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A Study on Payment Service Usage, Preferred Gateways and Customer Satisfaction on Digital Payments

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A B S T R A C T
This study explores the usage patterns of payment services, preferred payment gateways, and customer satisfaction levels in digital payment applications, based on data collected from 75 respondents. With the rapid adoption of digital payment methods in recent years, understanding consumer preferences and satisfaction is crucial for improving service offerings. The research examines the most commonly used payment services and identifies the gateways preferred by users for various transactions. Furthermore, it assesses the level of customer satisfaction in relation to factors such as ease of use, transaction speed, security, and customer support. The findings highlight key trends in digital payment behaviors and provide valuable insights for businesses and developers aiming to enhance user experience and service efficiency

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INTRODUCTION

In recent years, the global financial landscape has undergone a significant transformation with the rise of digital payment systems. The rapid adoption of smartphones and internet technologies has driven the growth of various digital payment applications, making it easier for consumers to perform financial transactions. Digital payment solutions, such as mobile wallets, online banking, and payment gateways, have become integral parts of daily life, offering convenience, speed, and accessibility. As the use of digital payments increases, understanding consumer preferences, payment service usage, and the factors contributing to customer satisfaction has become critical for businesses, service providers, and developers aiming to enhance the user experience and ensure the continued growth of digital payment platforms.

This study focuses on understanding how consumers use digital payment services, which payment gateways they prefer, and how satisfied they are with the services provided. With a sample size of 75 respondents, the research investigates key factors influencing the selection of digital payment methods, including security, ease of use, transaction speed, and customer support. The study also seeks to identify trends in user behavior and satisfaction levels, offering valuable insights for improving service offerings in an increasingly competitive market. By examining the relationship between payment service usage, preferred gateways, and customer satisfaction, this research aims to contribute to a deeper understanding of consumer behavior in the digital payment's ecosystem.

LITERATURE REVIEW

Chawla, D., & Verma, H. (2020) had made a study on the title "Factors Influencing the Adoption of Digital Payments and Their Impact on Customer Satisfaction". The aim of the study is to explore the factors influencing the adoption of digital payments in India and their impact on customer satisfaction. A structured questionnaire is used collected from 300 respondents. The study found that security, ease of use, and transaction speed were the primary factors influencing customer satisfaction with digital payments. Customers preferred gateways that offered instant payment confirmations and strong fraud protection. Additionally, mobile wallets like Paytm and Google Pay were more popular due to their user-friendly interfaces. Kumar, R., & Soni, P. (2019) had made a study on the title "Customer Preferences and Satisfaction with Digital Payment Gateways in India" with the aim to assess the preferences of consumers for digital payment gateways and analyze their satisfaction levels with these platforms. A mixed-method approach using surveys and interviews.
from 250 respondents have been used. The research indicated that security and ease of integration with bank accounts were the most important determinants of gateway preference. Satisfaction levels were generally high, with most users reporting ease of use as a key facor.

Smith, J., & Wang, Y. (2021) undertaken a study on the title "User Experience and Customer Satisfaction with Digital Payment Apps". The objective of the study is to examine the role of user experience in customer satisfaction with digital payment applications. Quantitative research using an

online survey have been undertaken from 150 respondents from the United States. The study concluded that the user interface and ease of navigation in digital payment apps were significantly correlated with customer satisfaction. Sharma, N., & Gupta, A. (2018) had made research on "Adoption of Mobile Payments in Developing Countries: A Study of User Satisfaction" with the aim to explore the adoption trends and satisfaction levels of users towards mobile payment services in developing countries. Descriptive research using survey questionnaires from 200 respondents from rural and semi-urban areas in India have been collected. The study highlighted that mobile payments were less popular in rural areas due to a lack of internet infrastructure, though satisfaction levels among urban users were generally high.

Patel, V., & Bhatt, S. (2022) had made a study on "Factors Affecting Customer Satisfaction with Digital Payment Gateways" with the aim to assess the factors influencing customer satisfaction with digital payment gateways and their impact on usage patterns. The research was based on Cross-sectional study using questionnaires distributed online to100 respondents. The research revealed that while younger users preferred mobile wallets for their convenience, older users favored traditional banking apps due to familiarity. Security and customer support were key factors influencing satisfaction, with users rating services like PayPal and Google Pay higher for their quick resolution of issues.

Statement of the Problem

Despite the growing popularity of digital payment systems, there is a lack of comprehensive studies that explore the specific factors that drive consumer preferences for particular payment gateways and how these factors correlate with overall customer satisfaction. While several payment platforms have emerged in the market, each offering unique features such as speed, security, convenience, and customer support, the choice of one platform over another remains underexplored. Furthermore, the satisfaction levels of users with these platforms, influenced by factors like ease of use, transaction reliability, and customer service quality, have not been adequately addressed. This study aims to fill this gap by investigating the patterns of payment service usage, identifying the most preferred digital payment gateways, and evaluating the satisfaction levels of customers using these platforms. By doing so, the research seeks to provide valuable insights for service providers to improve their offerings, enhance user experience, and foster a more competitive and customer-centric digital payments ecosystem.

Objective

The study has been undertaken with the following objective:

- To know the most preferred usage of service by the respondent
- To know the selection of preferred payment gateways by users.
- To know the level of customer satisfaction on digital payment system

METHODOLOGY

Data and Source of Data

The study was based on primary and secondary data that are collected from the respondents by way of questionnaire and interview method.

Sample and Sampling Method

A sample of 75 respondents was selected in Pollachi area for the study on the basis of convenience sampling method.

Framework of Analysis

The gathered data have been appraised using appropriate statistical tools:

- Garrett ranking
- Weighted Average Score
- Correlation
- Multiple Regression
- Step-wise regression

RESULT

Significance of the Study

This study lies in its potential to provide valuable insights into the growing digital payments sector by examining consumer behavior, preferred payment gateways, and customer satisfaction. It will help businesses, fintech companies, and service providers understand trends and factors influencing payment service usage, enabling them to enhance product features and improve customer satisfaction. The study will also highlight key drivers of customer satisfaction, such as speed, ease of use, and security, guiding improvements in service quality. Additionally, it may contribute to increasing financial inclusion, identifying barriers to adoption, and informing policymakers on regulations to ensure a secure and transparent payment ecosystem.

Usage of Digital Payment Services

The following table points out the usage of different digital payment service by the consumers with the help of the Garrett Ranking Technique. In this method the consumers are asked to rank the different services used by the respondents through digital payment. The different services are listed to the users and asked to rank from 1-7.

The ranking was converted into score value with the help of following formula:

- Percent Position= 100(Rij-0.5)/Nj
- Where, Rij = Rank given for ith item by the jth consumers
- Nj = number of items ranked by jth consumers

Usage of Digital Payment Service for Different Purpose Garrett Ranking Technique

Table 1. Usage of Digital Payment

Factors	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Total**	**Total score**	**Mean score**	**Rank**
	78	**65**	**57**	**50**	**42**	**34**	**21**				
	31	17	1	07	06	02	01	75	4841	64.54	1

Mobile recharge	2418	1105	627	350	252	68	21				
Merchant payment	18	10	10	13	11	10	03	75	4139	55.18	2
	1404	60	570	650	462	340	63				
Fund transfer	06	10	11	20	11	10	07	75	3694	49.25	4
	468	650	627	1000	462	340	147				
Balance enquiry	02	08	15	16	20	09	05	75	3582	47.76	5
	156	520	855	800	840	306	105				
Bill payment	13	18	09	07	15	13	00	75	4119	54.92	3
	1014	1170	513	350	630	442	00				
Online purchase	05	10	17	08	04	26	05	75	3566	47.54	6
	390	650	969	400	168	884	105				
Stock/Share market	00	02	02	04	08	05	54	75	2084	27.78	7
	00	130	114	200	336	170	1134				

The above table 1 explains the usage of digital payment for different purposes by customers. Here Mobile recharge (64.54) is ranked first followed by Merchant payment (55.18) ranks second, Bill payment (54.92) ranks third, Fund transfer (49.25) ranks fourth, Balance enquiry (47.76) had been ranked fifth. The least rank had been given to Online purchase (47.54) and Stock/share market (27.78) which stands in sixth and seventh rank respectively.

Preferred Payment Gateway

The Weighted Average Score (WAS) has been used to identify the most preferred gateway through which respondents typically transfer funds via digital payment applications. This method takes into account different transfer options, such as UPI (Unified Payments Interface), QR codes, phone numbers, bank transfers, and self-transfer features. By assigning specific weights to these methods according to their frequency of use or significance, the weighted average score offers a detailed understanding of the most popular gateways for transactions. This analysis highlights the most widely used payment methods, providing valuable insights into user preferences and behaviors in the digital payments landscape.

Preferred Payment Gateway Weighted Average Score

Table 2. Preferred Payment Gateway Weighted Average Score

FACTORS	ALWAYS	OCCASSIONALLY	WHENEVER NEEDED	TOTAL	WAS	RANK
Bank transfer	87	54	19	160	2.13	3
UPI/QR code	177	18	7	202	2.69	1

Phone number	105	56	12	173	2.30	2
Self-transfer	63	46	31	140	1.86	4

DISCUSSION

The above Table 2 explains that UPI/QR code ranks first with the highest Weighted Average Score (WAS) of 2.69, indicating it is the most preferred and frequently used method. Phone number follows with a WAS of 2.30, ranking second, showing it is also popular but slightly less so than UPI/QR code. Bank transfer ranks third with a WAS of 2.13, indicating moderate usage, while Self-transfer ranks last with the lowest WAS of 1.86, suggesting it is the least preferred and least frequently used method among the respondents.

Nature of Association of Variables with Satisfaction

In order to examine the nature of association of selected variables with satisfaction, correlation analysis is used. Out of 11 variables selected six variables are found to be significant. Age, Area of residence, Marital status, Occupation, Type of family, Respondents' monthly income are found to be significant at five percent and one percent level of significance.

Variables Associted with Satisfaction Correlation Analysis

Table 3. Variables Associted with Satisfaction Correlation Analysis

VARIABLES	R	R^2
Age	-.252**	0.063
Area of residence	.217*	0.047
Gender	.022	0.484
Marital status	.264*	0.070
Educational Qualification	.024	0.006
Occupation	.190**	0.036
Type of family	-.097*	0.009
Number of members in family	.115	0.013
Number of earning members	-.041	0.002
Respondents' monthly income	.075**	0.006
Family income	-.099	0.009

**Significant at five percent level*
***Significant at one percent level*

From the correlation analysis table, it is inferred that out of the sixteen variables, six are significantly associated with the level of satisfaction index. Specifically, age, area of residence, marital status, occupation, type of family, and respondents' monthly income are significantly correlated with the level of satisfaction index at either the 1% or 5% significance levels.

Age

Age is negatively correlated with the level of satisfaction index. This implies that as the age of respondents increases, their level of satisfaction with digital payment applications decreases. The coefficient of determination (r^2 = 0.063) indicates that age accounts for 6.3% of the variation in satisfaction.

Area of Residence

Area of residence has a positive correlation with the satisfaction index. Respondents living in certain areas are likely to have a higher level of satisfaction with digital payment services compared to those living in other areas. The r^2 value (0.047) suggests that area of residence accounts for 4.7% of the variation in satisfaction.

Marital Status

Marital status shows a positive correlation with the satisfaction index. Married individuals tend to have higher levels of satisfaction with digital payment applications than unmarried individuals. The r^2 value of 0.070 indicates that marital status accounts for 7% of the variation in satisfaction.

Occupation

Occupation is positively correlated with the satisfaction index. Respondents with certain occupations are likely to report higher levels of satisfaction with digital payment services. The r^2 value (0.036) shows that occupation accounts for 3.6% of the variation in satisfaction.

Type of Family

Type of family is negatively correlated with the satisfaction index. Respondents from certain types of families report lower satisfaction with digital payment applications. The r^2 value (0.009) suggests that the type of family accounts for 0.9% of the variation in satisfaction.

Respondents' Monthly Income

Respondents' monthly income has a positive correlation with the satisfaction index. Individuals with higher monthly incomes are more likely to report higher satisfaction levels with digital payment services. The r^2 value (0.006) indicates that monthly income accounts for 0.6% of the variation in satisfaction.

Level of Satisfaction Index Multiple Regression Analysis

In order to ascertain the combined effect of various independent variables on the reason for using digital payments, multiple regression analysis has been employed

LOS = a + b1 AG + b2 AR + b3 GD + b4 MS + b5 EQ + b6 OCC + b7 TOF + b8 NMF + b9 NEM + b10 RMI + b11 FI + e

Where,

LOS	=	Level of Satisfaction
a	=	Intercept Term
b1……. b13	=	Regression Coefficients
Age	=	AG
Area	=	AR
Gender	=	GD
Marital Status	=	MS
Educational Qualification	=	EQ
Occupation	=	OCC
Type Of Family	=	TOF
Number Of Members in Family	=	NMF

Number of Earning Members = NEM
Respondents Monthly Income = RMI
Family Income = FI
e = Error term

Table 4. Level of Satisfaction Index Multiple Regression Analysis

Variables	Regression Coefficient	Standard Eror	T (D.F: 74)	Sig
Age	-1.135	2.187	-0.519	0.605
Area of residence	5.172*	2.948	1.754	0.004
Gender	3.690	3.572	1.033	0.306
Marital status	4.585	4.748	0.966	0.338
Educational Qualification	0.513**	1.460	0.351	0.001
Occupation	1.142*	1.538	-0.743	0.022
Type of family	-7.272	5.385	-1.350	0.182
Number of members in family	10.402	4.909	2.119	0.038
Number of earning members	0.165*	2.987	0.055	0.031
Respondents' monthly income	2.524*	1.709	1.478	0.045
Family income	-1.818	1.837	-0.990	0.326

*Significant at five percent level**
*Significant at one percent level***

Constant = 57.517
Std. Error of Estimate = 12.113
Adjusted R square = 0.484
R^2 = 0.234**

The multiple regression analysis with all the predictors produced an R^2 = 0.318 and F(1, 74) = 11.58, which is significant at the one percent level. This indicates that the variables included in this analysis are appropriate for determining the level of satisfaction and their influence on the satisfaction index of digital payment applications.

Area of Residence

Area of residence has a positive and significant impact on satisfaction, with a coefficient of 5.172 and a p-value of 0.004 (significant at the 1% level). This implies that respondents from certain areas report higher levels of satisfaction with digital payment applications compared to others. A one-unit increase in the area of residence variable increases satisfaction by 5.172.

Educational Qualification

Educational qualification has a positive and significant influence on satisfaction, with a coefficient of 0.513 and a p-value of 0.001 (significant at the 1% level). This suggests that respondents with higher educational qualifications

report higher satisfaction with digital payment services. For every one-unit increase in education, satisfaction increases by 0.513.

Occupation

Occupation has a positive and significant effect on satisfaction, with a coefficient of 1.142 and a p-value of 0.022 (significant at the 5% level). This suggests that individuals employed in certain occupations tend to be more satisfied with digital payment applications. A one-unit increase in occupation corresponds to an increase in satisfaction by 1.142.

Number of Earning Members

The number of earning members in a family has a positive and significant effect on satisfaction, with a coefficient of 0.165 and a p-value of 0.031 (significant at the 5% level). This suggests that respondents with more earning members in their households report higher levels of satisfaction. For each additional earning member, satisfaction increases by 0.165.

Respondents' Monthly Income

Respondents' monthly income has a positive and significant influence on satisfaction, with a coefficient of 2.524 and a p-value of 0.045 (significant at the 5% level). This indicates that individuals with higher monthly incomes report higher satisfaction with digital payment applications. A one-unit increase in monthly income results in a 2.524 increase in satisfaction.

Variables Prominently Associated with the Level of Satisfaction Index Step Wise Regression Analysis

To find out the variables that are prominently associated with the level of satisfaction, Step-wise regression is carried out.

Table 5. Variables Prominently Associated with the Level of Satisfaction Index Step Wise Regression Analysis

Step	**Constant**	**MS**	**AR**	**R^2**
1	71.810	6.927	-	0.070
2	63.048	7.109	5.519	0.120

MS – Marital Status
AR – Area

The Stepwise Regression Analysis reveals how different variables contribute to the level of satisfaction with digital payment applications.

In the first step, Marital Status (MS) is introduced, contributing 7% to the variation in satisfaction. As the analysis proceeds, the second variable, Area of Residence (AR), is added, increasing the contribution to 12%.

This indicates that Marital Status and Area of Residence are significantly associated with the level of satisfaction with digital payment applications. These two variables together explain 12% of the variation in satisfaction.

Limitation of the Study

As the present study is mainly based on primary data, only the personal opinion is given by the respondents which may get vary from individual to individual. Moreover, the respondents are selected only from Coimbatore district which is not applicable for other areas.

CONCLUSIONS AND RECOMMENDATIONS

The study on payment service usage, preferred gateways, and customer satisfaction in digital payments highlights the significant role digital payment methods play in everyday financial transactions. The findings reveal that UPI/QR codes and phone numbers are the most preferred and frequently used gateways, with users showing strong satisfaction in terms of convenience, security, and speed. Conversely, less frequently used methods like self-transfer and bank transfers suggest that while they are important, they do not match the popularity of more accessible and user-friendly platforms. Customer satisfaction is closely tied to ease of use and security, indicating that these factors should be prioritized by payment service providers to improve overall user experience. The study also underlines the evolving nature of digital payments, where emerging technologies and gateways can continue to shape consumer preferences. Businesses and fintech companies must adapt to these preferences to remain competitive and offer seamless, secure, and efficient payment solutions.

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