

# Impact of E-Wallet Usage on Customer Budget: An Empirical Analysis

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## Abstract

Digital payment systems have rapidly transformed consumer spending behavior in India. This study examines the impact of e-wallet usage on customers' monthly budgets using primary data collected through a structured questionnaire. The dataset includes demographic variables (age, gender, income), spending variables (monthly budget, expenditure patterns), and behavioral variables (e-wallet usage frequency, digital payment share, perceived convenience). Statistical analysis including descriptive statistics, correlation, t-tests, ANOVA, and multiple regression was conducted. The findings reveal a significant positive association between e-wallet usage and customer spending, suggesting that higher e-wallet usage may lead to increased monthly budgets. The study highlights important implications for consumer financial planning and the digital payment ecosystem.

**Keywords: E-Wallet, Customer Budget, Digital Payment and Budget**

## 1. Introduction

The rapid shift toward digitalization has significantly changed the way people conduct financial transactions. E-wallets such as Paytm, Google Pay, PhonePe, and Amazon Pay have become integral to everyday purchases. With their convenience, instant payments, cashback offers, and ease of use, customers may unintentionally increase their spending levels.

However, concerns have emerged regarding whether these digital payment options affect customers' monthly budgets. This research aims to examine whether e-wallet usage has a measurable impact on customer budgeting behavior using primary survey data.

## 2. Review of Literature

Previous studies have highlighted the relationship between digital payments and consumer financial behavior:

- **Soman (2001)** found that non-cash payments reduce the “pain of paying,” often leading to overspending.
- **Prasad & Nair (2019)** reported that e-wallet convenience encourages impulse buying.
- **Kaur & Arora (2020)** observed that young consumers using e-wallets tend to have higher monthly expenditures.
- **Digital India reports (2023)** show that UPI-based transactions have surged, indicating a shift in consumer habits.

**Table: Review of Literature on E-Wallet Usage and Consumer Budget Behaviour**

S. No.	Author(s) & Year	Title of the Study	Variables Studied	Key Findings / Results
1	<b>Dahlberg et al. (2015)</b>	Past, Present and Future of Mobile Payments	Mobile payments, ease of use, consumer behavior	Ease of use significantly increases adoption of mobile payments and leads to higher transaction frequency.
2	<b>Kim, Mirusmonov &amp; Lee (2010)</b>	An Empirical Examination of Factors Influencing Mobile Payment Adoption	Perceived usefulness, ease of use, spending behavior	Consumers using mobile payments tend to spend more due to convenience and reduced transaction effort.
3	<b>Thakur &amp; Srivastava (2014)</b>	Adoption Readiness, Personal Innovativeness and Mobile Payment Services	Ease of use, usage frequency, customer perception	Ease of use positively affects frequency of mobile wallet usage.
4	<b>Soman (2003)</b>	Effects of Payment Mechanism on Spending Behavior	Payment mode, spending behavior	Non-cash payments reduce the “pain of paying,” leading to increased expenditure.
5	<b>Raghubir &amp; Srivastava (2008)</b>	Monopoly Money: Effect of Payment Coupling on Spending	Digital payments, impulse buying	Digital payment methods encourage impulsive spending due to psychological detachment from money.
6	<b>Kumar &amp; Dhingra (2021)</b>	Impact of Digital Wallets on Spending Behaviour of Consumers	E-wallet usage, spending, budget control	Increased e-wallet usage leads to poor budget control and higher discretionary spending.
7	<b>Singh &amp; Rana (2017)</b>	Study of Consumer Perception towards Mobile Wallets	Awareness, trust, usage behavior	High awareness and trust increase adoption and regular usage of e-wallets.
8	<b>Gupta &amp; Arora (2020)</b>	Consumer Acceptance of Digital Wallets in India	Ease of use, promotional offers, expenditure	Cashback and rewards significantly influence higher spending behavior.
9	<b>Liébana-Cabanillas et al. (2018)</b>	Factors Influencing the Adoption of Mobile Payment Systems	Ease of use, perceived risk, usage intention	Convenience strongly predicts adoption and continued usage of mobile wallets.

S. No.	Author(s) & Year	Title of the Study	Variables Studied	Key Findings / Results
10	Patel & Patel (2022)	A Study on Impact of E-Wallets on Saving Habits	E-wallet usage, saving behavior	Frequent e-wallet usage negatively affects saving habits and increases impulsive buying.

### 3. Research Gap Identified

From the above review, it is evident that:

- Most studies focus on **adoption and usage** of e-wallets.
- Limited research has empirically examined the **direct impact of e-wallet usage on customer budget control**.
- Very few studies integrate **ease of use, spending frequency, promotional schemes, and saving behavior** into a single empirical model.

➤ **Therefore, the present study attempts to bridge this gap by analyzing the impact of e-wallet usage on customer budget using SPSS-based empirical tools.**

### 4. Objectives of the Study

1. To study the level of e-wallet usage among consumers.
2. To examine the monthly budgeting patterns of consumers.
3. To measure the impact of e-wallet usage on customer monthly budgets.
4. To identify demographic factors influencing budget changes.

### 5. Hypotheses

**H<sub>0</sub>1:** There is no significant relationship between e-wallet usage and monthly budget.  
**H<sub>1</sub>1:** There is a significant relationship between e-wallet usage and monthly budget.

**H<sub>0</sub>2:** There is no significant difference in monthly budget across different levels of e-wallet usage frequency.  
**H<sub>1</sub>2:** There is a significant difference in monthly budget across e-wallet usage frequency groups.

### 6. Research Methodology

The research adopted a descriptive and analytical design to examine e-wallet usage, spending behavior, and attitudes. Data was collected through a structured questionnaire distributed via Google Forms, capturing demographic information, e-wallet usage patterns, spending behaviors, and perceptions. A convenience sampling technique was used, and the final sample size was determined by the responses received. The analysis employed various statistical methods, including descriptive statistics, correlation analysis, independent t-tests, ANOVA, and multiple regression (OLS) to explore relationships between the variables. Data processing and analysis were conducted using Python (stats models) and Excel to derive insights and test hypotheses.

## 7. Data Analysis and Interpretation

The present study is based on **primary data collected from 220 respondents** using a structured questionnaire to examine the impact of e-wallet usage on customer budgeting behavior. The collected data were coded and analyzed using **SPSS (Statistical Package for Social Sciences)**. As the study mainly consists of categorical and ordinal variables. The data were analyzed using **descriptive statistics and inferential statistical techniques**, including **frequency analysis and Chi-square tests**, as the majority of variables were categorical in nature.

### DATA ANALYSIS

#### 7.1 Descriptive Statistics (SPSS Output – Frequencies)

The frequency analysis was used to understand respondents’ awareness, usage pattern, and perception regarding e-wallets.

#### Descriptive Statistics of Key Variables (Output)

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Awareness of E-Wallets	220	1	2	1.10	0.30
Frequency of E-Wallet Usage	220	1	5	3.84	0.91
Ease of Use of E-Wallets	220	1	5	4.12	0.76
Budget Increases due to E-Wallets	220	1	5	3.89	0.88
Saving Behaviour Reduced	220	1	5	3.65	0.94

◆ (Likert scale coded as 1 = Strongly Disagree to 5 = Strongly Agree)

#### Interpretation

The mean score of **3.89** for “Budget increases due to e-wallets” indicates a **high level of agreement**, confirming that respondents perceive e-wallet usage as leading to increased spending.

##### 7.1.1 Demographic Profile of Respondents

The demographic analysis reveals that respondents belonged to diverse backgrounds in terms of **gender, qualification, occupation, and income levels**, ensuring heterogeneity of the sample.

- Both male and female respondents actively use e-wallets.
- Respondents from various educational qualifications indicate widespread digital payment adoption.
- Monthly income categories suggest that e-wallet usage is prevalent across different income groups.

This diversity strengthens the generalizability of the study findings.

### 7.1.2 Awareness and Usage of E-Wallets

Frequency analysis shows that a **large majority of respondents are aware of the functionality of e-wallets** and actively use them for daily transactions. The preference for e-wallets over traditional payment modes such as cash and cards indicates a strong behavioral shift towards digital payments.

Popular e-wallet platforms are widely used for purposes such as:

- Utility bill payments
- Online shopping
- Food and retail purchases
- Peer-to-peer transfers

This confirms the deep penetration of e-wallets in routine financial activities.

**Table : Awareness Regarding Functionality of E-Wallets**

Response	Frequency (N)	Percentage (%)
Yes	198	90.0
No	22	10.0
<b>Total</b>	<b>220</b>	<b>100</b>

**Interpretation:**

The frequency table indicates that **90% of respondents are aware of e-wallet functionality**, showing a high level of digital payment awareness.

### 7.1.3 Perceived Impact of E-Wallet Usage on Customer Budget

A significant proportion of respondents **agreed that due to the ease of use of e-wallets, their budget tends to increase**. The convenience, quick transactions, and reduced pain of paying contribute to higher expenditure levels.

Additionally:

- Many respondents reported that **rewards, cashback offers, and promotional schemes** encourage additional spending.
- Respondents admitted that e-wallet usage makes them **less conscious of tracking expenses and checking account balances regularly**.

These findings indicate that e-wallets can negatively affect budgeting discipline.

**Table : Perception that Budget Increases Due to Ease of E-Wallet Use**

Response	Frequency (N)	Percentage (%)
Strongly Agree	72	32.7
Agree	89	40.5
Neutral	34	15.5
Disagree	18	8.2
Strongly Disagree	7	3.1
<b>Total</b>	<b>220</b>	<b>100</b>

**Interpretation:**

The table reveals that **73.2% of respondents agree or strongly agree** that the ease of using e-wallets leads to an increase in their budget.

**7.1.4 E-Wallet Usage and Spending Behaviour**

Responses suggest that:

- Consumers become **more present-oriented** when using e-wallets.
- There is a **decline in saving behavior** due to frequent digital spending.
- Impulse purchases increase as digital payments eliminate the physical exchange of money.

This supports behavioral finance theories that digital payment modes reduce the psychological barrier to spending.

**Table 3: Monthly Income of Respondents**

Income Group	Frequency (N)	Percentage (%)
Below ₹20,000	48	21.8
₹20,001–₹40,000	74	33.6
₹40,001–₹60,000	56	25.5
Above ₹60,000	42	19.1
<b>Total</b>	<b>220</b>	<b>100</b>

## 7.2 Association Between E-Wallet Usage and Budget Increase by Chi-Square Test

**Table : Chi-Square Test (SPSS Output)**

### Association Between E-Wallet Usage and Budget Increase

Test	Value	df	Sig.
Pearson Chi-Square	18.642	4	<b>0.001</b>

#### Decision

Since  $p < 0.05$ , the null hypothesis is rejected.

**Rule:**

## 7.3 Income vs Budget Increase Due to E-Wallet Usage by One-Way ANOVA

**Table : One-Way ANOVA (Output)**

### Income vs Budget Increase Due to E-Wallet Usage

Source	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	14.528	3	4.843	5.217	<b>0.002</b>
Within Groups	200.671	216	0.929		
Total	215.199	219			

#### Interpretation:

The ANOVA result indicates a **significant difference among income groups** in their perception of budget increase due to e-wallet usage.

## **7.4 Table 7: Correlation Matrix (Output)**

Variables	Ease of Use	Usage Frequency	Budget Increase
Ease of Use	1		
Usage Frequency	<b>0.624</b>	1	
Budget Increase	<b>0.571</b>	<b>0.689</b>	1

**Sig. ( $p < 0.01$ )**

#### Interpretation

There is a **moderate to strong positive correlation** between e-wallet usage frequency and budget increase, indicating that **higher usage leads to higher spending**.

### 7.5 Regression Analysis for this study the variables detail are:

#### Dependent Variable:

- Budget increases due to e-wallet usage

#### Independent Variables:

- Ease of use
- Frequency of usage
- Promotional schemes

**Table : Regression Model Summary (Output)**

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error
1	0.742	0.551	0.545	0.62

#### Interpretation

The model explains **55.1% of the variation** in customer budget increase due to e-wallet usage factors.

**Table : Coefficients Table (Output)**

Variable	B	Std. Error	Beta	t	Sig.
Constant	0.684	0.218	—	3.14	0.002
Ease of Use	0.312	0.067	0.354	4.66	0.000
Usage Frequency	0.421	0.059	0.488	7.12	0.000
Promotional Schemes	0.198	0.072	0.219	2.75	0.006

#### Interpretation

All independent variables significantly predict budget increase ( $p < 0.05$ ), with **usage frequency** being the strongest predictor.

### 8. Reliability Test (Cronbach’s Alpha)

**Table 10: Reliability Statistics (Output)**

Cronbach’s Alpha	No. of Items
<b>0.82</b>	8

#### Interpretation

Cronbach’s Alpha value of **0.82** indicates **excellent internal consistency**, confirming the reliability of the research instrument.

## 9. Hypothesis Testing Result

### Hypothesis 1

**H<sub>0</sub>:** E-wallet usage does not have a significant impact on customer budget.

**H<sub>1</sub>:** E-wallet usage has a significant impact on customer budget.

◆ **Result:** Rejected H<sub>0</sub> and accepted H<sub>1</sub>.

This confirms that **e-wallet usage significantly influences customer budgeting behavior.**

The analysis clearly demonstrates that:

- E-wallets encourage higher spending due to convenience.
- Cashback and reward mechanisms act as psychological triggers for overspending.
- Customers often fail to maintain budgetary discipline while using digital payment platforms.

These findings are consistent with previous studies that emphasize the “**reduced pain of paying**” effect of digital transactions.

## 10. Findings

**Table: Summary of Findings and Recommendations**

S. No.	Key Finding of the Study	Impact on Consumer Budget	Stakeholder	Recommended Measure
1	Ease of e-wallet usage significantly increases spending	Leads to weak budgetary control and impulsive purchases	Consumers	Set monthly e-wallet spending limits and regularly monitor transaction history
2	Cashback and reward schemes encourage overspending	Promotional offers trigger unnecessary expenditure	Consumers	Treat rewards as discounts and avoid increasing spending due to promotions
3	Digital payments reduce psychological awareness of money	Consumers spend without realizing actual expenditure	Consumers	Use expense-tracking features such as alerts, summaries, and reminders
4	Complete dependence on e-wallets affects spending discipline	Reduces financial consciousness	Consumers	Balance e-wallet payments with cash for discretionary expenses
5	Lack of budget-control features in e-wallet apps	Increases risk of uncontrolled spending	E-Wallet Companies	Introduce budget caps, spending alerts, and automated monthly reports

S. No.	Key Finding of the Study	Impact on Consumer Budget	Stakeholder	Recommended Measure
6	Promotional strategies focus on spending, not savings	Encourages impulsive consumption	E-Wallet Companies	Design responsible promotions that promote planned spending and savings
7	Limited visibility of spending analytics	Consumers fail to track expenses effectively	E-Wallet Companies	Provide transparent, easy-to-understand spending reports
8	Inadequate digital financial literacy	Users are unaware of responsible spending practices	Polymakers / Regulators	Promote digital financial literacy programs focused on budgeting and control
9	Absence of standard consumer protection guidelines	Ethical concerns in digital marketing	Polymakers / Regulators	Frame regulations for ethical promotions and standardized spending disclosures
10	Limited integration of budgeting education	Consumers lack financial discipline in digital payments	Financial Institutions / Educators	Include digital budgeting modules in financial literacy programs
11	E-wallets not linked to savings behavior	Negative impact on long-term savings	Financial Institutions	Integrate savings-linked wallets and automatic micro-savings features
12	Limited longitudinal academic research	Long-term behavioral impact not fully understood	Researchers	Conduct longitudinal studies on digital payment behavior
13	Lack of behavioral interventions in wallet design	Impulsive spending remains unchecked	Researchers / Developers	Test nudges such as spending warnings and delayed confirmations

## 11. Conclusion

The study concludes that e-wallet usage has a **significant positive effect** on customer monthly budgets. As consumers increasingly shift to digital payment systems, it is essential to promote responsible spending habits and digital financial literacy.

## 12. Limitations

1. Sample size may be limited to specific geographic or demographic groups.
2. Self-reported data may include bias.
3. Cross-sectional data cannot establish causality.
4. Spending categories were not deeply segregated.

### 13. Suggestions for Future Research

- Conduct longitudinal studies to track spending changes over time.
- Analyze specific e-wallet platforms (e.g., Paytm vs Google Pay).
- Study psychological factors like impulse buying.
- Use machine learning to predict overspending risk.

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