

Digital Financial Services Platforms and their adoption in India Post COVID-19



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A million of people losses their job and livelihood post lockdown in COVID-19, consequently the financial vulnerability of many households has been exposed. Several people in lower income groups reported severe difficulties in coming up with bare minimum requirements such as food, medicine and clothes, etc. (Mishra & Sayeed, 2020). Among the wide socio-economic populace in country like India, the migrant workers were worst hit by the COVID-19 induced economic fallout (Nanda, 2020; Jesline et. al. 2021). The migrant workers are largely from rural counterparts belonging to mostly the poor economic strata (Shahare, 2020). Many of the migrant workers suspected loss of employment and recession in lockdown situation, consequently migration of these workers to their native place or other states was seen (Hazarika, 2020). The risk was particularly more concerning among workers in unorganized sectors who didn't have even written contract with minimum wages or any kind of social securities. Indeed, many of them are living in extreme poverty. Though, government of India initiated programmes and relief packages for poor in pandemic, one such example is announcement of **INR 1.70 Lakh Crore relief package** under Garib Kalyan Yojana scheme¹ for poor to battle against COVID-19. However, many of these migrant workers were unable to reap the benefits of such schemes due to lack of proof of identity and residence (Suresh et. al. 2020). With passing time, cases of COVID-19 are diminishing but the adverse impact of the pandemic is still prevalent in lives of people. Many researchers have expressed their concern with businesses and employment situation following COVID-19. India is likely to

encounter 23% increase in unemployment rate with the projection of increase in unemployment rate in urban areas by 30.9% (Sreevatsan, 2020).

The term 'digital financial services', has been interchangeably used with terms like 'digital payment' or 'mobile payment' or 'cashless payment'. IMF (2020) defined Digital financial services (DFS) as payments, remittances, and credit done through digital channels, and devices". Digital financial services (DFS) offer a relatively cheap and convenient source for deposit, withdrawal, and transfer. It can also aid in reducing leakage and inefficiencies in various governments benefit transfer schemes for poor. In emerging economies, implementation of digital finance through Fintech provider increases financial inclusion. In last couple of years, the financial infrastructure has undergone a huge transition in India with more emphasis on cashless transactions. Physical distancing, self-quarantine and work from home (WFH) culture in COVID-19, has further prompted many to opt for digital financial transactions².

Though, it has been observed in many cases that migrant workers prefer informal channels for remittance and saving due to ease in access and availability (Chakrabarty, 2013; Kossen & Vermeulen, 2014). Temporary and informal nature of their work limits their access to many formal financial services such as loan, insurance and pension. Further, lack of documental proof confines their engagement with formal banks (Uddin et al. 2022). Thus, these migrant workers require easy, safe, transparent and customizable financial products (RBI, 2017). The recent technological advancement has led to increase in

usage of mobile based financial institutional apps. As per the last month telecom subscription data published on as on 31st July, 2022 by (TRAI) India, there were around 1148 Telephone Subscribers (Million) in India. A report by Internet and Mobile Association of India showed that mobile phones have been used by large Indians to access the Internet (PTI, 2020).

The paper has been organized under three sections, Section1: concept of digital financial services

Section 2: digital Financial Services platforms
Section 3: Factors affecting digital payment adoption

Section 1: Concept of Digital Financial Services (GPMI) (2014) discussed on DFS as “financial products and services mentioned in figure 1 usually done via digital/electronic technology and delivered through e-money, payment cards and bank accounts.

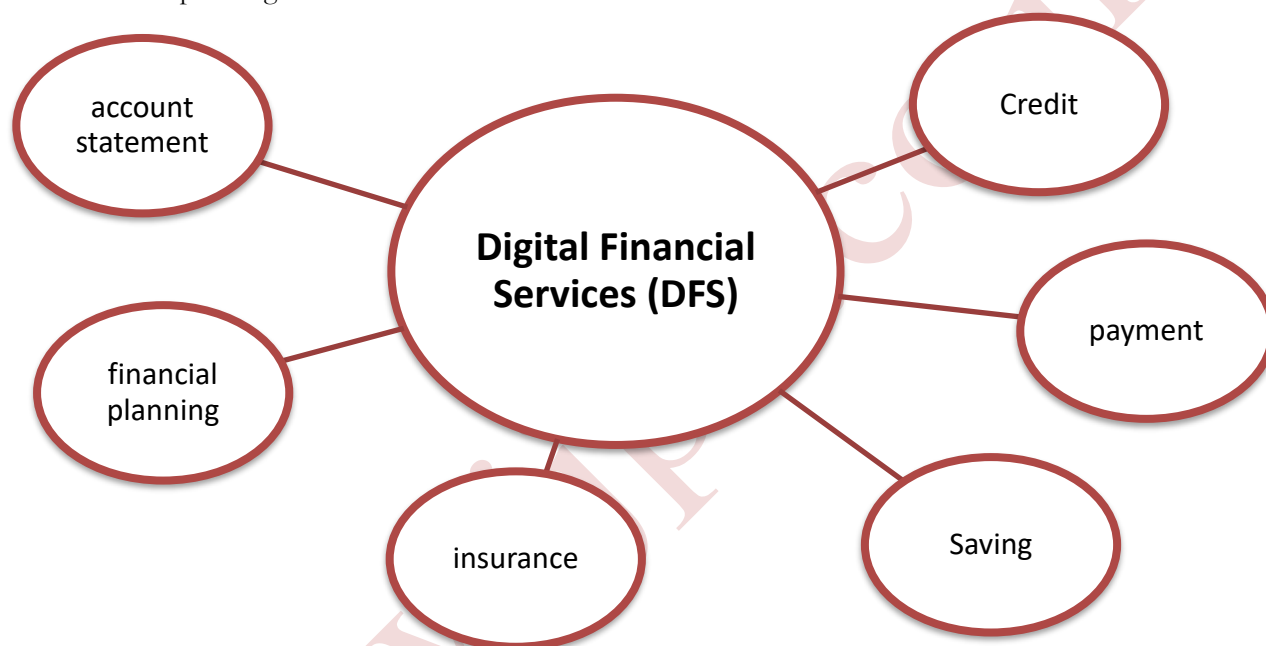


Figure 1. Digital Financial Services (DFS)

(DFS) can be explained “financial operations done through digital technology, with electronic money financial services by mobile, e financial services, i-teller and branchless banking”. OECD report (2020) “Digital financial services (DFS) refer to the deployment of digital means to include financially excluded ,underserved people with a variety of formal financial services suited to their needs, delivered responsibly at customers cost and within the providers offerings ”. In India, RBI stated (2019) DFS is “seamless system affected without the need for cash. It includes transactions made digitally / electronically where both the sender and

the receiver use digital / electronic medium for the transaction”.

Section 2: Digital Financial Services platforms

India has been at the forefront of this technological revolution. A recent global survey has indicated an adoption rate of 87% for digital financial technology in India³. In general, digital financial services platform involves transactions through ATM, point of sales, mobile and card payment. These digital payment systems are dependent on various technologies which are described as below (Figure 2).

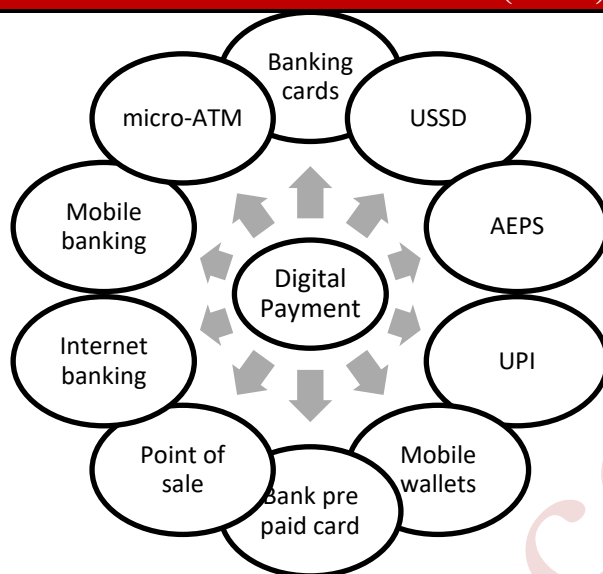


Figure 2. Various products and services regulated (as per the National Payment Corporation in India)

1. Unstructured supplementary service data (USSD) *99#: USSD is available across all GSM service providers. For USSD based mobile banking, mobile internet data facility is not mandatory. It facilitates financial inclusion of unbanked people with the mainstream banking services, especially living in rural and unreached areas.
2. AePS (Aadhar enabled payment system): this service enable customer to access banking transactions such as cash deposit/withdrawal, intrabank/interbank transfer, balance enquiry, etc. by using Aadhaar authentication at branch/Business Correspondents locations.
3. BHIM Adhaar Pay: assists payment to merchants by customer using Aadhaar authentication.
4. UPI (Unified payment interface): a single platform for the immediate real time payment system which can facilitate both Person-to-Person (P2P) and Person-to-Merchant (P2M) transactions. A UPI ID and PIB are required to send and receive the money.
5. BBPS (Bharat Bill Payment System): it is an integrated bill payment platform which offers interoperable and easy access to utility bill payment services via network of agents of registered Agent Institutions (AI).
6. Mobile banking: A service which enable a customer to access bank account via mobile device such as smart phone or tablet through mobile app for that bank or other financial institution. The service in general available on 24 hour basis and uses the internet or mobile data availability.
7. Mobile wallets: It is a virtual wallet which stores payment card details on mobile phone. Mobile wallet enables user to make in-store payment in a convenient way. Some example of popular digital payment apps are HDFC payZ app, ICICI Pocket and Paytm.
8. Credit card/debit card: Card-enabled fund transfer. Typically, these cards have logo of Visa or Mastercard.
9. National electronic fund transfer (NEFT): NEFT is an electronic funds transfer

system used by any individuals, corporate etc. with a bank branch to any account.

10. Real-time gross settlement (RTGS): Unlike NEFT, funds transfer under RTGS are done on a “real-time” basis. RTGS payment system is meant for large value transactions.
11. Prepaid payment instrument (PPI): PPI “facilitate purchasing of goods and services, including the transfer of funds, financial service and remittances,
12. Immediate payment system (IMPS): IMPS is an instant fund transfer system can be operated through basic mobile phones, smartphones, through internet/ ATMs. Unlike other digital payment modes IMPS services are available 24x7.

A report by Medici on India FinTech (2020)⁴ reported that between year 2010 and 2015, there were more than 1200 new Fin Techs entrants. While, in between 2015 to 2020 (till June) there has been massive growth of new FinTech start-ups across various segments like payments, lending, wealth, etc. The government execution of following four approaches has further advanced this sector:

1. Biometric identification through Aadhaar-enabled system
2. Getting everyone a bank account through Pradhan Mantri Jan Dhan Yojana (PMJDY)
3. Scalable money transfer platforms like IMPS, UPI, BBPS, etc.
4. Access of platforms like UPI, GSTN & Digi Locker to banks, and other players

Some of the well-recognized FinTech companies are detailed as in Table 1 below:

Table 1. FinTech Companies in India



Paytm
(Year-2010)



PhonePe
(year-2015)



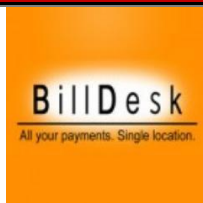
Mobikwik
(year-2009)



PayU
(year-2002)



Fino
(year-2006)



Bill Desk
(year-2000)



RazorPay
(year-2014)

(Source: Authors
Compilation)

Section 3: Factors affecting digital payment adoption and intention

Mallat (2007) paper based on a focused group analysis studied the significant role of factors like network extension, trust, relative advantage and perceived security risks in m-payment adoption.

Kim et al. (2010) based on TAM model with two consumer-centric and four systems to explicate the factors affecting m-payment in the Korean context. Notably, this study found factors like mobility, convenience and knowledge have significant impact on m-payment adoption, though compatibility was found to be insignificant in affecting m-payment adoption.

Zhou (2011) study based in China measured the impact of trust on m-payment adoption intention. This paper reveals factors like perceived security and perceived ubiquity have significant impact on trust, which in turn can impact m-payment usage intention.

Roy & Sinha (2014) using Technology Acceptance Model (TAM) stated the significance of factors like Innovation, incentive, customer convenience and legal framework for strengthening the E- payment system.

Rakesh & Ramya (2014) found that the factors such as perceived reliability, perceived ease of use and perceived usefulness are influencing internet

banking is influenced by To attract consumer usage of internet banking services the policymakers need to focus on sensitizing consumers on its benefits and usage.

Nitsure (2014) paper underlined that in India there is low adoption of e-banking due to low diffusion of Information Technology. There is a strong need to focus on security concerns, rules, regulation and management. There is a major digital split in society as poor are mostly excluded from using the internet and the financial system. In country like India, Pal et. al (2018) contextualized a range of factors affecting technology usage and adoption which includes range of environmental and cultural facilitators. Factors like uncertainty avoidance and the tradition of using cash can strongly influence the adoption of mobile banking. With increase in security and assurance of hassle-free transaction the digital payment adoption is likely to increase.

Sharma & Kulshreshtha (2019) critically explore the influence of factors such as convenience, safety, complexity, compatibility, service quality, privacy, availability of information and ease of use on intention to use m-wallet in India. This study may help policy makers to design more customized m-wallets

Pal et. al (2021) utilizing the technology affordances and constraints theory (TACT) found that variables like convenience, reflection, and security, have differential influence on actual usage and future use intention of m-payment. The theoretical model suggests that policymaker to focus on security, risk, and digital literacy for increased use of mobile payments.

Conclusion

Digital financial services (DFS) have many fold advantages. For instance, access to finance can raise women empowerment (Summers et. al, 2020; Bigd, 2020), financial inclusion (World Bank, 2020), instil trust and faith in digital payment modes, managing high operating costs and limited competition (DFS report, 2020). At macro level it facilitates growth in GDP (Saha et. al, 2020) and prevent leakage in social benefit transfer schemes (Joy, 2018). For large scale digital payment adoption there is need to address various bottlenecks affecting demand

(customers) and supply side (financial institutions/banks/digital payment service providers. Some of these issues are caused due to poor financial literacy and low smart phone penetration (CGAP, 2019), poor internet and physical connectivity (Rana et. al, 2019), adjustment issues particularly in less technologically adept segments like poor and elderly people (IMF 2020). Post COVID-19, policy makers across the globe are emphasising more to build the individual's financial resilience.

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