

E -Retail Payments Practices And Customer Satisfaction

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Abstract

The present study aims to identify key factors that influence customer satisfaction with e-retail payment systems and to analyse how the factors such as Perceived usefulness, perceived ease of use, payment security and self-efficiency interact with customer satisfaction using Toda Yamamoto Causality Test. These factors play a crucial role in determining customer satisfaction with payment systems. understanding how these factors interact and contribute to customer satisfaction can provide valuable insights for e-retailers looking to optimize their payment processes and improve customer retention. With the use of an interview schedule, 400 bank customers from Sivaganga District are participated in this study have provided valuable feedback and responses relating to the above factors that influence customers' satisfaction to e-retail payments. The results revealed significant bidirectional Granger causality between customer satisfaction and the factors of Ease of Use, Usefulness, Security, and Self-Efficiency.

Keywords: Perceived usefulness, perceived ease of use, payment security, self-efficiency and customer satisfaction

1.Introduction

In a cashless economy, all transactions are conducted using various electronic payment methods, eliminating the need for physical money when purchasing goods and services. E-payments occur when transactions are made digitally, whether on the internet or at physical premises, without the use of cash or checks. As a part of the broader initiative of government to promote cashless transactions and transition India into a less-cash society, a several digital payment options have been made available. Achieving a fully functional cashless payment ecosystem in India has not been easy, but it has been made possible through government policies which focused on strengthening digital infrastructure, the widespread adoption of smartphones, affordable internet access, and technological innovations.

A key enabler of this transformation has been the introduction of the Unified Payments Interface (UPI), a centralized system based on the Immediate Payment Service (IMPS), which has significantly boosted the adoption of instant digital fund transfers. E-payment methods offer numerous advantages: they are easy to use, convenient, and provide customers with the flexibility to make transactions anytime and from anywhere. These digital alternatives not only speed up transaction cycles but also enhance the efficiency of payments compared to traditional methods.

To further ensure the smooth functioning and regulation of the digital payment ecosystem, the Reserve Bank of India (RBI) and the Indian Banks' Association (IBA) established the National Payments Corporation of India (NPCI), which serves as an umbrella organization overseeing the country's payment and settlement infrastructure. Together, these developments have contributed to India's emergence as a robust digital economy, fostering greater financial inclusion and convenience for both consumers and businesses.

2. Objectives of the study

1. To examine the socio-economic profile of the sample respondents.
2. **To analyze the causal interactions among customer satisfaction and the identified factors (perceived usefulness, perceived ease of use, payment security, and self-efficacy) using the Toda-Yamamoto causality test.**

3. Hypotheses of the study

Null Hypothesis (H_0): The identified factors have no significant influence on customer satisfaction towards e-retail payment adoption

Alternate Hypothesis (H_A): The identified factors have significant influence on customer satisfaction towards e-retail payment adoption

4. Scope and Methodology

This study is undertaken to analyze customer satisfaction with e- retail payment services. For the purpose of the study, customers using retail payment services viz., Credit Card, Debit Card, NEFT, IMPS, UPI, AePS, pre-paid payment instrument, NACH, NETC and payment through mobile and internet banking are considered. This study aims to understand the socio-economic profile of customers of e retail payments, customer perception and customers' satisfaction towards e-retail payments. The customer perception is measured on four factors viz., Perceived Ease of Use, Perceived Use fullness, Payment Security and Self Efficiency. This study **provides insights and recommendations for NPCI on optimizing payment systems based on factors that significantly influence customer satisfaction.**

4.1 Sources of data

The study is based on both primary and secondary data. The primary data were collected from the entrepreneurs, salaried employees, businesspeople, professionals, students and homemakers in Sivaganga district. Sivaganga district is one of the 38 districts (an administrative district) in the state of Tamil Nadu, The secondary data were collected from the websites of RBI and NPCI, textbooks, journals, magazines which focus on various aspects of customer satisfaction and electronic payments.

4.2 Tools of Data Collection:

An Interview schedule was used for Primary Data collection.

4.3 Sampling Design

The sampling unit for this study is Sivaganga District. Convenience sampling methods was used to select the respondents, with a total of 400 sample respondents were contacted.

4.4 Statistical Tools

The statistical tools employed for analysis are:

1. Percentage analysis
2. Toda Yamamoto Causality Test

5.Literature Review

Limbu, Basanti (2024) identified that ease of use as a key factor for customer satisfaction with user-friendly language and interfaces. Security measures also played a crucial role in shaping customer satisfaction. Users prioritize digital security measures, particularly confidentiality assurances for transactions conducted on the bank's; with the help of electronic technology continuance model (e-TCM) A. M., Chowdhury, I. U., &Khondkar, M. (2024) identified that the influences of information quality, service quality, system quality and perceived usefulness are found as positive factors for increasing customer satisfaction and continuance adoption. However, perceived threats and perceived anxiety do not influence e-satisfaction but influence continuance intention; Nguyen, L. P., & Tran, H. V. C. (2020) found that except service costs, other factors such as convenience, speed, security, ease of use, reliability, quality of service, and procedure are positively related to customer satisfaction of electronic banking in Vietnam. Thus, it implies that bank managers should focus on these areas to raise customer perception and customer satisfaction of electronic banking. Npueng, S., Kim, L., Maijan, P., &Issayeva, G. (2024) examined how the factors of price fairness, convenience, and perceived risk influence perceived value which further influences customer satisfaction in the e-banking service context. From the result of path analysis technique, it could be understood that price fairness, convenience, and perceived risk influences perceived e-banking value. The technological competency played a significant role in moderating the relationship between perceived value and customer satisfaction. Ling, G. M., Fern, Y. S., Boon, L. K., & Huat, T. S. (2016) studied the factors influencing customer satisfaction towards internet banking. From the result of

research survey, they identified that web design and content, convenience and speed are the top three factors that influence customer satisfaction toward Internet banking.

6. Results and Discussion

6.1 Demographic Profile

The Demographic Profile of sample respondent is presented in Table - 1.1

Table - 1.1- Demographic Profile

Variables	Parameters	Frequency	Percentage
			(%)
Gender	Male	198	49.5
	Female	202	50.5
	Total	400	100
Age (in years)	18-20	46	11.5
	21-30	120	30
	31-40	105	26.25
	41-50	95	23.75
	Above 50	34	8.5
	Total	400	100
Educational qualification	10 th std. (SSLC)	12	3
	12 th	26	6.5
	Diploma	93	23.25
	Graduate	123	30.75
	Post graduate	111	27.75
	Others	35	8.75
	Total	400	100
Occupational status	Farmer	12	3
	Salaried	134	33.5
	Businessman	89	22.25
	Professional	41	10.25
	Manufacturer / Trader	67	16.75
	Others	57	14.25
	Total	400	100
Monthly income of the family (In Rs.)	Below 10000	48	12
	10001-20000	39	9.75
	20001-30000	79	19.75
	30001-40000	86	21.5
	40001-50000	92	23
	Above 50000	56	14
	Total	400	100
Marital status	Married	208	52
	Unmarried	192	48
	Total	400	100

Source: Primary Data

From the table it could be inferred that majority of the respondents contacted for the study are female customers while the remaining 49 per cent were male. Out of total respondents' majority of 30% of the respondents belongs to the age group of 21-30 years, only 8.5 % of the respondents were aged above 50. Hence it could be inferred

that young customers aged below 40 years having higher degree of usage of e-retail payments. Majority of 30.75% of the respondents were graduates, 3% of the sample respondents have studied 10th standard and another 6.5 % of the respondents have completed higher secondary education level. To conclude, majority of customers were graduates. 3 % of the respondent is farmer, 33.5% of the respondent is salaried, 22.25% of the respondent is doing business, 10.25% of the respondents are professional, 17% of the respondent is manufacturer/trader, 14% of the respondent are other category it consist of student, and housewife. It is significant to note that, majority of e-retail payment customers are salaried. Regarding the monthly income of the sample respondents 42% of them were earning below Rs.30, 000 and 58% were earning above Rs.30, 000. It is significant to note that majority of e-retail payment customers are earning above Rs.30000. Majority of 52% of the respondents were married.

Table-2 Reliability coefficient and descriptive statistics of perceived usefulness, ease of use, security, self-efficiency and customer satisfaction

Scales	No. of Items	Alpha	M	SD
Ease of use	3	0.66	4.26	0.39
Use fullness	5	0.67	4.21	0.37
Security	4	0.79	4.24	0.64
Self-efficiency	3	0.78	4.21	0.47
Customer satisfaction	6	0.73	4.44	0.41

Source: Compiled from Primary data with 400 respondents with 0.05 level of significance

Descriptive and reliability statistics among studied variables are listed in Table 2. The reliability coefficients, means, and standard deviations of all the constructs are displayed in Table 2. The coefficient alphas for the different constructs of each variable were computed using the reliability procedure in SPSS. Nunnally (1978) suggested that for any research at its early-stage minimum reliability score or alpha of 0.60 or above is sufficient. The reliabilities of all the constructs in this study were found to be above the standard set by Nunnally (1978). Mean scores have been computed by equally weighting the observation scores of all the items. The mean score of perceived ease of use was 4.26 (sd=0.39) indicating that e-retail payment is very easy to use and it is not difficult to understand, learn or operate. The mean score for perceived usefulness was 4.21 (sd = 0.37). It revealed that this payment mode has improved the way of managing daily payment operation. The mean score for security and privacy was 4.24 (sd = 0.64). It implies that the customers perceived that the online banking system to be very secure. The mean score for user self-efficiency was 4.21 (sd = 0.47). It revealed that customer can complete their payment operation without any external assistance. The mean score for customer satisfaction was 4.74 (sd = 0.41). It implies that the customers are satisfied with e-retail payment options.

Table-3 Validity of perceived usefulness, ease of use, security, self-efficiency and customer satisfaction

S.No	Variables	No.of items	Pearson correlation	Pearson product moment value
1	Ease of use	3	0.546	0.159**
			0.759	
			0.805	
2	Use fullness	5	0.534	0.159**
			0.877	
			0.700	
			0.592	
			0.622	
3	Security	4	0.543	0.159**
			0.789	
			0.874	
			0.512	
4	Self-efficiency	3	0.532	0.159**
			0.567	
			0.789	

5	Customer satisfaction	6	0.893	0.159**
			0.865	
			0.530	
			0.567	
			0.587	
			0.698	

It could be identified from the above table that the Pearson correlation values are more than 0.159 of r table product moment at 5% level of significance. Hence it can be concluded that all variables in customer perception and satisfaction were valid.

6.2 Factors determining customer satisfaction towards e-retail payment adoption

Null Hypothesis (H_0): The identified factors have no significant influence on customer satisfaction towards e-retail payment adoption

Table-4 Results of Granger Causality of factors determining customer satisfaction towards e- retail payment adoption

TODA YAMAMOTO CAUSALITY (MODIFIED BLOCK EXOGENEITY WALT TESTS)			
Null Hypothesis	Chi-Sq	Prob.	Granger Causality
Customer Satisfaction does not granger cause Ease of Use	0.111	0.000	Bi Directional Causality Impact
Ease of Use does not granger cause Customer Satisfaction	0.346	0.000	
Customer Satisfaction does not granger cause usefulness	1.003	0.000	Bi Directional Causality Impact
Usefulness does not granger cause Customer Satisfaction	0.359	0.000	
Customer Satisfaction does not granger cause Security	1.383	0.000	Bi Directional Causality Impact
Security does not granger cause Customer Satisfaction	0.839	0.000	
Customer Satisfaction does not granger cause Self Efficiency	1.383	0.000	Bi Directional Causality Impact
Self-Efficiency does not granger cause Customer Satisfaction	1.911	0.000	

Source: Compiled from Primary data with 400 respondents with 0.05 level of significance

The analysis explored the determinants of customer satisfaction with e-retail payment adoption using the Granger Causality method, specifically the Modified Block Exogeneity Wald Tests. The results revealed significant bidirectional Granger causality between customer satisfaction and the factors of Ease of Use, Usefulness, Security, and Self-Efficacy. Specifically, the p-values for all hypotheses were less than the significance level of 0.05, indicating the rejection of null hypothesis. For Ease of Use, the causality results (Chi-Square values of 0.111 and 0.346) suggest a mutual influence, where Ease of Use and customer satisfaction reinforce each other. Similarly, in the case of Usefulness, the Chi-Square values of 1.003 and 0.359 support a bidirectional relationship, confirming that customer satisfaction and perceived usefulness are interlinked. Security also demonstrated a strong mutual impact, with Chi-Square values of 1.383 and 0.839, underscoring that customer satisfaction can influence and be influenced by the perception of security in e-retail payments. Lastly, Self-Efficacy, with Chi-Square values of 1.383 and 1.911, also exhibited a bidirectional relationship with customer satisfaction, highlighting a dynamic interplay where higher self-efficacy can boost satisfaction and vice versa. Collectively, these findings emphasize the interdependence among these factors, suggesting that improvements in Ease of Use, Usefulness, Security, and Self-Efficacy are likely to enhance customer satisfaction and that a satisfied customer, in turn, perceives these factors more positively.

6. Findings

The present study reveals how perceived usefulness, ease of use, security and self-efficacy affect customer satisfaction towards e-retail payments. The results revealed significant bidirectional Granger causality

between customer satisfaction and the factors of Ease of Use, Usefulness, Security, and Self-Efficacy. Specifically, the p-values for all hypotheses were less than the significance level of 0.05, indicating the rejection of null hypothesis. Thus, it can be concluded that factors such as Ease of Use, Usefulness, Security, and Self-Efficacy need to be considered in order to enhance customer satisfaction. Improvements in Ease of Use, Usefulness, Security, and Self-Efficacy are likely to enhance customer satisfaction and then a satisfied customer, in turn, perceives these factors more positively. Ease of use emerged as a significant factor for customer satisfaction, hence the service providers should continue simplifying their user interfaces, making them in-built and easy to navigate, especially for those who may not be tech-savvy. Offering tutorials, FAQs, and customer support for users, particularly those customers who are in the age group of above 50 and with lower technical awareness, could improve self-efficacy which result in greater customer satisfaction.

7. Limitations and Research Gaps

Newer payment technologies and methods, such as cryptocurrency or AI-driven payment platforms, were not included in this research, which may limit the relevance of findings as the payment landscape evolves. Further, it is noticed from reviews that no study has been so far visualized the awareness level of respondents in depth towards a variety of retail services like NEFT, IMPS, UPI, AePS, pre-paid payment instrument, NACH, NETC etc. So that, the present study tries to find out the perception and satisfaction of customers regarding specific E-retail digital payment services of commercial banks.

8. Conclusion

The study clearly indicates that perceived Ease of Use, perceived Usefulness, perceived Security, and Self-Efficacy are critical factors influencing customer satisfaction towards e-retail payment adoption. The bidirectional causality between these factors and satisfaction suggests that improvements in any of these dimensions can lead to a more satisfied customer base, which in turn may increase the adoption and usage volume of e-retail payment services. The results highlight that a comprehensive approach focusing on simplifying the user experience, enhancing security, and promoting self-efficiency can contribute significantly to increasing customer satisfaction. This study provides valuable insights for policymakers, businesses, and NPCI to enhance their strategies in fostering a more robust and customer-centric e-retail payment ecosystem.

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