

## FACTORS THAT AFFECT THE LOYALTY OF CUSTOMERS TOWARD E-BANKING

Meer Abdul Sattar<sup>\*1</sup>, Dr. Sohaib Uz Zaman<sup>2</sup>

<sup>\*1</sup>Student at Karachi University of Business School

<sup>2</sup>Assistant Professor Karachi University Business School, University of Karachi

<sup>1</sup>meer.aliyani22@gmail.com, <sup>2</sup>sohaibuzaman@uok.edu.pk

DOI: <https://doi.org/10.5281/zenodo.15067539>

### Keywords

E-banking, customer loyalty, service quality, trust, customer satisfaction, user friendliness

### Article History

Received on 15 February 2025

Accepted on 15 March 2025

Published on 22 March 2025

Copyright @Author

Corresponding Author: \*

### Abstract

*This research investigates the factors influencing customer loyalty in e-banking services, pivotal in today's digitally transformed banking landscape. E-banking has redefined traditional banking by offering secure, convenient, and accessible financial services online. The study investigates how user-friendliness, personalization, customer satisfaction, trust, service quality, perceived value, generational differences, validity, and reliability impact customer loyalty. Through an extensive literature review, dimensions such as service quality, trust, reliability, and website design are identified as crucial contributors to enhancing customer loyalty in e-banking. Primary data is collected via a structured questionnaire from e-banking users to gauge their perceptions and experiences regarding these factors. The findings aim to offer insights to banking institutions for improving e-banking services and formulating effective customer retention strategies, essential in adapting to technological advancements and evolving consumer preferences in the digital era.*

## INTRODUCTION

In the modern digital era, maintaining loyal customers is a key aspect of an organization's competitive performance. No business can survive without its loyal customers, and this is especially true in the banking sector, where customer loyalty directly impacts profitability and market share. As the world becomes more digital, service industries such as banks are increasingly providing e-banking services to gain a competitive advantage. E-banking has significantly impacted customer happiness and loyalty, as it offers 24/7 access to banking services, eliminating the need for physical visits to the bank for most transactions. The introduction of Internet banking has been one of the most remarkable advancements in the banking industry. Customers can now manage their funds with minimal issues

through online platforms, which provide quick and convenient access to multiple banking services from anywhere in the world. Automatic Teller Machines (ATMs), electronic cash transmissions, and automatic payment deposits are just a few of the benefits of e-banking. These services have drastically reduced the need for physical cash transactions, making banking more efficient and secure. However, the high cost of acquiring new e-banking customers has made it essential for banks to retain their existing clients and keep them loyal. In today's world, consumers demand new levels of convenience, speed, and efficiency, which traditional banking methods cannot provide. Therefore, banks must understand how customers perceive and assess e-service quality to compete effectively in the marketplace. Despite the

fundamental principles of banking remaining unchanged, the perceived value of financial services has evolved significantly due to technological advancements. E-banking, while offering banks a means to meet customer expectations, also presents the risk of cyber threats. This study aims to identify the key factors influencing customer loyalty towards e-banking in the current technological landscape and explore strategies to mitigate cyber risks and enhance customer satisfaction.

**Objectives**

- To determine the current level of electronic banking.
- To identify the factors that influence customer loyalty in electronic banking.

**Research Methodology**

This study employs a descriptive quantitative research design to investigate the factors influencing customer loyalty in e-banking services. The research explores the relationships between independent variables such as user-friendliness, trust, service quality, and reliability, and their impact on customer loyalty. Data is collected through structured questionnaires and analysed using statistical tools such as SPSS. The study tests the following hypotheses:

- H1:** Higher user-friendliness of e-banking platforms leads to increased customer loyalty.
- H2:** E-banking services that better align with customers' personal needs result in higher customer loyalty.
- H3:** Higher levels of customer satisfaction with e-banking services are positively associated with customer loyalty.
- H4:** Increased trust in e-banking services enhances customer loyalty.
- H5:** Higher service quality and perceived value of e-banking services lead to greater customer loyalty.
- H6:** Higher perceived value of e-banking services leads to greater customer loyalty.
- H7:** Different generations exhibit varying levels of loyalty toward e-banking services.
- H8:** The validity of e-banking services, as perceived by customers, positively affects their loyalty.

**H9:** Higher reliability of e-banking services leads to increased customer loyalty.

The study examines the following variables:

**Dependent Variable:** Customer loyalty in e-banking services.

**Independent Variables:** User-friendliness, alignment with personal needs, customer satisfaction, trust, service quality, perceived value, generational differences, validity of e-banking, and reliability.

Moreover, the study population consists of e-banking users, and a convenience sampling approach is used to select participants. The sample includes diverse respondents from active e-banking service users. Primary data is collected through structured questionnaires designed to measure variables such as user-friendliness, service quality, trust, and customer satisfaction. Secondary data from existing research is also used to support the theoretical framework. Data analysis is conducted using SPSS, with regression analysis, correlation, and ANOVA techniques used to measure the relationships between variables. Factor analysis is also used to determine which variables contribute the most to customer loyalty. The study adheres to ethical principles, including informed consent, anonymity, and confidentiality. Participants are informed of the study's purpose and their rights before participating.

The study acknowledges limitations such as the use of convenience sampling, which may reduce the generalizability of the findings. The sample is also limited to a specific geographic and demographic region. The validity and reliability of the study are ensured through the use of established measurement scales and pilot testing of the questionnaire. The Cronbach's Alpha value of 0.935 indicates excellent internal consistency.

**Results**

The reliability analysis of the questionnaire yielded a Cronbach's Alpha value of 0.935, indicating excellent internal consistency. This high reliability score ensures the trustworthiness and reproducibility of the study's findings.

Reliability Statistics	
Cronbach's Alpha	N of Items
.935	10

Research depends heavily on reliability analysis to identify that the measurement tool produces stable results with consistent measurements. The measurement method helps researchers obtain stable and consistent outcome results from the measurement items. A reliability assessment of the questionnaire was performed through Cronbach's Alpha computation. The measurement scale reliability can be assessed using Cronbach's Alpha which represents one of the most common methods for internal consistency evaluation according to Nunnally & Bernstein (1994).

This study achieved excellent internal consistency because its reliability test yielded a Cronbach's Alpha score of 0.935. The scale Nunnally (1978) provides indicates values above 0.9 represent excellent reliability while those between 0.8 to 0.9 fall under good reliability and 0.7 to 0.8 indicates acceptable reliability but values below 0.7 are considered questionable. Hair et al. (2019) pointed out that Cronbach's Alpha measurement exceeding 0.7 meets research requirements but values above 0.9 indicate

the instrument possesses superb measurement quality and works well in statistical analysis.

The Cronbach's Alpha value changes according to the total number of questionnaire items. The instrument's reliability can be verified through the ten items because the high alpha score demonstrates consistent results when measurements are repeated. Researcher Field (2018) demonstrates that reliable measurement scores obtained from participants increase data dependability and minimize potential measurement errors that protect the study's research validity.

The reliable instrument used in this study shows validity through its Cronbach's Alpha rating of 0.935. The questionnaire shows internal consistency at a high level based on this study's result thus ensuring the trustworthiness and reproducibility of derived data findings. The obtained reliability score enhances both the stability of the study findings and the believability of subsequent statistical analyses that involve both regression testing and correlation

**Table 1: Respondents' characteristics**

Respondents' characteristics		Frequency	Percentage
Gender	Male	75	67.6
	Female	36	32.4
Age	Below 20	5	4.5
	21-30	91	82.0
	31-40	10	9.0
	41-50	2	1.8
	Above 50	3	2.7
Education Level	High School	9	8.1
	Bachelor's degree	52	46.8
	Master's degree	50	45.0
Occupation	Student	41	36.9
	Employed	49	44.1
	Self employed	11	9.9
	Unemployed	10	9.0

**Table 2: Descriptive statistics of research variables**

Variables	Quantity	Minimum	Maximum	Mean	Std. Deviation	Variance
User Friendliness	111	3.00	15.00	11.3423	2.29028	5.245
Trust	111	3.00	15.00	11.5225	2.27974	5.197
Service Quality	111	3.00	15.00	11.3604	2.37714	5.651
Customer Satisfaction	111	3.00	15.00	11.9099	2.38766	5.701
Perceived Value	111	3.00	15.00	11.8739	2.64959	7.020
Personal needs	111	3.00	15.00	11.1622	2.48465	6.173
Reliability	111	3.00	15.00	11.2072	2.55171	6.511
Generational Differences	111	2.00	10.00	7.6486	1.76660	3.121

Results obtained in table 2 demonstrate that customer satisfaction emerges as the variable with the

highest mean rating at 11.909 while personal needs exhibit the lowest mean at 11.1622.

**Table 3: Coefficients<sup>a</sup>**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.125	.827		2.571	.012
	U.F	.150	.089	.150	1.673	.098
	T.R	-.156	.090	-.156	-1.742	.085
	S.Q	.035	.097	.036	.357	.722
	C.S	.348	.096	.364	3.612	.000
	P.V	.084	.091	.097	.920	.360
	P.N	-.018	.085	-.020	-.216	.829
	R.B	.057	.092	.064	.626	.533
	G.D	.079	.115	.062	.692	.490
	V.E.B	.447	.128	.333	3.488	.001

a. Dependent Variable: C.L

**Hypothesis Testing:**

This study used Regression analysis to measure different independent variables' effects on the Customer Loyalty variable. A summary of the

analysis results appears in Table 4 and includes unstandardized and standardized coefficients together with t-values as well as significance levels.

Hypothesis	Independent Variable	B (Unstandardized Coefficient)	t-value	P-value (Sig.)	Decision
H1: Higher user-friendliness of e-banking platforms leads to increased customer loyalty.	U.F (User-Friendliness)	0.150	1.673	0.098	Rejected (Not significant)
H2: E-banking services that better	P.N (Personal	-0.018	-0.216	0.829	Rejected (Not

align with customers' personal needs result in higher customer loyalty.	Needs)				significant)
H3: Higher levels of customer satisfaction with e-banking services are positively associated with customer loyalty.	C.S (Customer Satisfaction)	0.348	3.612	0.000	Accepted (Highly significant)
H4: Increased trust in e-banking services enhances customer loyalty.	T.R (Trust)	-0.156	-1.742	0.085	Rejected (Not significant)
H5: Higher service quality of e-banking services lead to greater customer loyalty.	S.Q (Service Quality)	0.035	0.357	0.722	Rejected (Not significant)
H6: Higher Perceived value of e-banking services lead to greater customer loyalty.	P.V (Perceived Value)	0.084	0.920	0.360	Rejected (Not significant)
H7: Different generations exhibit varying levels of loyalty towards e-banking services.	G.D (Generational Differences)	0.079	0.692	0.490	Rejected (Not significant)
H8: The validity of e-banking services, as perceived by customers, positively affects their loyalty.	V.E.B (Validity of E-Banking)	0.447	3.488	0.001	Accepted (Highly significant)
H9: Higher reliability of e-banking services leads to increased customer loyalty.	R.B (Reliability)	0.057	0.626	0.533	Rejected (Not significant)

**Discussion**

The results are interpreted in the context of existing literature, providing insights into the factors influencing customer loyalty in e-banking. The study found that customer satisfaction (C.S) and the validity of e-banking (V.E.B) have significant positive impacts on customer loyalty. Other variables, such as user-friendliness, trust, service quality, and perceived value, were found to be statistically insignificant. The regression analysis revealed that customer satisfaction and the validity of e-banking are the primary drivers of customer loyalty. These findings align with previous research, which highlights the importance of customer satisfaction and trust in e-banking adoption. The study's findings support existing literature on e-banking adoption, particularly the importance of customer satisfaction and trust. However, the insignificance of factors such as user-friendliness and service quality suggests that these variables may not be as critical in this specific context. A set of multiple statistical tests evaluated the study outcomes including reliability analysis with Cronbach's Alpha value of 0.935 and correlation

alongside regression and ANOVA testing. The instrument showed high reliability because its Cronbach's Alpha value reached 0.935. The dependent variable prediction and independent variable significance determination was possible with regression analysis while correlation analysis revealed different factor relationships.

Customer Satisfaction (C.S) and Validity of E-Banking (V.E.B) both have significant effects on e-banking acceptance according to the results. The regression evaluation did not produce statistical significance between User Friendliness (U.F), Trust (T.R), Service Quality (S.Q), Perceived Value (P.V), Personal Needs (P.N), Reliability (R.B), and Generational Differences (G.D). Although ANOVA results showed significant mean variations across all independent variables the results indicated their potential contextual impact.

The study contributes to the growing body of literature on e-banking by identifying customer satisfaction and the validity of e-banking as primary determinants of its success. It provides empirical evidence supporting the Technology Acceptance

Model (TAM) and related frameworks. For banking institutions, the findings highlight the need to enhance customer satisfaction by improving service quality, security, and user experience. Although transaction risk and risk beliefs were not significant predictors, they remain concerns for users, meaning banks should continue working on fraud prevention, cybersecurity, and regulatory compliance.

### Conclusion

This study aimed to analyze the impact of various independent variables, including User Friendliness (U.F), Trust (T.R), Service Quality (S.Q), Customer Satisfaction (C.S), Perceived Value (P.V), Personal Needs (P.N), Reliability (R.B), Generational Differences (G.D), and Validity of E-Banking (V.E.B) on the Customer Loyalty (C.L) using regression analysis. The results reveal that: Customer Satisfaction (C.S) and Validity of E-Banking (V.E.B) have a significant positive impact on Customer Loyalty (C.L). Customer Satisfaction (C.S) ( $\beta = 0.364$ ,  $p = 0.000$ ) emerged as the most significant factor influencing the outcome variable. This suggests that when customers are satisfied, they are more likely to engage with and trust the e-banking system. Validity of E-Banking (V.E.B) ( $\beta = 0.333$ ,  $p = 0.001$ ) also plays a crucial role, indicating that the credibility and reliability of an e-banking system significantly affect customer trust and adoption. Other factors, including User Friendliness (U.F), Trust (T.R), Service Quality (S.Q), Perceived Value (P.V), Personal Needs (P.N), Reliability (R.B), and Generational Differences (G.D), were found to be statistically insignificant ( $p > 0.05$ ).

Although these variables are generally expected to influence e-banking adoption, their insignificance

suggests that customers prioritize customer satisfaction and the validity (trustworthiness and security) of the e-banking system over these factors. This finding indicates that while elements like service quality and trust matter, they may not be the primary drivers of e-banking adoption in this specific context. The ANOVA test ( $F = 21.648$ ,  $p = 0.000$ ) confirms that the overall model is statistically significant, meaning that the combined effect of all independent variables explains a substantial portion of the variance in e-banking outcome levels. However, the insignificance of most individual variables suggests that customer satisfaction and the validity of the e-banking system are the primary factors that drive customer engagement and trust.

### Recommendations

Banks should focus on improving the overall user experience by ensuring quick and seamless transactions, offering efficient customer support, and providing error-free services. Banks should work on increasing customer trust and confidence in digital banking platforms by implementing top-tier security measures and maintaining compliance with regulatory requirements. While factors such as trust and service quality are often considered essential for e-banking, their insignificance in this study suggests that customers may prioritize other factors, such as security and overall satisfaction. Future research should explore additional factors such as technological advancements, financial literacy, and customer demographics to gain a broader understanding of what drives e-banking adoption.

### REFERENCES

- Penerbit Universiti Sains Malaysia, 2014. (2014). 32(March 2008), 123-147.
- Amin, M. (2016). Internet banking service quality and its implication on e-customer satisfaction and e-customer loyalty. *International Journal of Bank Marketing*, 34(3), 280-306. <https://doi.org/10.1108/IJBM-10-2014-0139>
- Ayinaddis, S. G., Taye, B. A., & Yirsaw, B. G. (2023). Examining the effect of electronic banking service quality on customer satisfaction and loyalty: an implication for technological innovation. *Journal of Innovation and Entrepreneurship*, 12(1). <https://doi.org/10.1186/s13731-023-00287-y>
- Chen, C. (2006). No Title Identifying Significant Factors Influencing Consumer Trust in an Online Travel Site. 8(2006), 12.

- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed.). SAGE Publications.
- Cyr, D., Hassanein, K., Head, M., & Ivanov, A. (2007). The role of social presence in establishing loyalty in e-Service environments. *Interacting with Computers*, 19(1), 43-56.
- Cyr, D., Hassanein, K., Head, M., & Ivanov, A. (2007). The role of social presence in establishing loyalty in e-Service environments. *Interacting with Computers*, 19(1), 43- 56. <https://doi.org/10.1016/j.intcom.2006.07.010>
- Eddin, A., & Khalaf, M. (2011). E-banking Functionality and Outcomes of Customer Satisfaction : An Empirical Investigation. 3(1), 50-65.
- Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage.
- Ghali, Z. (2021). Motives of customers ' e-loyalty towards e-banking services : a study in Saudi Arabia. *Journal of Decision Systems*, 30(2-3), 172-193. <https://doi.org/10.1080/12460125.2020.1870063>
- Hafiz, M., & Othman, M. (n.d.). *Entrepreneurial Intention among Malaysian Undergraduates*.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning. <https://doi.org/10.1080/02642060801988910>
- Lanka, S., & Lanka, S. (2018). E-Banking Service Qualities , E-Customer Satisfaction , and e-Loyalty : A conceptual Model MBA student , University of Jaffna , Sri Lanka. 5(06), 4808-4819. <https://doi.org/10.18535/ijsshi/v5i6.08>
- Liang, C., Chen, H., & Wang, W. (2008). Does online relationship marketing enhance customer retention and cross-buying? 2069.
- Lichtenstein, S. (2005). UNDERSTANDING CONSUMER ADOPTION OF INTERNET BANKING : AN INTERPRETIVE STUDY IN THE AUSTRALIAN BANKING CONTEXT. 50-66.
- Mahmod, R. (n.d.). FULL RELATIONSHIP AMONG E- SERVICE QUALITY , AND E-LOYALTY : THE CASE OF IRAN E.
- Manser Payne, E. H., Peltier, J., & Barger, V. A. (2021). Enhancing the value co-creation process: artificial intelligence and mobile banking service platforms. *Journal of Research in Interactive Marketing*, 15(1), 68-85. <https://doi.org/10.1108/JRIM-10-2020-0214>
- Maroofi, F., Kahrarian, F., & Dehghani, M. (2013). An Investigation of Initial Trust in Mobile Banking. *International Journal of Academic Research in Business and Social Sciences*, 3(9), 394-403. <https://doi.org/10.6007/ijarbss/v3-i9/228>
- Mauro, J., & Afonso Mazzon, J. (2007). Adoption of internet banking: Proposition and
- N, S., & S, S. (2018). E-Banking Service Qualities, E-Customer Satisfaction, and e-Loyalty: A conceptual Model. *International Journal of Social Sciences and Humanities Invention*, 5(6), 4808-4819. <https://doi.org/10.18535/ijsshi/v5i6.08>
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.
- Nustini, Y. (2020). Factors that influence the use of e-banking and the effect on consumptivism. *Review of Integrative Business and Economics Research*, 9(1), 330-
- Pallant, J. (2020). *SPSS survival manual: A step-by-step guide to data analysis using IBM SPSS* (7th ed.). McGraw-Hill Education.
- Payne, E. H. M., Peltier, J., & Barger, V. A. (2020). Enhancing the value co-creation process : arti ficial intelligence and mobile banking service platforms. <https://doi.org/10.1108/JRIM-10-2020-0214>
- Rawashdeh, A. (2015). No TitleFactors affecting adoption of internet banking in Jordan.
- Raza, S. A., Umer, A., Qureshi, M. A., & Dahri, A. S. (2020). Internet banking service quality, e-customer satisfaction and loyalty: the modified e-SERVQUAL model. *The TQM Journal*, 32(6), 1443-1466. <https://doi.org/10.1108/TQM-02-2020-0019>

- Rushton, A. M., & Carson, D. J. (1985). The Marketing of Services: Managing the Intangibles. *European Journal of Marketing*, 19(3), 19-40. <https://doi.org/10.1108/EUM0000000004748>
- Rushton, Angela M.; Carson, D. J. (1990). No TitleThe Marketing of Services: Managing the Intangibles. *European Journal of Marketing*, 23(1990), 8.
- Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson Education.
- Swamy, S. (n.d.). Factors Affecting Customer Loyalty of Using Internet Banking in Iran. <https://doi.org/10.5829/idosi.wasj.2013.28.11.1674>
- Tan, G. W., & Chong, C. (2015). The adoption of online banking in Malaysia: An empirical analysis The Adoption of Online Banking in Malaysia: An Empirical Analysis Garry Wei-Han Tan ♣ , a Chee-Keong Chong , a Keng-Boon Ooi and b Alain Yee-Loong Chong. June.
- Universita, C., & Sa, U. De. (2006). Adoption of internet banking: proposition and implementation of an integrated methodology approach. 2004. <https://doi.org/10.1108/02652320710728410>
- Wolfenbarger, M., & Gilly, M. C. (2003). No TitleTailQ: dimensionalizing, measuring and predictingetail quality. *Journal of Retailing*, 79(2003), 16.
- Woodruff, R. B. (1995). Customer Value : The Next Source for Competitive Advantage.
- Yee, B., & Faziharudean, T. M. (2010). Factors Affecting Customer Loyalty of Using Internet Banking in Malaysia. *Journal of Electronic Banking Systems*, 2010, 1-22. <https://doi.org/10.5171/2010.592297>
- Zeithaml, V. A., Parasuraman, A., & Malhotra, A. (2002). Service quality delivery through web sites: A critical review of extant knowledge. *Journal of the Academy of Marketing Science*, 30(4), 362-375. <https://doi.org/10.1177/009207002236911>

