

A STUDY ON THE ROLE OF DIGITAL PAYMENT SYSTEMS IN SHAPING ONLINE CONSUMER BEHAVIOR

AUTHOR 1: S. SWARNALATHA

Research Scholar

Faculty of Management

SRM Institute of Science and Technology

Vadapalani Campus, Chennai – 600026

AUTHOR 2: DR.M. KALAIVANI

Associate Professor

Faculty of Management

SRM Institute of Science and Technology

Vadapalani Campus, Chennai - 600026

Abstract

This research investigates the effect of determining factors in purchasing decisions in online payment systems based on user preferences and trust. Using a one-sample t-test, this research identifies Easy Payment, Secure Payment, Abandonment, and Rewards as key determinants viewed positively by respondents. Among them, Abandonment was ranked as the most crucial issue, reflecting its high degree of influence on consumers. In addition, a paired samples t-test indicated that a strong disparity existed between the perception of the convenience of digital payment channels and the trust in these systems, with trust being rated considerably lower. These results confirm that trust issues need to be addressed in order to build consumer confidence and drive the usage of digital payment solutions. The research provides greater insight into the interactions between payment convenience and trust and provides practical recommendations for enhancing service design and security for digital payment providers.

Introduction

The fast pace of digital payment technologies has reshaped the retail and e-commerce environments, providing consumers with unprecedented convenience and flexibility. Yet, together with these advantages, security, trust, and abandonment concerns continue to shape the way people shop. Understanding how consumers feel about different aspects of digital payment systems—such as convenience, security, reward, and abandonment risk—is essential for companies that want to maximize their payment systems and improve customer satisfaction. This research explores these determinants and investigates how they cumulatively influence consumer purchases. Further, it also examines the trust consumers have in electronic payments and their attitudes toward payment systems to identify areas that can hamper wider adoption. By understanding these factors, the study hopes to find useful insights that can be applied to creating safer, more accessible, and reliable digital payment systems

Review of Literature

Ease of Use and Security in Digital Payments

Various studies highlight that ease of use and security are essential determinants in digital payment system adoption. Davis (1989) introduced the Technology Acceptance Model (TAM), with perceived ease of use as an essential motivator for technology acceptance. Follow-up studies by Oliveira et al. (2014) supported the fact that ease of payment and security elements have notable effects on willingness to use mobile and digital payment systems. Consumers value convenience but will shun systems that are viewed as insecure or complicated, highlighting the dual significance of usability and security.

Impact of Trust on Digital Payment Adoption

Trust is generally recognized as a major consideration in online financial transactions. Gefen et al. (2003) named trust as a key to minimizing perceived risk and uncertainty in e-commerce. Research by Kim et al. (2009) indicated that elevated trust levels in electronic payment systems promote greater user satisfaction and purchase intentions. Trust is however vulnerable and can be harmed by security violations or secrecy, which affects the general success of electronic payment implementation.

Role of Rewards and Abandonment in Consumer Behavior

Cashback and reward points are valuable motivators in digital payment usage (Niinimäki & Hassi, 2011). Rewards have the potential to lower cart abandonment rates because they motivate consumers to make purchases. A study by Lim et al. (2016) discovered that reward perceptions from rewards are positively linked to decreased abandonment behavior and increased repeat purchases, which indicates that effective reward programs based on good design can enhance purchasing choices.

Statement of the Problem

Even with general availability and usage of electronic payment methods, a challenge in securing high levels of consumer trust still lingers, and it is a requirement for long-term adoption and frequent usage. Convenience and security aspects are generally touted, but consumers' weighing of these against risks such as potential abandonment of the transaction or insufficient rewards is unknown. In addition, a gap between trust in the underlying digital systems and perceived payment mode accessibility has the potential to erode consumer confidence. This research fills this essential gap by exploring the relative importance of significant factors underpinning purchasing decisions and the degree to which trust tracks or differs from payment convenience perceptions. An understanding of these dynamics is crucial to businesses and technology players looking to improve digital payments experiences and create more consumer loyalty.

Scope of the Study

The research concentrates on explaining the most important factors determining consumer purchase decisions within digital payment contexts, in this case, looking at Easy Payment, Secure Payment, Abandonment, and Rewards. The research only addresses respondents' perceptions and trust about these factors and their effects on digital payment adoption. It drew data from digitally savvy users, who are mostly within a specified geographic or demographic market, which means the research is not as generalizable. The research focuses on the current digital payment systems and does not delve into new technologies like cryptocurrencies and blockchain payments. Moreover, the research focuses on quantitative indicators and statistical data to analyze differences in trust and preferences but excludes qualitative information and behavioral observation. The scope does not cover other factors influencing digital payment usage, like customer service quality, transaction charges, or cultural drivers which also impact usage.

Objectives of the Study

- To determine the most important factors to affect purchasing behavior in digital payment modes, specifically Easy Payment, Secure Payment, Abandonment, and Rewards, and to investigate the correlation between consumers' perceptions of digital payment modes and trust in digital payment systems.
- To find out if there is a significant difference between payment mode preferences and trust in online platforms and to give suggestions for enhancing online payment systems in terms of consumer preference and level of trust.

Limitations of the Study

1. Sample Size and Diversity: The sample used in the study can be from a limited population or geographic region, and as such, it may limit the applicability of the findings to wider populations.

2. Self-Reported Data: The use of self-reported survey questions can introduce social desirability or recall biases.

3. Cross-Sectional Design: Being a snapshot study, changes in attitudes or actions over time are not captured, and hence dynamics of changing trust cannot be fully understood.

4. Focus on Specific Factors: Although Easy Payment, Secure Payment, Abandonment, and Rewards are significant, other determinants of buying decisions in online payments (e.g., customer support, fees) were not investigated.

5. Technological Variations: The fast pace of digital payment technologies and platforms implies that the findings will become outdated as new features and security measures are developed.

Research Methodology

Research Design: The research applied a quantitative research design using survey data to investigate the influence of chosen factors on purchasing behavior and trust in digital payment modes.

Sampling Technique and Sample: A sample of 119 participants was obtained through convenience sampling (or state random or purposive), focusing on users who are well-versed with digital payment channels.

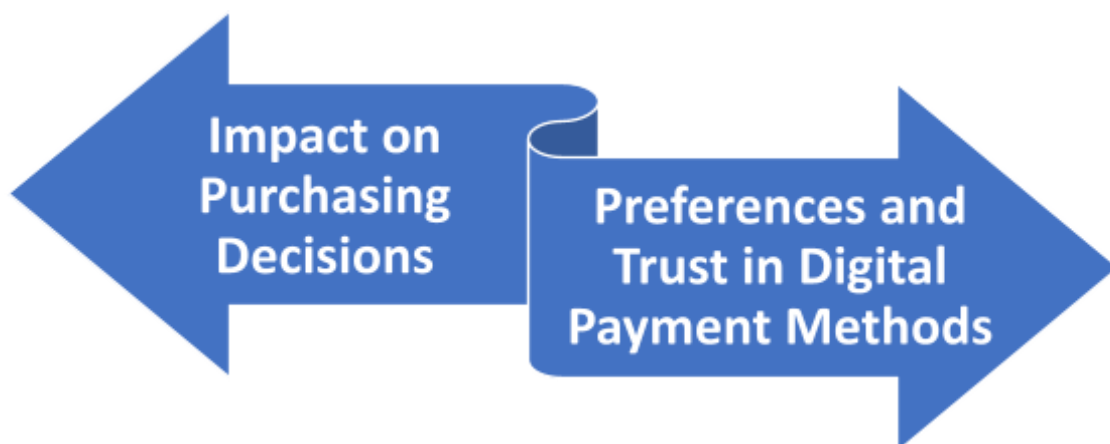
Data Collection: Data was obtained through a structured questionnaire with Likert-scale items to measure views of Easy Payment, Secure Payment, Abandonment, Rewards, mode of payment, and trust in digital payments.

Statistical Analysis:

- o A one-sample t-test was performed to test whether the mean ratings of the major factors were statistically different from zero, thus proving their significance.
- o A paired samples t-test was employed to test respondents' ratings of mode of payment against trust in digital payment systems for any significant difference in perceptions."

Ethical Considerations: The participants were given information regarding the aim of the study, and confidentiality and anonymity were ensured at every step in the data collection and analysis.

Research Design

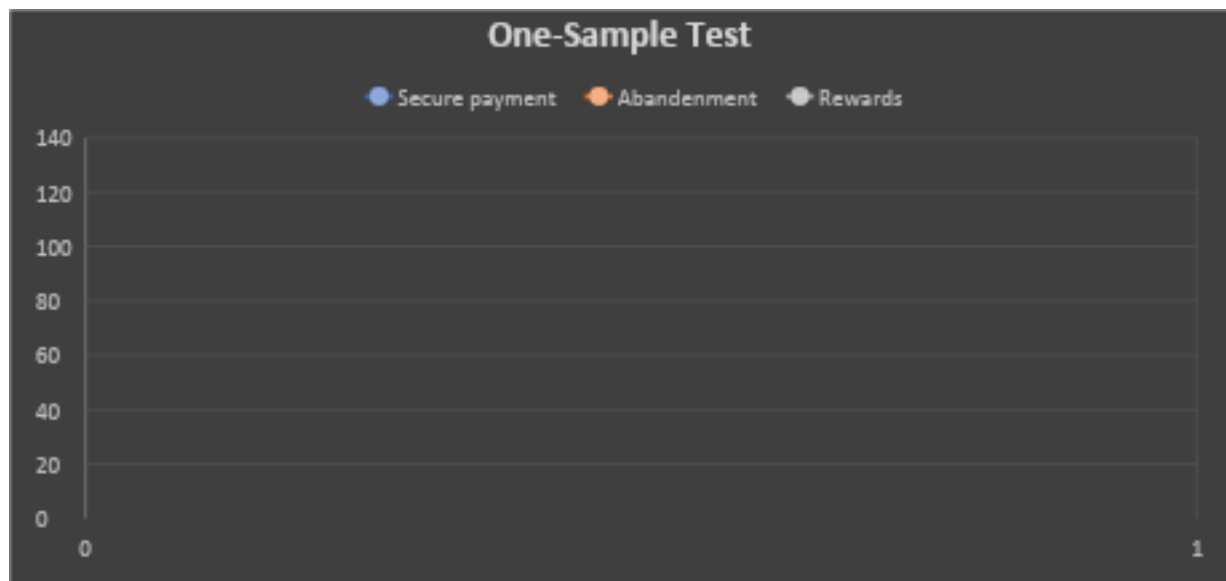


Analysis

One-Sample Test

	Test Value = 0
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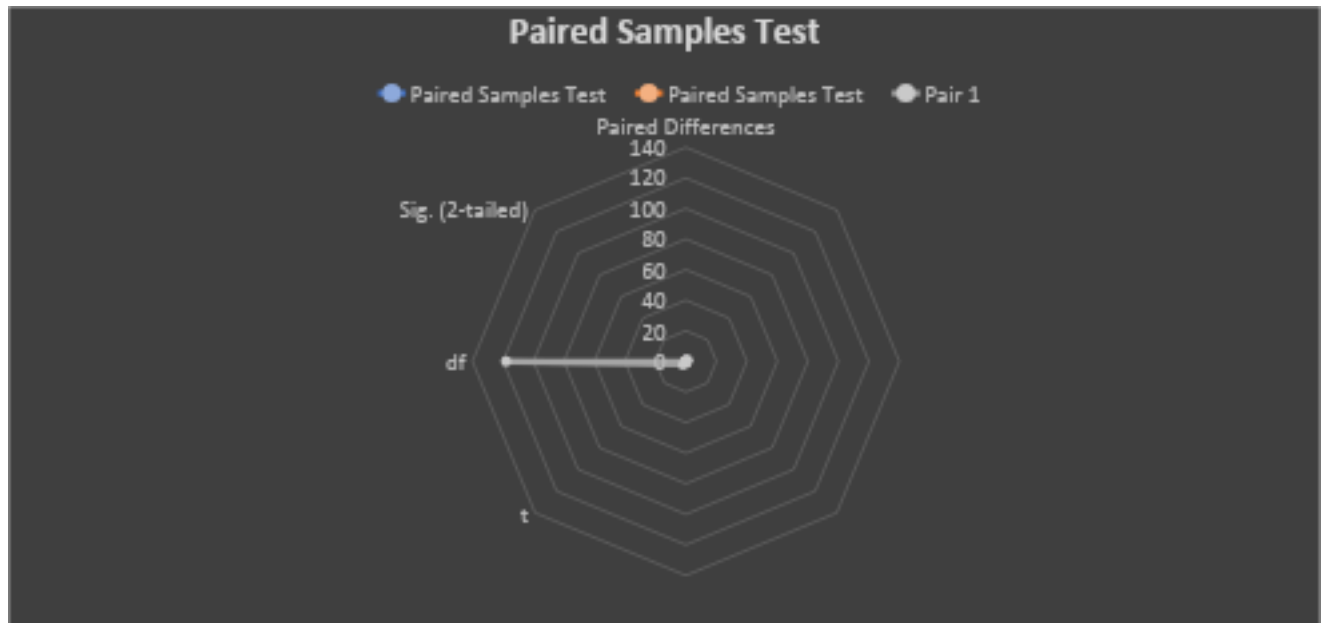
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Easy payment	31.469	118	.000	1.24370	1.1654	1.3220
Secure payment	31.821	118	.000	1.22689	1.1505	1.3032
Abandenment	31.160	118	.000	1.41176	1.3220	1.5015
Rewards	21.985	118	.000	1.35294	1.2311	1.4748



The one-sample t-tests indicate that all four factors—Easy Payment, Secure Payment, Abandonment, and Rewards—have statistically significant greater mean scores than zero ($p < .001$), reflecting strong presence or agreement among respondents. Easy Payment ($M = 1.244$) and Secure Payment ($M = 1.227$) are highly important in the perception of respondents, and Abandonment has the highest mean score ($M = 1.412$), implying that it could be a key issue. Rewards also rated well above zero ($M = 1.353$), although with a little more variability. The relatively narrow 95% confidence intervals for all variables confirm the consistency of these findings

Paired Samples Test								
	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			

Pair 1	Mode of payment in digital - Trust in digital	.40336	1.60676	.14729	.11168	.69504	2.739	118	.007
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The paired samples t-test shows a statistically significant disparity between respondents' attitudes towards the mode of payment in digital platforms and trust in digital systems ($t(118) = 2.739$, $p = .007$). The mean rating for the mode of payment was 0.403 points higher than that for trust, indicating that although users consider digital payment modes convenient or accessible, they might have somewhat lower confidence in the trustworthiness or security of these systems.

Findings

- Each of the four factors—Easy Payment, Secure Payment, Abandonment, and Rewards—was rated well above zero ($p < .001$), reflecting strong user importance.
- Abandonment was rated the highest on mean score ($M = 1.412$), underscoring it as a significant issue impacting purchase decisions.
- Easy Payment ($M = 1.244$) and Secure Payment ($M = 1.227$) were also seen as very important.
- Rewards was also rated significantly above zero ($M = 1.353$) with slightly more variability.

A paired samples t-test showed that there was a statistically significant difference between trust in digital systems and perceptions of the mode of payment ($t(118) = 2.739$, $p = .007$) as users rated the mode of payment by 0.403 points more on average.

Conclusion

It is evident from the findings that all the factors under investigation—Easy Payment, Secure Payment, Abandonment, and Rewards—are influential in forming purchasing decisions, with abandonment issues being especially so. Customers undoubtedly appreciate convenience and security in electronic payment methods but at the same time display a clear deficit in faith in electronic payment systems compared with their attitude towards ease of payment mode. The lack of trust is a major hurdle that electronic payment vendors must overcome to stimulate greater, more uniform adoption. Increasing transparency, having sound security practices, and providing transparent communication about these measures can close the trust deficit. Overall, this research underscores the fine balance between trust and convenience and underscores the importance of in-depth approaches that cover both bases to maximize digital payment take-up.

Future Study

Subsequent research would need to go further to determine the drivers of the trust deficit observed in this research, including what should be in-depth analysis of security threats, privacy issues, and perceptions of risk among users. Longitudinal or experimental studies might assess the effectiveness of certain interventions—i.e., improved authentication mechanisms or education campaigns for users—to enhance trust and lower abandonment rates. Moreover, exploring demographic variations and cultural differences in different populations may further reveal disparity in trust levels and trust preferences, providing more focused solutions for various market segments. Broadening the scope to encompass new payment technologies such as cryptocurrencies and biometric authentication would also yield real-time insights into changing consumer attitudes towards digital payments systems.

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