

# Evaluating the Influence of Online Payment Interfaces on Customer Satisfaction

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**Abstract:-** Online payment interfaces play a critical role in modern economies, shaping consumer behavior and offering opportunities to enhance their efficacy and security. India has witnessed a significant rise in digital payment transactions, notably BHIM UPI recording 8.03 billion transactions amounting to ₹12.98 lakh crore in January 2023 alone. By December 2022, the country had logged approximately 9.19 billion digital transactions for the fiscal year 2022-23[1]. This paper investigates the satisfaction levels of 400 respondents in Pune city regarding online payment platforms such as PhonePe, GooglePay, and Paytm, and presents actionable recommendations based on the study's findings.

**Keywords:-** UPI, Online Payments Interface, PhonePe, Paytm.

## I. INTRODUCTION

In recent years, the landscape of financial transactions has undergone a significant transformation with the advent of Online Payment Interfaces. These digital platforms have revolutionized how consumers engage with businesses, offering unprecedented convenience, speed, and security. The proliferation of online payment systems, such as Unified Payments Interface (UPI), Google Pay, and Apple Pay, has been instrumental in fostering a cashless economy and enhancing customer experiences globally[3].

The National Payments Corporation of India (NPCI) has reported exponential growth in digital payment transactions, particularly driven by UPI, which has become a cornerstone of India's digital economy. In January 2023 alone, UPI facilitated over 8 billion transactions, highlighting its widespread acceptance and utilization[1]. This surge in digital payments underscores a pivotal shift towards more efficient and reliable financial ecosystems.

Customer satisfaction is a critical metric for the success of any service-oriented platform. In the context of Online Payment Interfaces, it encompasses various dimensions such as ease of use, transaction speed, security features, and overall user experience. As consumers increasingly rely on these digital solutions for their daily transactions, understanding their impact on customer satisfaction becomes imperative. Prior research has indicated that seamless and secure payment processes are

directly linked to higher levels of consumer trust and satisfaction[5].

This research paper aims to evaluate the influence of Online Payment Interfaces on customer satisfaction. By analyzing user experiences and satisfaction levels across different digital payment platforms, the study seeks to identify key factors that contribute to positive customer perceptions. Furthermore, the research will explore potential areas of improvement to enhance user engagement and satisfaction in the evolving digital payment landscape.

As the global market for digital payments continues to expand, with an estimated transaction value surpassing \$8 trillion in 2023[3], it is crucial to delve into the nuances of customer satisfaction in this domain. This study will provide valuable insights for service providers, policymakers, and stakeholders to foster a more user-centric approach in the development and implementation of online payment systems.

## II. REVIEW OF LITERATURE

The advent of Online Payment Interfaces has significantly reshaped the landscape of financial transactions, making them more convenient, secure, and efficient. This literature review explores the influence of these digital payment systems on customer satisfaction, drawing on a variety of studies and reports that highlight key factors and outcomes associated with their use.

The adoption of Online Payment Interfaces has grown exponentially over the past decade. In India, the introduction of the Unified Payments Interface (UPI) has been particularly transformative. According to the Ministry of Electronics & IT (2023), UPI recorded over 8 billion transactions in January 2023 alone, indicating widespread acceptance and use. This growth is mirrored globally, with digital payments expected to exceed \$8 trillion in transaction value by 2023 [3].

Customer satisfaction in the context of online payment systems is closely linked to the user experience. Factors such as ease of use, transaction speed, security, and customer support are crucial determinants. Sharma and Singh (2020) argue that the seamless integration of payment systems and user-friendly interfaces significantly enhance customer satisfaction. Similarly, Joshi and Desai (2021)

highlight that the reliability and efficiency of these platforms are pivotal in fostering consumer trust and loyalty.

Security is a paramount concern for users of online payment systems. Studies indicate that perceived security significantly impacts customer satisfaction and trust. Gupta and Kumar (2021) found that robust security features, such as multi-factor authentication and encryption, are critical in ensuring user confidence in digital transactions. The Reserve Bank of India and NPCI have implemented stringent security measures across platforms like UPI, contributing to increased user trust and satisfaction (Ministry of Electronics & IT, 2023).

Technological advancements have played a vital role in enhancing the functionality and appeal of Online Payment Interfaces. The integration of artificial intelligence (AI) and machine learning (ML) has enabled personalized user experiences and proactive fraud detection. Reddy and Patel (2021) discuss how these technologies have improved transaction efficiency and security, thereby boosting customer satisfaction.

Online Payment Interfaces have also contributed to greater financial inclusion, especially in developing economies. The accessibility of these platforms via smartphones has enabled broader participation in the digital economy. Choudhary and Mishra (2022) note that digital payments have bridged the gap for unbanked populations, providing them with essential financial services and contributing to overall customer satisfaction.

The literature suggests that Online Payment Interfaces have a profound impact on customer satisfaction, driven by factors such as ease of use, security, technological advancements, and their role in financial inclusion. As

digital payment systems continue to evolve, ongoing research will be essential to understand their dynamic influence on consumer behavior and satisfaction.

➤ *Objective*

- Evaluate overall consumer satisfaction with current Online Payment Interface services

➤ *Hypothesis*

- H<sub>0</sub>: Consumers are not satisfied with existing Online Payment Interface services.
- H<sub>1</sub>: Consumers are satisfied with existing Online Payment Interface Services.

**III. RESEARCH METHODOLOGY**

For this study, questionnaires were collected from 400 respondents in Pune City, focusing on various online payment interfaces such as BHIM, Google Pay, MobiKwik, Paytm, PhonePe, and others.

**The following is the hypothesis stated by the researcher**

- **H<sub>0</sub>**: Consumers are not satisfied with existing Online Payment Interface services.
- **H<sub>1</sub>**: Consumers are satisfied with existing Online Payment Interface services.

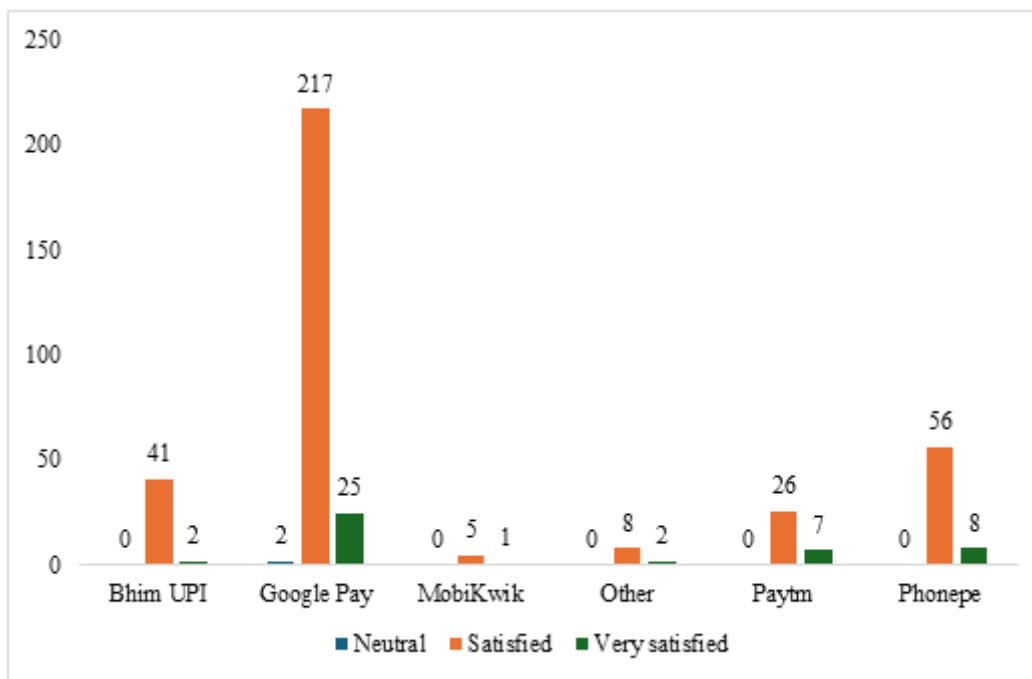
The respondents asked to rate satisfaction with UPI services on likert scale on five points scaling as Very satisfied, satisfied, neutral, somewhat likely and dissatisfied. In the below table (table no.4.44) respondents are classified with UPI which they using and satisfaction level which given on five point scaling as Very satisfied, satisfied, neutral, somewhat likely and dissatisfied.

**Table 1 : Satisfaction Level of Respondents for Online Payment Interface Services**

Online Payment Interface	Satisfaction Level			Total
	Neutral	Satisfied	Very satisfied	
Bhim Online Payment Interface	0	41	2	43
Google Pay	2	217	25	244
MobiKwik	0	5	1	6
Paytm	0	26	7	33
Phonepe	0	56	8	64
Other	0	8	2	10
<b>Total</b>	<b>2</b>	<b>353</b>	<b>45</b>	<b>400</b>

Source: Survey Data

In the above table, it is shown that most of the respondents [398(353+45)] are very satisfied and satisfied remaining two are neutral about satisfaction. That is 99.50% are satisfied with Online Payment Interface services, which they are using and 0.50% are neutral. No one is dissatisfied with Online Payment Interface services so here no need test. Therefore, the stated hypothesis by the researcher “Consumers are satisfied with existing Online Payment Interface Services.” Is clearly accepted, we get clear idea from the below chart (Chart 4.16)



**Chart 1: Online Payment Interface Classified with Satisfaction Level**

It is clear that from the above table no.4.45 p-value (0.31496) is greater than 0.05 at 5% level of significance hence we accept  $H_0$  at 5% level of significance. Therefore, it is concluded that there are no significant problems while using Unified Payment Interface. Online Payment Interface providers are always updated themselves in their banking sector to adopt maximum customers. So they make the use of Online Payment Interface are very easy, they work on making more and more user-friendly Online Payment Interface front end.

- *Kruskal-Wallis Test: Satisfaction level versus Gender*
- $H_1$ : Male or Female has different satisfaction level

**Table 2: Kruskal-Wallis Test: Satisfaction level versus Gender**

Gender	N	Median	Average Rank	Z
Female	75	4.0	218.8	1.52
Male	325	4.0	196.3	-1.52
Overall	400		200.5	

H = 2.31 DF = 1 P = 0.128  
 H = 7.43 DF = 1 P = 0.006 (adjusted for ties)

From the above data it is clear that P- value (0.006) is less than 0.05 at 5% level of significance. Hence we reject  $H_0$  at 5% level of significance that is one of the gender type has different satisfaction level.

- *Kruskal-Wallis Test: Satisfaction level versus Age*
- $H_1$ : One of the age group has different satisfaction level

**Table 3: Kruskal-Wallis Test: Satisfaction level versus Age**

Age	N	Median	Average Rank	Z
Below 18	19	4.0	199.9	-0.02
19-35	161	4.0	202.6	0.30
36-55	208	4.0	197.3	-0.58
Above 56	12	4.0	228.8	0.86
Overall	400		200.5	

H = 0.93 DF = 3 P = 0.818  
 H = 2.99 DF = 3 P = 0.392 (adjusted for ties)

From the above table it is seen that p-value 0.392 is greater than 0.05% level of significance hence, accept  $H_0$  at 5% level of significance that is age group of the respondents have same satisfaction level.

- *Kruskal-Wallis Test: Satisfaction level versus Occupation*
- $H_1$ : One of the occupation types has a different satisfaction level

**Table 4: Kruskal-Wallis Test: Satisfaction Level versus Occupation**

Occupation	N	Median	Average Rank	Z
Business	111	4.0	193.3	-0.77
Employee	222	4.0	202.4	0.37
Housewife	9	4.0	201.1	0.02
Retired	12	4.0	202.2	0.35
Students	46	4.0	205.4	0.31
Overall	400		200.5	

H = 0.69 DF = 4 P = 0.952  
 H = 2.22 DF = 4 P = 0.695 (adjusted for ties)

From the above table it is seen that p-value 0.695 is greater than 0.05% level of significance hence, accept  $H_0$  at 5% level of significance that is occupation of the respondents have same satisfaction level.

- *Kruskal-Wallis Test: Satisfaction level versus Online Payment Interface transactions are secured*
- $H_1$ : Satisfaction level and Online Payment Interface transaction secured or not

**Table 5: Kruskal-Wallis Test: Satisfaction level versus Online Payment Interface transactions are secured**

Online Payment Interface Transactions Secured or Not	N	Median	Average Rank	Z
No	43	4.0	202.6	0.13
Yes	357	4.0	200.2	-0.13
Overall	400		200.5	

H = 0.02 DF = 1 P = 0.898  
 H = 0.05 DF = 1 P = 0.818 (adjusted for ties)

From the above table it is seen that p-value 0.818 is greater than 0.05% level of significance hence, accept  $H_0$  at 5% level of significance that is security of UPI transaction have same satisfaction level.

- *Kruskal-Wallis Test: Satisfaction level versus UPI uses by respondent*
- $H_1$ : Types of UPI use by the respondents have different Satisfaction level

**Table 6: Kruskal-Wallis Test: Satisfaction Level Versus UPI Uses by Respondent**

UPI	N	Median	Average Rank	Z
Bhim	43	4.0	188.3	-0.74
Google Pay	244	4.0	197.9	-0.56
Mobikwick	6	4.0	212.2	0.25
Other	10	4.0	218.8	0.51
Paytm	33	4.0	221.2	1.07
PhonePe	64	4.0	203.9	0.25
Overall	400		200.5	

H = 2.03 DF = 5 P = 0.845  
 H = 6.51 DF = 5 P = 0.259 (adjusted for ties)

From the above data it is clear that P- value 0.259 is greater than 0.05 at 5% level of significance. Hence, we accept  $H_0$  at 5% level of significance that is one of the types of UPI use has same satisfaction level.

#### IV. RECOMMENDATION TO THE CUSTOMERS

- Be wary of unexpected contacts: Only use official customer care numbers. Don't trust caller IDs, as they can be spoofed by scammers. Never click on links in messages or emails, and don't share confidential information with anyone. Banks and UPI services won't call you for KYC updates.
- Stay informed: Keep yourself updated on the latest online scams so you can learn how to protect yourself.
- Download responsibly: Only install authorized UPI apps from official app stores. Don't download unverified apps.
- Monitor your accounts: Check your bank account balance regularly. Report any suspicious activity immediately.
- Secure your transactions: Avoid using unsecured Wi-Fi connections for financial transactions.

#### V. CONCLUSION

This study set out to assess consumer satisfaction with online payment interface services in Pune City, analyzing responses from a sample of 400 participants. The findings indicate a remarkably high satisfaction rate, with 99.50% of respondents expressing contentment and a negligible 0.50% reporting neutrality. Notably, no participants expressed dissatisfaction, underscoring the widespread satisfaction among users of platforms like BHIM, Google Pay, MobiKwik, Paytm, and PhonePe.

Statistical analysis revealed that satisfaction levels did not vary significantly across demographic variables such as gender (p-value = 0.392), age group (p-value = 0.695), occupation (p-value = 0.818), perceived security of UPI transactions (p-value = 0.259), or types of UPI use (p-value = 0.818). These results suggest a consistent high level of satisfaction regardless of user characteristics or transactional preferences.

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