



## Influence of UPI QR Code Usage on Daily Cash Flow Efficiency in Micro and Small Enterprises

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### Abstract

Micro and small businesses' (MSEs) transaction patterns have been drastically changed by the quick uptake of Unified Payments Interface (UPI) QR code-based payment systems. With an emphasis on transaction speed, liquidity management, record accuracy, and operational ease, this study investigates the impact of UPI QR code usage on daily cash flow efficiency in MSEs. The study demonstrates how quick digital payments improve daily cash flow management by cutting down on cash handling time, minimizing receivables delays, and enhancing real-time income tracking. Additionally, using UPI QR codes promotes better financial planning through digital transaction histories, lessens reliance on physical cash, and minimizes the chance of theft and mistakes. The results show that UPI QR codes improve cash flow efficiency and overall financial stability of micro and small businesses despite obstacles such as transaction restrictions, network dependability, and gaps in digital literacy. In order to promote financial inclusion and operational efficiency among MSEs, the study emphasizes the significance of digital payment infrastructure and legislative assistance.

**Keywords-** Payment systems, micro and small businesses, digital payments, cash flow efficiency, UPI QR codes, and financial inclusion.

### Introduction

The use of UPI (Unified Payments Interface) QR code innovation has considerably changed the payment procedures of micro and small businesses (MSEs), enhancing daily cash flow effectiveness. UPI QR codes reduce the need for cash and the drawbacks of more conventional payment methods by enabling quick, simple digital transactions. For MSEs, which frequently function on thin margins and daily cash turnover, these modifications permit faster payments, enhance record-keeping accuracy, and lower transaction costs. The



ease of scanning QR codes enhances customer convenience, enabling faster checkout and potentially boosting sales. Digital payment trails also assist small businesses in obtaining funding and managing their accounts more efficiently. Understanding how UPI QR code usage affects MSEs' operational liquidity and general financial health is essential since they are the backbone of many economies, especially in emerging regions. This investigation demonstrates how the use of digital payments boosts small enterprises' productivity, profitability, and possibilities for expansion in more competitive markets.

### Need for the study

- To understand the use of UPI QR codes decreases the danger related with managing currency and improves real-time fund accessibility for micro and small businesses who have restricted daily liquidity.
- To ascertain how much online transaction documents using UPI QR codes enhance tax compliance, financial tracking, and formal credit accessibility for MSEs that were previously dependent on cash.
- To illustrate how zero-cost UPI QR execution lowers entry barriers and makes it possible for rural and urban MSEs to participate in the digital economy without investing in hardware.
- To enhance UPI QR's contribution to MSEs' customer outreach, in line with consumers' growing inclination toward contactless payments and increasing sales effectiveness.

### Objectives

- To evaluate how using UPI QR codes might improve daily liquidity for micro and small businesses and shorten transaction settlement times.
- To assess how real-time digital payment records in MSEs through UPI QR adoption enhance cash flow predictability.
- To examine how much money small companies may save by using UPI QR codes instead of traditional cash handling.
- To investigate the relationship between MSEs' sales growth efficiency and the amount of UPI QR transactions.
- To pinpoint obstacles to the use of UPI QR and provide methods for maximizing daily cash flow in micro and small businesses.

### Review of literature

**Raghavan (2019)** investigated the use of UPI QR codes by micro shops and discovered that managing daily cash flow was made simpler by quick payment confirmations. According to the investigation, owners were able to manage working capital more skilfully since they were



less dependent on actual cash. The time between sales and accessible bank monies was significantly shortened by QR payments. The study demonstrated how digital receipts reduced computational mistakes and expedited end-of-day reconciliations. One of the main conclusions was that UPI reduced the operational expenses associated with processing cash and caused less delays for merchants compared to traditional POS card payments.

**Sharma and Gupta (2020)** examined small companies' embrace of digital payments and emphasized how UPI QR technology allowed for quicker transaction completion. According to their analysis, fast settlements increased the amount of money available for day-to-day operations. Smoother cash cycle allowed small businesses to pay their bills and replenish on schedule. The authors discovered that the use of QR codes improved accounting and reporting by making financial information more transparent. Additionally, they pointed out that handling currency was less risky when using digital payments. More digital payments were promoted by merchants who saw an increase in consumer convenience. Overall, the study demonstrated that UPI QR codes have a favorable impact on small businesses' everyday financial efficiency.

**Das (2021)** examined the adoption of QR-based payment systems by urban MSMEs and discovered that rapid bank transfers closed liquidity shortages during peak business hours. UPI QR codes decreased client wait times and increased billing efficiency, according to the research. Instant access to liquid funds helped merchants replenish inventory without any delays. Additionally, Das noted that since digital receipts automatically documented every transaction, reconciliation mistakes had decreased. Better access to cash reinforced daily financial planning. Owners of businesses claimed increased stability as a result of steady financial inflows. The study's overall conclusion was that QR payments significantly boost small businesses' cash flow.

**Iyer and Menon (2022)** analyzed the financial practices of small businesses using UPI and found a significant decrease in the amount of currency handled by hand. According to their findings, short-term financial planning was strengthened by quick transfer capabilities. Real-time payment confirmations helped business owners by enabling precise daily profits projection. The authors observed that the use of UPI reduced the amount of time between sales and bank cash availability. Businesses were able to support everyday operational choices with greater liquidity as a consequence. Additionally, they noted that retailers' confidence in handling their money has increased. Overall, the study strongly linked QR-based UPI payments with enhanced cash flow control.

**Thomas (2022)** The study's findings, which looked at small sellers' experiences with QR codes for customer purchases, demonstrated that QR payments significantly reduced transaction times. The study found that merchants' ability to pay for daily expenses was enhanced by their rapid access to cash. Instant settlements boosted cash flow, especially for



businesses with a high staff turnover rate. According to Thomas, UPI reduced the need for customers to carry cash, which increased the frequency of digital transactions. Vendors also benefited from better revenue documentation through digital receipts. The study concentrated on how UPI decreased the errors associated with manually handling money. Overall, Thomas concluded that small merchants' financial efficiency was greatly increased by adopting QR codes.

**Kulkarni and Rao (2023)** This study found that using UPI QR codes in microbusinesses reduced cash processing times during peak business hours. Rapid settlements enhanced the amount of money immediately accessible for managing daily transactions, according to the survey. Business owners claimed improved inventory management as a result of consistent financial inflows. The researchers also observed that QR systems reduced human inaccuracy in cash counting and recording. UPI transactions also made it easy to use digital records to track daily profits. Merchants said they were more confidence about using digital payments for business planning. Overall, the study demonstrated that UPI QR codes significantly improved daily cash flow efficiency.

**Banerjee (2023)** The study's findings showed that using QR-based UPI payments significantly reduced payment delays at nearby retail businesses. Merchants indicated more trust in digital systems as a result of rapid receipts verifying every transaction. Daily operations become more fluid as a result of much quicker payment processing times. The study claims that swiftly given monies were used by small businesses to pay suppliers and meet other immediate commitments. Banerjee went on to discuss how accounting has become simpler thanks to automated digital transaction records. The increased financial discipline brought on by UPI adoption strengthened business stability. Overall, the study discovered that the use of QR codes directly increased the cash flow consistency of small enterprises.

### UPI QR Code Usage

UPI QR Code Usage measures how much micro and small enterprises rely on QR-based digital payment systems for regular transactions. Included are the system's responsiveness, usability, adoption simplicity, and general user experience. This variable represents the extent to which digital payments are integrated into business procedures. Higher usage indicates a greater dependence on technology to handle customer payments. Additionally recorded are the owners' familiarity with digital technology and their readiness to abandon cash-based processes. Generally speaking, it measures how much QR payments affect regular business processes.



## **Daily Cash Flow Efficiency**

Daily Cash Flow Efficiency measures how successfully a business controls its daily cash inflow and outflow. It places a strong emphasis on better liquidity management, quicker payment receipt, and shorter settlement times. An effective cash flow guarantees a continuous capacity to cover daily expenses. Faster digital settlements may help owners better manage labor, operational costs, and inventory purchases. It demonstrates better money management and a decreased likelihood of cash problems. This feature reflects the overall stability and operational effectiveness of the company's financial cycle.

## **Transaction Speed**

The time required for payment initiation, confirmation, and money settlement when using UPI QR codes is referred to as transaction speed. Two advantages of quicker transactions for businesses are increased cash availability and shorter payment wait times. This variable demonstrates the efficiency benefits made achievable by digitization as compared to traditional cash or credit card payments. Quick transactions allow businesses to serve more customers and avoid payment lineups. It makes the connection between QR consumption and efficient cash flow. Transaction speed thereby reinforces the impact of QR adoption on financial operations.

## **Digital Literacy of Business Owners**

Digital literacy is the ability of company owners to understand, utilize, and troubleshoot digital payment methods such as UPI QR codes. Owners with higher levels of digital literacy are more adept at using QR payment systems and advanced features like reporting, reconciliation, and fraud alerts. It strengthens the link between using QR codes and improved financial outcomes. Low digital literacy brought on by errors, late payments, or system misuse may erode this relationship.

## **Research Methodology**

This study uses a quantitative, cross-sectional research approach to investigate how daily cash-flow efficiency in micro and small businesses is impacted by UPI QR code usage. A systematic questionnaire modified from previous verified research publications was used to gather data from 100 businesses. Along with important measures of cash-flow efficiency including daily inflows, reconciliation time, and cashless transaction ratios, the survey recorded UPI QR use levels. To guarantee representation across various business kinds, a stratified sample technique was employed. A composite cash-flow efficiency score was calculated from the gathered indicators following data cleaning and reliability assessments. Based on the percentage of digital transactions, the businesses were divided into three groups:



low, medium, and high UPI QR use. The main statistical method used to determine if cash-flow efficiency varied across these groups was a one-way ANOVA.

### Data Analysis

**Table 1: Effect of UPI QR Code Usage on Daily Cash-Flow Efficiency**

Source of Variation	Sum of Squares	df	Mean Square	F-value	Sig. (p-value)
Between Groups	2.184	2	1.092	5.431	0.006
Within Groups	19.505	97	0.201		
Total	21.689	99			

### Interpretation:

The ANOVA test reveals a significant difference ( $p = 0.006 < 0.05$ ) in daily cash-flow efficiency between businesses using UPI QR codes at varying levels. This suggests that the degree of UPI QR implementation affects cash-flow efficiency in a statistically meaningful way.

**Table 2: Ease of Transaction Tracking Across Levels of UPI QR Code Usage**

Source of Variation	Sum of Squares	df	Mean Square	F-value	Sig. (p-value)
Between Groups	12.487	4	3.122	3.018	0.035
Within Groups	20.715	20	1.036		
Total	33.202	24			

### Interpretation:

The ANOVA findings show a statistically significant difference ( $F = 3.018, p = 0.035$ ) in the ease of transaction tracking between businesses with different UPI QR code utilization levels. This implies that the ease with which organizations may monitor everyday financial activities is influenced by the level of UPI QR usage.

### Findings

The study discovered that the daily cash-flow efficiency of micro and small businesses is significantly impacted by the degree of UPI QR code adoption. Compared to low-usage groups, businesses using UPI QR codes more frequently demonstrated better financial tracking, faster daily transaction reconciliation, and more stable cash inflows. The findings also showed that companies that often-utilized digital payment systems had far easier transaction tracking, suggesting that UPI QR use improves financial transparency and lowers



human error. The report did point out that certain firms continue to encounter obstacles to adoption, including poor digital awareness, technical problems, and consumers' preference for cash, all of which have a detrimental impact on their capacity to maximize daily cash-flow efficiency.

### **Suggestion**

According to the study's findings, boosting micro and small company owners' digital literacy is crucial to boosting the usage of UPI QR codes. Entrepreneurs may learn how digital payments increase productivity and save operating costs through training and awareness initiatives. Improving customer service and technological infrastructure is also advised in order to lower payment failures and increase confidence in digital systems. Businesses can further improve cash flow stability by encouraging consumers to switch to digital payments through small incentives or awareness efforts. Furthermore, combining UPI QR payments with straightforward mobile accounting apps will enhance transaction record accuracy and simplify daily financial administration.

### **Conclusion**

The study concludes by showing that the use of UPI QR codes greatly improves the daily cash-flow efficiency of micro and small businesses. Businesses that use UPI QR codes more often report improved daily receipt monitoring, less reliance on cash handling, and more seamless financial processes. The overall findings demonstrate the significant potential of digital payment systems to enhance operational efficiency and financial transparency, even if some businesses still face adoption problems. Adoption of UPI QR codes is a crucial step in modernizing financial operations in micro and small businesses as these advantages may be further enhanced by raising awareness, enhancing digital infrastructure, and encouraging regular usage.

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