting the null hypothesis. It indicates that the adoption of e-banking services has not been significantly influenced by security and privacy (SP). However, H4 ($t = 1.591, p < 0.112$) supports the notion that acceptability of e-banking services is positively correlated with social norms (SN). It suggests that a different theory has been accepted. It indicates that the acceptance of e-banking services is not much impacted by social norms (SN). Because their p values are less than 0.01, the study also discovered a positive relationship between perceived usefulness (PU) and

perceived ease of use (PEOU), safety and security (SS) and perceived ease of use (PEOU), safety and security (SS) and perceived usefulness (PU), and safety and security (SS) and subjective norm/social norm (SN).

5. Results and Discussion

The short-term advantages for the bank include a reduction in excess time, an improvement in productivity and efficiency, the elimination of duplication and waste, a reduction in maintenance and shortage costs, and a reduction in security costs. Generate new employment possibilities for the unemployed; contribute to the sound economic health of the nation; engage in effective planning and monitoring; and make efficient use of resources. These are the long-term advantages of the nation's sustainable economic growth. Hence, the banks, customers, people of Bangladesh, and national policymakers are the beneficiaries. The acceptance of e-banking services by customers is facilitated by high perceived utility (Othman et al., 2019; Ahmed & Phin, 2016; Alam & Khan, 2018). Banks must convince their clients of the value of e-banking services in order to boost the rate of adoption (support the general objective and prove H1).

In contrast to prior studies, the majority of which concluded that acceptance of e-banking services is positively correlated with perceived ease of use (Ahmed & Phin, 2016; Alam & Khan, 2018; Othman et al., 2019), they adopt bank-provided e-banking services mostly because of their utility rather than because they are simple to use (supported general objective and prove H2).

Hence, customers are more likely to adopt e-banking services when security and privacy are strong. Susanto et al. (2016) found that security and privacy are the key factors influencing e-banking success and corroborated this (supporting the general objective and proving (H3)). Hence, as banks improve their security measures and safeguard clients' privacy, e-banking adoption will rise as well. According to Cheah et al. (2011), Social norms have no discernible impact on the acceptance of e-banking services, (supporting the general objective and proving H4).

5.1. Theoretical Implications

As theoretical aspect, this study advances technology adoption theory by demonstrating that customer decision-making in e-banking is a multidimensional phenomenon, shaped by cognitive, emotional, social, and infrastructural factors. The findings advocate for a contextualized, integrative theoretical framework, moving beyond traditional models to better explain digital financial service adoption in developing countries like Bangladesh.

5.2. Practical Implications

Overall, as practical mode of motion, the findings emphasize that technological, behavioural, and institutional factors must be addressed simultaneously to accelerate e-banking adoption in Bangladesh. A coordinated approach involving banks, regulators, and technology providers is essential to transform customer intention into actual usage behaviour.

6. Conclusion and Recommendation of the study

Bangladesh's financial system has experienced a radical change as it has accelerated its digitalization. It is essential to investigate the dynamics of digital banks in Bangladesh, highlighting the legal environment that will control this prospective banking and current prospects to promote adoption, as traditional banking is set to embrace the digital age in numerous aspects. Bangladesh's provision of timely and appropriate branchless financial services has the potential to create a favourable atmosphere and support the growth of an ecosystem that has flourished on a global scale. Given that people spend over a third of their waking hours online in today's digital age, the prospective establishment of digital banks in Bangladesh would be a significant development for the financial industry. Digital banks are here to stay and are radically changing banking as regulations continue to adjust to this changing environment. The study found that perceived usefulness (PU) played a significant role in the acceptance of e-banking services among the inhabitants of Bangladesh. The study also found that the use of e-banking presents a significant chance to improve financial inclusion. They can help people who were previously unable to obtain banking services overcome geographical hurdles. This is especially important in a nation where traditional bank branches are sometimes inaccessible in rural areas of Bangladesh. It helps to achieve the Central Bank's goal of settling at least 75% of retail transactions through digital technologies by 2027, which aligns with its initiative to launch digital banks, which will help realize Vision 2041 and play a crucial role in putting the National Financial Inclusion Strategy into action. In order to accelerate this percentage even more, digital banking might be essential. Digital banks could be successful if they provide user-friendly interfaces, tailored services, constant accessibility, and a progressive regulatory attitude.

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