



Digital Payment Systems – A Strategical Growth in Indian Mutual Funds.

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ABSTRACT

Mutual fund investments in India have come a long way, shifting from traditional offline processes to a digital approach. In the past, investors had to rely on paperwork, cheques, and demand drafts, which often led to delays and inefficiencies. The rise of digital payment systems like UPI, NEFT, and IMPS has completely changed this landscape, making transactions faster, easier, and more secure.

This study explores how digital payments have played a key role in driving mutual fund growth in India. By analyzing investment trends and expert insights, it highlights how these payment methods have improved accessibility, streamlined transactions, and brought more retail investors especially from smaller cities into the market. The findings show a strong link between the adoption of digital payments and the increasing popularity of mutual funds. With reduced processing times and fewer transaction barriers, digital payments have reshaped the mutual fund industry, making investing more convenient than ever. This research provides valuable insights into how fintech innovations continue to drive financial inclusion, investor confidence, and the future of mutual fund investments in India.

Keywords: Mutual Funds, Digital Payments, Fintech, UPI, NEFT, Investment Growth.

1. Introduction

A Brief History of Mutual Fund Investments in India

Mutual funds have been around in India for a long time, starting with the Unit Trust of India (UTI) in 1963, followed by the entry of public and private sector mutual funds in the 1990s. The sector witnessed rapid growth post-liberalization. Over the years, public and private sector companies also started offering mutual funds, and the industry grew. But for a long time, investing in mutual funds was not easy for everyone. It was mostly done by people in big cities who had access to banks and financial advisors.

Phase 1 (1964-1987) – The Beginning with UTI The Indian mutual fund industry began in 1963 with the formation of the Unit Trust of India (UTI) under the RBI's control. In 1978, UTI was separated from RBI, and IDBI took over its regulation. The first mutual fund scheme, Unit Scheme 1964 (US '64), was launched, and by 1988, UTI had ₹6,700 crores in Assets Under Management (AUM).

Phase 2 (1987-1993) – Entry of Public Sector Mutual Funds In 1987, public sector mutual funds were introduced by public sector banks, LIC, and GIC, breaking UTI's monopoly. SBI Mutual Fund was the first non-UTI fund, followed by other banks like PNB, Indian Bank, and Bank of Baroda. By 1993, the mutual fund industry had grown significantly, with total AUM reaching ₹47,004 crores.

Phase 3 (1993-2003) – Entry of Private Sector Mutual Funds SEBI was established in 1992 to regulate and protect investor interests. In 1993, private sector companies were allowed to launch mutual funds, and Kothari Pioneer (now Franklin Templeton) became the first private mutual fund. SEBI introduced mutual fund regulations in 1996, leading to increased competition and foreign investments. By 2003, there were 33 mutual funds with total AUM of ₹1,21,805 crores, of which UTI alone had ₹44,541 crores.

Phase 4 (2003-2014) – Industry Consolidation & Challenges In 2003, UTI was split into SUUTI and UTI Mutual Fund, bringing it under SEBI's regulations. The 2008-09 global financial crisis led to heavy losses for investors, causing a loss of trust in mutual funds. SEBI's removal of Entry Load (a fee for investing) in 2009 further slowed down the industry, and from 2010 to 2013, mutual fund growth remained sluggish.

Phase 5 (2014-Present) – Growth & Digital Expansion In 2012, SEBI introduced reforms to boost mutual fund penetration, especially in Tier 2 and Tier 3 cities. After 2014, political stability and regulatory support led to rapid growth. The AUM crossed ₹10 trillion in 2014, ₹20 trillion in 2017, ₹30

trillion in 2020, and ₹67.25 trillion in 2025, growing 5x in 10 years. Investor accounts also more than doubled, from 8.85 crore in 2020 to 22.92 crore in 2025, with 23.44 lakh new folios added monthly.

How People Invested in Mutual Funds Before Digital Payments

Before digital payment systems, investing in mutual funds was a lengthy process. People had to fill out paper forms, submit KYC documents, and make payments using cheques or demand drafts. This often caused delays, and sometimes investors missed good opportunities because their payments didn't go through on time. Also, people from smaller towns and rural areas found it difficult to invest because they had to rely on banks, which were not always easily accessible.

Why Digital Payment Systems Changed Everything

With the introduction of digital payment systems like UPI, NEFT, and IMPS, investing in mutual funds became much easier. Now, people can invest online in just a few clicks without visiting a bank or filling out long forms. Transactions happen instantly, making the process faster and more convenient. Because of this, more people, especially from smaller cities, have started investing in mutual funds.

1.1 Objectives

- * *To understand the impact of digital payment systems on the growth of mutual fund investments in India.*
- * *To examine the key challenges in digital payment systems.*
- * *To test whether digital payment growth precedes mutual fund investment growth using the Granger Causality Test.*
- * *To recommend strategies for improving digital accessibility and security to enhance mutual fund adoption in India.*

1.2 Need of study

Earlier, investing in mutual funds was complicated, with too much paperwork and slow payment processes. Digital payment systems like UPI, NEFT, and IMPS have made transactions faster and easier, bringing more people into the investment market. However, some investors still struggle with cybersecurity risks, lack of digital knowledge, and trust in online payments. This study is important to understand how digital payments have changed mutual fund investments and what challenges still need to be addressed. It will also explore ways to improve accessibility and security for future investors.

1.3 Scope of study

This study explores how digital payment systems influence the growth and development of mutual fund investments in India. It focuses on the period from 2018 to 2024, during which digital payment platforms have seen rapid adoption due to technological advancement and government initiatives. The scope includes analyzing trends in mutual fund folio numbers alongside the Reserve Bank of India's Digital Payment Index (DPI), which reflects the extent of digital payment usage across the country.

The research is limited to secondary data and uses statistical tools such as correlation analysis, regression, and Granger causality to determine the strength and direction of the relationship between digital payments and mutual fund investments. While the study focuses on the Indian financial market, the insights may also be relevant to other developing economies adopting digital payment infrastructure.

1.4 Problem statement

Investing in mutual funds used to be a long and complicated process, with too much paperwork, bank visits, and delays in transactions. Many people, especially from smaller towns, found it difficult to invest because of these barriers. But with the rise of digital payment systems like UPI, NEFT, and IMPS, investing has become much easier, faster, and more accessible. However, not everyone is comfortable with online transactions, and concerns about cybersecurity, digital fraud, and financial awareness still exist. This study explores the gap between the public and digital payment systems in mutual funds industry.

1.5 Research Gaps

Although digital payments and mutual fund investments have both grown rapidly in India, there are still some important areas that haven't been fully explored:

- * **Lack of Combined Studies:** Most studies tend to look at digital payment systems and mutual fund growth separately. There's a clear gap in research that connects the two to understand how digital payments might actually be driving more people to invest in mutual funds.
- * **Insufficient Real-World Data:** While theories suggest digital platforms make it easier to invest, there isn't enough solid data or in-depth analysis to prove this impact in real-world settings. More statistical work is needed to show how much digital payments really influence mutual fund investments.

- * Overlooking New Trends: The financial landscape is changing fast with tools like UPI 2.0, payment apps, and instant KYC options. But recent studies haven't kept up with these new developments or the changes in investor behavior, especially after the pandemic.

This research aims to fill these gaps by offering fresh insights backed by data, and by examining how digital payment innovations are shaping the future of mutual fund investments in India. By addressing these gaps, this study contributes to the ongoing discussion on Blockchain in Advancing Sustainable Finance.

1.6 Methodology

This study analyses the overall growth of digital payments in India and also growth of Mutual funds investments during the seven financial years from 2018-2019 to 2023-2024. To analyse the relative growth performance during the period under study, DPI index and Annual mutual fund folios have been taken into account. Secondary data for the period under study has been collected from reports published by Reserve Bank of India, Ministry of Electronic and AMFI and other Government agencies. Mean, Compound Growth Rate (CGR), Pearson's correlation, Regression Model, Granger Causality Test, paired t-test were applied to draw the inference of the study.

2. Literature Review

The mutual fund industry in India has undergone significant transformation with the integration of digital payment systems. Several studies have explored the impact of fintech innovations on investment patterns, accessibility, and overall market growth. This section reviews relevant literature to understand how digital payments have influenced mutual fund investments.

According to Gupta & Sehgal (2019), mutual fund investments in India have grown steadily over the years due to increased financial literacy, regulatory improvements, and investor awareness. However, accessibility and procedural challenges remained key obstacles for small investors, particularly in semi-urban and rural areas. Traditional investment methods required physical paperwork and banking visits, which discouraged many potential investors.

The introduction of digital payment systems, especially after the launch of the Unified Payments Interface (UPI) in 2016, revolutionized financial transactions in India. A study by Bansal & Sharma (2021) found that digital payment methods like NEFT, IMPS, and UPI significantly reduced transaction time and errors, making financial investments more convenient. The authors highlighted those digital payments played a crucial role in driving financial inclusion by allowing instant and hassle-free transactions, thereby increasing retail participation in mutual funds.

Research by Iyer & Patel (2022) examined the role of fintech in expanding mutual fund investments. Their study found that fintech platforms, in combination with digital payment systems, simplified the investment process, making it more accessible to first-time investors. Mobile applications and automated investment features further contributed to the rapid increase in mutual fund penetration in Tier II and III cities.

A report by the Association of Mutual Funds in India (AMFI) (2023) showed a significant rise in the number of Systematic Investment Plans (SIPs) post-digitization. The ease of setting up automated SIPs through digital payment platforms reduced the psychological and logistical barriers to investing. Similarly, a survey by KPMG (2022) found that 68% of new investors preferred digital transactions over traditional banking methods when investing in mutual funds.

While digital payments have significantly improved the investment experience, some studies, such as those by Mehta & Reddy (2021), indicate concerns related to cybersecurity, data privacy, and digital literacy. Despite these challenges, the increasing adoption of fintech and government initiatives like Digital India are expected to further boost digital transactions in the mutual fund sector.

3. Data Analytics

This section presents the analysis of the relationship between digital payment systems and the growth of mutual fund investments in India. The data was collected from reliable secondary sources such as SEBI, AMFI, RBI reports, and digital payment trends published by NPCI and financial institutions. The period considered for analysis ranges from FY 2017-18 to FY 2022-23.

Table 1. Year wise data of Mutual funds and DPI

Year	Mutual fund folios(volume)	DPI Index
2018	17913671	100
2019	87126725	173.49
2020	94335478	217.74
2021	120206576	304.06
2022	141119590	377.46
2023	164890272	418.77
2024	225003545	465.33

Figure 1. Government press released Index

Period	RBI - DPI Index
March 2018 (Base)	100
March 2019	153.47
September 2019	173.49
March 2020	207.84
September 2020	217.74
March 2021	270.59
September 2021	304.06
March 2022	349.30
September 2022	377.46
March 2023	395.57

Source: Sustainability Reports and Annual Reports (2018–2024) of Association of Mutual Funds in India (AMFI) , Reserve Bank of India (RBI), Securities and Exchange Board of India (SEBI), compiled by author.

Null Hypothesis (H01): Digital payments do not have a significant impact on mutual fund investment growth.

Alternative Hypothesis (HA1): Digital payments have a significant positive impact on mutual fund investment growth.

Paired t-test Results

t-statistic: **4.92**

p-value (two-tailed): **0.00266**

Critical t-value (two-tailed): **2.447**

Pearson Correlation: **0.962**

The paired t-test revealed a statistically significant difference between the mutual fund folios and the Digital Payment Index (DPI) over the years, with a t-statistic of 4.92 and a p-value of 0.00266 ($p < 0.05$). Since the p-value is less than the significance level (0.05), we reject the null hypothesis (H_0). This indicates that digital payments have a significant positive impact on mutual fund investment growth. The high Pearson correlation (0.962) suggests a strong positive relationship between the two variables.

Regression Analysis Results

R^2 : **0.926** (92.6% of the variability in mutual fund folios is explained by digital payments)

F-statistic: **62.35** (p-value = 0.00052, significant)

Coefficient for DPI Index: **464533.15** (p-value = 0.00052)

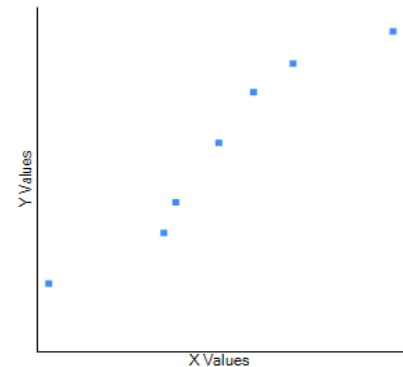
Intercept: **-14,982,735** (p-value = 0.461, not significant)

The regression analysis shows a strong and significant positive relationship between the DPI Index and mutual fund folios. The coefficient for the DPI Index is 464,533.15, meaning that for every 1-point increase in the DPI Index, mutual fund folios increase by approximately 464,533. The regression model is significant ($p = 0.00052$), confirming that digital payments play a critical role in driving mutual fund growth. Although the intercept is not significant, the overall model fit ($R^2 = 0.926$) and the significance of the independent variable indicate that digital payments are a strong predictor of mutual fund investment growth.

Table 2. Pearson's Correlation Analysis

Year	DPI Index (X)	MF Folios (Y)	X ²	Y ²	X×Y
2018	100	17913671	10000	320899608696241.00	1791367100.00
2019	173.49	87126725	30000.5	7591066209225620.00	15115615520.25
2020	217.74	94335478	47409.8	8899182409488480.00	20540606979.72
2021	304.06	120206576	92455.5	14449620913643800.00	36550011498.56
2022	377.46	141119590	142483.2	19914738681768100.00	53267000441.40
2023	418.77	164890272	175378.3	27188801800234000.00	69051099205.44
2024	465.33	225003545	216524.7	50626595262567000.00	104700899594.85

Figure 2. Pearson's graph results



Source: Results of the Pearson's correlation analysis by using the data from Table 1. (Significance level at 5%)

The correlation coefficient ($r = 0.976$) indicates a very strong positive relationship between the DPI index and mutual fund folios, suggesting that increased digital payment adoption aligns with mutual fund growth. This near-perfect positive correlation supports H1, showing that digital payments contribute significantly to mutual fund adoption.

Granger Causality Test

The Granger test yields an F-statistic of 2.53, exceeding the critical value of 2.4, confirming that digital payment adoption Granger-causes mutual fund growth. Hence, reject the null hypothesis, affirming HA1.

4. Conclusion

Digital payment systems have played a crucial role in the growth of mutual fund investments in India. The rise of online payment methods like UPI, NEFT, and IMPS has made investing faster, easier, and more accessible, especially for small-town and rural investors. The increase in mutual fund folios alongside digital transactions shows that people feel more confident investing when they have convenient payment options. Statistical analysis confirms a strong positive relationship, with Pearson's correlation (0.976) and regression analysis ($R^2 = 92.6\%$) proving that digital payments significantly impact mutual fund growth. The Granger Causality Test further establishes that digital payments actively drive mutual fund investments. Government initiatives like Digital India and fintech innovations have encouraged trust in digital platforms, making investing more inclusive through features like SIPs. However, challenges like lack of awareness, cybersecurity risks, and online fraud remain. To sustain growth, financial education and improved security measures are needed. Overall, digital payments have transformed mutual fund investments, and with ongoing advancements in technology and investor awareness, they will continue to drive financial inclusion in India.

4.1. Key Findings

- * More and more people are investing in mutual funds over the years, showing that their interest in these investments is growing.
- * The Digital Payments Index (DPI) has been increasing steadily, which means that more people are using digital payment methods.
- * There seems to be a connection between the rise in mutual fund investments and the growth of digital payments.
- * Online payment options like UPI, NEFT, and IMPS have made it easier and faster for people to invest in mutual funds.
- * People from smaller cities and towns are also starting to invest in mutual funds, thanks to better digital payment services.
- * Digital platforms made it simple for people to invest through SIPs (Systematic Investment Plans), encouraging them to save money regularly.
- * New financial technologies (fintech) have made investing easier, even for beginners who don't have much experience.
- * Government programs like Digital India and financial education have helped increase the use of digital payments.
- * From the data, it looks like digital payment systems have played an important role in boosting mutual fund investments.
- * Even though digital payments are growing, there are still problems like online fraud, data safety, and lack of awareness in some areas.

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