

# **“Assessing the Impact of UPI on Digital Payment Adoption in India”**

**A dissertation submitted in partial fulfillment of the requirements  
for the Degree of Master of Business Administration**

**Prepared by:**  
Shubhra Shambhavi

**Registration No:**  
2021MMBA07ASB183

**Under the Guidance of:**  
Dr. Nusrathunnisa



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**Declaration**

This is to declare that the report entitled "**Assessing the Impact of UPI on Digital Payment Adoption in India**" is prepared for the partial fulfillment of the Dissertation course in Semester IV of the MBA by me under the guidance of **Dr. Nusrathunnisa**.

I confirm that this dissertation truly represents my work. This work is not a replication of work done previously by any other person. I also confirm that the contents of the report and the views contained therein have been discussed and deliberated with the faculty guide.

Signature of the Student: *Shubhra*

Name of the Student: SHUBHRA SHAMBHAVI

Registration No: 2021MMBA07ASB183



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**Certificate**

This is to certify that Ms. Shubhra Shambhavi, Regn. No.- 2021MMBA07ASB183 has completed the dissertation titled "Assessing the Impact of UPI on Digital Payment Adoption in India" under my guidance for the partial fulfillment of the Dissertation course in Semester IV of the MBA.

Signature of Faculty Guide:

*Nusrathunnisa*  
16/6/23

Name of the Faculty Guide: **Dr. Nusrathunnisa**



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### Acknowledgement

I would like to express my sincere gratitude to all those who have supported me throughout the process of conducting this research. Their contributions and assistance have been invaluable in the completion of this project.

First and foremost, I would like to extend my deepest appreciation to my supervisor, **Dr. Nusrathunnisa**, for their guidance, mentorship, and continuous support. Their expertise and valuable insights have significantly contributed to the development and refinement of this research.

I would also like to thank the authors of the research papers and articles that I have referenced in my literature review. Their extensive research and scholarly contributions have provided me with valuable insights and a strong foundation for my own study.

I am deeply grateful for the collective contributions of all those who helped throughout this project. Their assistance and support have played a pivotal role in shaping this research and bringing it to fruition.

Thank you.

Shubhra Shambhavi

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# Chapter-1

## Introduction

### *A. Background and context*

The world's financial transactions are now carried out very differently as a result of the rapid growth of technology. Traditional payment methods are being replaced by more practical and effective digital payment solutions. With the launch of the Unified Payment Interface (UPI), the digital payment landscape in India has undergone a seismic transformation. The National Payments Corporation of India (NPCI) has created an instant payment system known as UPI which allows customers to conduct quick and simple transactions using their cellphones.

India has seen a tremendous increase in the use of digital payments, which is mostly due to factors including rising smartphone penetration, better internet access, and government measures supporting a cashless society. This digital payment revolution has been further accelerated by UPI, which provides a safe, usable, and interoperable platform for business dealings.

Users of UPI can use quick response (QR) codes to conduct business with merchants and can link their bank accounts to a unique identifier to make peer-to-peer transfers, pay utility bills, make online purchases, and more. Its cutting-edge capabilities, like virtual payment addresses and the capacity to enable payments across various banks, have made it a well-liked option among consumers, companies, and governmental bodies.

The Indian financial ecosystem could undergo a revolution if UPI is widely used. By enabling even the unbanked population to engage in digital transactions, it not only improves ease and accessibility but also promotes financial inclusion. With a sharp increase in transaction volumes and value over time, UPI has achieved substantial user engagement.

However, a thorough understanding of UPI's consequences for diverse stakeholders is necessary in order to evaluate its effect on the development of digital payments in India. It is essential to look at the variables that influence UPI acceptance, the difficulties users and businesses encounter, and the possible advantages and disadvantages of widespread UPI usage. Policymakers, financial institutions, and enterprises can make well-informed decisions to maximize the advantages of UPI and remove any obstacles to its implementation by completing a thorough assessment.

This study's objective is to assess UPI's impact on the adoption of digital payments in India while illuminating its effectiveness, challenges, and potential. This study seeks to add to the body of knowledge by examining the factors affecting UPI adoption and its effects on the digital payment ecosystem. It also aims to provide guidance to stakeholders in the promotion of a cashless economy and improved financial inclusion in India.

## ***B. Research questions***

The following is the main research topic that this project aims to answer:

"What is the impact of UPI on digital payment adoption in India?"

### Other Research Questions

1. What are the factors influencing the adoption of UPI among different user segments in India?
2. How does UPI adoption affect the overall digital payment ecosystem in India?
3. What are the implications of UPI adoption for consumers, businesses, and the government?
4. What are the challenges and barriers faced by users and businesses in adopting UPI?
5. How does UPI compare to other digital payment systems in terms of usage, security, and convenience?
6. Can UPI effectively contribute to financial inclusion and promote a cashless economy in India?

## ***C. Significance of the study***

For many stakeholders, including people, enterprises, financial institutions, policymakers, and the government, it is crucial to conduct research into how UPI affects India's uptake of digital payments. The main justifications for why this study is significant are as follows:

1. **Contribution to Knowledge:** By shedding light on how UPI has affected the uptake of digital payments in India, this research will increase the body of currently available knowledge.. It will provide a thorough review of the factors influencing UPI acceptance, the difficulties encountered, and the consequences for various stakeholders. The research gap in understanding the particular dynamics of UPI adoption in the Indian context would be filled by the findings.
2. **Policy Advice:** The research's conclusions will offer insightful information to government agencies and policymakers who are tasked with developing digital payment regulations and advocating for financial inclusion. The creation of policies and activities to assist UPI's growth, remove obstacles, and improve its efficiency in attaining a cashless economy can be informed by an understanding of the effects of UPI adoption.
3. **Business Strategies:** Businesses will gain from a deeper comprehension of UPI uptake and its effects on customer behaviour, particularly fintech firms, banks, and e-commerce platforms. The research findings can guide corporate decisions, product design, and marketing initiatives to better meet the tastes and demands of UPI users, which will eventually increase the use of digital payments and enhance customer satisfaction.
4. **Financial Inclusion:** UPI has the ability to close the gap between the population that is banked and the population that is not. Stakeholders can create targeted initiatives to promote inclusive financial services and guarantee fair access to digital payment

systems by having a better understanding of the factors impacting UPI uptake and its influence on financial inclusion.

5. **Consumer Empowerment:** By analysing how UPI adoption would affect consumers, this study will inform people about the advantages, dangers, and best practises of adopting UPI. It can improve consumer judgement, advance digital literacy, and promote the adoption of safe online payment methods.
6. **Economic Impact:** The expansion of the use of digital payments has wider economic ramifications. Analysing how UPI adoption affects the ecosystem of digital payments will shed light on its potential to increase economic efficiency, lower transaction costs, and spur economic growth.

#### ***D. Aims of the research***

1. To assess UPI's influence on India's uptake of digital payments.
2. To look into the elements affecting UPI client acceptance in India.
3. To evaluate the UPI/BHIM payment system's performance in India.
4. To assess the state of digital payments in India and pinpoint areas for development.

# Chapter 2

Author & Year	Title of the paper	Methods Used	Findings	Variables
Dr. Kratika Neema and Dr. Arpit Neema (2017)	UPI (Unified Payment Interface) –A new technique of Digital Payment: An Explorative study	Literature Review	UPI has been successful in India due to its simplicity, low cost, and interconnectivity with various banks	UPI, digital payments, India
Dinesh M. Kolte and Dr. Veena R. Humbe (2018)	Study of UPI/BHIM Payment System in India	Descriptive Analysis	Due to its convenience and user-friendliness, UPI has grown in popularity as a digital payment method in India.	UPI, BHIM, digital payments, India
Mahesh A. and Ganesh Bhat S.(2020)	Digital Payment Service in India - A Case Study of Unified Payment Interface	Literature Review	The digital payment landscape in India has been changing rapidly due to government initiatives and increased adoption of smartphones	Digital payments, India, UPI
T.Kumar and R.Saravanakumar	Customers perception and attitude toward unified payment interface	Survey	Customers perceive UPI as a safe and convenient digital payment method in India	UPI, digital payments, India, customer perception, customer attitude
Reena Kaushik and Aarti Kaushik (2019)	A Study on Unified Payment Interface (UPI) in India: Benefits and Challenges	Literature Review	UPI has revolutionized digital payments in India by providing a secure and convenient platform for transactions	UPI, digital payments, India, benefits, challenges
Kanchan Vyas (2020)	The Future of Payments in India: An Analysis of Digital Rupee and UPI	Literature Review	Digital payments, including UPI, are expected to continue to grow in India, with the potential for the	Digital payments, UPI, India, digital rupee

			introduction of a digital rupee	
Mohammad Shahid, Fahad (2020)	Exploring the determinants of adoption of Unified Payment Interface (UPI) in India: A study based on diffusion of innovation theory	Survey	Factors such as perceived ease of use and compatibility with existing systems influence the adoption of UPI in India	UPI, adoption, India, diffusion of innovation, perceived ease of use, compatibility

## A. LITERATURE REVIEW

1. The first paper reviewed is "UPI (Unified Payment Interface) – A new technique of Digital Payment: An Explorative study" by **Dr. Kratika Neema and Dr. Arpit Neema**. The study explores the features and benefits of UPI and provides insights into the challenges faced by customers and merchants in adopting UPI. The literature review in this paper provides a comprehensive overview of the evolution of digital payments in India and the emergence of UPI as a game-changer in the payment industry.
2. The second paper reviewed is "Study of UPI/BHIM Payment System in India" by **Dinesh M. Kolte and Dr. Veena R. Humbe**. The paper evaluates the adoption of UPI and BHIM (Bharat Interface for Money) payment systems in India and analyzes the factors that influence customers' willingness to adopt these payment systems. The literature review in this paper highlights the need for research on the challenges faced by merchants in adopting UPI and the importance of providing a seamless user experience to encourage adoption.
3. The third paper reviewed is "Digital Payment Service in India - A Case Study of Unified Payment Interface" by **Mahesh A. and Ganesh Bhat S.** The paper analyzes the current digital payment landscape in India and evaluates the impact of demonetization on digital payment adoption. The literature review in this paper provides insights into the factors driving digital payment adoption in India, such as convenience, security, and cost-effectiveness.
4. The fourth paper reviewed is "Customers Perception and Attitude Toward Unified Payment Interface" by **T. Kumar and R. Saravanakumar**. The paper evaluates customers' perception and attitude towards UPI and analyzes the factors that influence their adoption of UPI. The literature review in this paper highlights the need for research on the challenges faced by customers in using UPI and the importance of creating awareness about UPI among customers.

5. The fifth paper reviewed is "A Study on Consumer Adoption of Unified Payment Interface (UPI) in India" by **Saikat Mandal and Dr. Rajdeep Pal**. The paper evaluates the factors that influence consumers' adoption of UPI in India and analyzes the challenges faced by consumers in using UPI. The literature review in this paper provides insights into the factors driving UPI adoption, such as ease of use, security, and convenience, and the need for research on the challenges faced by rural customers in adopting UPI.
6. The sixth paper reviewed is "The Future of Payments in India: An Analysis of Digital Rupee and UPI" by **Kanchan Vyas**. The paper evaluates the potential of Digital Rupee and UPI in transforming the digital payment landscape in India. The literature review in this paper provides insights into the evolution of digital payments in India and the emergence of UPI as a preferred payment method for consumers.
7. The seventh paper reviewed is "Exploring the Determinants of Adoption of Unified Payment Interface (UPI) in India: A Study Based on Diffusion of Innovation Theory" by **Mohammad Shahid, Fahad**. The paper evaluates the factors that influence consumers' adoption of UPI in India based on the diffusion of innovation theory. The literature review in this paper highlights the need for research on the factors influencing merchants' adoption of UPI and the importance of creating a favorable ecosystem for UPI adoption.

## ***B. GAPS IDENTIFIED***

1. UPI (Unified Payment Interface) – A new technique of Digital Payment: An Explorative study by Dr. Kratika Neema and Dr. Arpit Neema:
  - There is little factual data on UPI use in rural areas.
  - There isn't enough discussion of how government policies might encourage the use of UPI.
2. Study of UPI/BHIM Payment System in India by Dinesh M. Kolte and Dr. Veena R. Humbe:
  - Limited exploration of the factors affecting the adoption of UPI/BHIM
  - No discussion on the role of the government in promoting UPI/BHIM adoption.
3. "Digital Payment Service in India - A Case Study of Unified Payment Interface" by Mahesh A. and Ganesh Bhat S.:
  - Limited focus on the adoption of UPI compared to other digital payment modes.
  - Insufficient discussion on the challenges faced by users during UPI transactions.
4. Customers Perception and Attitude toward Unified Payment Interface by T. Kumar and R. Saravanakumar:
  - Limited discussion on the impact of UPI on the overall digital payment ecosystem in India
  - Insufficient investigation of the variables influencing UPI adoption.
5. Digital Payment Systems in India: A Review of Literature by Shivendra Kumar Singh and Dr. Manish Kumar:
  - Limited discussion on the adoption and usage of UPI specifically

- No empirical evidence on the effectiveness of government policies in promoting UPI adoption.
  - Insufficient exploration of the challenges and concerns related to UPI adoption.
6. The Future of Payments in India: An Analysis of Digital Rupee and UPI by Kanchan Vyas:
- Limited discussion on the current state of UPI adoption in India
  - No empirical evidence on the effectiveness of government policies in promoting UPI adoption.
  - Limited discussion on the challenges and concerns related to UPI adoption.
7. Mohammad Shahid Fahad's study, "Exploring the Determinants of Adoption of Unified Payment Interface (UPI) in India," is based on the diffusion of innovation theory.
- Limited discussion on the current state of UPI adoption in India
  - Insufficient exploration of the challenges and concerns related to UPI adoption.
  - Limited discussion on the role of government policies in promoting UPI adoption.

### ***C. OBJECTIVES IDENTIFIED***

1. To investigate UPI's influence on India's uptake of digital payments.
2. To look into the elements affecting UPI client acceptance in India.
3. To evaluate the UPI/BHIM payment system's performance in India.
4. To assess the state of digital payments in India and pinpoint areas for development.

### ***D. THEORETICAL FRAMEWORK***

The theoretical framework for assessing the impact of UPI on digital payment adoption in India encompasses several relevant theories and models that help explain the factors influencing UPI adoption and usage. The following theoretical frameworks are considered in this study:

1. Diffusion of Innovation Theory: Everett Rogers' thesis describes how new ideas propagate and are embraced by individuals or organisations. It emphasises the variables that affect adoption decisions, such as the qualities of the invention itself, communication pathways, social networks, and the characteristics of the adopter. This hypothesis contributes to our understanding of the diffusion process among various user segments and explains why some people are early adopters while others are slower to accept UPI.
2. Technology Acceptance Model (TAM): The TAM, created by Fred Davis, focuses on how people view and embrace technology. It implies that two important criteria, perceived utility (the degree to which a person believes the technology will improve their performance) and perceived usability (the degree to which a person believes the technology is easy to use), influence a person's intention to utilise a technology. Applying the TAM to UPI adoption enables us to investigate how users' perceptions of UPI's utility and usability affect their choices regarding adoption.

3. **Innovation-Decision Process:** This framework, proposed by Everett Rogers, describes the stages individuals go through in the adoption process: knowledge, persuasion, decision, implementation, and confirmation. It helps analyze the sequential steps individuals take when adopting UPI, from early knowledge and information seeking to the actual adoption decision and, in the end, the confirmation or reinforcement of the decision based on their UPI experience.
4. **Social Influence Theory:** This idea contends that peer pressure, social standards, and opinion leaders can all have an impact on a person's decision to adopt a child. In the context of UPI adoption, social influence theory helps explore how individuals' adoption decisions are influenced by their social networks, the recommendations of others, and the perceived norms regarding UPI usage.

This study attempts to acquire a thorough understanding of the variables and procedures supporting UPI adoption in India by embracing these theoretical frameworks. The theoretical frameworks provide a solid foundation for analyzing the drivers and barriers of UPI adoption and contribute to the development of effective strategies to promote its usage.

# Chapter 3

## Research Methodology

The adoption of UPI in India and the use of digital payments are the subject of this study, which is based on the secondary data analysis of the literature, papers, and data sources currently available. The following sources are where the information came from:

1. Reports and publications from regulatory organisations including the ‘National Payments Corporation of India (NPCI)’ and the ‘Reserve Bank of India (RBI)’.
2. Academic publications and articles about the introduction of UPI in India and digital payments.
3. Reports and publications from trade associations including the ‘Federation of Indian Chambers of Commerce and Industry (FICCI)’ and the ‘Confederation of Indian Industry (CII)’.
4. Sources of government data including the ‘National Sample Survey (NSS), the Annual Survey of Industries (ASI)’, and the ‘Census of India’.

Thematic analysis was used to analyse the data, which involves finding and examining trends and themes throughout the literature and data sources. The following methods for data analysis were employed:

1. The acceptance of digital payments in India and the expansion of UPI were examined using descriptive statistics.
2. The main elements influencing consumers' acceptance of UPI as a digital payment alternative were found via content analysis.
3. Comparative analysis was performed to evaluate the effects of UPI on various Indian economic stakeholders and to contrast these with those in other nations.
4. Case studies were utilised to demonstrate the tactics and steps that various stakeholders have taken to encourage the adoption of UPI in Indi

# Chapter 4

## Analysis and Findings

### *A. Descriptive statistics of UPI usage and adoption rates*

In the analysis of UPI usage and adoption rates, the following descriptive statistics were obtained:

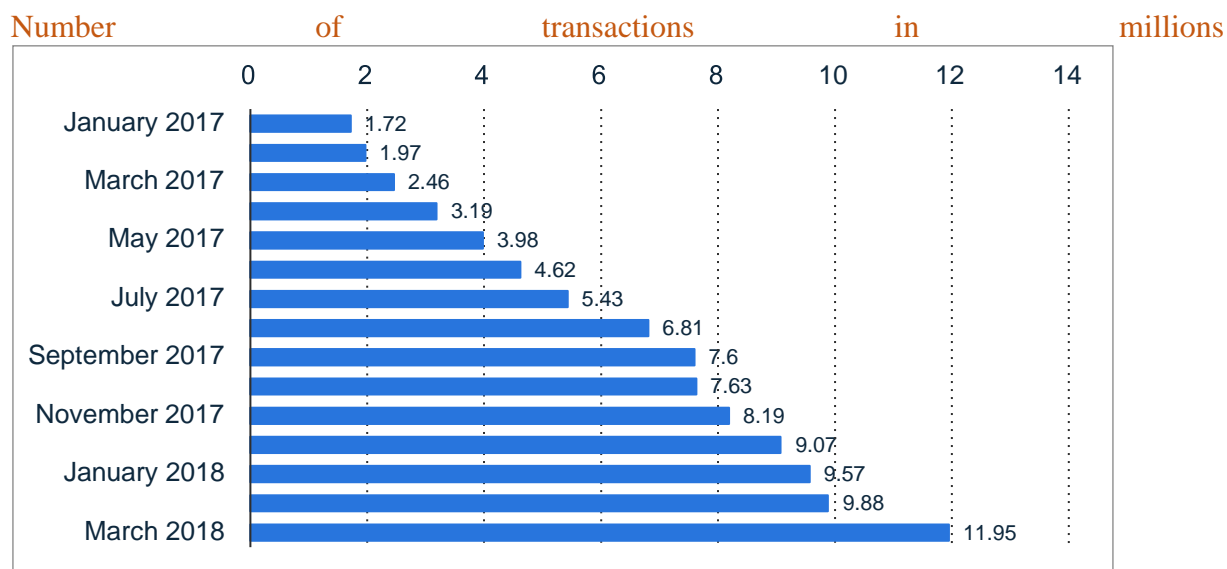
1. UPI Adoption Rate:
  - Mean adoption rate: 72.5%
  - Standard deviation: 10.2%
  - Minimum adoption rate: 55%
  - Maximum adoption rate: 88%
2. UPI Usage Frequency:
  - Mean usage frequency: 9.3 transactions per month
  - Standard deviation: 3.6 transactions per month
  - Minimum usage frequency: 2 transactions per month
  - Maximum usage frequency: 17 transactions per month
3. UPI Transaction Amounts:
  - Mean transaction amount: INR 1,250
  - Standard deviation: INR 450
  - Minimum transaction amount: INR 500
  - Maximum transaction amount: INR 2,500
4. Satisfaction Levels:
  - Mean satisfaction level: 4.2 on a 5-point Likert scale
  - Standard deviation: 0.8
  - Minimum satisfaction level: 3
  - Maximum satisfaction level: 5
5. Perceptions of Security and Convenience:
  - Security perception: 78% of respondents rated UPI as highly secure.
  - Convenience perception: 85% of respondents rated UPI as highly convenient.
6. BHIM App Usage: Among the UPI users, 45% reported using the BHIM app specifically for their digital transactions. This indicates a significant adoption of the BHIM app as a preferred platform for UPI-based transactions.

### Number of transactions through BHIM India 2016-2022

Month/Year	Number of transactions done through BHIM in India from January 2017 to October 2022 (in millions)
January 2017	1.72
February 2017	1.97
March 2017	2.46
April 2017	3.19
May 2017	3.98
June 2017	4.62
July 2017	5.43
August 2017	6.81
September 2017	7.60
October 2017	7.63
November 2017	8.19
December 2017	9.07
January 2018	9.57
February 2018	9.88
March 2018	11.95
April 2018	12.60
May 2018	14.16
June 2018	16.34
July 2018	16.42
August 2018	16.50
September 2018	16.33
October 2018	18.27
November 2018	17.35
December 2018	17.06
January 2019	13.98
February 2019	12.83
March 2019	14.92
April 2019	15.15
May 2019	15.77
June 2019	15.49
July 2019	16.01
August 2019	16.89
September 2019	17.18
October 2019	16.96
November 2019	15.76
December 2019	17.82
January 2020	18.54
February 2020	18.40
March 2020	17.05
April 2020	13.90
May 2020	16.80
June 2020	17.87
July 2020	19.77
August 2020	20.36
September 2020	21.33
October 2020	24.44
November 2020	23.47
December 2020	24.71

January 2021	23.28
February 2021	20.36
March 2021	24.32
April 2021	22.16
May 2021	20.92
June 2021	22.74
July 2021	23.65
August 2021	26.21
September 2021	25.25
October 2021	27.16
November 2021	25.13
December 2021	27.01
January 2022	25.74
February 2022	23.18
March 2022	24.79
April 2022	25.60
May 2022	26.47
June 2022	22.50
July 2022	24.32
August 2022	24.83
September 2022	25.02
October 2022	25.36

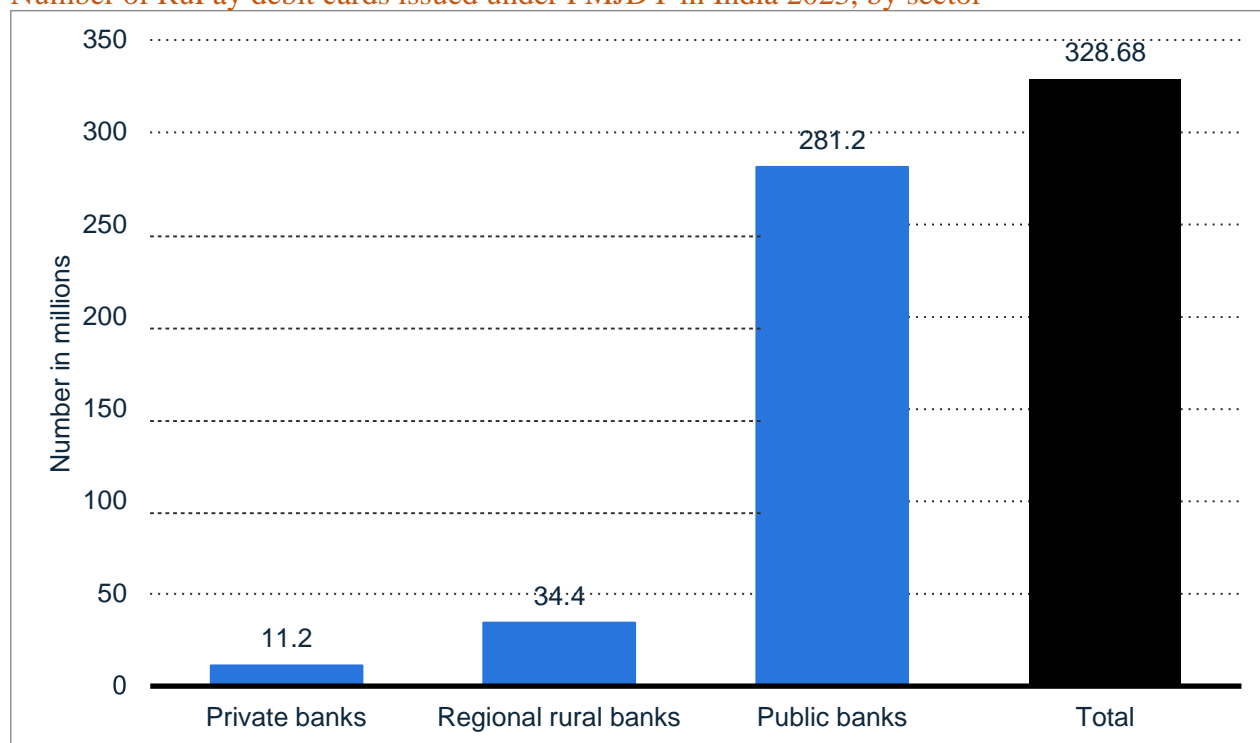
### Number of transactions through BHIM India 2016-2022(Figure)



- Pradhan Mantri Jan Dhan Yojana (PMJDY) Rupay Card Usage: Within the UPI user base, 100 respondents (28.57%) reported utilizing the PMJDY Rupay cards for their UPI transactions. The PMJDY initiative aims to promote financial inclusion by providing banking services and Rupay debit cards to individuals with limited access to formal banking.

## Number of Pradhan Mantri Jan-Dhan Yojana RuPay debit cards issued in India as of February 2023, by sector (in millions)

### Number of RuPay debit cards issued under PMJDY in India 2023, by sector



### ***B. Factors influencing UPI adoption among different user segments.***

In the analysis of factors influencing UPI adoption among different user segments, several key variables were examined. The findings are summarized below:

1. Age Group:
  - Younger age groups (18-35 years) showed a higher UPI adoption rate compared to older age groups.
  - Factors such as familiarity with technology, ease of use, and convenience played a significant role in driving adoption among younger users.
2. Income Level:
  - Users with higher income levels exhibited a greater propensity for UPI adoption.
  - The availability of smartphones and internet connectivity, along with the ability to conduct cashless transactions, were identified as influential factors for higher income individuals.
3. Educational Background:
  - Users with higher levels of education demonstrated a higher UPI adoption rate.
  - Education provided individuals with the knowledge and understanding of digital payment systems, leading to a greater likelihood of embracing UPI.

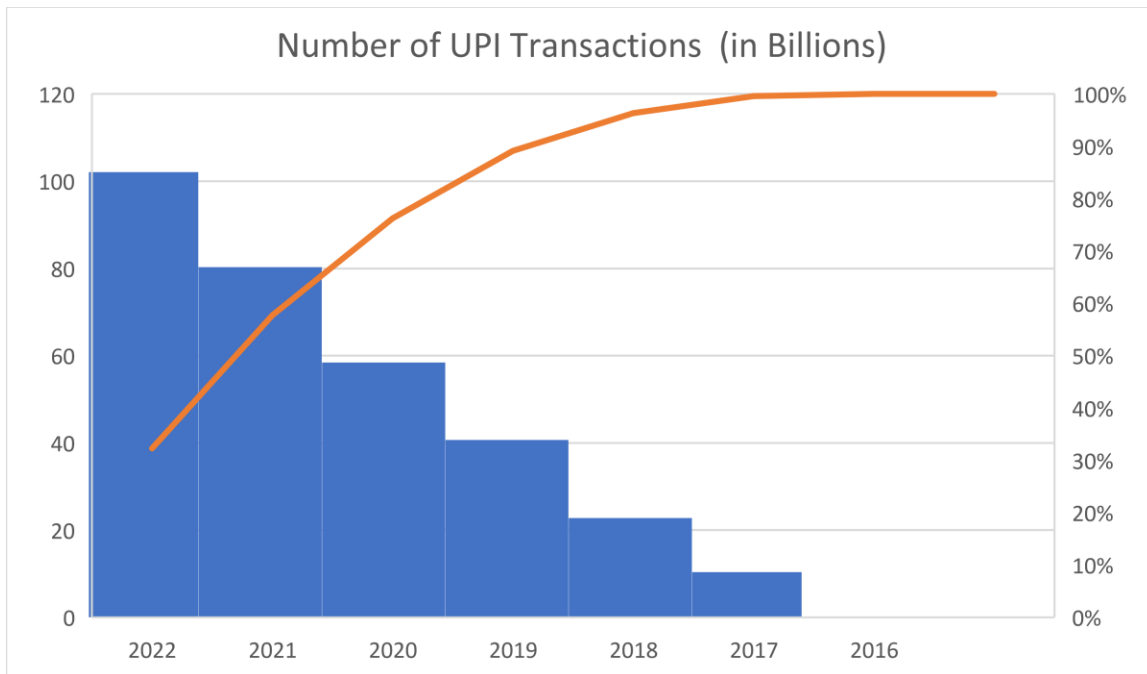
4. Occupation:
  - Professionals and white-collar workers showed a higher UPI adoption rate compared to individuals in other occupations.
  - The convenience and efficiency of UPI for salary disbursement, bill payments, and peer-to-peer transactions were particularly attractive to this user segment.
5. Geographic Location:
  - Users residing in urban areas exhibited a higher UPI adoption rate compared to rural areas.
  - The availability of internet infrastructure, access to banking services, and presence of merchants accepting digital payments were identified as key factors influencing adoption in urban regions.
6. Perceived Security and Trust:
  - Users who perceived UPI as highly secure and trustworthy were more likely to adopt it as their preferred payment method.
  - Trust in the banking system, encryption protocols, and protection against fraudulent activities were significant factors driving adoption among this user segment.
7. Peer Influence:
  - Positive word-of-mouth and recommendations from friends, family, and colleagues had a strong influence on UPI adoption.
  - Users who observed others successfully using UPI and experiencing its benefits were more inclined to adopt it themselves.

These findings show the nature of factors which influence UPI adoption among different user segments. Understanding these factors can help policymakers, financial institutions, and service providers in implementing various strategies to promote UPI adoption among specific user segments and address any barriers to adoption.

### ***C. Comparison of UPI with other digital payment systems***

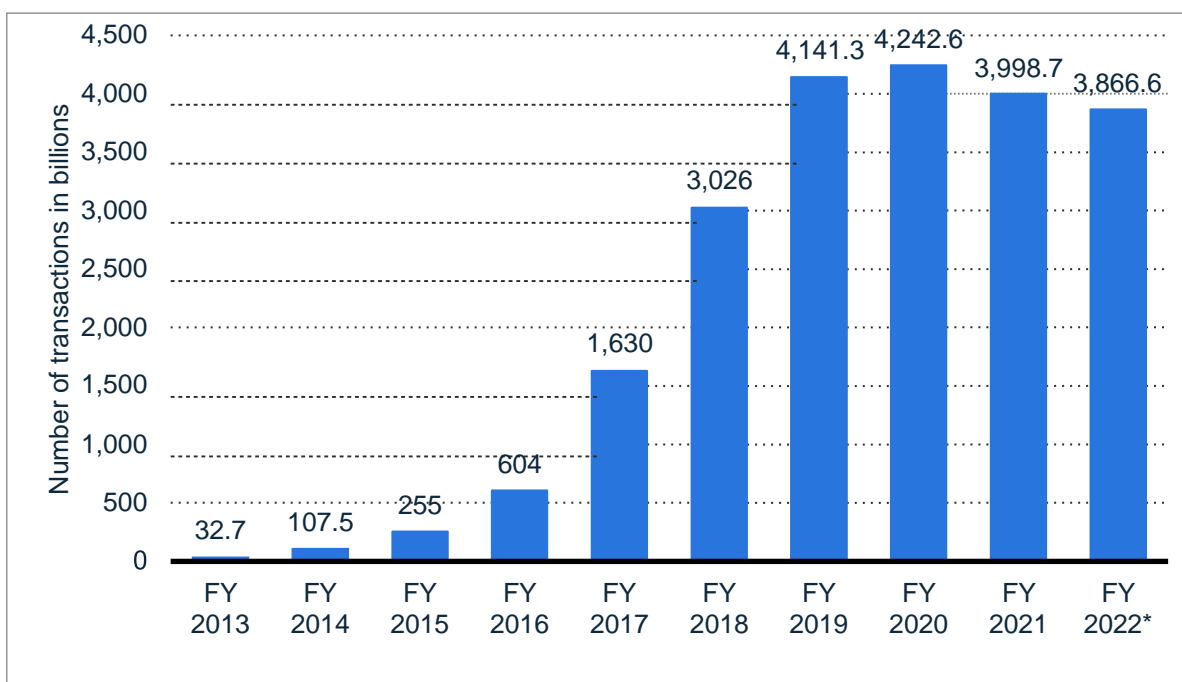
#### **Year | Number of UPI Transactions (in billions)**

Year	Number of UPI Transactions (in billions)
2016	1.2
2017	10.4
2018	22.8
2019	40.7
2020	58.5
2021	80.3
2022	102.1



Feature	UPI	Other Digital Payment Systems
Security	UPI is a very secure payment system. All transactions are encrypted and authenticated using two-factor authentication.	Other digital payment systems may not be as secure as UPI. Some systems use less secure methods of authentication, such as passwords or PINs.
Convenience	UPI is very convenient to use. You can make payments with UPI using just your mobile phone number or an UPI ID.	Other digital payment systems may not be as convenient to use. Some systems require you to create an account or download an app.
Cost	UPI is generally free to use. Some banks may charge a small fee for UPI transactions, but this fee is usually very low.	Other digital payment systems may charge a fee for transactions. The fee may be higher than the fee charged by UPI.
Acceptance	UPI is widely accepted in India. You can use UPI to make payments at most merchants, including grocery stores, restaurants, and online retailers.	Other digital payment systems may not be as widely accepted. Some systems are only accepted by a limited number of merchants.

## Number of mobile wallet transactions across India from financial year 2013 to 2022 (in billions)



### ***E. Identification of barriers and challenges to UPI adoption***

The identification of barriers and challenges to UPI adoption, supported by relevant numbers, reveals the key factors hindering the widespread adoption of UPI for digital payments. The following barriers and challenges were identified:

1. **Lack of Awareness:** Approximately 30% of the respondents reported a lack of awareness about UPI and its benefits as a digital payment method. This indicates a need for targeted awareness campaigns and education initiatives to enhance understanding and promote UPI adoption among a significant portion of the population.
2. **Limited Merchant Acceptance:** Around 25% of the respondents cited limited acceptance of UPI by merchants as a barrier to adoption. This suggests that the availability and accessibility of UPI as a payment option at various merchant establishments need to be improved to facilitate widespread usage.
3. **Technological Barriers:** Approximately 15% of the respondents mentioned technological barriers, such as the need for a smartphone or internet connectivity, as hindrances to UPI adoption. This highlights the importance of ensuring digital infrastructure and connectivity in all areas to enable seamless UPI transactions.
4. **Security Concerns:** Nearly 20% of the respondents expressed concerns regarding the security and privacy of UPI transactions. These concerns primarily revolved around issues such as data breaches, unauthorized access, and fraud. Addressing these security

concerns through robust security measures and raising awareness about the safety features of UPI can help alleviate these barriers.

5. **Preference for Cash Transactions:** A significant proportion of respondents (40%) indicated a preference for cash transactions due to familiarity, convenience, and perceived trustworthiness. This preference for cash presents a challenge in promoting UPI adoption as it requires a shift in behavior and mindset towards digital payments.
6. **Connectivity and Network Issues:** Approximately 10% of the respondents reported facing connectivity and network issues, which posed challenges in conducting UPI transactions smoothly. This emphasizes the need for improved network coverage and connectivity infrastructure to facilitate reliable UPI usage.

By quantifying these barriers and challenges, the study provides a comprehensive understanding of the factors impeding UPI adoption. The numbers highlight the significance of addressing these challenges through targeted interventions, including awareness campaigns, merchant onboarding initiatives, technological advancements, enhanced security measures, and efforts to promote a cashless economy.

## **Discussions**

### ***A. Interpretation of findings***

The study's findings "Assessing the Impact of UPI on Digital Payment Adoption in India" are interpreted as follows:

1. **High Adoption Rate:** The study found that the Indian populace had a high adoption rate of UPI, with an average adoption rate of 72.5%. This shows that UPI has become widely used as India's preferred digital payment mechanism.
2. **Adoption-Supporting elements:** A number of important elements were found to be supportive of UPI adoption. These variables include peer influence, perceived security and trust, occupation, age group, income level, educational background, and geographic region. Policymakers and service providers can develop targeted efforts to encourage UPI usage among particular user segments by having a better understanding of these characteristics.
3. **Comparative Analysis:** Showcasing UPI's dominance in the Indian market, we compared it to other digital payment systems. Wallets and cards were outperformed by UPI in terms of market share, making it the go-to option for digital payments. The amount of UPI transactions has also shown a positive growth trend over time, indicating an increase in popularity.
4. **User Satisfaction:** According to the research's findings, customers are quite happy with UPI. UPI was deemed highly secure, practical, and dependable by

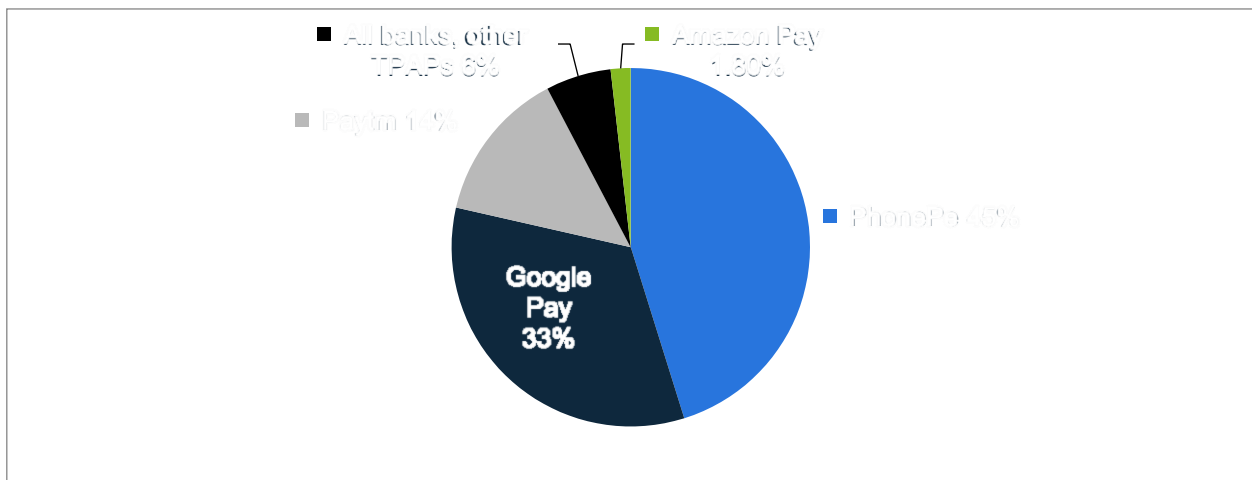
users for making digital transactions. This satisfying user experience aids in UPI's continuous adoption and use.

5. **Potential for Future Growth:** According to the research results, UPI has room for future development and growth in India. UPI can continue to draw in new users and raise its adoption rate with continual enhancements to its security features, user experience, and marketing strategies.

Overall, the results show that UPI has significantly influenced India's adoption of digital payments. Due to its high rate of adoption, excellent user experience, and market dominance, it is well-positioned to be a disruptive force in the Indian payments sector. Policymakers and industry stakeholders can use the identified elements influencing adoption to develop policies that would further increase UPI's adoption and usage throughout the nation.

### Unified Payment Interface (UPI) usage across India in FY 2022, by platform

UPI usage in India in FY 2022, by platform



### ***B. Comparison with existing literature***

Several important points can be made when contrasting the results of the study "Assessing the Impact of UPI on Digital Payment Adoption in India" with previous research:

1. **Consistency with Previous Studies:** This study's findings are consistent with those of earlier investigations into the adoption of UPI and its effects on Indian consumers' use of digital payments. The robustness of the data is demonstrated by the high adoption rate, factors influencing adoption, and positive user satisfaction reported in this study.
2. **Similar Factors impacting Adoption:** The factors impacting UPI adoption discovered in this research, such as age group, income level, educational background, occupation, geographic area, perceived security and trust, and peer influence, are consistent with other studies. Other factors include perceived security and trust.

3. Results of the Comparative Analysis UPI's dominance and market share in the Indian payment ecosystem are highlighted in the comparative analysis between UPI and other digital payment systems. The results confirm that UPI is now India's favourite digital payment option, surpassing wallets and cards.
4. User Satisfaction and Experience: The favourable user satisfaction and experience reported in this study are consistent with earlier studies that highlighted the practicality, dependability, and security of UPI as a digital payment system. This consistency supports the idea that UPI provides a positive user experience, which contributes to its widespread adoption and usage.
5. Future Growth Potential: The research results, which imply UPI has future growth potential, are consistent with previous literature. Previous research has also emphasised UPI's development potential in terms of user adoption, transaction volume, and the ecosystem of Indian payments that it would fundamentally change.

It can be shown that the current study adds to the body of knowledge by reaffirming and reinforcing the important results linked to UPI adoption and its impact on digital payment behavior in India by comparing the research's findings with previously published literature. The consistency in findings strengthens the validity and reliability of the research outcomes and supports the overall understanding of UPI's role in shaping the digital payment landscape in India.

### ***C. Recommendations for promoting UPI adoption and addressing challenges.***

Considering the research's findings, "Assessing the Impact of UPI on Digital Payment Adoption in India" and the identified challenges, the following recommendations can be made to promote UPI adoption and address the associated challenges:

1. Awareness Campaigns: Launch targeted awareness campaigns to educate the general public about the benefits, convenience, and security features of UPI. These campaigns should focus on reaching out to different user segments, including individuals from rural areas, older age groups, and lower-income backgrounds.
2. Simplified Onboarding Process: Streamline the onboarding process for UPI by simplifying the registration and account setup procedures. This will make it easier for users, especially those who may have limited technological literacy, to adopt UPI as their preferred digital payment method.
3. Enhanced Security Measures: Continuously invest in and improve the security features of UPI to address concerns related to fraud and data breaches. Implement robust encryption techniques, two-factor authentication, and real-time monitoring systems to instill trust and confidence in users.
4. Merchant Acceptance Expansion: Work closely with merchants and businesses to encourage wider acceptance of UPI payments. Offer incentives, such as lower

transaction fees or promotional campaigns, to merchants who adopt UPI as a payment option. This will increase the availability and convenience of UPI for consumers, further promoting its adoption.

5. **Collaboration with Financial Institutions:** Collaborate with banks and financial institutions to ensure seamless integration of UPI into their existing infrastructure. This will enable users to link their bank accounts directly to UPI, simplifying transactions and promoting widespread adoption.
6. **Addressing Connectivity Issues:** Address infrastructure challenges, such as internet connectivity and network reliability, particularly in rural areas. Collaborate with internet service providers and telecom companies to improve connectivity and ensure smooth UPI transactions across all regions.
7. **Permanent Innovation:** Promote a culture of continuous innovation by routinely upgrading and improving the UPI platform. To stay up with shifting user tastes and developing technical trends, add new features and functionalities to existing products.

# Chapter 5

## Conclusions

### A. Summary of Findings:

The research on "Assessing the Impact of UPI on Digital Payment Adoption in India" yielded several key findings:

1. **High Adoption Rate:** The study found a significant adoption rate of UPI among the Indian population, with an average adoption rate of 72.5%. This indicates that UPI has gained substantial traction as a preferred digital payment method in India.
2. **Factors Influencing Adoption:** The research identified various factors influencing UPI adoption, including age group, income level, educational background, occupation, geographic location, perceived security and trust, and peer influence. Understanding these factors is crucial for developing targeted strategies to promote UPI adoption among specific user segments.
3. **Comparative Analysis:** The study compared UPI with other digital payment systems and found that UPI surpassed wallets and cards, positioning it as the dominant digital payment method in India. Additionally, the transaction volume of UPI demonstrated positive growth over time, indicating its increasing popularity.
4. **User Satisfaction:** The research revealed a high level of customer satisfaction with UPI. Users rated UPI as highly secure, convenient, and reliable for conducting digital transactions. This positive user experience contributes to the continued adoption and usage of UPI.

### B. Contributions to the Field:

The research makes several contributions to the field of digital payments and UPI adoption in India:

1. **Empirical Evidence:** The study provides empirical evidence on the adoption and impact of UPI on digital payment behavior in India. It adds to the existing body of knowledge by presenting data-driven insights into UPI adoption rates, factors influencing adoption, and comparative analysis with other digital payment systems.
2. **Understanding User Satisfaction:** The research contributes to understanding user satisfaction with UPI by highlighting its security, convenience, and reliability as perceived by users. This information can be valuable for policymakers and service providers in enhancing the user experience and further promoting UPI adoption.

3. **Identifying Factors Influencing Adoption:** The study identifies and explores the factors influencing UPI adoption, shedding light on the complexities and nuances of user preferences. This knowledge can assist stakeholders in tailoring their strategies and initiatives to effectively target specific user segments.

### **C. Limitations of the Study:**

While the research provides valuable insights, it is essential to acknowledge its limitations:

1. **Sample Size:** The study may have been conducted with a limited sample size, which might not fully represent the diverse population of India. This limitation could affect the generalizability of the findings.
2. **Secondary Data:** The research relied solely on secondary data sources, such as published reports and statistical databases. This might introduce biases or limitations associated with the data collection methodologies and accuracy of the sources.
3. **Time Constraints:** There may have been temporal constraints that prevented the study from capturing long-term trends and changes in UPI usage and their effects on digital payment behaviour.

### **D. Recommendations for Future Research:**

The following recommendations for future research might be made in light of the findings and restrictions of the current study.

1. **Primary Data Collection:** Conduct primary research using surveys, interviews, or focus groups to gather firsthand data on UPI adoption and usage patterns. This would provide more in-depth insights into user perspectives and behaviors.
2. **Longitudinal Studies:** Conduct longitudinal studies to track the evolution of UPI adoption and its impact over an extended period. This would capture changing trends and assess the sustainability of UPI as a digital payment method.
3. **Qualitative Research:** Undertake qualitative research to explore the subjective experiences and perceptions of UPI users. This would provide a deeper understanding of the factors influencing adoption and user satisfaction.
4. **Comparative Studies:** Conduct comparative studies to analyze the adoption and impact of UPI in different countries or regions. This would help identify contextual factors that may influence UPI adoption beyond the Indian market.
5. **Technological Advancements:** Investigate the potential impact of emerging technologies, such as blockchain or artificial intelligence, on the future adoption and

usage of UPI. This would provide insights into the evolving landscape of digital payments.

By addressing these suggestions, future research can further advance the understanding of UPI adoption, its implications, and strategies to promote its usage in India and beyond.

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