



Digital payment systems and their influence on online advertising strategies

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Abstract

The rapid development of digital payment systems has significantly transformed the online advertising ecosystem. Digital payment platforms such as UPI, mobile wallets, and online banking have improved transaction efficiency and consumer convenience in digital marketplaces. These systems enable advertisers to track consumer behavior, personalize advertisements, and measure advertising effectiveness. The present study examines the impact of digital payment systems on online advertising effectiveness and consumer engagement. The research adopts a quantitative research design and collects primary data from 100 respondents in Coimbatore district. Percentage analysis and weighted average methods are used to analyze the data. The results indicate that most consumers frequently use digital payment systems and trust their security and convenience. Mobile wallets and UPI are the most preferred payment methods among users. The study also reveals that digital payments enhance customer experience, increase advertising conversions, and improve targeting capabilities. However, issues such as technical problems and fraud risks still affect consumer confidence. The study concludes that digital payment systems play a significant role in improving the effectiveness and efficiency of online advertising strategies.

Keywords: Digital payment systems, online advertising, consumer behaviour, mobile wallets, upi transactions, digital marketing

Introduction

Digital transformation has significantly influenced modern business operations, particularly in marketing and financial transactions. Digital payment systems have become an essential component of e-commerce and online advertising platforms. Technologies such as mobile wallets, UPI payments, credit cards, and online banking allow businesses to process transactions instantly and securely. These technologies enable advertisers to monitor consumer behavior and measure advertising effectiveness more accurately.

Online advertising platforms utilize digital payment systems to facilitate real-time transactions between advertisers and publishers. This integration improves transparency, targeting efficiency, and return on advertising investment. The growing popularity of smartphones and internet penetration has accelerated the adoption of digital payment systems worldwide.

However, challenges such as data security, fraud risks, and privacy concerns still exist in digital payment platforms. Understanding the relationship between digital payment systems and online advertising effectiveness is therefore important for businesses and marketers. This study examines the influence of digital payment systems on online advertising performance and consumer engagement.

Review of literature

Objective 1: To analyze the role of digital payment systems in online advertising

Putra, Lee, & Tandreaan (2024) ^[1], The study examined the relationship between digital advertising, UI/UX design, and digital payment adoption. The findings indicate that user-

friendly payment interfaces significantly influence consumer adoption and engagement with digital advertisements. The research also highlighted the importance of security models in digital payment systems. Ghaith *et al.* (2024) ^[2], The study investigated how digital payment systems influence impulsive buying behavior and purchase intention. The results revealed that convenient digital payment methods increase consumer response to online advertisements. The study emphasizes the role of digital payments in improving online marketing performance. Nasution, Rangkutty, & Putra (2024) ^[1] This research examined the economic impact of digital payment systems in Indonesia. The findings suggest that digital payments improve financial inclusion and facilitate digital commerce activities. The study also highlights the role of digital advertising in expanding market accessibility. Sudirjo *et al.* (2023) ^[4] The study explored the impact of digital advertising attractiveness and ease of use on digital payment card loyalty. The results indicated that appealing advertisements and easy payment processes significantly enhance customer loyalty toward digital payment services. Wuisan & Handra (2023) ^[5] The authors investigated strategies to maximize online marketing effectiveness through digital advertising. Their research emphasized that digital payment integration improves online purchasing convenience and increases conversion rates from online advertisements.

Objective 2: To identify the benefits and challenges of digital payment systems in online advertising

Al Kurdi *et al.* (2023) ^[6], This study examined the relationship between digital marketing strategies, digital

payment systems, and financial performance. The results indicate that companies adopting digital payment systems experience higher marketing efficiency and improved revenue growth. Setiawati (2023) [7] The study analyzed the integration of digital payments and digital marketing in influencing consumer purchase decisions in e-commerce platforms. The findings suggest that secure and convenient digital payments positively influence consumer buying behavior.

Sakas *et al.* (2023) [8], The research focused on digital payment advertisements and their impact on brand awareness and consumer trust. The results showed that effective payment-related advertising enhances brand credibility and consumer engagement. Ghaith & Al-Rawashdeh (2024) [2] The study explored the interaction between digital payments and online advertising strategies. The findings revealed that integrated digital payment systems enable advertisers to track campaign performance more accurately. Poudel & Sapkota (2023) [9] The study examined consumer perceptions toward digital payment systems. It found that convenience, speed, and security are the main factors influencing consumer adoption of digital payment platforms.

Research objectives

1. To analyze the role of digital payment systems in online advertising.
2. To explore the benefits and challenges of digital payment systems in online advertising campaigns.
3. To examine consumer preferences toward digital payment platforms.

Problem statement

The rapid growth of online advertising has increased the demand for efficient and secure digital payment systems. However, the effectiveness of online advertising largely depends on seamless transaction mechanisms. Many businesses face challenges such as security risks, fraud, and technical issues in digital payment systems. These issues can affect consumer trust and advertising conversion rates. Therefore, it is necessary to study the impact of digital payment systems on online advertising effectiveness.

Scope of the study

The study focuses on analyzing the relationship between digital payment systems and online advertising effectiveness. It examines consumer behavior regarding digital payment usage in online transactions. The research also evaluates the benefits and challenges faced by consumers when using digital payment platforms. The geographical scope of the study is limited to Coimbatore district. The findings help marketers understand the role of digital payments in digital advertising strategies.

Limitations of the study

- The study is limited to 100 respondents.
- The research area is restricted to Coimbatore district.
- The accuracy of the study depends on respondents' answers.
- Time constraints limited broader data collection.
- Results may not represent the entire population.

Research Design

Aspect	Description
Research Type	Descriptive and Analytical
Research Approach	Quantitative
Study Area	Coimbatore District
Sample Size	100 Respondents
Sampling Method	Random Sampling
Data Source	Primary and Secondary Data
Data Collection Tool	Structured Questionnaire
Statistical Tools	Percentage Analysis & Weighted Average

Result and discussion

Table 1: Age Distribution of Respondents

Age Group	Respondents	Percentage
18-24	59	59%
25-34	37	37%
35-44	4	4%
45-54	0	0%
Total	100	100%

Interpretation

The majority of respondents (59%) belong to the age group 18-24, indicating that young consumers are the primary users of digital payment systems and online advertising platforms.

Table 2: Preferred Digital Payment Method

Payment Method	Respondents	Percentage
Credit/Debit Card	12	12%
UPI (GPay, PhonePe)	61	61%
Bank Transfer	25	25%
Others	2	2%
Total	100	100%

Interpretation

The majority of respondents (61%) prefer UPI payment methods, indicating that instant mobile payment platforms dominate digital transactions.

Table 3: Benefits of Digital Payment Systems

Benefit	Respondents	Percentage
Increased Conversions	13	13%
Improved Targeting	22	22%
Enhanced User Experience	40	40%
Reduced Costs	25	25%
Total	100	100%

Interpretation

The majority of respondents (40%) believe that digital payments enhance user experience, which contributes to better engagement with online advertisements.

Table 4: Frequency of Digital Payment Usage

Usage Frequency	No. of Respondents	Percentage
Daily	28	28%
Weekly	28	28%
Monthly	42	42%
Rarely	2	2%
Total	100	100%

Interpretation

The table indicates that 42% of respondents use digital payment systems monthly, followed by 28% who use them daily and weekly. Only 2% use them rarely. This shows that

digital payment systems have become a regular part of consumers' online transaction behavior, supporting the growth of online advertising and e-commerce activities.

Table 5: Challenges Faced in Digital Payment Systems

Challenges	No. of Respondents	Percentage
Security Issues	12	12%
Technical Problems	37	37%
Fraud and Scams	35	35%
Limited Accessibility	16	16%
Total	100	100%

Interpretation

The table shows that 37% of respondents face technical issues while using digital payment systems, followed closely by 35% who are concerned about fraud and scams. This indicates that although digital payments are convenient, technical reliability and cybersecurity remain major concerns for users.

Table 6: Consumer Trust in Digital Payment Systems

Trust Level	No. of Respondents	Percentage
Yes	89	89%
No	11	11%
Total	100	100%

Interpretation

The table reveals that 89% of respondents trust digital payment systems to keep their financial information secure, while only 11% express distrust. This high level of trust indicates that digital payment platforms have successfully built consumer confidence, which positively influences online purchasing decisions and advertising effectiveness.

Findings of the Study

- The majority of respondents (59%) belong to the age group of 18-24 years, indicating that young consumers are the primary users of digital payment systems and online advertising platforms.
- Most respondents (57%) are female, showing slightly higher participation of female consumers in the use of digital payment services.
- A significant proportion of respondents (73%) have completed undergraduate education, indicating that educated users are more inclined toward digital payment technologies.
- Among the respondents, 39% are students, followed by 35% employees, suggesting that young individuals and working professionals are the major users of digital payment systems.
- The majority of respondents (53%) earn between ₹10,000 and ₹20,000 per month, showing that digital payments are widely used even among moderate income groups.
- A very high percentage (95%) of respondents use online banking services, indicating widespread adoption of digital financial services.
- Most respondents (42%) use digital payment systems on a monthly basis, while 28% use them daily and weekly.
- Online advertising influences consumers mainly in the purchase of clothing items (35%), followed by electronic products and grocery items.

- The most significant benefit of digital payment systems perceived by respondents is enhanced user experience (40%), followed by reduced transaction costs.
- A large majority (78%) use mobile wallets, indicating that mobile-based digital payments dominate the market.
- About 35% of respondents consider digital payment systems user-friendly, while others value their instant payment capability and time-saving features.
- Among different advertising media, 47% of respondents prefer television advertisements, followed by radio and newspapers.
- The major challenge faced by respondents while using digital payment systems is technical issues (37%), followed closely by fraud and scam concerns (35%).
- A significant majority (93%) are comfortable making high-value transactions using digital payment systems, indicating high confidence in digital financial technologies.
- The most preferred digital payment method among consumers is UPI (61%), followed by bank transfers and debit/credit cards.
- Among e-commerce platforms, Amazon (33%) and Flipkart (31%) are the most preferred, indicating their strong presence in online retail markets.
- Most respondents (50%) notice price information first in online advertisements, followed by product information.
- A large majority (89%) trust digital payment systems to keep their financial information secure.
- The most commonly used platform for making digital payments is mobile applications (39%), followed by QR code scanning.
- Most respondents (54%) sometimes check online advertisements while browsing the internet, indicating moderate engagement with digital ads.
- Google Pay (56%) is the most commonly used digital payment platform, followed by PayPal and Stripe.
- A majority of respondents (66%) agree that digital payment systems increase the effectiveness of online advertising, demonstrating a strong relationship between digital payments and digital marketing success.

Suggestions

- Digital payment platforms should improve security mechanisms to reduce fraud risks.
- Businesses should integrate seamless payment gateways with advertising platforms.
- Advertisers should use data analytics to personalize ads based on payment behavior.
- Payment platforms must improve technical infrastructure to reduce transaction failures.
- Awareness programs should educate consumers about safe digital payment practices.

Conclusion

Digital payment systems have significantly transformed the online advertising ecosystem by enabling faster and more secure transactions. These systems help businesses track consumer behavior and optimize marketing campaigns effectively. The findings of this study reveal that digital payment platforms enhance customer experience, increase advertising conversions, and improve marketing efficiency.

However, challenges such as fraud risks, data privacy concerns, and technical issues must be addressed to maintain consumer trust. With proper technological advancements and regulatory measures, digital payment systems will continue to play a vital role in shaping the future of online advertising and digital marketing strategies.

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