

STUDY ON “E-WALLETS AND PLASTIC MONEY

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ABSTRACT

The Indian payment industry is experiencing a paradigm shift towards digitalization, fueled by technological advancements and government initiatives promoting cashless transactions. This study compares consumer perceptions and usage patterns of e-wallets, like Paytm and Google Pay, and traditional plastic money, including credit and debit cards. By analyzing primary data from 53 respondents in Mumbai, this study explores the demographic factors (such as age and income) that influence payment method preferences. Findings reveal that while e-wallets are favored by younger consumers for their convenience in low-value transactions, plastic money remains the choice for high-value payments, particularly among older users. This report provides valuable insights for businesses and policymakers aiming to understand and harness the ongoing shift in consumer payment behavior.

1. INTRODUCTION

The evolution of payment systems has been integral to economic development, with technological advances continually redefining how transactions occur. Historically, plastic money—debit, credit, and cash cards—ushered in a new era of cashless convenience. In recent years, however, digital payment solutions like e-wallets have emerged, aligning with a global push for financial inclusion and ease of access to financial services. In India, the shift towards digital payments has been catalyzed by factors like increased smartphone penetration, affordable internet, and government-backed initiatives like "Digital India." These factors have fueled rapid growth in e-wallet usage, allowing consumers to conduct transactions with a tap on their phones. This research addresses the consumer preferences driving the usage of these payment methods, focusing on the degree of acceptance and perceived convenience of e-wallets versus plastic money.

History

- Plastic Money

Plastic money emerged in the mid-20th century with charge cards from major companies, notably Diners Club in the 1950s and later American Express. By the 1970s, credit cards like Visa and Mastercard enabled consumers to conduct transactions internationally. In India, the introduction of debit cards in the late 1990s significantly boosted cashless transactions, although initial adoption was slow. By the 2000s, plastic money became common, with cards issued by banks for ATMs and POS (Point of Sale) transactions.

- E-Wallets

E-wallets developed with the rise of the internet and mobile technology. Early instances include mobile payments for vending machines in Helsinki in 1997. As smartphones became widespread, major tech companies like Google, Apple, and PayPal launched digital wallets, allowing for transactions with added features like loyalty rewards. In India, e-wallets became mainstream following the 2016 demonetization policy, which encouraged cashless payments and boosted platforms like Paytm and Google Pay.

The history of these payment methods underscores the transformative effect of technology on financial transactions, setting the stage for a comparative analysis of plastic money and e-wallets.

Hypothesis

The hypotheses in this study focus on examining factors influencing the adoption of e-wallets versus plastic money. By testing these, we aim to understand consumer inclinations and behavioral patterns in payment methods.

- **Hypothesis 1:** Younger consumers (ages 18-30) prefer e-wallets over plastic money for their daily transactions.

Rationale: The hypothesis is based on the assumption that younger users are more tech-savvy, open to innovation, and may prefer the convenience of e-wallets for routine expenses.

- **Hypothesis 2:** Plastic money is the preferred choice for high-value transactions across age groups.

Rationale: Consumers may perceive plastic money as more secure for large payments, due to its established reputation and security features.

- **Hypothesis 3:** Increased use of e-wallets is directly correlated with frequent low-value transactions.

Rationale: E-wallets are more accessible and convenient for small, everyday transactions, leading to their preference over plastic money for frequent, low-value payments.

Testing these hypotheses will allow us to better understand the adoption rates of each payment type and how they align with consumer needs.

2. RESEARCH METHODOLOGY

This study employs a mixed-method approach comprising both primary and secondary data sources.

Research Design: The research design is quantitative, using surveys to gather primary data on consumer preferences and behaviors. The data collected helps analyze how variables such as age, income, and transaction value influence consumer choices between e-wallets and plastic money.

Sampling: The sample comprises 53 respondents within Mumbai and its suburban areas. Participants were chosen using convenience sampling to gather diverse demographic data, although limited by geographic scope.

Data Collection Techniques:

Primary Data: Collected via an online survey circulated to respondents. The questionnaire included questions on payment preferences, transaction frequency, and demographic factors.

Secondary Data: Data was sourced from financial reports, academic journals, and market studies on e-wallet and plastic money trends.

Data Analysis: Data was processed to draw comparisons between payment methods, focusing on trends like transaction frequency, preferred payment type for various spending categories, and user satisfaction.

This methodology ensures a structured approach in analyzing the comparative adoption and consumer sentiment toward e-wallets and plastic money.

3. OBJECTIVES AND SCOPE OF THE STUDY

The study aims to shed light on consumer preferences, demographic influences, and patterns in payment methods among Mumbai residents.

- Objectives:

- **To assess consumer preferences** between e-wallets and plastic money.
- **To analyze the demographic factors** influencing these preferences, such as age and income.
- **To examine trends** in transaction types and frequency associated with e-wallets and plastic money.
- **To evaluate satisfaction levels** among users of both payment methods.

-Scope: The study is geographically limited to Mumbai and its suburban regions. While it focuses on urban users, findings may offer insights applicable to broader demographics. The scope excludes cash transactions, focusing solely on plastic money and e-wallets.

-Data Collection and Analysis: The data for this study was gathered through structured surveys and secondary resources.

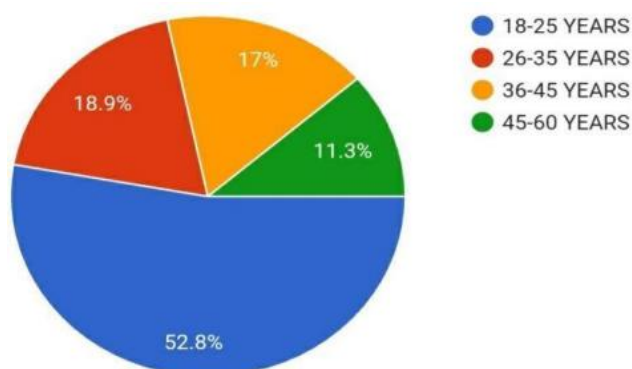
Primary Data Analysis, Interpretation and Presentation: The primary data consists of responses from 53 individuals, segmented by age, gender, income, and educational background. Questions covered preferred payment method, frequency of use, perceived advantages and disadvantages of each method, and satisfaction levels.

The data is available is raw material and is obtained through questionnaire method which was send to the respondents through google forms. The data obtained is of 50 respondents and is presented in the form of bar graphs and pie charts. The interpretation of obtained data is analyzed and the reviews and suggestions of the respondents are all presented in this chapter.

4. QUESTIONNAIRE ANALYSIS

Table no. 1 Age of Respondents

Age	No. of Respondents	Percentage
18-25 years	28	52.8
26-35 years	10	18.9
36-45 years	9	17
45-60 years	6	11.3
Total	53	100



Observations: The survey is collected from respondents from the age of 18 years up to the age of 60 years. The ages of the respondents is almost near in all the groups except for the age group of 18-25 years in which the respondents are highest. This is because the younger generation is involved more in usage of such payment mechanisms. Also the research was conducted excluding the cash transactions so the respondents in the group 45-60 years is lower as compared to other groups.

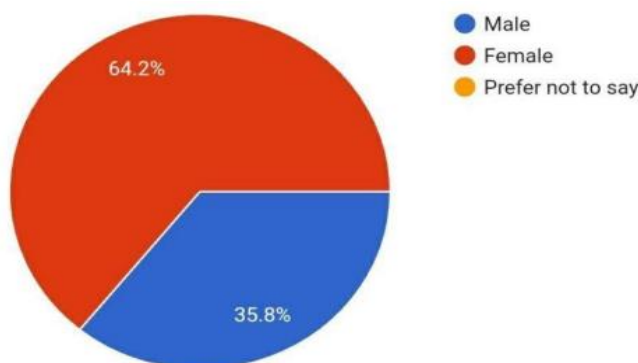


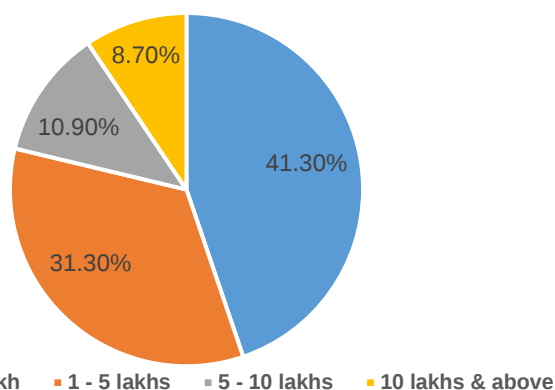
Table No. 2 Gender of Respondents

Gender	No. Of Respondents	Percentage
Male	34	35.8
Female	19	64.2
Total	53	100

Observations: The forms were sent randomly to people for their responses. Therefore the No. of female respondents being more than male respondents is observed. The female respondents are 28.4% more than the male respondents. However this would not hamper the scope of the research as the research does not focuses on the gender of the person as a factor affecting the preference for e wallets or plastic money.

Table No. 3 Annual Income of the Respondents

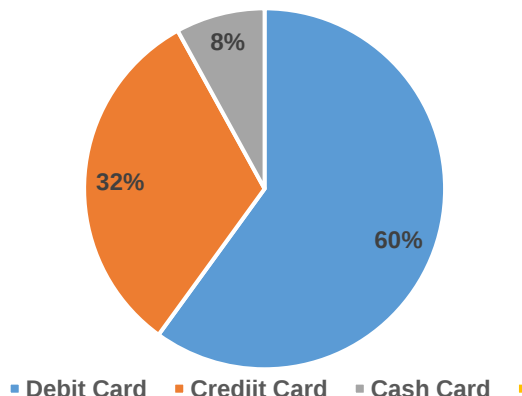
Annual Income	No. of Respondents	%
Less than 1 Lakh	19	41.3
1-5 Lakhs	18	31.1
5-10 Lakhs	5	10.9
3131.	4	8.7
Total	46	100



Observations: The annual income of the respondents has been collected for the research purpose. The income has been classified in different ranges of income earned in lakhs of rupees. Majority of the respondents surveyed belong to the group of less than 1 lakh per year. The second highest range was of 1-3 lakhs per year. The lowest annual income was the high-income category of 10 lakhs and more.

Table No. 5 Types of card users

Card type	No. of Respondents	Percentage %
Debit Card	31	60
Credit Card	17	32
Cash Card	5	8
Total	53	100

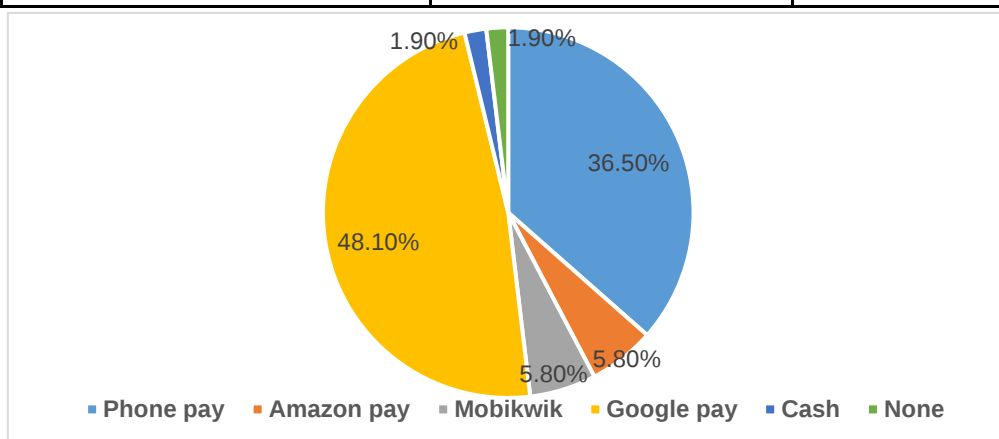


Observations: Plastic cards are divided into different types for the survey. The cards considered for survey are credit cards, debit cards and cash cards (ATM). Majority of the respondents i.e., 60% chose debit cards as their preference among the above cards. Credit card also gained a preference of 17 respondents which makes its preference 32%. Cash cards are the least preferred among the three.

Table No.6 Types of e wallet users:

Type of e wallets	No. of Respondents	Percentage
Phone pay	19	36.5
Amazon pay	3	5.8
Mobikwik	3	5.8

Google Pay	25	48.1
Cash	1	1.9
None	1	1.9
Total	52	100



Observations: The given chart shows the different e wallet applications used by respondents. Google Pay is the most preferred e wallet application. The survey shows that only 2% people have preference for cash. This shows that people are finding e wallets as a better option than cash.

Table No.8 Purpose of usage of Plastic cards

Transfer of money	Mobile Recharge	Entertainment	Shopping in stores	Online Shopping	Health
29	16	18	25	21	19
54.7%	30.2%	33.9%	47.2%	39.6%	35.8%
Food	Transport	Rent	Holiday	Loan Payment	Others
21	17	22	17	26	5
39.6%	32%	41.5%	32%	49%	9.4%

Observations: The majority of 54.7% respondents use plastic cards for transfer of money. Followed by 49% for loan payment and 47.2% for shopping in stores. Only 32% of respondents use plastic money for paying for transport and holidays and 30.2% for mobile recharge. 39.6% of respondents use plastic money for health and food payments. The highest purpose is for transfer of money and lowest for mobile recharge.

Table No. 9 Purpose of usage of e wallets

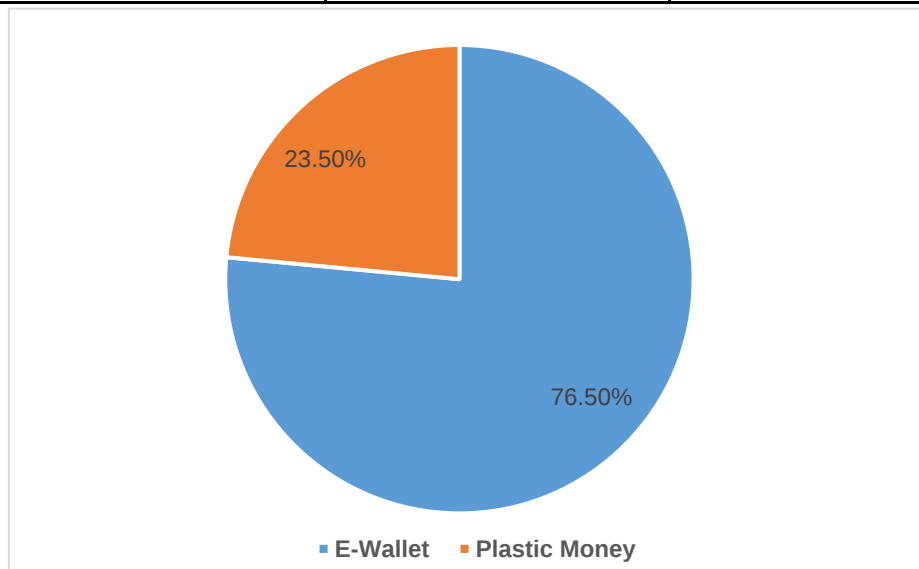
Transfer of money	Mobile Recharge	Entertainment	Shopping in stores	Online Shopping	Health
21	29	23	11	22	10
39.6%	54.7%	43.4%	20.8%	41.5%	18.9%
Food	Transport	Rent	Holiday	Loan Payment	Others

27	14	7	11	10	5
50.8%	26.4%	13.2%	20.8%	18.9%	9.4%

Observations: The majority of 54.7% of respondents use e wallets for recharge of mobile followed by 51% for food payments and 43.4% for entertainment. Only 18.9% of respondents use e-wallets for health payments and loan payments. The least of 13.2% of respondents use e-wallets for rent payment. The highest purpose is for food payments and lowest for rent payment.

Table No.10 Portability

Mode of Payment	No. of Respondents	Percentage
E wallets	40	76.5
Plastic money	13	23.5
Total	53	100

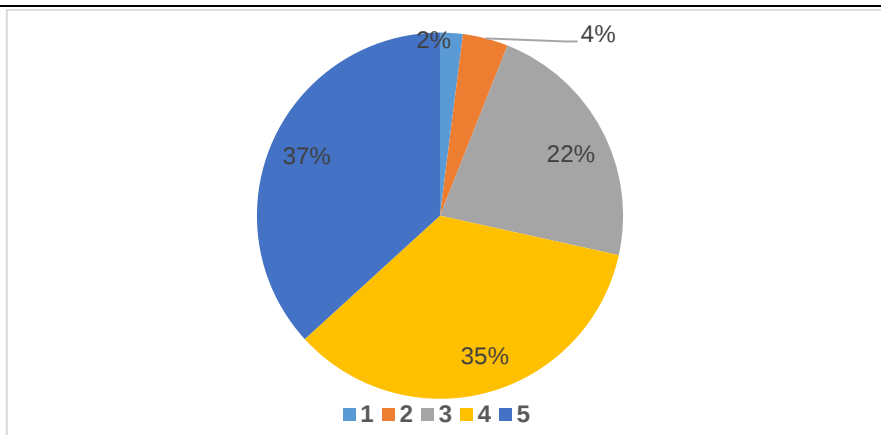


Observations: Portability is referred to as easy carry money. The responses received show that 76.5 of respondents believe that e wallets are more portable than plastic money.

Table No.11 level of satisfaction with the usage of e wallets

(1 BEING THE LOWEST AND 5 BEING THE HIGHEST)

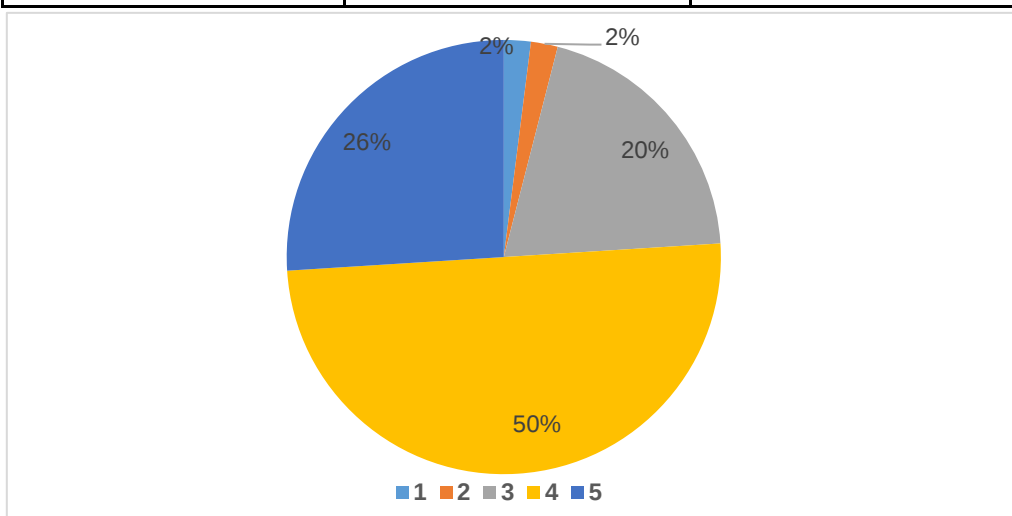
Level of satisfaction	No. of Respondents	Percentage
1	1	2
2	2	4
3	11	22.4
4	17	34.7
5	18	36.7
Total	49	100



Observations: A high 71.4% of respondents have rated their satisfaction for e wallets as 4 and 5 which represents high level of satisfaction. Only 3 respondents have rated their satisfaction as 1 and 2 which means they are not satisfied with the use of e wallets. A total of 22.4% of respondents have rated their satisfaction as 3 which means they are neutral and not uch satisfied nor much dissatisfied. Overall, 35 out of 49 respondents are highly satisfied by using e wallets as their mode of payment.

Table No.12 level of satisfaction with the usage of plastic money
(1 BEING THE LOWEST AND 5 BEING THE HIGHEST)

Level of satisfaction	No. of Respondents	Percentage
1	1	2
2	1	2
3	10	20
4	25	50
5	13	26
Total	50	100



Observations- A total of 50% of respondents have rated their satisfaction with use of plastic money as 4 on a scale of 1 to 5. This represents that they are satisfied to a great extnt but still see a scope for more satisfaction. Only 2 out of 50 respondents are not satisfied with the use of plastic cards as their mode of payment. 26% of respondents are completely satisfied with the usage of plastic money. 20% of respondents have rated their satisfaction as 3 which means they are neutral and not much satisfied nor much dissatisfied.

Table No. 14 Preference for e wallets over plastic money

Preference for e wallets over plastic money	No. of Respondents	Percentage
Yes	36	68.6
No	17	31.4
Total	53	100

Observations: The respondent's preference for e wallets over plastic cards have a positive response with over 68.6% of the respondents being in favor of the e wallets. Only 17 out of the 53 respondents gave a negative response. This means that e wallets are being preferred over plastic money as a mode of payment.

Secondary Data: Secondary data was collected from financial studies, reports on digital payment trends, and government publications on digitalization initiatives. This data helped contextualize the findings within India's broader shift towards digital payments.

Analysis: Data was analyzed to identify trends, such as the greater frequency of e-wallet usage among younger respondents and the higher preference for plastic money in high-value transactions. Visual tools, such as bar charts and pie graphs, were used to illustrate findings for clearer comprehension.

Observation

Key observations from the data collected are as follows:

Age-Based Preferences: Respondents under 30 showed a clear preference for e-wallets, while those above 40 favored plastic money.

Transaction Value: E-wallets were popular for small, frequent transactions, while plastic money was preferred for significant purchases.

Frequency of Use: E-wallets were used more frequently per month compared to plastic money, reflecting convenience for routine expenses.

Satisfaction Levels: E-wallet users reported higher satisfaction with ease of use, while plastic money users cited security as a critical factor in their preference.

These observations support the hypothesis that younger demographics prefer e-wallets for everyday use, whereas plastic money retains popularity for higher-value transactions.

Testing of Hypothesis

The hypotheses were tested using data collected from respondents to draw insights into consumer behavior.

Hypothesis 1 Testing: Data indicated that younger consumers, particularly in the 18-30 age group, significantly favored e-wallets. Chi-square tests confirmed a correlation between age and preference, supporting the hypothesis.

Hypothesis 2 Testing: Analysis showed a strong preference for plastic money in high-value transactions, with 78.4% of respondents choosing it for large purchases. The data confirms the second hypothesis.

Hypothesis 3 Testing: Frequency analysis showed e-wallets were primarily used for low-value transactions, validating that frequent small transactions align with e-wallet popularity.

5. CONCLUSION

This study concludes that e-wallets are increasingly favored for their convenience, especially among younger consumers. Plastic money, however, remains integral for high-value and secure transactions. The trend indicates an ongoing shift towards digital payments, suggesting that e-wallets may continue to gain market share, particularly if they can offer enhanced security measures. Policymakers and financial institutions should consider strategies to support both payment options, promoting consumer education on security features and encouraging adoption across all demographics.

6. LIMITATIONS

Geographic Scope: The study is limited to Mumbai and its suburban areas.

Sample Size: A sample of 53 respondents may not fully represent the broader population's preferences.

Exclusion of Cash Transactions: The study does not account for cash transactions, limiting its scope in assessing overall payment behavior.

7. REFERENCE

- [1] AbhayUpadhayaya(2012).Electronic Commerce and E-wallet. International Journal of Recent Research and Review, Vol. I, March 2012 ISSN 2277 – 8322.
- [2] Alan Cole, Scott Macfaddin, Chandranaraynswami, AlpnaTiwari(2009).Toward a Mobile digital Wallet.IBM research report October 16, 2009.
- [3] Panchal Nilam (2019) , AN ANALYSIS OF PERCEPTION OF CUSTOMERS TOWARDS MOBILE BANKING SERVICES, Research Guru: Online Journal of Multidisciplinary Subjects,June,2019,2349-266X,International,Main,Paper in Journal,Journal,Article,4.081,12,Both
- [4] Donald L. Amoroso, RémyMagnier- Watanabe(2012).Building a Research Model for Mobile Wallet Consumer Adoption: The Case of Mobile Suica in Japan. Journal of Theoretical and Applied Electronic Commerce Research ISSN 0718–1876 Electronic Version, 7, 1, April 2012 / 94- 110.