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A STUDY ON THE ADOPTION AND IMPACT OF DIGITAL PAYMENTS ON SMALL RETAILERS IN SEMI-URBAN AREAS

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ABSTRACT:
The increasing integration of digital transaction platforms, including UPI, mobile-based wallet and debit/credit cards, has increased significantly among small retailers in India's semi-urban areas, contributing to financial inclusion and operational efficiency. Nowadays, many small retail establishments use digital payments for standard transactions. The goal of this study is to examine the uptake and effects of digital payments on small merchants in semi-urban areas. Sixty small retail store owners completed structured questionnaires to provide primary data as part of a quantitative research technique. Perceived utility, perceived ease of use, perceived risk, enabling conditions, self-efficacy, behavioral intention, and perceived behavioral control are among the key factors impacting adoption that are examined in this study. The findings reveal a strong relationship between behavioural intention and perceived behavioural control. Digital payment adoption has improved transaction speed, sales efficiency, and record-keeping practices. The study also finds that digital payments support easier GST filing and improved regulatory compliance among small retailers. Convenience and increasing customer demand emerged as the primary drivers of adoption. Overall, the study concludes that small retailers in semi-urban locations benefit from digital payments.
***Keywords**: Digital Payments, Small Retailers, Semi-Urban Areas, GST Compliance, Financial Inclusion, Digital Adoption, Operational Efficiency*

INTRODUCTION

With the introduction of the Unified Payments Interface (UPI), QR-enabled transactions, and wallet applications such as Paytm, PhonePe, and Google Pay, India has witnessed a significant digital transformation in financial transactions. Urban and semi-urban areas have adopted digital technology more quickly as a result of the Indian government's push for a cashless economy, especially following demonetization in 2016. While organised retailers adapted quickly, small retail stores such as beauty stores, grocery stores, and clothing stores have been more cautious. Increasing smartphone penetration, growing consumer preference for contactless payments, and incentives by fintech companies are gradually encouraging digital payment solutions, which provide advantages including real-time settlements, transaction transparency, and enhanced access to financial services, and should be integrated into these small shops.

The Indian retail landscape remains predominantly unorganised, characterised by millions of small, family-run shops, neighbourhood Kirana stores, and roadside vendors. Despite their significant contribution to employment and GDP, these retailers often operate with limited technological support, rudimentary accounting methods, and heavy reliance on cash-based transactions. This informal nature of operations restricts growth, reduces efficiency, and makes businesses vulnerable to economic disruptions. The implementation of digital payment offers a pathway to overcome these challenges by improving record-keeping, facilitating timely payments, and enabling easier inventory and sales management. Additionally, the integration of banking cards, UPI, and mobile banking services provides customers with more security, convenience, and flexibility while reducing dependence on cash.

The primary objective of the present research is to analyze how digital payment methods are being used and how they affect small merchants in semi-urban locations. To determine the key determinants to identify the factors influencing adoption, examine operational benefits such as improved transaction speed, sales efficiency, record-keeping, and GST filing, and evaluate the overall influence on customer satisfaction and business performance. Data for the study were acquired through structured questionnaires from 60 small retail store owners in semi-urban areas. The findings are likely to help policymakers, financial institutions, and small retailers understand how to integrate digital payments effectively, advance the goal of broader financial inclusion, and achieve long-term growth in the semi-urban retail sector. By understanding these dynamics, the research also helps design strategies that encourage digital adoption, enhance business efficiency, and strengthen the retailer–customer relationship.

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OBJECTIVES OF THE STUDY

The objectives of this study are:

- To determine the awareness and use of digital payment options among small retailers in semi-urban locations.
- To examine the perceived benefits and challenges faced by small retailers in using digital payments.
- To examine how digital payments help to streamline tax filing and preserve GST compliance.
- To evaluate how digital payment adoption affects small retail firms' operational efficiency.

SCOPE OF THE STUDY

The research examines the manner in which how small semi-urban merchants, such as groceries, clothes, and beauty stores, implement digital payment systems and the influence on business operations. It investigates several variables, such as perceived utility and benefits, transaction security, convenience, and operational efficiency. The research surveys a cross-sectional sample of 60 small retail owners, focusing on the principal drivers shaping their decision to adopt digital payment systems and examines the challenges faced during their implementation. It also further analyses the role played by digital payment technologies, which impact users and businesses' adoption, influencing sales efficiency, record-keeping, inventory management, and compliance with GST regulations. Furthermore, it explores the role associated with the digital payment system in enhancing customer satisfaction and facilitating financial inclusion. While the focus is primarily on small retailers in semi-urban regions, the study offers valuable insights that policymakers, banking institutions, and fintech enterprises can use to facilitate and strengthen the diffusion of digital payment practices. It also highlights gaps and areas for improvement, such as digital literacy, infrastructure, and awareness programs, to support smoother integration of digital systems in retail operations. Overall, the scope encompasses both the practical and operational implementation of digital payments, providing a thorough comprehension of their role in modernising small-scale retail businesses.

RESEARCH METHODOLOGY

i Study Methods

The research employs a mixed-method framework, combining quantitative analysis with qualitative insights to comprehensively evaluate both the adoption patterns and the impact of digital payment technologies among small retailers. Data was gathered through structured questionnaires to obtain a comprehensive understanding of the factors affecting adoption, operational efficiency, and overall business performance.

ii Primary Data

A survey was used to gather primary data from 60 small retail stores located in semi-urban areas. Information about the extent of digital payment usage, along with perceptions regarding its usefulness, user-friendliness, transaction security, operational advantages, and implementation barriers, was gathered through the survey.

iii Secondary Data

The study was obtained from books, journals, research papers, and reports on digital payment adoption, fintech initiatives, financial inclusion, and small retail operations. These resources provided a theoretical framework and contextual background to support the analysis of primary data.

iv Sample Unit

The sample unit comprises 60 small retail store owners across semi-urban regions. Retailers from multiple categories were included to ensure diverse perspectives on digital payment adoption, operational impact, and business performance.

v Sample

A sample size of sixty respondents was chosen to balance feasibility and statistical reliability. This scale enables relevant examination of adoption patterns, operational improvements, and obstacles, while being manageable for data gathering in semi-urban areas.

vi Sampling Technique

Convenience sampling was adopted to ensure quick and practical data collection from respondents engaged in local retail businesses. This method reduced time and cost constraints while allowing easy access to participants. The selection of an appropriate sampling technique is essential as it directly affects the reliability and relevance of research outcomes.

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The chosen approach, along with the overall research methodology, provided a systematic framework to address the study objectives and arrive at valid conclusions.

HYPOTHESIS OF THE STUDY

The hypothesis of the study is as follows:

Hypothesis 1

H_0: Adoption of digital payments does not significantly improve the operational efficiency of small retailers.

H_1: Adoption of digital payments significantly improves the operational efficiency of small retailers.

Hypothesis 2

H_0: Use of digital payments does not significantly support GST record-keeping and tax filing.

H_1: Use of digital payments significantly supports GST record-keeping and tax filing.

DATA INTERPRETATION AND ANALYSIS:

This chapter analyses the data collected to investigate the integration and subsequent influence of electronic transaction systems. On small retail businesses. Based on responses from structured questionnaires, the analysis identifies key trends and relationships among the study variables. It examines retailers perceived benefits, operational simplicity, and transaction security of digital payments, along with the support available for adoption. This section evaluates the role of digital payments in shaping routine business activities, including transaction processing, sales tracking, record maintenance, and GST compliance. Overall, the results emphasize the operational advantages, challenges, and the implementation of digital payments in improving business efficiency.

Section 1: Demographic Questions

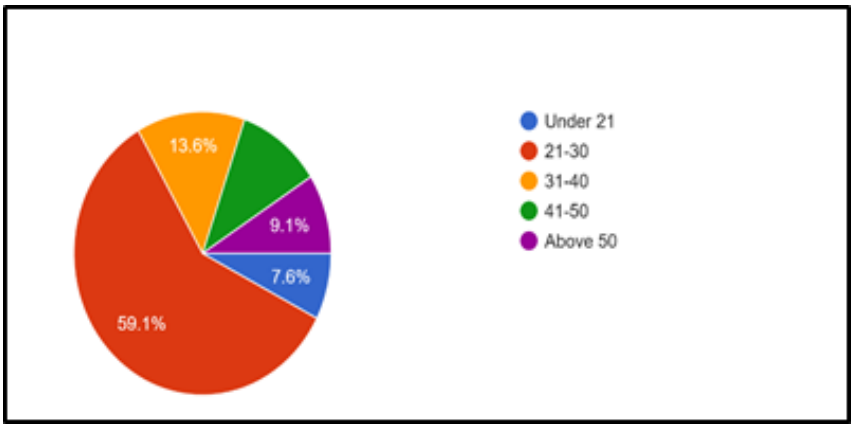

CHART 1: Age of Respondents

The findings indicate that the largest proportion of respondents (59.1%) is aged between 21 and 30 years, reflecting that higher participation among younger retailers tends to be more familiar and at ease with technological tools and digital payment platforms. However, a substantial proportion (40.9%) of respondents are above 30 years of age, showing that digital payment adoption is also significant among older retailers. Overall, the age distribution demonstrates adoption across diverse age groups.

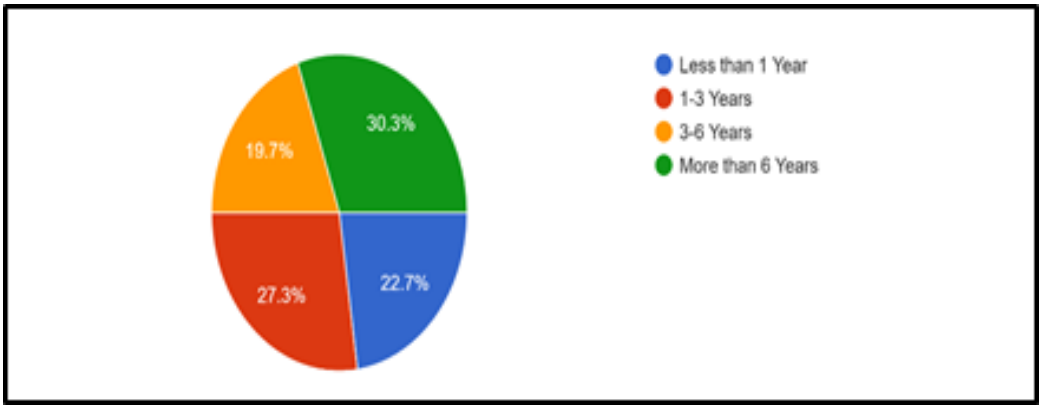

CHART 2: Years of Business Operations

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This chart indicates that a substantial proportion of businesses (30.3%) have been actively involved in business operations for over six years, reflecting the presence of experienced retailers in the sample. It also shows adequate representation of newer businesses, with 22.7% functioning for a period of less than one year and 27.3% for 1–3 years. This mix helps in comparing digital payment adoption between new and established businesses.

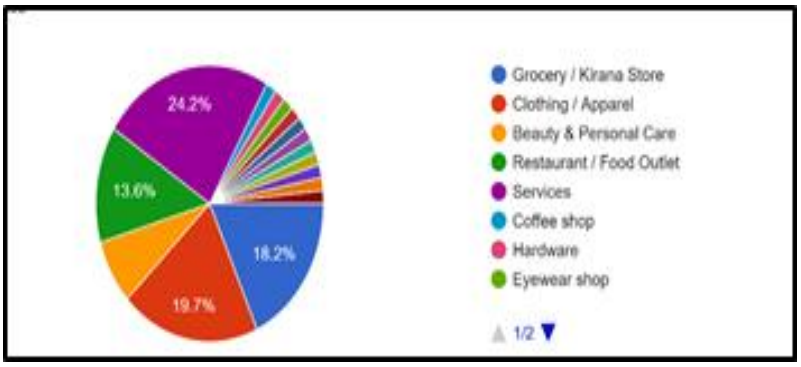

CHART 3: Business-wise Classification

This chart indicates that services (24.2%) form the largest business category, followed by clothing/apparel (19.7%) and grocery/Kirana stores (18.2%). Restaurant/food outlets (13.6%) and beauty & personal care businesses also have a significant presence. From my point of view, this diverse distribution shows that digital payment adoption is widespread across different types of small retail businesses.

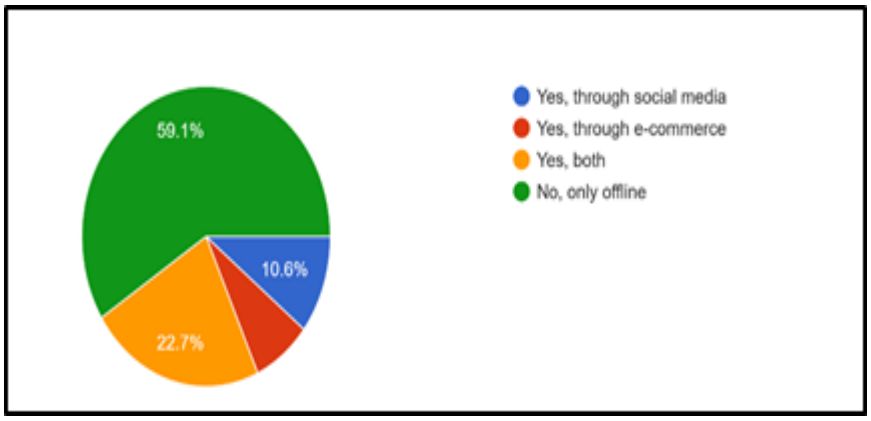

CHART 4: Online Selling of Products/Services

This chart indicates that most retailers operate only offline (59.1%), while 22.7% sell both online and offline, and a smaller share sell via social media or e-commerce platforms. This suggests that despite offline retail dominating, increasing digital adoption indicates a favourable scope for future expansion, due to the presence of digital payment systems**.**

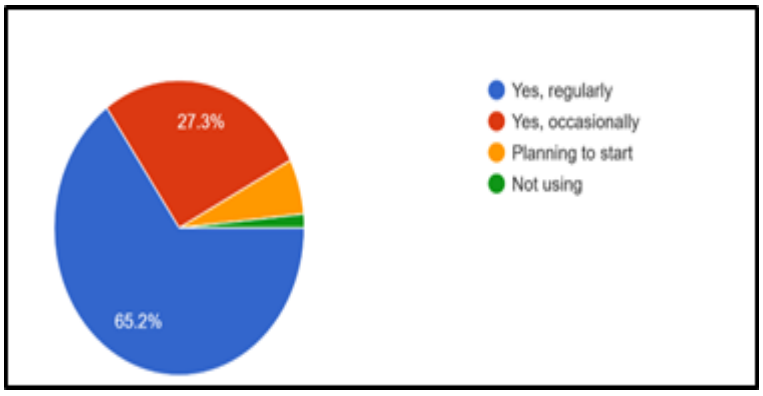

CHART 5: Adoption of Digital Payments

The chart illustrates that a majority of retailers use digital payment systems regularly (65.2%), followed by occasional users (27.3%), while only a small proportion do not use them. This pattern reflects a strong level of acceptance and supports the central argument that digital payment adoption is expected to expand further.

Hypothesis Testing:

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Hypothesis 1:
H_0: Adoption of digital payments does not significantly improve the operational efficiency of small retailers.
H_1: Adoption of digital payments significantly improves the operational efficiency of small retailers.

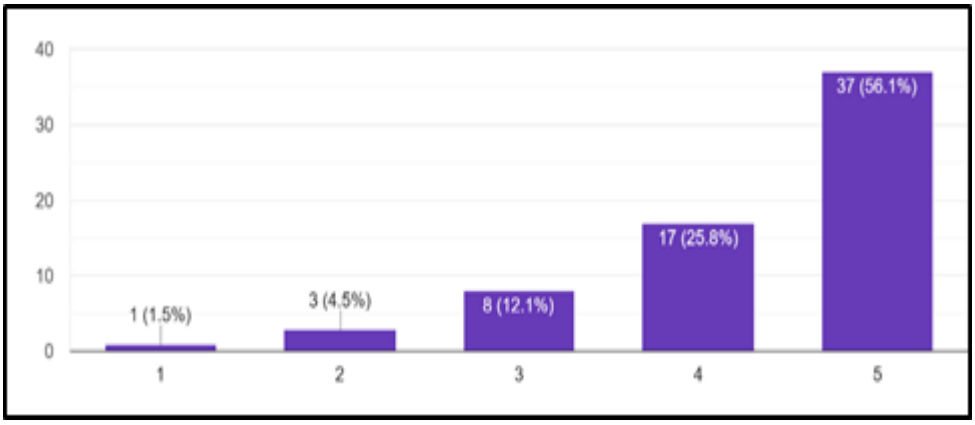

CHART 6: Has digital payment adoption improved the speed of customer transactions?
Observed Frequencies

Likert Scale Category	Description	Observed Frequency	Percentage %
1	Strongly Disagree	1	1.5
2	Disagree	3	4.5
3	Neutral	8	12.1
4	Agree	17	25.8
5	Strongly Agree	37	56.1
Total		**66**	**100**

Determine Expected Frequencies
Since this is a Chi-Square Goodness-of-Fit test, the expected frequencies and corresponding percentages are computed under the assumption that the distribution under H_0.

E = Total Respondents

Number of Categories

E = 66

5

= 13.2 Per Category

Compute the Chi-Square Test

$\chi 2 = \sum E(O-E)2$

Category	O	E	$(O-E)^2/E$
Strongly Disagree	1	13.2	11.28
Disagree	3	13.2	7.88
Neutral	8	13.2	2.05
Agree	17	13.2	1.09
Strongly Agree	37	13.2	42.91
Total X^2			**65.21**

Calculate Degrees of Freedom

$$df = k - 1$$
$$df = 5 - 1 = 4$$

Level of Significance

a = 0.05

Critical Value

df = 4

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X^2 Critical = 9.488

Decision Rule

Since 65.21 > 9.488, the result is significant.

The null hypothesis is rejected.

Conclusion
Therefore, digital payment adoption has significantly improved the speed of customer transactions, a pronounced tendency toward the categories of "Agree" and "Strongly Agree.

Interpretation:
The results reveal a strong and clear tendency toward agreement, indicating that digital payment systems are perceived as significantly enhancing transaction speed.

Hypothesis 2:
H_0: Use of digital payments does not significantly support GST record-keeping and tax filing.

H_1: Use of digital payments significantly supports GST record-keeping and tax filing.

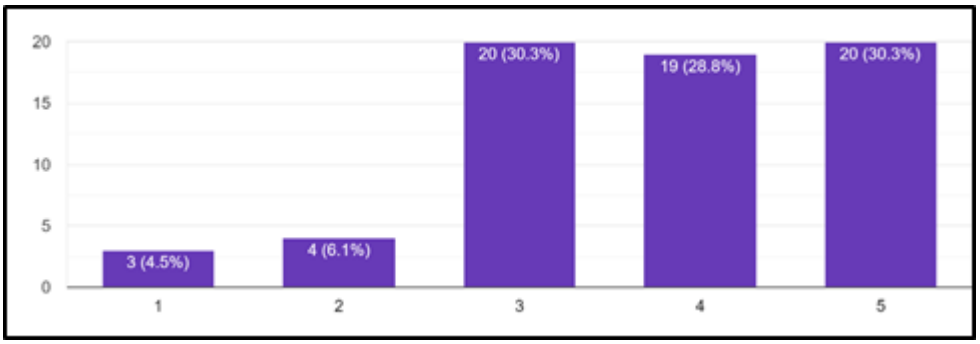

CHART 7: Does digital payment usage simplify the GST filing process?

Observed Frequencies

Likert Scale Category	Description	Observed Frequency	Percentage %
1	Strongly Disagree	3	4.5
2	Disagree	4	6.1
3	Neutral	20	30.3
4	Agree	19	28.8
5	Strongly Agree	20	30.3
Total		**66**	**100**

Statement of Hypothesis

- There is **no significant difference** in respondent opinions regarding whether digital payment usage simplifies the GST filing process.
- There is a **significant difference** in respondents opinions regarding whether digital payment usage simplifies the GST filing process.

Expected Frequencies
Since this is a Chi-Square Goodness-of-Fit test, expected frequencies are calculated assuming equal distribution under H_0.

E = Total Respondents

Number of Categories

E = 66

5

= 13.2 Per Category

Compute the Chi-Square Test

$\chi 2 = \sum E(O-E)2$

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Category	O	E	$(O-E)^2/E$
Strongly Disagree	3	13.2	7.88
Disagree	4	13.2	6.41
Neutral	20	13.2	3.50
Agree	19	13.2	2.55
Strongly Agree	20	13.2	3.50
Total X^2			**23.84**

Degrees of Freedom

$$df = k - 1$$
$$df = 5 - 1 = 4$$

Level of Significance

a = 0.05

Critical Value

df = 4

X^2 Critical = 9.488

Decision Rule

Since 23.48 > 9.488, the result is significant.

The null hypothesis is rejected.

CONCLUSION

Therefore, the null hypothesis is rejected. The results suggest that the utilisation of electronic payment platforms simplifies the GST filing.

Interpretation

A substantial proportion of respondents either agreed or strongly agreed that digital payment usage simplifies GST filing, while neutral responses also formed a considerable share. This indicates an overall positive perception, though some respondents remain indifferent, highlighting scope for further system simplification and awareness.

Section 3: Objective-Based Question

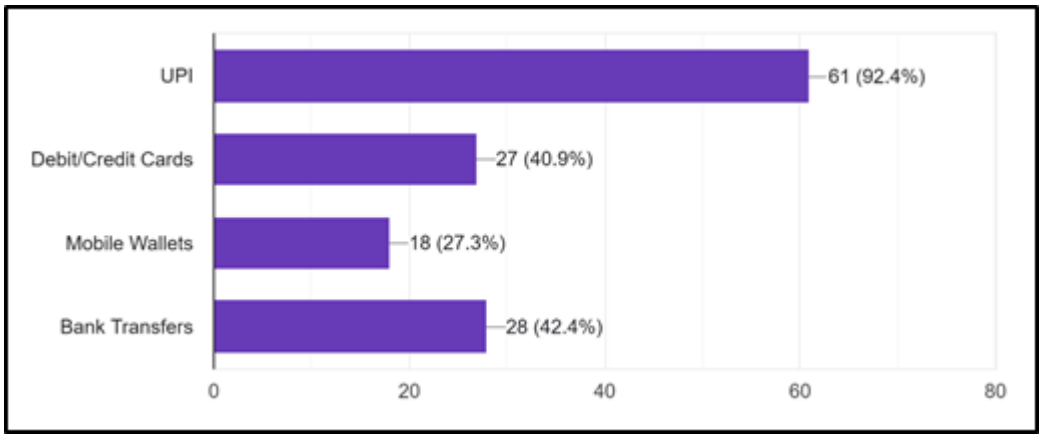

CHART 8: Digital Payment Methods Used

This chart indicates that **UPI is used by 92.4% of retailers**, making it the most preferred digital payment method. This shows perceived benefits, a quick transaction process, and high customer acceptance in semi-urban areas.

Bank transfers are used by 42.4% of respondents, indicating that retailers still rely on traditional digital methods for larger or formal transactions.

Debit and credit cards are used by 40.9% of retailers, reflecting moderate adoption due to card availability and infrastructure requirements.

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Mobile wallets are used by 27.3% of respondents, showing comparatively lower usage, possibly due to limited customer preference.

From my point of view, this analysis highlights that retailers strongly prefer simple, fast, and low-cost digital payment options, with UPI dominating the adoption pattern.

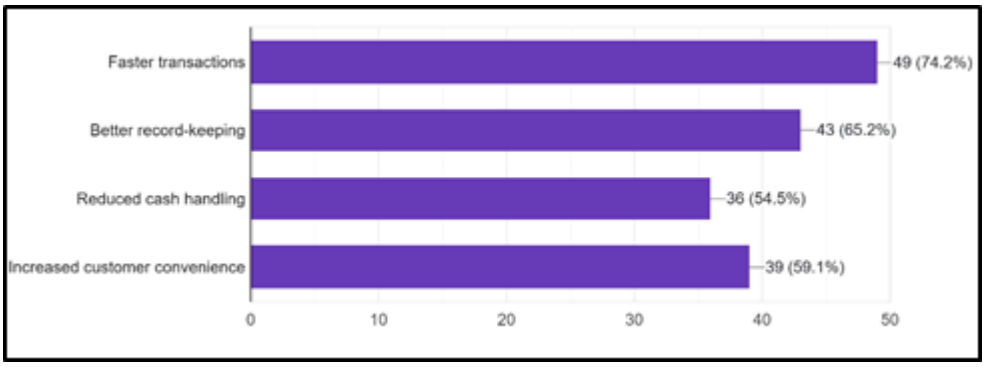


CHART 9: Benefits Experienced After Adopting Digital Payments

- This chart indicates that **Faster transactions (74.2%)** show that most retailers experience quicker and smoother payment processing, improving overall operational efficiency.
- **Better record-keeping (65.2%)** indicates improved financial tracking and transparency in daily business activities.
- **Increased customer convenience (59.1%)** reflects ease of payment for customers, which can positively influence customer satisfaction.
- **Reduced cash handling (54.5%)** suggests lower dependency on physical cash, reducing risks and handling issues.

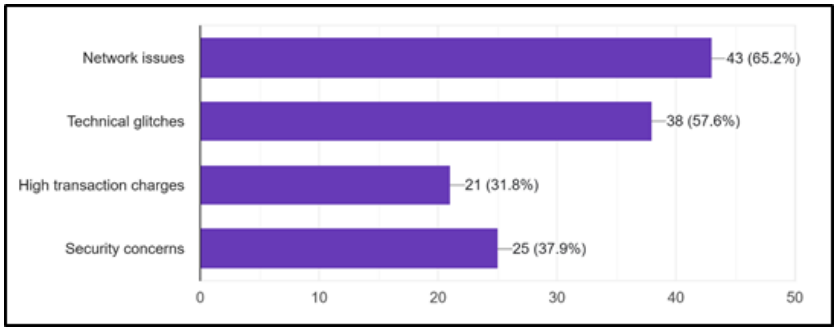
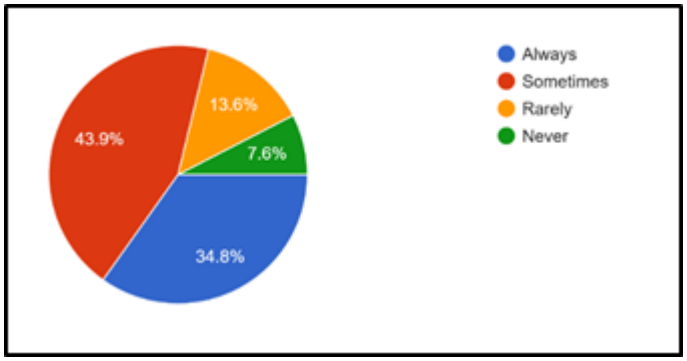


CHART 10: Challenges Faced While Using Digital Payments

- This chart indicates that **network issues (65.2%)** are the major challenge, highlighting connectivity problems in semi-urban areas.
- **Technical glitches (57.6%)** show system-related issues affecting smooth transactions.
- **Security concerns (37.9%)** reflect a slight concern about the safety of digital transactions.
- **High transaction charges (31.8%)** suggest cost-related barriers for some retailers.

CHART 11: Usage of Digital Payment Transaction History for GST Filing



This chart indicates how frequently retailers use their digital payment transaction history for GST filing.

- **Always (34.8%):** About one-third of respondents consistently use digital records, showing good digital adoption.
- **Sometimes (43.9%):** The largest portion uses it occasionally, indicating that while digital records are useful, many still depend on alternative methods or physical documentation at times.
- **Rarely (13.6%):** A smaller segment rarely uses digital transaction history, which may point to limited familiarity with digital tools.
- **Never (7.6%):** Only a few respondents completely avoid using digital transaction data for GST, possibly due to a lack of trust or digital literacy.

FINDINGS OF THE STUDY

- The results of the present investigation indicate that digital payment systems help in making customer transactions faster.
- Results indicate that digital payment usage makes the GST filing process easier for retailers.
- Younger retailers use digital payment methods more, but many older retailers are also adopting them.
- Overall, most retailers have a positive opinion about using digital payment systems.
- The findings reveal that demographic characteristics, particularly age, influence how retailers utilise and view digital payment methods.

SUGGESTIONS

The list below includes a few recommendations for improving the services and broadening the acceptance and practical utilization of electronic

A. Suggestions to Customers:

- Customers should understand basic digital payment rules and follow safe practices while making online transactions.
- Payment details should be verified carefully to avoid errors and financial loss.

B. Suggestions to Banks:

- Banks should actively promote digital banking by building trust among users and assuring them about the safety.
- Regular training programs, workshops, and awareness sessions should be conducted, particularly for individuals who lack familiarity with digital banking services.

C. Suggestions to Government:

- The government should focus on improving internet connectivity and mobile network coverage to ensure uninterrupted access to digital payment services.
- Efforts should be made to keep digital transactions affordable and encourage their use through incentives and awareness campaigns.
- Government-led digital literacy programs should be strengthened to educate citizens about secure and efficient implementation of digital payment platforms.

D. Suggestions to Small Retailers:

- Retailers should gradually increase the implementation of digital payment systems and maintain proper transaction records to improve business management and GST compliance.
- Small retailers are encouraged to stay updated with digital payment features and seek guidance from banks or fintech providers to use these systems effectively and securely.

CONCLUSION

Over the years, India's digital payment ecosystem has undergone substantial development, yet its full potential in transforming the unorganised retail sector is still emerging. Small retailers form the backbone of daily commerce, and understanding the link between digital payment systems and business efficiency is both timely and essential. The COVID-19 pandemic served as a significant catalyst in accelerating the acceptance and practical utilisation of digital payments, as safety concerns and movement restrictions encouraged cashless transactions for essential goods and services.

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During this period, digital payments enabled retailers to continue operations while minimizing physical contact. The results of the present investigation indicate that digital payment systems have enhanced transaction efficiency, transparency, record-keeping, and GST compliance. Despite challenges such as digital literacy gaps and network issues, the overall impact has been positive. Digital payments are increasingly viewed as a necessity rather than an option for small retailers. With continued support and awareness, digital payments can contribute to a more inclusive, efficient, and digitally empowered retail economy.

REFERENCES

- Kharbanda, S., & Chawla, C. (2025). Assessing the role of digital payment systems in enhancing operational efficiency among unorganized retailers. *European Economic Letters, 15*(4), 695–704.
- Priya, M. (2021). A study on the adoption of digital payment by small retail stores. Sathyabama Institute of Science and Technology, Chennai.
- Gupta, M. K. (2022). Impact of digital payments in unorganized retail sector: A case study on Navi Mumbai area. University of Mumbai.
- Yadav, P. (2023). A comparative study on the acceptance of the digital payment system in rural vs urban areas of Haryana. Banasthali Vidyapith.
- Kumar, S. (2025). A study on the factors affecting customer satisfaction towards digital payment systems in Delhi region. Quantum University, Roorkee.
- Bollweg, L., Lackes, R., Siepermann, M., Sutaj, A., & Weber, P. (2020). Digitalisation of local owner-operated retail outlets: The role of the perception of competition and customer expectations. In Proceedings of the Pacific Asia Conference on Information Systems
- Singh, A., & Iyer, L. (2023). "Digital Payments: A Catalyst for Small Business Growth in Emerging Economies." Global Business Review, 24(1), 50-65.
- Comparative Analysis of Pre and Post Digital Payment Adoption." (2023). *Journal of Financial Technology*, 11(1), 30-45.
- Impact of Digital Payment Adoption on Small Businesses in India: A Comprehensive Survey" by Nandini Sujit Phatak, published in the *International Journal for Multidisciplinary Research (IJFMR*