

Edge and Ambiguity of Digital Payments in the Ambience of India

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Abstract:

The integration of technology into finance is promoting global prosperity and inclusivity. Digital finance has sparked financial innovation and helped in financial inclusion. Digital technologies have accelerated growth, extended opportunities, and enhanced service delivery. The purpose of digitalization in the banking system has a wide variety of advantages and loopholes or ambiguity. So, the study analyses the advantages and ambiguity of digital payment methods from the standpoint of India. The study is based on secondary sources of data. Data from the series of Reserve Bank of India reports has been analyzed through descriptive statistical tools like average, percentage...etc. The study concludes that the volume and value of digital payments have increased in India. Correspondingly, fraud cases due to digital payments are also increasing. Regarding digital payment, India is still lagging behind other developed countries worldwide.

Keywords: Accelerated Growth, Digitalization, Digital Payment, Global Prosperity, Inclusivity.

Introduction:

Reserve Bank of India states that “**Digital Transaction**” means a payment transaction in a seamless system effected without the need for cash at least in one of the two legs, if not in both. This includes transactions made through digital or electronic modes wherein the originator and the beneficiary use the digital or electronic medium to send or receive

money” (RBI, 2021). As per the definition, it is clear that to avail the facilities of the digital transaction; one must have access to digital devices like mobile, computers...etc. In the same way, the World Bank defines “Digital or electronic payments as transfers of value that are executed and received using digital or electronic devices and channels to transmit the instructions. They include payments that are initiated by

mobile phone or computer. Card payments are digital payments” (World Bank, 2022). Both definitions clarify that digital transactions and payments are used interchangeably, and the reports clearly state that in digital payments, people who receive or make the payment must have access to digital devices. There should not be involvement of cash on either side. The integration of technology into finance is promoting global prosperity and inclusivity. Digital finance has sparked financial innovation and helped in financial inclusion.

Furthermore, it is implied that wherever digital devices are used, there is potential for scamming and fraud. Especially in the banking sector, such types of fraud are called digital financial fraud or E-banking Fraud (Chapman et al., 2021). Electronic banking has developed using new distribution channels like the Internet and mobile devices. However, it has also made people susceptible to spamming, phishing, and credit card fraud. A Study (Chachak, E. 2019) revealed that Cybercriminals are increasingly targeting mobile devices due to their widespread use and rising computing power; almost 60 per cent of online fraud happens through mobile phones, which will affect both corporations and individual users. The ease of use of e-banking encourages people to conduct electronic transactions. The conduct of such transactions could be considered a risk factor and the source of privacy issues, and hackers can use several methods to steal money from the same channel (Ahmad et al., 2021). This is the reason for urging efforts to be made to create a transnational cybersecurity strategy in addition to

identifying cybersecurity as a national security concern (Calderaro & Craig, 2020).

Keeping note of all the above points, the present study examines the growth of digital transactions over time and tries to identify the association of risk associated with digital transactions through digital financial fraud.

Review of Literature:

A new way of thinking called "digital banking" provides significant advantages to banks regarding expanding benefits and efficiency and to their clients regarding payment simplicity and 24-hour access to banking services (Singh & Sharma, 2016). Due to their advantages of affordability and simplicity, IMPS, M-Wallet, and PPI Cards have experienced extraordinary growth in India as the government has concentrated on reducing the amount of cash in the economy (Angamuthu, 2020.). When assessing the effect of COVID-19 on digital payments, the study found that digital payments have increased because of increasing knowledge of digital modes, access to smartphones, and the use of debit cards (Saroy et al., 2022). A study of 600 Indian respondents on mobile payments and their privacy concerns revealed that high privacy concerns mitigate the favorable perception of mobile payments adoption (Sinha et al., 2019). A study analyzing digital payments in India revealed that although digitalized payments are increasing, cash plays a prominent role in many communities due to a lack of infrastructure, knowledge, and security concerns (Shobha BG, 2020). Shree et al. (2021) state that digital payments will be

made less due to prior online frauds. While evaluating the Acceptance of Digital Payments and Improvements in Cashless Payment Ecosystems, we have found that a substantial portion of minors use digital payment more than others (Gupta et al., 2020). Due to the phenomenal growth of online transactions, policymakers must consider security. Online payment risks include identity theft, the theft of payment information, and customer fraud (T S & C D, 2017).

Calderaro & Craig (2020) have investigated the obstacles and global gaps in establishing cyber capabilities, focusing on how it is increasingly important to address cybersecurity laws outside national borders given the transnational nature of connectivity infrastructure. Another study looked at the problems and solutions related to online banking. Then, it was discovered that assuring financial security is the biggest obstacle to electronic banking (Chaimaa et al., 2021). A study examined how the rise of mobile and internet use has prompted financial inclusion, secure wireless financial services, and products that ought to be widely and easily accessible (Lenka & Barik, 2018). According to a study on electronic payment fraud, an effective end-to-end risk management process is necessary to prevent account takeover, discourage new account fraud, stop suspicious payment transactions, and gain transparency about risks to implement corrective measures (Vanini, 2022).

Methodology

The present study examines the problems and prospects of digital payments in India

for analyzing and interpreting the results with the help of descriptive statistical tools. Moreover, various graphs and diagrams have been used. The study is based on secondary data from the annual reports and other published reports of the Reserve Bank of India, the World Bank and IMF reports, newspapers, and published journals...etc.

Results and Interpretations :

Prospects of Digital Payments

Digital payments include transferring money from one bank account to another using a debit or credit card, a mobile phone, or online banking, sending cash to acquaintances, or paying bills using a cell phone or the internet. Paying for goods and services in-person or online, sending or receiving domestic money transfers, receiving payments for agricultural produce, and receiving wages, transfers from government departments, or public pensions straight into or out of an account are all examples of digital payments. Online banking is, without a doubt, the way of the future. E-banking has a limited "practice" in India, but considering how it affects the cost and effectiveness of financial intermediation, it has enormous potential. One of the wise and practical initiatives made by the Indian government was to adopt a cashless economy. The idea of a system of cashless transactions is widely accepted. It aids in the struggle against pervasive illicit or unethical economic activities, including terrorism, corruption, money laundering...etc. Digital financial products and services, like mobile money accounts, enable consumers to keep money securely and affordably and send it swiftly over vast

distances, which promotes domestic spending and remittances. Contrarily, people who did not utilize mobile money or had trouble accessing it made fewer food and other goods purchases. According to studies, accounts can help women become

financially independent and increase their economic empowerment. It gave them more control over household decisions and caused them to spend more on necessities than luxury items.

Table 1: The Total Volume of Digital Payments in India from 2011 to 2022
(Unit: Volume = Crore; Value = lakh Crore)

Year	Volume	Value
2010-11	96	498,00
2011-12	125	561,00
2012-13	169	711,00
2013-14	245	785,00
2014-15	352	823,00
2015-16	595	920,00
2016-17	978	1122,00
2017-18	1472	1371,00
2018-19	2340	1638,00
2019-20	3435	1623,00
2020-21	5554	*
2021-22	7422	*

Source: Reports of the Reserve Bank of India, 2010 to 2021
Note: * means data not available.

Between 2010 and 2021, the volume of digital payments in India increased from ₹96 cr. to ₹7422 cr. Since digitalization, i.e., the volume has increased from ₹978 cr. in 2016 to ₹7422 cr. in 2021. The volume trend shows that digital payment is increasing at an increasing rate. On the other hand, the value of digital payment is also showing an increasing trend, i.e., the increase in the value from ₹498,00 lakh cr. in 2010 to ₹1623,00 lakh cr. in 2021. India is no longer trailing other countries in the digital payment revolution. Electronic payments have taken off in India, with no

signs of slowing down soon. The government of India's demonetization of the country's highest currency notes and the incentives offered to promote the adoption of a digital payment system by lowering charges and waiving taxes. People in India are enthusiastic about electronic payments. Alternatively, as demand for digital payments grows, so will security concerns. It is ultimately up to governments and companies to promote digital alternatives to cash to provide adequate security for their services and for consumers to maintain security-conscious habits.

Table 2: UPI Transaction Volume and Value from 2016 to 2022

(Unit: Volume = Million; Value = Crore)

Year	Volume	Value
2016-July	0.09	0.38
2017 - January	4.46	1 696.22
2018 - January	151.83	15 571.20
2019 - January	672.75	109 932.43
2020 - January	1 305.02	216 242.97
2021 - January	2302.73	431 181.89
2022 - January	4 617.15	831 993.11
2022 - September	6 780.80	1 116 438.10

Source: Reports of the Reserve Bank of India, 2016 to 2022

Unified Payments Interface combines banking features from various bank accounts into a single mobile application. It is used for sending and receiving money, paying bills, etc. It is currently gaining popularity among Indians. It is exciting and easy to use and is not required to recall frequently to use the beneficiary’s account number vividly. The customer can quickly pay and receive transaction history. It is evident from the above table that through UPI, the volume of transactions is increasing from ₹0.09 Million in July 2016 to ₹6780.80 Million in September 2022. Likewise, the value of UPI transactions has also increased from ₹0.38 cr. in July 2016 to ₹1116 438.10 cr (RBI, 2022). Both trends are showing an increase at an increasing rate. However, despite this development, India lags behind other essential countries. Russia is leading the BRICS nations, where an average adult makes more than 200 cashless transactions a year, while India is still only at 20. India gaps not only in terms of the quantity of transactions but also the value of transactions.

Cybercrime and unauthorized access to customer data are India's primary issues with electronic payments. Therefore, it is critical to improve internet security to guard against malicious online activity. Customers and small retailers who use cashless transactions face high risks and issues. The primary cause is the low rate of financial literacy in rural areas. The government needs to be informed about services for electronic payments. The government works to increase awareness of the risk factors among consumers. Cashless transactions facilitate the development of a more robust Indian economy. Thus, everyone should be able to access and use digitally-based transactions. The government will occasionally need to invest more in financial literacy campaigns to raise public awareness of the advantages of electronic payments. Several individuals in rural areas and some in urban areas continue to lack functioning bank accounts that they can use to make online payments. The majority of people in India live in rural areas where there are no adequate internet facilities for making payments through the internet. Residents of rural areas do not

Problems of Digital Payments

sufficiently understand the electronic mode of the payment system. Even today, certain businesses only accept paper money and refuse to accept debit or credit cards. Online transactions can result in significant and complex issues like hacking and cybercrime. Cyber safety precautions must be implemented to prevent money from falling into the wrong hands.

Status of Digital Payment Fraud

The Organisation for Economic Co-operation and Development (OECD) has defined fraud in terms used internationally.

"The acquisition of another person's property through deception may be understood to be a fraud." The law defines fraud as "any behavior by which one person intends to gain a dishonest advantage over another" in section 17 of the Indian Contracts Act, 1872. Financial frauds can be divided into several categories depending on the area of operation, including frauds involving loans or advances, off-balance sheet items, fake money or cash, deposits or money laundering, foreign exchange transactions, checks or paper clearing, and cyber frauds.

Table 3: Total Number of Fraud Cases from 2008 to 2019
(Unit = Worth in Rs.)

Year	No. of Frauds	Worth
2008-09	4372	1860.09
2009-10	4669	1998.94
2010-11	4534	3815.76
2011-12	4093	4501.15
2012-13	4235	8590.86
2013-14	4306	10170.81
2014-15	4639	19455.07
2015-16	4693	18698.82
2016-17	5076	23933.85
2017-18	5916	41167.03
2018-19	6799	71543
2019-20	8707	185644
2020-21	7363	138422
2021-22	9103	60414

Source: Reports of the Reserve Bank of India, 2008 to 2021

It is evident from the RBI report, 2022, that the total number of fraud cases increased from 4372 in 2008 to 9103 in 2021, i.e., an increase in the value of Rs. 58,553.91. After the digitalization in India in 2016, fraud cases increased from 5076

in 2016 to 9103 in 2021. The total number of Fraud Cases related to cards and the internet above 1 lakh was 2,059 in 2017, which increased to 3,596 in 2021. The increase in the value of fraud is Rs. 45.5 cr. Fraud Cases Relating to Card and

Internet - above 1 Lakh is contributing a share of 34.8 per cent in 2017 and 39.5 per cent in 2021, i.e., an increase of 4.7 per cent.

Incidence of digital payment frauds

Electronic payment fraud is more common than other fraud cases in banking services. The distribution of ATM, debit card, credit card, mobile, and electronic banking frauds as a percentage of overall bank

fraud incidence is shown in the table and figure below. The prevalence of fraudulent digital payments is second only to fraudulent credit advances. Comparatively speaking, there are many more instances of online payment fraud than with paper payments like Demand Draughts (DD) and Cheques. Despite being a relatively more recent convenience than conventional financial products like credits, deposits, and checks, fraud has increased.

Table 5: Total Digital Transaction Complaints to Banking Ombudsman - Includes ATM Debit card/Credit card/ Mobile and Electronic Banking

Year	No of Complaints	Percentage Share in Total Complaints
2017-18	45806	28
2018-19	64607	32.98
2019-20	137823	44.65
2020-21	145309	42.53
<i>Source: Reports of the Reserve Bank of India, 2017 TO 2020</i>		

Per the RBI report 2022, the total number of digital transaction complaints to the banking Ombudsman, including ATM Debit card/Credit card/ Mobile and Electronic Banking, was 45806 in 2017, i.e., a percentage share of 28 to the total complaint. In 2021, the total digital transaction complaints to the banking Ombudsman, including ATM Debit card/Credit card/ Mobile and Electronic Banking, increased to 145309, i.e., 42.53 per cent of the total complaints. A variety of factors can explain this distribution. Given that technology has advanced since the past, it is also well known that fraudsters are simultaneously utilizing it for their gain. Second, as was mentioned in the previous section, a sizable market has developed for electronic payments. As a

result, fewer payments are made on paper. The proportion of frauds reflects the volume of legitimate transactions in that area. Thirdly, while paper payments have long seen security interventions, digital payments are still advancing in their adoption of security. Credit advances and electronic payments are two prominent banking services that call for more significant efforts to prevent fraud.

Conclusion

The study's findings show that since digitalization, i.e., the volume of digital payment has increased from ₹978 cr. in 2016 to ₹7422 cr. in 2021. The volume trend shows that digital payment is increasing at an increasing rate. On the other hand, the value of digital payment is

also showing an increasing trend, i.e., the increase in the value from ₹498,00 lakh cr. in 2010 to ₹1623,00 lakh cr. in 2021. Compared to other forms, UPI's volume of transactions increased from ₹0.09 Million in July 2016 to ₹6780.80 Million in September 2022. Likewise, the value of UPI transactions is also increasing from ₹0.38 cr. in July 2016 to ₹1116 438.10 cr. Both trends are showing an increase at an increasing rate. Correspondingly, the total number of Fraud Cases increased from 4372 in 2008 to 9103 in 202, i.e., an increase of Rs. 58,553.91. After the digitalization in India in 2016, fraud cases increased from 5076 in 2016 to 9103 in 2021. In which the share of ATM Debit cards/Credit cards/ Mobile and electronic Banking frauds is more relatively. In 2021, the total digital transaction complaints to the banking Ombudsman, including ATM Debit card/Credit card/ Mobile and Electronic Banking, increased to 145309, i.e., 42.53 percent of the total complaints. Compared to other developed nations, India still needs to be developed when it comes to the use of digital payment methods.

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