

# Trust and Acceptance of Open Banking API's Among Indian Consumers

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## ABSTRACT

Open Banking allows banks to share customer financial data with third-party apps through APIs, with the customer's permission. This system can make banking services more convenient, personalized, and innovative. However, many Indian consumers are still unsure about using Open Banking because of concerns related to trust, data security, and privacy.

This study explores how Indian consumers perceive Open Banking APIs and identifies the key factors that influence their trust and willingness to use such services. The study focuses on factors such as usefulness, ease of use, safety of personal data, privacy concerns, and trust in banks and government regulations. Data were collected from Indian banking customers using a questionnaire and analysed to understand consumer behaviour.

The findings show that consumers are more likely to accept Open Banking services when they find them useful and easy to use. At the same time, concerns about data misuse and privacy reduce their willingness to adopt these services. Trust in banks and regulatory systems plays an important role in increasing consumer confidence.

The study highlights the need for stronger data protection, better awareness, and transparent policies to improve consumer trust and encourage wider adoption of Open Banking in India.

## INTRODUCTION

Open Banking is a financial system where banks safely share customer financial data with approved third-party providers through Application Programming Interfaces (APIs), with the customer's consent. In India, Open Banking is mainly driven by digital public infrastructure, including Reserve Bank of India regulations and the Account Aggregator (AA) framework.

The fast growth of digital payment platforms like Unified Payments Interface (UPI) has changed India's financial landscape. With more people using smartphones and accessing the internet, Indian consumers are getting more comfortable with digital financial services. Open Banking APIs improve this system by enabling secure data sharing between banks, fintech companies, and other financial institutions. This allows them to offer personalized services like instant loans, investment advice, budgeting tools, and credit scoring.

However, trust and consumer acceptance are crucial for the successful use of Open Banking APIs in India. acceptance of Open Banking APIs relies on perceived benefits like convenience, faster services, better financial management, and easier access to credit. When consumers clearly see these advantages and trust the system's security, adoption rates tend to rise.

In summary, while India has a solid digital foundation for Open Banking, the long-term success of Open Banking APIs largely depends on building consumer trust, ensuring strong data protection measures, and raising awareness about how consent-based data sharing works.

## OBJECTIVE

This paper intends to study the level of trust and acceptance of Open Banking APIs among Indian consumers based on primary survey data.

- A. To understand how much Indian consumers know about Open Banking APIs.
- B. To find out whether Indian consumers trust Open Banking services.
- C. To understand why consumers, choose to use or avoid Open Banking apps.
- D. To study consumer concerns about data safety and privacy.
- E. To see how trust in banks and government rules affects acceptance.
- F. To understand how trust influences consumers' willingness to use Open Banking services.
- G. To suggest ways to improve trust and increase the use of Open Banking in India.

## BACKGROUND STUDY

The growth of digital banking and financial technology has transformed the banking sector in India. One of the key developments in this transformation is Open Banking, which allows banks to share customer financial data with third-party service providers through Application Programming Interfaces (APIs), subject to customer consent. Open Banking aims to improve financial transparency, promote innovation, and offer personalized financial services to consumers.

In India, initiatives such as Unified Payments Interface (UPI), Account Aggregator (AA) framework, and increased fintech participation have created a supportive environment for Open Banking adoption. However, despite technological readiness and regulatory support, consumer acceptance of Open Banking APIs remains uneven. Many consumers are still hesitant due to concerns related to data security, privacy, lack of awareness, and fear of misuse of personal financial information.

Trust plays a critical role in determining consumer acceptance of Open Banking services. Consumers' trust in banks, fintech companies, and regulatory frameworks directly influences their willingness to share financial data and use API-based services. Understanding trust and acceptance at the ground level is therefore essential to identify real consumer perceptions and challenges.

## Methodology

The study focuses on understanding the trust and acceptance of Open Banking APIs among Indian consumers. A descriptive research approach was used to study consumer awareness, trust levels, and willingness to use Open Banking services.

The study is based on both primary and secondary data. Primary data were collected directly from Indian consumers using a structured questionnaire. The questionnaire included questions related to awareness of Open Banking, trust in data sharing,

security and privacy concerns, and acceptance of Open Banking services. Secondary data were collected from books, research articles, reports, and official websites related to digital banking and Open Banking in India.

A convenience sampling method was adopted to select respondents based on their availability. The sample included consumers from different age groups and backgrounds. The sample size consisted of \_\_\_ respondents.

The collected data were analysed using simple statistical tools such as percentage analysis, tables, and charts to clearly understand consumer opinions and behaviour.

## INTERPRETATION

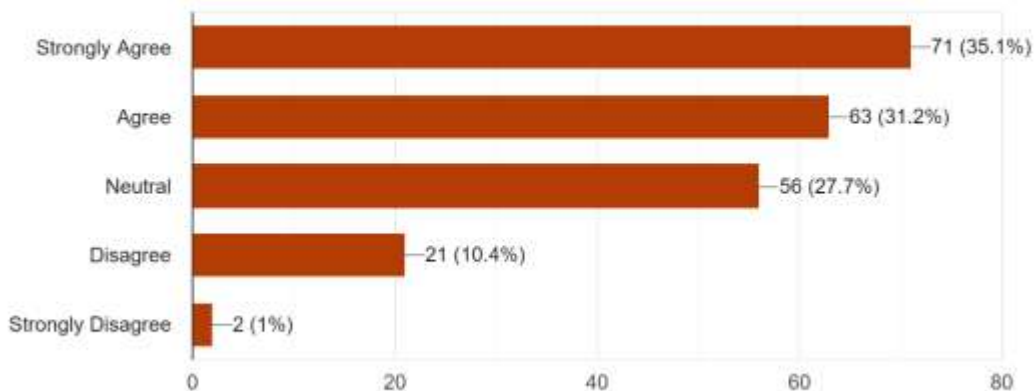
### AWARENESS ABOUT THE CONCEPT OF OPEN BANKING

This chart shows the monthly income level of the respondents. The largest group falls under the below ₹20,000 income category. This indicates that many respondents belong to the lower to middle-income group. A smaller proportion of respondents earn above ₹1,00,000 per month. The income profile suggests that affordability and cost sensitivity may influence the adoption of digital banking and Open Banking services.

### Understanding of Open Banking among consumers

I am aware of the concept of Open Banking.

202 responses



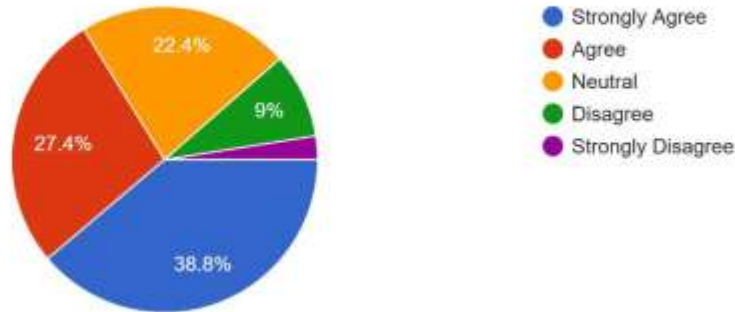
## INTERPRETATION

### UNDERSTANDING OF OPEN BANKING APIs

This chart shows how well respondents understand how Open Banking APIs work. Most respondents agree or strongly agree that they understand the working of Open Banking APIs. This indicates a reasonable level of practical understanding among participants. However, some neutral and disagree responses suggest that not all users have a clear technical understanding

## Consumers' understanding of Open Banking APIs

I understand how Open Banking APIs work.  
201 responses



### INTERPRETATION

#### AWERNESS ABOUT THE CONCEPT OF OPEN BAKING

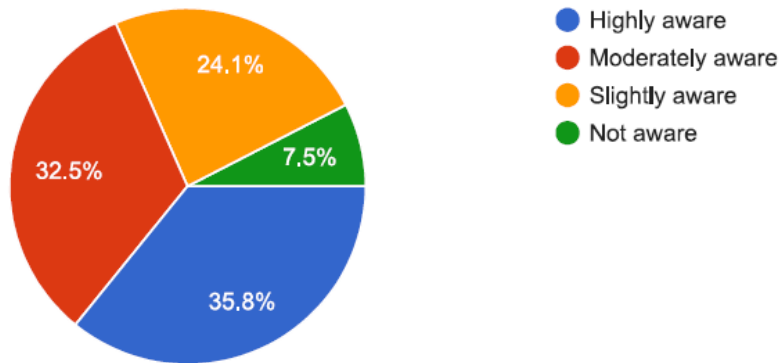
Being aware of Open Banking means having a basic understanding of what it is and how it works. It means knowing that it allows your bank to share your financial information with trusted third-party apps or services if you give permission. It also includes understanding the possible advantages and risks involved.

#### Knowing What Open Banking is and how it works.

Awareness about the concept of Open Banking:



212 responses

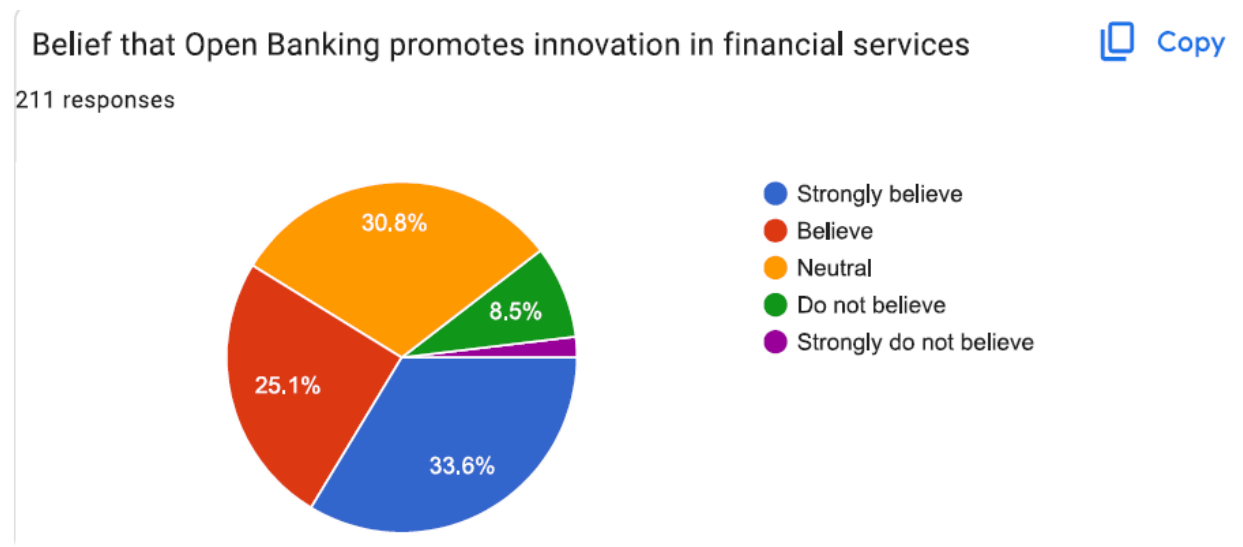


## INTERPRETATION

### BELIEF THAT OPEN BAKING PROMOTES INNOVATION IN FINANCIAL SERVICES

I believe Open Banking encourages new and better financial services. It allows different companies to create useful apps and tools that help people manage their money more easily. This competition can lead to improved services, lower costs, and more choices for customers. Overall, it supports fresh ideas in the financial industry

**Open Banking helps create new and improved financial services by encouraging innovation and competition.**



## INTERPRETATION

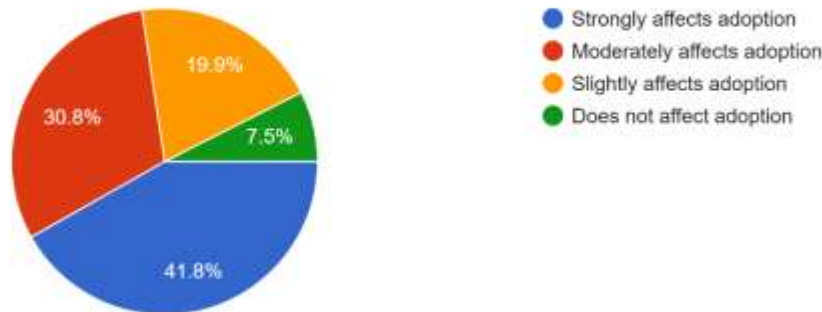
### IMPACT OF FEAR OF DATA BREACHES ON ADOPTION OF OPEN BANKING

This chart shows how fear of data breaches affects the adoption of Open Banking. Most respondents feel that fear of data breaches strongly or moderately affects their decision. This indicates that security concerns are a major barrier to adoption. Only a small group feels that data breach fears do not affect their decision. This highlights the importance of strong data protection and security measures.

## Impact of data security fears on consumers' willingness to adopt Open Banking

Impact of fear of data breaches on adoption of Open Banking:

201 responses

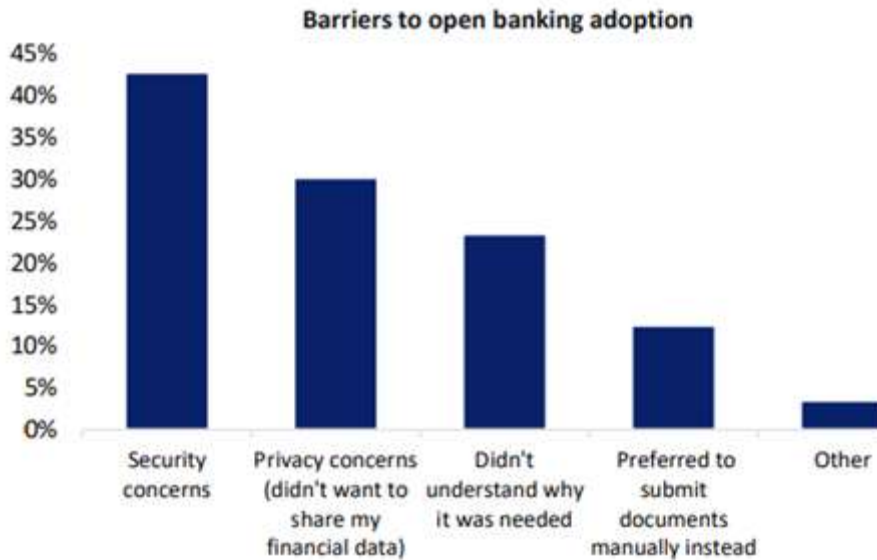


### INTERPRETATION

#### **THE RELIABILITY AND SECURITY OF THIRD-PARTY PROVIDERS MAKE ME HESITANT TO FULLY USE OPEN BANKING SERVICES.**

Barriers to Open Banking adoption include a lack of awareness and understanding among consumers about how Open Banking works and its benefits. Many users are concerned about data security and privacy, especially the risk of data breaches, fraud, and misuse of personal financial information. Limited trust in third-party service providers, low digital literacy, and fear of online scams further reduce willingness to adopt Open Banking services. In addition, complex consent processes, poor user experience, limited awareness of regulatory protections, and resistance to shifting from traditional banking methods also act as significant obstacles to wider adoption.

**Does lack of trust in third-party providers limit your use of Open Banking?**



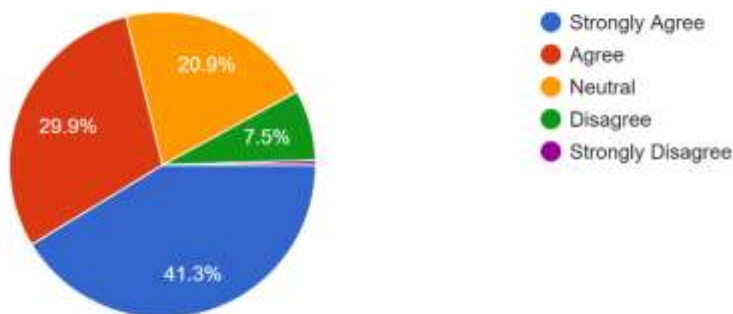
**INTERPRETATION**

This chart shows how fear of data breaches affects the adoption of Open Banking. Most respondents feel that fear of data breaches strongly or moderately affects their decision. This indicates that security concerns are a major barrier to adoption. Only a small group feels that data breach fears do not affect their decision. This highlights the importance of strong data protection and security measures.

**fear of data breaches significantly affects the adoption of Open Banking, with most respondents viewing security concerns as a major barrier and only a few reporting no impact.**

I frequently use mobile banking or digital payment apps (UPI, wallets, etc.).

201 responses



## INTERPRETATION

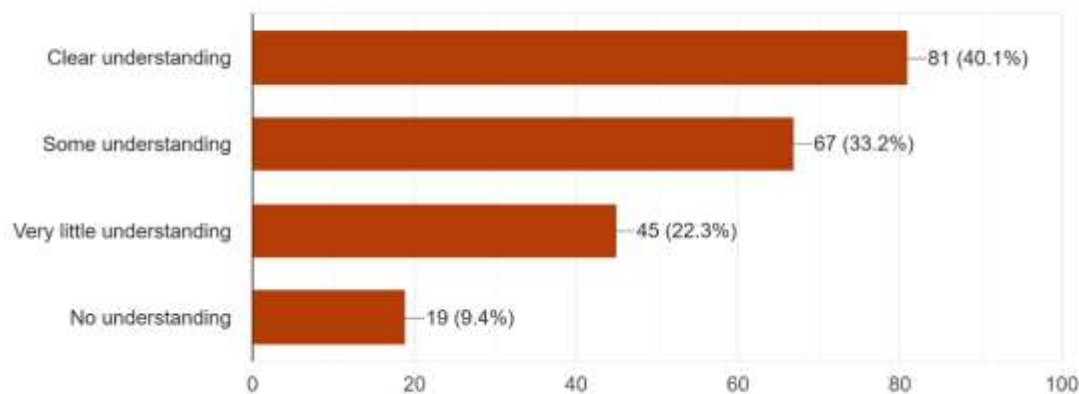
### UNDERSTANDING OF THE ROLE OF THIRD-PARTY SERVICE PROVIDERS IN OPEN BANKING

Out of 202 respondents, **40.1%** have a clear understanding of third-party providers, while **33.2%** possess some understanding. The remaining participants reported having very little (**22.3%**) or no understanding (**9.4%**) of these roles in Open Banking.

#### Awareness of third-party service providers' functions in Open Banking

Understanding of the role of third-party service providers in Open Banking:

202 responses



## HYPOTHESIS

### Trust and Acceptance of Open Banking APIs

#### Hypothesis :-

A hypothesis is a testable statement about the relationship between two things. In this case, it checks whether trust affects the acceptance of Open Banking APIs. The null hypothesis says trust and acceptance are not related. The alternative hypothesis says that higher trust leads to higher acceptance.

H0: There is no relationship between trust and acceptance of Open Banking APIs.

H1: There is a relationship between trust and acceptance of Open Banking APIs.

**Observed Data (Survey of 203 Consumers):**

	Accept	Do Not Accept	Total
High Trust	70	20	90
Low Trust	40	73	113
Total	110	93	203

**Expected (E) = (Row Total × Column Total) / Grand Total :-**

1. High Trust & Accept :-  $E = (90 \times 110) / 203 = 48.77$
2. High Trust & Not Accept :-  $E = (90 \times 93) / 203 = 41.23$
3. Low Trust & Accept :-  $E = (113 \times 110) / 203 = 61.23$
4. Low Trust & Not Accept :-  $E = (113 \times 93) / 203 = 51.77$

**Chi-Square Formula :-**

$$\chi^2 = \sum (O - E)^2 / E$$

1.  $(70 - 48.77)^2 / 48.77 = 9.24$
2.  $(20 - 41.23)^2 / 41.23 = 10.94$
3.  $(40 - 61.23)^2 / 61.23 = 7.36$
4.  $(73 - 51.77)^2 / 51.77 = 8.70$

$$\chi^2 = 36.24$$

The results show that trust and acceptance of Open Banking APIs are connected. Since the calculated Chi-Square value is higher than the critical value, we reject the null hypothesis. This means trust plays an important role in whether consumers accept Open Banking APIs. Higher trust leads to higher acceptance.

## Findings of the Study

- i. The study reveals that awareness of Open Banking and Open Banking APIs among Indian consumers is generally moderate to low. While some respondents have heard about Open Banking, many lack a clear understanding of how APIs work and how financial data is shared with third-party service providers.
- ii. Trust was identified as a key factor influencing the acceptance of Open Banking services. Consumers who expressed higher trust in banks, fintech companies, and digital platforms were more willing to adopt Open Banking APIs compared to those with low trust levels.
- iii. Fear of data breaches emerged as one of the most significant barriers to adoption. A large number of respondents reported that concerns about hacking, unauthorized data access, and misuse of financial information strongly affect their decision to use Open Banking services.
- iv. Privacy concerns also play an important role in shaping consumer attitudes. Many respondents were uncomfortable with sharing personal and financial data with third-party service providers, especially when they were unsure about how their data would be stored and used.
- v. The study found that consumers are more likely to accept Open Banking services when they perceive them as useful, convenient, and time-saving. Features such as better financial management, easy access to multiple accounts, and personalized services positively influence adoption.
- vi. Limited understanding of the role of third-party service providers reduces consumer confidence in Open Banking systems. Respondents who were unclear about who accesses their data and for what purpose showed lower acceptance levels.
- vii. Trust in regulatory frameworks and data protection measures significantly improves consumer confidence. Respondents who were aware of government regulations and security safeguards felt more comfortable using Open Banking services.
- viii. Demographic factors such as age, education, and digital literacy were found to influence adoption. Younger and more digitally literate consumers showed higher acceptance compared to older users.
- ix. Overall, the findings indicate that security and trust-related concerns outweigh technological benefits in determining the adoption of Open Banking APIs among Indian consumers.

## Annexure 1: Questionnaire for consumers & businessmen

- 1) Are you aware of the concept of Open Banking?
- 2) Do you understand how Open Banking APIs work?
- 3) Do you trust banks to share your financial data securely?
- 4) Are you comfortable sharing your banking data with third-party apps?
- 5) Does fear of data breaches affect your decision to use Open Banking services?

- 6) Do privacy concerns prevent you from adopting Open Banking?
- 7) Do you find Open Banking services useful for managing your finances?
- 8) Do you feel Open Banking services are easy to use?
- 9) Do government rules and data protection laws increase your trust in Open Banking?
- 10) Would you be willing to use Open Banking services in the future?

## Discussion of Results

The results of the study show that awareness and understanding of Open Banking APIs among Indian consumers are still limited. Although some respondents are familiar with the concept of Open Banking, many lack a clear understanding of how data sharing works and the role of third-party service providers. This lack of knowledge contributes to hesitation and low adoption levels.

Trust was found to be a critical factor influencing acceptance of Open Banking services. Consumers who trust banks, fintech companies, and regulatory systems are more likely to adopt Open Banking APIs. The findings indicate that trust in institutions helps reduce perceived risk and increases consumer confidence in data-sharing practices.

The study also highlights that fear of data breaches and security risks is the most significant barrier to adoption. A majority of respondents reported that concerns related to hacking, unauthorized access, and misuse of financial data strongly affect their decision to use Open Banking services. These concerns outweigh the perceived benefits of convenience and innovation.

Privacy concerns further discourage adoption, particularly among respondents who are unsure about how their personal and financial data will be used or stored by third-party providers. Limited understanding of data consent mechanisms increases consumer anxiety and reduces acceptance.

However, the results show that perceived usefulness and ease of use positively influence adoption. Respondents who believe that Open Banking services can improve financial management, save time, and offer better control over finances are more open to using them. Younger and digitally literate respondents showed higher acceptance compared to older consumers.

Overall, the discussion suggests that while Open Banking offers significant benefits, its adoption in India is mainly restricted by trust, security, and privacy concerns. Improving consumer awareness, strengthening data protection measures, and increasing transparency can play a crucial role in enhancing trust and encouraging wider adoption of Open Banking APIs.

## Conclusion

The study concludes that trust and acceptance of Open Banking APIs among Indian consumers are still at a developing stage. While Open Banking has the potential to offer greater convenience, transparency, and personalized financial services, its adoption is mainly influenced by consumer trust. The findings show that limited awareness, fear of data breaches, and privacy concerns significantly reduce consumers' willingness to adopt Open Banking services.

Trust in banks, third-party service providers, and regulatory frameworks plays a crucial role in shaping consumer acceptance. Consumers who believe that strong security measures and data protection laws are in place are more open to

sharing their financial data. Additionally, perceived usefulness and ease of use positively influence adoption, especially among younger and digitally literate consumers.

Overall, the study highlights the need for increased consumer awareness, stronger data security practices, and transparent data-sharing policies to build trust and encourage wider adoption of Open Banking APIs in India. Addressing these concerns will help banks, fintech companies, and policymakers create a safer and more consumer-friendly Open Banking ecosystem.

## References

### Rupay International

1. Information about RuPay was saved from its original source on 2 December 2020 and later accessed on 23 December 2020.
2. An article published by The Economic Times on 27 March 2012 was archived on 25 July 2019 and retrieved on the same date.
3. Details related to RuPay were preserved from the original source on 12 August 2020 and accessed on 11 September 2020.
4. A report titled “Finally, India card RuPay to replace Visa, MasterCard,” published on 21 March 2011, was archived on 24 January 2016 and later retrieved on 3 September 2019.
5. An announcement by Discover Financial Services about its strategic partnership with the National Payments Corporation of India to expand network acceptance was archived on 5 January 2018 and accessed on 3 September 2019.
6. A news article published by FinTech Futures on 24 July 2019 reported that the first JCB card was issued in India in partnership with NPCI; it was archived and retrieved on 24–25 July 2019.
7. A Business Standard report dated 28 January 2021 stated that RuPay’s share in total cards issued had crossed 60%, according to an RBI report; it was archived on 27 January 2021 and accessed on 28 January 2021.
8. An article written by Devansh Sharma and Shreya Nandi in Mint on 28 December 2019 explained that from 1 January onward, no MDR charges would apply to payments made through RuPay and UPI, as announced by Sitharaman; it was archived and later retrieved on 19 November 2021.

### Open Network for Digital Commerce

1. An article written by Asit Ranjan Mishra in Mint on 27 October 2021 reported that a public non-profit organization would take the lead in rolling out ONDC. It was accessed on 6 July 2022.
2. Business Today published a report on 25 March 2022 stating that Punjab National Bank (PNB) purchased a 6% stake in the ONDC e-commerce platform for ₹10 crore. The article was retrieved on 24 June 2022.
3. In a 2 August 2022 article in Fortune, Alex Salkever, Ismail Amla, and Vivek Wadhwa discussed how India might significantly influence the future of e-commerce through ONDC. The article was accessed on 3 August 2022.

4. An article titled “All About Open Network for Digital Commerce” was published on the official ONDC website on 19 July 2022 and later retrieved on 17 May 2023.
5. On 7 August 2022, Juliet Bennett Rylah wrote in The Hustle explaining India’s new e-commerce system and how it works. The article was accessed on 8 August 2022.
6. The Economic Times reported that the Quality Council of India formed a team of experts to carry out the proposed ONDC project. The report was retrieved on 19 May 2022.
7. A 29 November 2021 article in The Economic Times stated that PNB planned to acquire a 9.5% stake in ONDC. It was accessed on 23 June 2022.
8. On 23 March 2022, IIFL Securities reported that the State Bank of India acquired a 7.84% stake in ONDC for ₹10 crore, and the bank’s stock price rose by 1%. The article was retrieved on 23 June 2022.
9. IIFL Securities reported on 24 March 2022 that Axis Bank purchased a 7.84% stake in ONDC, although its stock faced pressure following the news. The article was accessed on 23 June 2022.