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STUDY ON THE IMPACT OF DIGITAL PAYMENT SYSTEMS ON SMALL BUSINESSES

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Abstract

This study focuses on the role of digital payment systems in small businesses and examines how these systems influence business operations and customer transactions. The primary objective of the study is to analyse the level of adoption of digital payments among small business owners and to understand their impact on business efficiency and customer convenience, while also identifying the challenges faced in their implementation. The study is based on primary data collected from 100 small business owners as respondents through a structured questionnaire, supported by secondary data from journals, reports, and online sources. The research highlights the growing importance of digital payment methods such as UPI, mobile wallets, and card-based transactions in transforming traditional business practices. The findings reveal that digital payments have significantly improved transaction speed and customer satisfaction, although issues related to technical problems and security concerns persist. The study concludes that digital payment systems have become an integral part of small business operations and play a vital role in enhancing their growth and competitiveness in the modern business environment.

KEYWORDS: Digital payment system, small business, methods, challenges, barriers, and transactions.

INTRODUCTION

Small businesses play an important role in the economic development of cities like Chennai by providing employment, supporting local communities, and meeting everyday consumer needs. With the growth of technology and digitalisation, the way these businesses handle payments has changed significantly. Digital payment systems such as UPI, mobile wallets, debit and credit cards, net banking, and QR code payments have made transactions faster, safer, and more convenient for both business owners and customers. For small businesses, adopting digital payments helps in improving cash flow management, reducing the risks associated with handling cash, maintaining better financial records, and attracting more customers who prefer cashless transactions. At the same time, small business owners also face

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challenges like technical issues, transaction charges, security concerns, delayed settlements, and a lack of digital awareness, which can affect smooth adoption. This study is based on the idea that when digital payment systems are easy to use, secure, and affordable, they positively influence business performance by increasing sales efficiency, strengthening financial inclusion, and improving customer satisfaction. Therefore, understanding the impact of digital payment systems is essential to support the sustainable growth and long-term success of small businesses in an increasingly digital economy.

Review of literature

Dr. Pratima Upadhyay (2010) “Impact of digital payment systems on small business” This study, through a comprehensive survey analysis, explores how the adoption of digital payment methods is reshaping the operational dynamics and economic performance of small businesses in this region. The survey focused on various aspects of digital payment adoption, including types of digital payments used, changes in sales volume, transaction costs, customer satisfaction, and the challenges faced during implementation.

Muhammad Moaz, Rameesha Latif, Abdul Hafeez, Muhammad Anees (2025) “Impact of digital payment and e-commerce platform on small business growth using financial literacy as moderate” This paper analyses the impact of digital payments and e-commerce platforms in small markets by highlighting the role of financial inclusion, efficiency, security risks and economic growth. It also concludes that the adoption of digital payment methods and e-commerce platforms will enhance small businesses by improving efficiency, security concerns and awareness

Nandini Sujit Pathak (2023) “Impact of digital payment adoption on small business” The study aims to assess how digital payments influence operational efficiency, customer engagement, and overall business growth. The findings reveal that digital payment adoption has significantly improved transaction speed, enhanced customer satisfaction, and Expanded market reach for small businesses. The study concludes that digital payment systems have a positive impact on small businesses.

Research Gap

Most earlier studies have broadly examined the impact of digital payment systems on small businesses at national or regional levels, but limited research specifically focuses on small business owners in Chennai city using primary data. In addition, there is a lack of studies that simultaneously analyse adoption, challenges, and business performance based on a focused sample of 100 respondents, creating a need for a localised and practical investigation like the present study.

Objectives

1. To identify the challenges and barriers faced by small businesses in implementing digital payment systems.
2. To analyse the differences in digital payment adoption and impact between various types of small businesses.

Methodology

The study is based on primary data collected through a structured questionnaire from 100 small business owners operating in Chennai city. The data were analysed using both descriptive and inferential statistical techniques to examine the adoption of digital payment systems and their impact on business performance, particularly sales growth and cash flow management. A probability-based random sampling method was used to select respondents,

ensuring fair representation of different types of small businesses. Percentage analysis was applied to understand usage patterns and respondent characteristics, while inferential statistical tools such as the Chi-square test were used to identify significant relationships between variables in line with the objectives of the study.

Hypothesis

H01: There is no significant relationship between gender and cash flow management improved by digital payment.

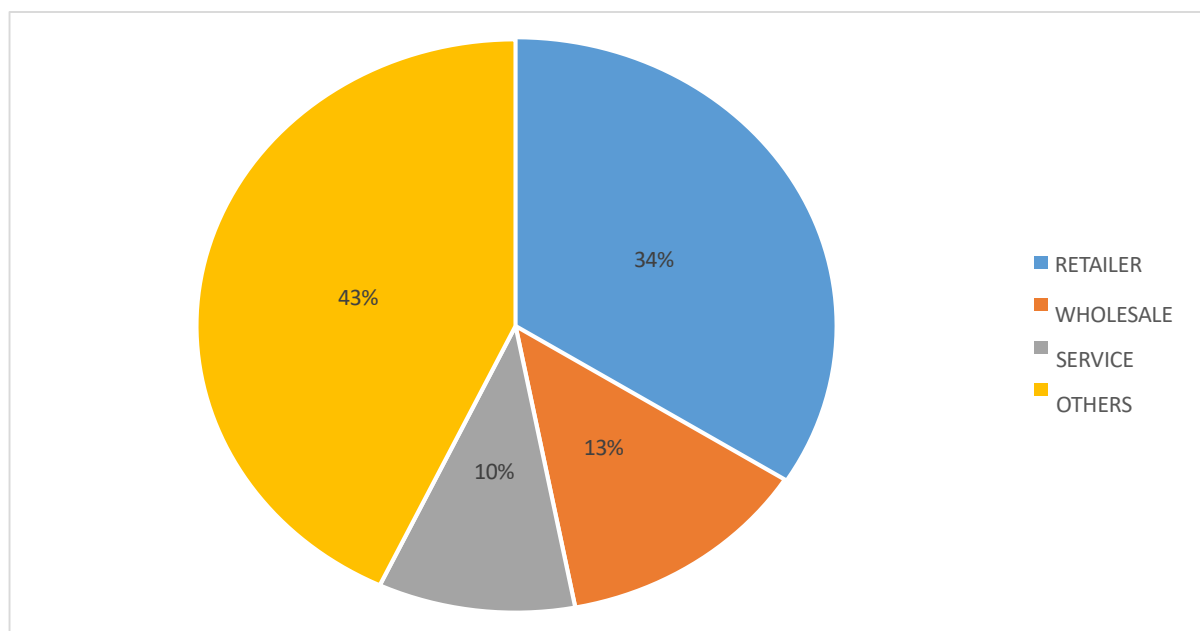
H02: There is no significant relationship between the types of business and increased sales.

Data Analysis and Interpretation

The analysis shows that respondents come from a wide range of business sectors, with most representing other categories, followed by retail businesses, while wholesale and service sectors form a smaller proportion. This indicates that digital payment systems are being adopted across diverse types of enterprises rather than being limited to a single sector. The findings further reveal that technical problems are the most frequently reported challenge when using digital payment systems. Additional concerns include high transaction fees, hesitation among customers to adopt digital payment methods, and worries related to fraud. Overall, although digital payments are widely used among different businesses, strengthening system reliability, lowering costs, and building customer trust are essential to ensure smoother and more effective usage.

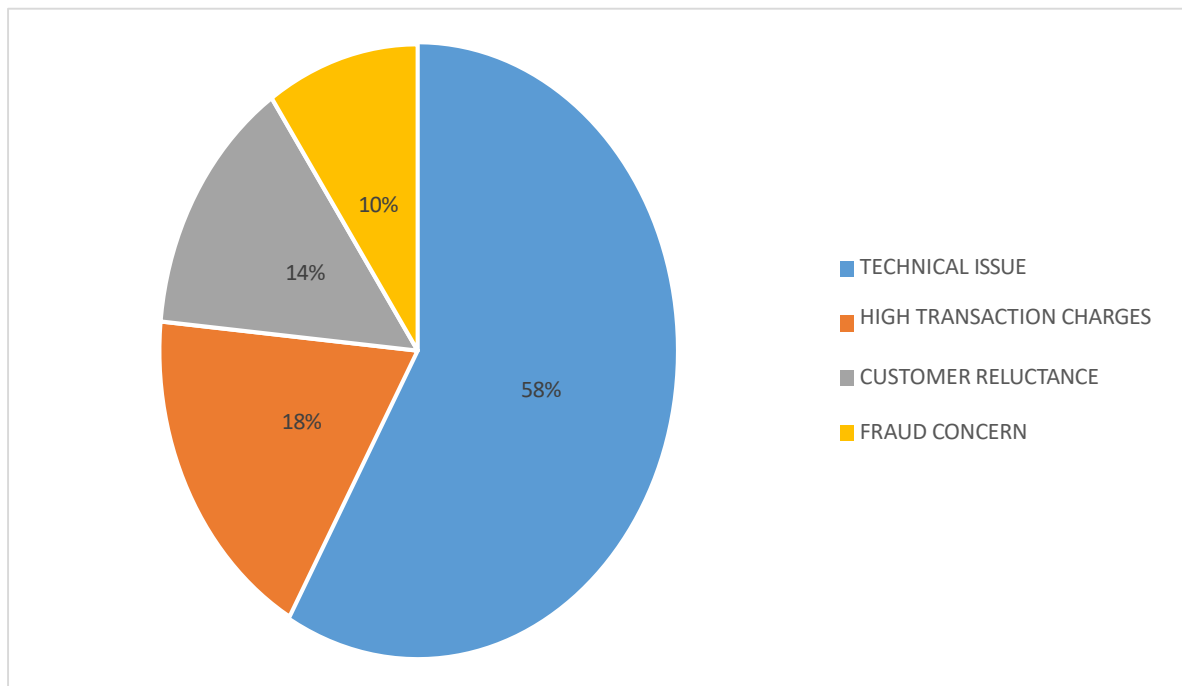
These findings are further illustrated in Figure 1

Figure 1:



The figure shows the differences in digital payment adoption and impact between various types of small business.

Figure 2:



The figure shows the challenges and barriers faced by small businesses in implementing digital payment systems.

Chi-square test

Table 1: Chi-Square Test between Gender and Cash Flow Management

Test	χ^2 Value	df	p-value	Result
Pearson chi-square	7.457	2	0.024	Significant

INTREPRETATION

The Chi-square test shows a significant relationship between gender and cash flow management ($\chi^2 = 7.457$, $p = 0.024$). Since the p-value is below 0.05, the null hypothesis is rejected. This means that cash flow management differs between male and female small business owners, and gender plays an important role in how cash flow is managed.

Table2: Chi-Square Test between Types of business and increased sales

Test	χ^2 Value	df	p-value	Result
Pearson chi square	11.308	6	0.079	Not significant

INTREPRETATION

The Chi-square test result indicates that there is no significant relationship between the type of business and increased sales ($\chi^2 = 11.308$, $p = 0.079$). Since the p-value is higher than 0.05, the null hypothesis is accepted, showing that increased sales are not strongly influenced by the type of business.

DISCUSSION

The study highlights that digital payment systems play a crucial role in enhancing the efficiency and competitiveness of small businesses by supporting quicker transactions, simpler record maintenance, and improved cash flow management. Business owners generally recognise that adopting digital payments contributes to higher sales and greater customer satisfaction. At the same time, the findings suggest that cashless methods are steadily becoming a normal part of everyday business operations. However, several challenges—such as technical difficulties, high transaction fees, delayed settlements, and occasional customer reluctance—still limit consistent usage. Addressing these issues through dependable technical assistance, faster processing systems, affordable pricing structures, stronger security features, and regular awareness initiatives can increase confidence in digital platforms and encourage wider adoption, helping small businesses achieve sustainable long-term growth.

Scope for future research

The Scope for Future research in this project can be extended by involving a larger and more varied group of small business owners from different locations and business categories to obtain more comprehensive results. Researchers may also combine surveys with interviews or case studies to better understand the real-life experiences, perceptions, and difficulties faced by entrepreneurs when using digital payments. In addition, future studies can focus on factors such as financial literacy, training support, government schemes, and new digital payment technologies to examine how they influence long-term business growth, profitability, and sustainability.

CONCLUSION

Digital payment systems have significantly enhanced the operational efficiency of small businesses by enabling quicker transactions, better financial control, and greater convenience for customers. Despite these advantages, issues such as technical glitches, security concerns, high transaction charges, and delays in settlements still hinder seamless adoption. Overcoming these challenges through reliable technical support, stronger security mechanisms, lower costs, and improved awareness programs can help businesses fully realize the potential of digital transactions. With continuous improvements and supportive measures, digital payment systems can further stimulate growth, strengthen financial stability, and contribute to the long-term success of small enterprises.

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