

DIGITAL PAYMENT MODES IN HIGHER EDUCATION: EFFICIENCY, CHALLENGES, AND RECOMMENDATIONS

P Manjula

Associate Professor

Department of Economics, A.V. Kanthamma College for Women, Hassan, Karnataka

ABSTRACT

Digital payment systems are essential in modern college administration, enabling cashless transactions, faster fee collection, and greater financial transparency. This study reviews key payment modes used in colleges—UPI, mobile wallets, net banking, debit cards, and credit cards—highlighting their usage and benefits such as real-time payments, security, and convenience. Despite these advantages, challenges like internet dependency, technical issues, security risks, transaction limits, processing charges, digital literacy gaps, and refund delays remain. The study recommends robust payment infrastructure, integrated ERP systems, secure gateways, awareness programs, multiple payment options, and efficient support systems to improve reliability, inclusivity, and trust in digital payments within educational institutions.

Keywords: UPI, Mobile Wallets, Net Banking, Debit Cards, Credit Cards, Payment Security, ERP Systems, Financial Transparency

INTRODUCTION

Rapid advances in digital technology have transformed financial transactions in education, leading colleges and universities to shift from cash-based fee collection to digital payment systems. This change has been supported by initiatives like Digital India, promoting cashless, secure, and inclusive transactions.

Digital payment modes such as UPI, mobile wallets, net banking, debit cards, and credit cards offer greater convenience, speed, transparency, and improved record-keeping for both students and institutions. Integration with college ERP systems has further enhanced efficiency in fee collection and reporting.

Despite these benefits, challenges such as technical issues, internet dependency, security concerns, transaction limits, and digital literacy gaps remain. This study examines digital payment modes used in colleges, highlights their challenges, and suggests recommendations to improve their effective adoption in educational institutions.

REVIEW OF LITERATURE

Several studies have examined digital payment adoption in educational institutions, highlighting their role in improving efficiency, user acceptance, financial management, and administrative transparency through cashless transactions.

NPCI (2022) highlighted the rapid adoption of UPI in India, noting its real-time, low-cost, and secure transactions that have simplified college fee payments by reducing cash use, improving transparency, and enabling 24×7 access.

Kumar and Gupta (2020) found that digital payments via net banking, debit cards, and gateways improved efficiency and reduced manual errors in higher education, but issues like technical glitches, internet dependency, and low digital literacy hinder adoption.

Davis (1989), through the Technology Acceptance Model (TAM), explained that digital system adoption depends on perceived usefulness and ease of use. Later studies show that students prefer fast, simple, and secure payment modes like UPI and mobile wallets, with trust and awareness influencing continued use.

RESEARCH GAP

Despite extensive research on digital payment adoption, limited studies compare the effectiveness of different payment modes in college settings. Existing literature largely focuses on adoption and benefits, with less attention to user experience, refund efficiency, grievance redressal, and digital literacy challenges among students and parents. Therefore, further research is needed to examine implementation issues and user satisfaction with digital payments in colleges.

STATEMENT OF THE PROBLEM

The increasing adoption of digital payment systems in colleges has transformed fee collection and financial management processes. However, students and parents often face issues such as transaction failures, security concerns, refund delays, and lack of digital awareness. Colleges also encounter challenges in system integration, reconciliation, and grievance handling. This study seeks to examine these problems and assess the effectiveness of digital payment modes used in educational institutions.

OBJECTIVES OF THE STUDY

1. To study the various digital payment modes used in colleges for fee collection and other financial transactions.
2. To analyze the challenges and limitations faced by students and institutions in using digital payment systems.
3. To suggest effective measures and recommendations for improving the efficiency and security of digital payments in colleges.

METHODOLOGY OF THE STUDY

The study is based on a descriptive research design to understand the use of digital payment systems in colleges. Data is collected from secondary sources such as journals, reports, articles, and official websites. Relevant information is analyzed to identify payment modes, challenges, and best practices. The findings are interpreted using a qualitative approach to draw meaningful conclusions.

SCOPE OF THE STUDY

The study focuses on the use of digital payment systems in colleges, including UPI, mobile wallets, net banking, and card payments. It examines their role in fee collection, campus transactions, and administrative efficiency. The scope is limited to understanding challenges, limitations, and user experiences associated with these payment modes. The study also covers recommendations for improving digital payment adoption in educational institutions.

UPI (Unified Payments Interface)

Unified Payments Interface (UPI) is a real-time digital payment system developed by NPCI that allows instant bank-to-bank transfers using mobile apps like Google Pay, PhonePe, Paytm, and BHIM. It works 24×7 and does not require entering bank or card details for every transaction. In colleges, UPI is commonly used to collect tuition, exam, hostel, and event fees through UPI IDs or QR codes. Payments are quick, generate instant transaction references,

and reduce queues and paperwork. UPI is cost-effective, transparent, and easy to track for both students and institutions. However, UPI depends on internet and bank servers, which can cause failed or delayed transactions. Daily transaction limits and refund delays may also occur. Despite these limitations, UPI remains a reliable and widely preferred payment method in educational institutions.

Mobile Wallets

Mobile wallets are digital apps that store money electronically and enable cashless payments using smartphones. Examples in India include Paytm Wallet, Amazon Pay, Mobikwik, and Freecharge. Unlike UPI, wallets hold a limited balance within the app for quick transactions. In colleges, mobile wallets are mainly used for small, daily payments such as canteen food, stationery, printing, and library fines. They reduce cash usage, speed up transactions, and often provide benefits like cashback and discounts. However, wallets have balance limits, require KYC for full use, and need sufficient wallet balance before payment. With the growth of UPI for larger payments, mobile wallets are now mainly used for fast, low-value transactions on college campuses.

Net Banking

Net banking is a digital service that allows users to make payments through a bank's website or mobile app. In colleges, it is mainly used for high-value payments such as admission, semester, and examination fees. Students log in with bank credentials, transfer the amount directly to the college's account, and receive a digital receipt. Net banking is secure and reliable, making it suitable for large transactions without needing a debit or credit card. However, it can be slower than UPI due to multiple authentication steps and bank server dependency, and requires remembering login details.

Debit Cards

Debit cards are bank-issued cards that allow payments by directly debiting money from a user's bank account. In colleges, they are commonly used for admission, tuition, and online application fee payments through college websites or payment gateways, with OTP or PIN verification. Debit cards offer quick and controlled spending and are widely accepted for online and offline payments. However, they may involve processing charges, carry risks of card data misuse if security is weak, and can face transaction failures due to network or OTP issues.

Credit Cards

Credit cards allow users to make payments by borrowing money up to a set credit limit and repaying it later. In colleges, they are mainly used for high-value payments like admission or semester fees, often with EMI options to pay in installments. Payments require card details and OTP verification. Credit cards offer benefits such as flexible payments, EMI facilities, rewards, and better consumer protection. However, they can lead to overspending, interest charges if not repaid on time, and higher processing fees. Despite this, they are useful for managing large educational expenses.

CHALLENGES AND LIMITATIONS OF DIGITAL PAYMENTS

Digital payments face several challenges, the major one being dependence on internet connectivity and technology. Poor network coverage or server issues can cause failed or pending transactions, creating stress for students, especially during fee deadlines. Technical problems such as app crashes, duplicate deductions, and delayed confirmations may also occur, leading to refund delays and administrative burden.

Security and privacy concerns are another limitation. Risks like phishing, fake payment links, and OTP fraud can result in financial loss, particularly for users with low digital awareness. Transaction limits and processing charges also restrict digital payments, as UPI and wallets have daily caps, while card payments may include extra fees.

Additionally, lack of digital literacy and accessibility makes it difficult for some students and parents, especially in rural areas, to use online payment systems confidently. Refund delays and complex grievance redressal processes further add to the challenges. Despite these issues, digital payments continue to grow due to their convenience, transparency, and efficiency.

RECOMMENDATIONS TO OVERCOME CHALLENGES AND LIMITATIONS OF DIGITAL PAYMENTS

To reduce internet dependency and technical failures, colleges should use reliable payment gateways, maintain backup systems, and offer multiple payment options like UPI, net banking, and cards. Extending deadlines during technical issues can also ease student stress. Transaction errors can be minimized by using integrated ERP systems that update payment status in real time and generate instant receipts. A dedicated helpdesk for payment issues ensures faster resolution and better communication.

Security risks can be addressed through awareness programs on safe payment practices and by using secure, RBI-compliant gateways with strong authentication. For high-value fees, colleges can allow split payments or installments and encourage low-cost options like UPI and net banking while maintaining transparency about charges. Improving digital literacy through guides, tutorials, multilingual instructions, and on-campus support can help students and parents adopt digital payments confidently. Clear refund policies, automated refund systems, and a dedicated finance team can further streamline grievance redressal and build trust.

FINDINGS

1. UPI emerged as the most widely used digital payment mode in colleges due to its instant processing, convenience, and low transaction cost.
2. Net banking and debit/credit cards are preferred for high-value payments such as admission and semester fees.
3. Mobile wallets are mainly used for small and routine campus transactions like canteen and library payments.
4. Digital payments have improved transparency, accuracy, and efficiency in college fee management systems.
5. Despite the benefits, issues such as technical glitches, security concerns, transaction limits, and refund delays continue to affect user experience.

SUGGESTIONS

1. Colleges should adopt reliable and secure payment gateways with high uptime to minimize transaction failures.
2. Multiple payment options such as UPI, net banking, cards, and bank transfers should be provided to ensure flexibility for users.
3. Institutions should conduct digital awareness programs to educate students and parents on safe and correct usage of digital payments.

4. Integrated ERP systems should be implemented for real-time payment tracking, reconciliation, and automated receipts.
5. A clear and efficient grievance redressal and refund mechanism should be established to build trust and improve user satisfaction.

CONCLUSION

Digital payment systems have significantly transformed financial transactions in colleges by making fee collection faster, more transparent, and more convenient. Payment modes such as UPI, mobile wallets, net banking, and debit and credit cards have reduced dependence on cash and manual processes. These systems have improved accuracy in record-keeping and enhanced administrative efficiency. UPI has emerged as the most preferred mode due to its simplicity and real-time processing. Net banking and card payments remain important for high-value transactions. However, challenges such as technical issues, security risks, and refund delays still exist. Lack of digital literacy among some users also affects smooth adoption. Despite these limitations, digital payments offer long-term benefits for both institutions and students. With proper infrastructure, security measures, and user awareness, digital payment systems can be made more reliable. Overall, digital payments play a crucial role in the modernization of college financial management systems.

REFERENCES

1. Choudhary, R., & Singh, P. (2020). Adoption of digital payment systems in higher education institutions. *International Journal of Educational Management*, 34(6), 1123–1135.
2. Kumar, V., & Gupta, S. (2020). Challenges and opportunities in digital payment adoption in India. *Journal of Digital Banking*, 5(3), 45–58.
3. National Payments Corporation of India (NPCI). (2022). UPI adoption and usage trends in India. NPCI Annual Report. Mumbai: NPCI.
4. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
5. Reddy, K., & Sharma, A. (2021). Mobile wallets and user satisfaction in Indian educational institutions. *Journal of Financial Services Research*, 48(2), 78–92.
6. Patil, S., & Jain, R. (2019). Security and privacy challenges in digital payment systems. *International Journal of Computer Applications*, 178(7), 25–33.
7. Sharma, D. (2021). Digital literacy and its impact on adoption of online payments in colleges. *Asian Journal of Educational Technology*, 17(1), 15–27.