



A STUDY ON IMPACT OF DIGITAL PAYMENT METHODS IN ADOPTION TO CONSUMER

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ABSTRACT :

This study examines the transformative effects of digital payment methods on consumer behaviour and adoption patterns. With the rapid advancement of technology, traditional cash transactions are gradually being replaced by digital alternatives, offering convenience, security, and efficiency to consumers.

Furthermore the study findings emphasis that the consumers exhibit a positive attitude towards digital payment methods, driven by factors such as convenience, accessibility, and efficiency. Despite the positive sentiment, security remains a paramount concern among consumers regarding digital payment methods. Specifically, fraudulent transactions and technical glitches during transactions emerge as primary apprehensions, highlighting the importance of robust security measures. Convenience emerges as the primary factor influencing consumer decisions to adopt digital payment methods, consumers express some level of trust in digital payment providers, strong authentication measures, particularly biometric methods like fingerprint and face recognition, significantly enhance trust levels and so on.

In conclusion, the impact of digital payment methods on consumer adoption is multifaceted, encompassing convenience, security, market dynamics, economic implications, and regulatory frameworks. As digital payments continue to evolve, businesses, governments, and financial institutions must adapt their strategies to harness the full potential of this transformative technology landscape.

INTRODUCTION

In the contemporary landscape of commerce, the proliferation of digital payment methods has revolutionized the way consumers interact with businesses. From traditional cash transactions to the seamless convenience of mobile wallets and online transfers, the digitalization of payment systems has not only altered the mechanics of financial transactions but has also significantly impacted consumer behaviour. Understanding this impact is crucial for businesses, policymakers, and researchers alike as they navigate the evolving dynamics of the modern marketplace.

WHAT ARE DIGITAL PAYMENTS?

Digital payments are transactions that take place via digital or online modes, with no physical exchange of money involved. This means that both parties, the payer and the payee, use electronic mediums to exchange money.

EVOLUTION OF DIGITAL PAYMENT

The journey of digital payment systems traces back to the advent of electronic banking in the latter half of the 20th century. With the rapid advancement of technology, especially in the realm of the internet and mobile communications, digital payment solutions have undergone exponential growth and diversification. Today, consumers have access to a plethora of payment methods, including credit/debit cards, mobile wallets, peer-to-peer (P2P) payment platforms, cryptocurrencies, and more.

The Government of India has been undertaking several measures to promote and encourage digital payments in the country. As part of the 'Digital India' campaign, the government has an aim to create a 'digitally empowered' economy that is 'Faceless, Paperless, Cashless'.

OBJECTIVES OF THE STUDY

- To understand the consumer behaviour in relation to impact of digital payment methods.
- To Identify the Barriers and Challenges in relation to impact of digital payment methods.
- To Analyse the Security and Trust in relation to impact of digital payment methods.
- To Analyse the User-experience & Accessibility in relation to impact of digital payment methods.

- To evaluate the Future Trends & Predictions in relation to impact of digital payments methods (This objective is solely considered for the purpose of making recommendations).

REVIEW OF LITERATURE

- Dr. Rajeshwari. M (2021) (A study on digitalisation will aid the growth of the Indian economy).
- Tang (2021) (A study on selling and purchasing transaction increases users, financial access, reduce transaction cost and expenditure).
- Seldal and Nyhus (2022) (A study on impact of Online payment among younger generation).

HYPOTHESIS OF THE STUDY

1. To Understand the consumer behaviour in relation to impact of digital payment methods.

Null hypothesis (H0): There is no significant relationship between Age of the respondents and Factors influencing the consumer understanding in relation to Digital payment methods.

Alternative hypothesis (H1): There is a significant relationship between Age of the respondents and Factors influencing the consumer understanding in relation to Digital payment methods.

2. To Identify the Barriers and Challenges in relation to impact of digital payment methods.

Null hypothesis (H0): There is no significant relationship between gender of the respondents and challenges encountered in relation to Digital payment methods.

Alternative hypothesis (H1): There is a significant relationship between gender of the respondents and challenges encountered in relation to Digital payment methods.

SOURCES OF DATA

The data collected from both primary and secondary data

- **Primary data:** The questionnaire was prepared, administered among the digital payment users and received response from 151 individuals.
- **Secondary data:** Collected from online journals, websites & review of literature from published articles.

TOOLS AND TECHNIQUES

The study utilized a questionnaire as its research instrument for data collection.

This questionnaire was designed in alignment with the study's objectives and was administered to consumers to gather their perspectives. The information was collected using a meticulously structured questionnaire.

ANALYSIS TOOL

PERCENTAGE ANALYSIS: It also known as ratio analysis, is a method used to analyse financial statements and other data by expressing individual items as a percentage of a base figure. It helps in comparing different components of financial statements over time or against competitors.

STATISTICAL TOOLS

- **CHI-SQUARE:** The chi-square test is used to analyse categorical data and determine whether there is a significant association between two categorical variables. It is commonly used to test for independence in contingency tables and to compare observed frequencies with expected frequencies.
- **ANALYSIS OF VARIANCE (ANOVA):** ANOVA is used to compare means across multiple groups or treatments. It determines whether there are statistically significant differences between group means and helps identify which groups differ from each other. ANOVA is often used in experimental research to analyse the effects of different treatments or interventions.
- **CORRELATION:** Correlation Analysis is statistical method that is used to discover if there is a relationship between two variables/datasets, and how strong that relationship may be.

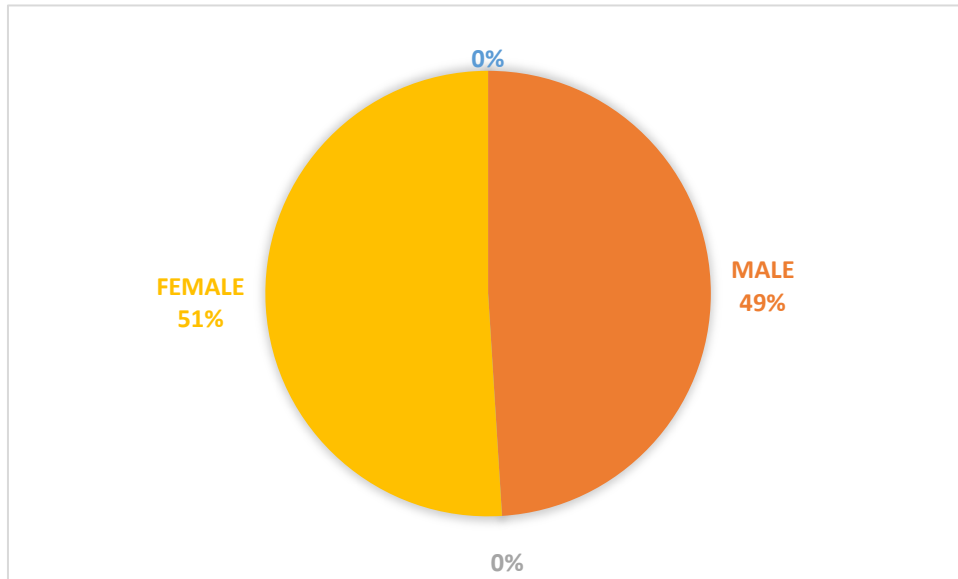
ANALYSIS AND INTERPRETATION DATA

TABLE NO.: 1 GENDER WISE CLASSIFICATION

GENDER	NO. OF RESPONDENTS	% OF RESPONDENTS
Male	74	49%

Female	77	51%
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GENDER WISE CLASSIFICATION



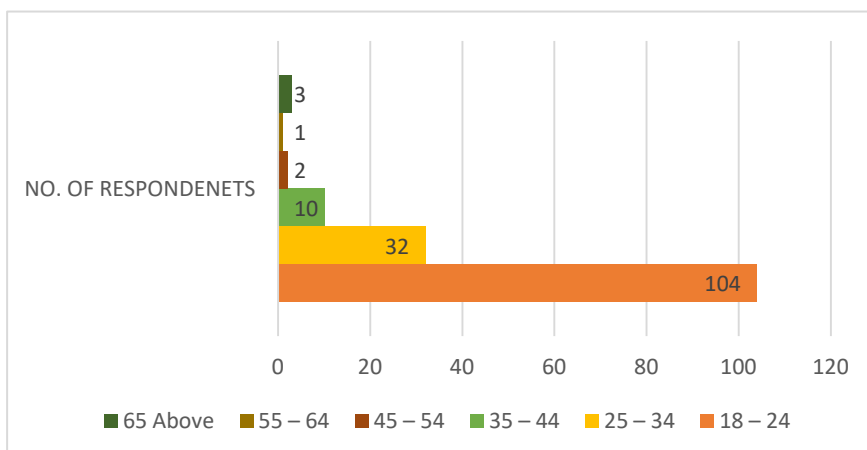
INTERPRETATION:

From the above analysis (51%) of respondents are female and (49%) of respondents are male.

INFERENCE: The majority of the respondents, comprising 51% are female.

TABLE NO.: 2 AGE WISE CLASSIFICATION

AGE	NO. OF RESPONDENETS	% OF RESPONDENTS
18 – 24	104	68.9%
25 – 34	32	21.2%
35 – 44	10	6.6%
45 – 54	2	1.3%
55 – 64	1	0.7%
65 Above	3	2%



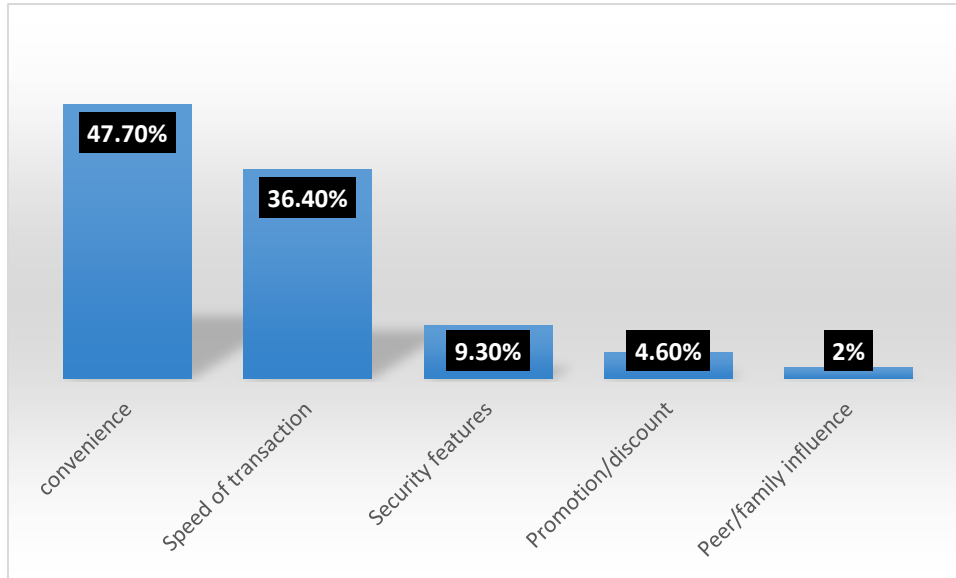
INTERPRETATION:

From the above analysis (68.9%) of the respondents are from the age group of 18-24, (21.2%) are from 24-34, (6.6%) are from 35-44, (1.3%) are from 45-54, (0.7%) are from 55-64 and (2%) are from 65 above.

INFERENCE: 68.9% of respondents fall within the age range of 18-24, constituting the majority.

TABLE NO.: 3 FACTORS INFLUENCING THE DECISION TO ADOPT DIGITAL PAYMENT METHODS

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
convenience	72	47.7%
Speed of transaction	55	36.4%
Security features	14	9.3%
Promotion/discount	7	4.6%
Peer/family influence	3	2%



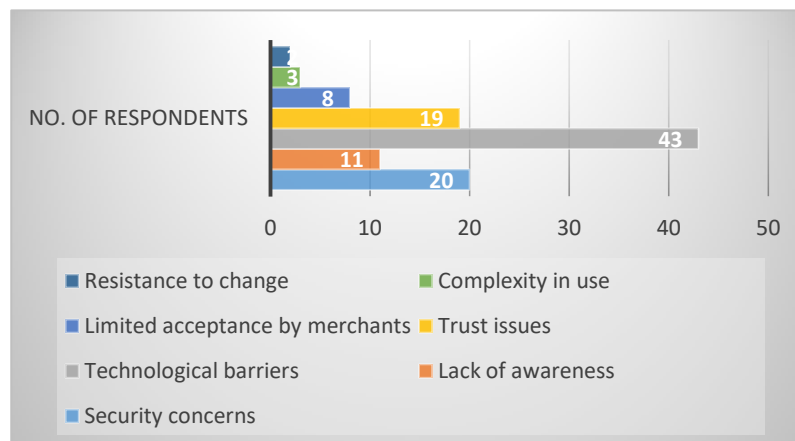
INTERPRETATION:

From the above table, (47.7%) indicating that a significant portion of respondents prioritize convenience when making transactions, (36.4%) of respondents prioritize the speed of transactions, security features are mentioned by a smaller percentage of respondents at (9.3%), (4.6%) are influenced by promotions or discounts and (2%) indicating that peer or family recommendations.

INFERENCE: Convenience appear to be the most significant factors influencing transaction with (47.7%).

TABLE NO.: 4 CHALLENGES ENCOUNTERED IN DIGITAL PAYMENT METHODS

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
Security concerns	20	18.9%
Lack of awareness	11	10.4%
Technological barriers	43	40.6%
Trust issues	19	17.9%
Limited acceptance by merchants	8	7.5%
Complexity in use	3	2.8%
Resistance to change	2	1.9%



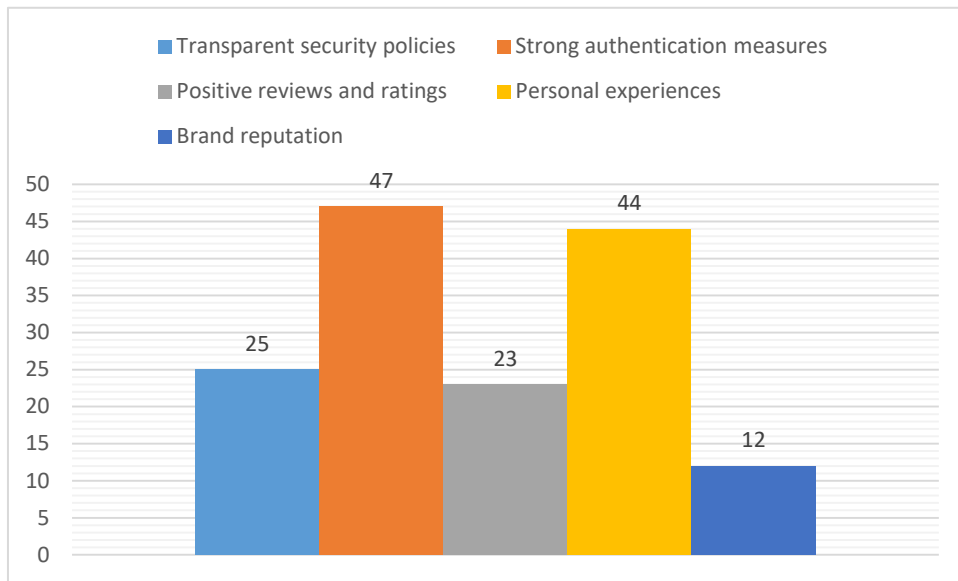
INTERPRETATION:

From the above table, (18.9%) cited security concerns, (10.4%) mentioned a lack of awareness as a barrier, (40.6%) cited technological barriers, (17.9%) identified trust issues as a concern, (7.5%) noted limited acceptance by merchants as a barrier, (2.8%) mentioned complexity in use as a factor and (1.9%) cited resistance to change as a barrier.

INFERENCE: The majority of the respondents chose Technological Barriers which carries (40.6%).

TABLE NO.: 5 FACTORS CONTRIBUTING THE LEVEL OF TRUST IN DIGITAL PAYMENT PROVIDERS

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
Transparent security policies	25	16.6%
Strong authentication measures	47	31.1%
Positive reviews and ratings	23	15.2%
Personal experiences	44	29.1%
Brand reputation	12	7.9%



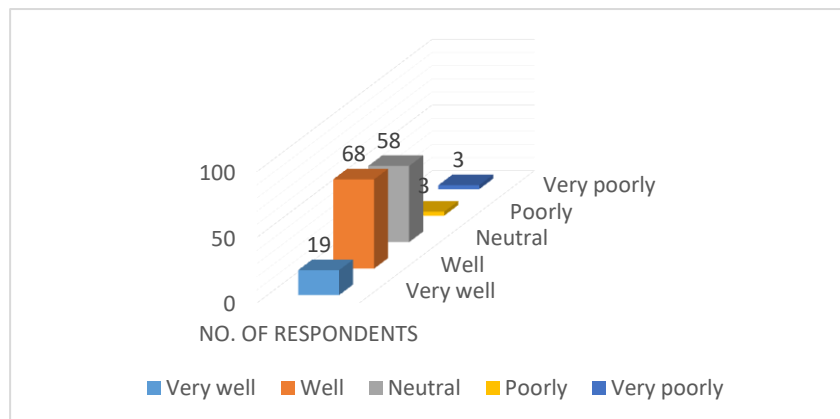
INTERPRETATION:

From the above table, Transparent security policies were cited by (16.6%), Strong authentication measures were mentioned by (31.1%), Positive reviews and ratings were cited by (15.2%), Personal experiences were cited by (29.1%) and Brand reputation was mentioned (7.9%).

INFERENCE: Strong authentication measures were cited by the largest percentage of respondents comprising 31.1%.

TABLE NO.: 6 EFFECTIVENESS OF DIGITAL PAYMENT PROVIDERS IN COMMUNICATING ABOUT THEIR SECURITY MEASURES

PARTICULARS	NO. OF RESPONDENTS	% OF RESPONDENTS
Very well	19	12.6%
Well	68	45%
Neutral	58	38.4%
Poorly	3	2%
Very poorly	3	2%



INTERPRETATION:

From the above table, Very well accounting for 12.6% of the total respondents, Well representing 45% of the total, Neutral making up 38.4% of the total, Poorly comprising 2% of the total, and Very poorly accounting for 2% of the total.

INFERENCE: The majority of respondents rated the category “Well” with (45%).

CHI-SQUARE:

O	E	O-E	(O-E) ²	(O-E) ² /E
48	50.7615	-2.7615	7.6258	0.1502
35	38.9403	-3.9043	15.5259	0.3987
13	9.0397	3.9603	15.6839	1.7350
6	4.1721	1.8279	3.3412	0.8008
3	2.0860	0.914	0.8353	0.4004
15	14.0198	0.9802	0.9607	0.0685
14	10.7549	3.2451	10.5306	0.9791
6	4.8344	1.1656	1.3586	0.2810
4	3.7086	0.2914	0.0849	0.0228
1	0.9668	0.0332	1.1022	1.1400
1	0.7417	0.2538	0.0667	0.0899
1	0.4834	0.5166	0.2668	0.5519
2	1.9337	0.0663	4.3956	2.2732
2	1.4834	0.5166	0.2668	0.1798
Calculated value				9.0714

INFERENCE

Therefore, calculated value is 9.0714 is less than the table value 31.41. So, accept H₀.

Hence proved that there is no significant relationship between Age of the respondents and Factors influencing the consumer understanding in relation to Digital payment methods.

ANALYSIS OF VARIANCE (ANOVA)

SOURCES OF VARIANCE	SUM OF SQUARE	DEGREE OF FREEDOM	MEAN SUM OF SQUARE
Between column	SSC = 63.362	C-1 2-1=1	MSC=SSC/C-1 =63.362/1 = 63.362
Within column	SSE = 496.715	N-C 13-2 =11	MSE=SSE/N-C =496.715/11 =45.1559

VARIANCE RATIO

$$F = \text{MSC}/\text{MSE}$$

$$= 63.362/45.1559$$

$$= 1.4031$$

$$\text{Calculated value} = 1.4031$$

INFERENCE:

Therefore, calculated value is 1.4031 is less than the table value 4.84. So, accept H₀.

Hence proved that there is no significant relationship between the gender of respondents and the challenges encountered in relation to digital payment methods.

CORRELATION

X	Y	$x = X - \bar{X}$	$y = Y - \bar{Y}$	x^2	y^2	xy
25	19	-5.2	-11.2	27.04	125.44	58.24
47	68	16.8	37.8	282.24	1428.84	635.04
23	58	-7.2	27.8	51.84	772.84	-200.16
44	3	13.8	-27.2	190.44	739.84	-375.36
12	3	-18.2	-27.2	331.24	739.84	495.04
151	151	0	0	882.8	3806.8	612.8

$$r = \frac{N \sum xy - \sum x \sum y}{\sqrt{N \sum x^2 - (\sum x)^2} \sqrt{N \sum y^2 - (\sum y)^2}}$$

$$r = \frac{5(612.8) - (0)(0)}{\sqrt{5(882.8) - (0)^2} \sqrt{5(3806.8) - (0)^2}}$$

$$r = \frac{3064}{\sqrt{4,414} \sqrt{19,034}}$$

$$r = \frac{3064}{66.437 * 137.9637}$$

$$r = \frac{3064}{9,165.8985}$$

$$r = 0.3342$$

INFERENCE

1 indicates a perfect positive correlation, (-1) indicates a perfect negative correlation, and 0 indicates no correlation.

That is, if the correlation coefficient is greater than zero, it is a positive relationship. Conversely, if the value is less than zero, it is a negative relationship.

Therefore, a correlation coefficient of 0.3342 indicates a positive correlation between Factors contributing the level of trust in digital payment providers and effectiveness of digital payment providers in communicating about their security measures.

KEY FINDINGS

- Convenience is the main factor that influences the decision of the people to adopt Digital payment methods.
- Technological barriers are the main challenges encountered by people in using Digital payment methods.
- Strong authentication measures are the factor that contributes the level of trust in Digital payment providers.
- Digital payment providers communicates well about their security measures.

CONCLUSION

In conclusion, this study highlights the significant impact of digital payment methods on consumers. The findings demonstrate a clear trend towards increased adoption and utilization of digital payment solutions, particularly among younger demographics. Factors such as convenience, accessibility, and security emerge as key drivers influencing consumer behaviour in this context. As digitalization continues to reshape the landscape of financial transactions, businesses and policymakers alike must adapt to meet the evolving needs and preferences of consumers, ensuring that digital payment ecosystems remain user-friendly and conducive to fostering trust and confidence among users.

REFERENCE :

1. PV Ranjith, S Kulkarni, AJ Varma - Psychology and Education, (2021) A Literature Study Of Consumer Perception Towards Digital Payment Mode In India.
2. SMA Ahmed - The Routledge Handbook of Smart (2022) Digitalisation and Development in India. The Routledge Handbook of Smart Technologies, 1st Edition, 2022.