DIGITAL FINANCIAL INCLUSION: EMERGING DIMENSIONS IN INDIA

Kalpana[1]

[1] *Research Scholar, Department of Banking and Business Economics, University College of Commerce & Management Studies, Mohanlal Sukhadia University, Udaipur, Rajasthan, India*

ABSTRACT

Background/Objectives: *Digital Financial Inclusion is a multidimensional approach and a cornerstone of a developing countries like India for reached finance at lower level of society through technology. It is a critical part of the development process and economic growth of India. Therefore, the present study focused on, to understand concept of digital financial inclusion, to identify the emerging dimensions of digital financial inclusion and to analyze the dimensions that measures the level of digital financial inclusion in India.* ***Methodology:*** *The present study based on descriptive research with collection of secondary data in graphical presentation from various websites like RBI, World Bank, Digital Financial inclusion report etc. Dimensions of digital financial inclusion considered digital transactions, access of digital finance, usage of financial services and four layer of India stack. Conclusion of the present study is due to technology upgradation it helps to enhance digital financial inclusion at the lower level of the society through debit and credit cards, digital payment system, E-banking system, retail banking in India leads to increase the use of financial services and boost up of living standard of people, Govt. initiative of digital India drastically encourage and enhance the use of digital technology and improve the digital financial inclusion also.*

Keywords: *Digital Financial Inclusion, Economic Growth, E-banking system, World Bank, Digital India*

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1. INTRODUCTION

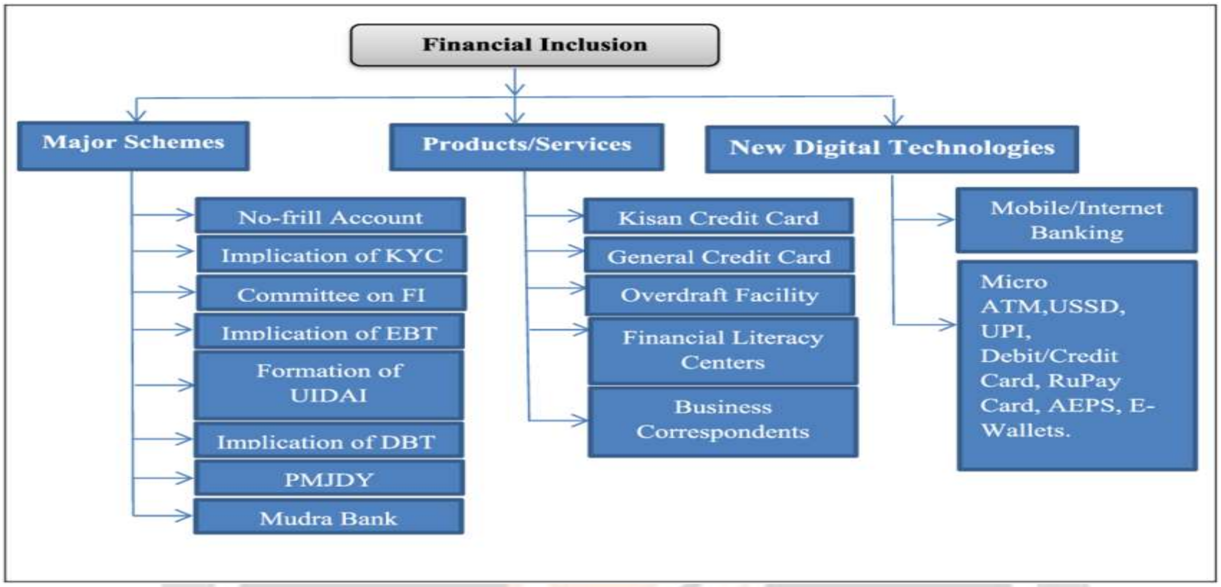
Financial inclusion term was employed in India by Y.V. Reddy in April 2005. Financial inclusion outline to the supply and equality of opportunities to access finance services by that people and business will access applicable, affordable, and timely finance product and services. It includes banking, loan, equity, and insurance product. Financial inclusion efforts generally target people who are unbanked and underbanked and directs property finance services to them.

Nowadays, financial inclusion increased through digitalization. In republic of India digital platform lunched in 2015, Digital India has been considered a big integration to bring the unbanked population. Whereas there has been an enhancement in digital transactions across countries connectivity through banks and alternative financial institutions, dormant accounts, among others. Financial inclusion relates to connecting marginalized and therefore the poor within the society to the ordinary economy, by suggests that providing financial literacy and access to banking and financial services.

In recent times, the most important tonic to the efforts of financial inclusion has come from Digital India and new name of financial inclusion is replace by Digital financial inclusion. Various initiatives underneath Digital India scheme, like straight forward banking facilities for all, simplification of procedures relating to financial instruments like Permanent Account Number, distinctive identification method of Aadhaar, simplification of tax procedures through the products and services tax, etc., have contributed significantly to the efforts of financial inclusion within the country.

In the countries like India, in financial inclusion includes these services and schemes in given below Table 1.

Table 1.



Concept of Digital Financial Inclusion

Digital Financial Inclusion is rapidly improved from the scheme of Digital India. Between 2014 and 2017, the proportion of the adult Indian population with an account at a financial institution increased from 52.8% to 79.8%4. Over the course of three years, this represents over three-hundred million people brought into the formal financial sector.

The growth in digital financial inclusion in India has been driven by important innovation in each the general public and private sectors. One in every of the key drivers has been government policy that expressly prioritizes access to the banking industry as a tool for poverty reduction and inclusive growth. Under the Govt. of India's Pradhan Mantri Jan-Dhan Yojana (PMJDY) scheme, bank accounts are opened for the majority of Indian citizens and these accounts became the default channel for delivery of government payments, like through the Direct Benefit Transfer (DBT) system. The expansion of digital payments received a selected occurrence boost due to the government's sudden demonetization policy in November 2016. (India Digital Financial Inclusion Report)[1]

The efficaciousness of Digital India vis-à-vis financial inclusion are often measured by the expansion in digital transactions and therefore the proportion of the poor and their ability to access banking facilities. According to the World Bank's Global Financial Inclusion Database or Global Findex report (2017), 80% Indian adults have a bank account—27 points higher than the 53% estimated in the Findex 2014 round. The Findex 2017 report also estimates that 77% Indian women have bank accounts, against 43% and 26% respectively in 2014 and 2011. According to the report, concerning 190 million adults in India do not have a bank account, making India the world's second largest nation in terms of unbanked population after China (World Bank 2017)[2].

The main boost to the efforts of financial inclusion through the scheme of Pradhan Mantri Jan Dhan Yojana (PMJDY). Launched in 2015, its objective is to provide no-frills bank accounts to every individual above ten years of age across the country, even within the remotest components. As per the estimates in March 2020, the overall range of beneficiaries of the programmed have been more than 380 million (Ministry of Finance 2020). The introduction of distinctive identification Aadhaar number has additionally contributed to the financial inclusion within the country. By considerably dynamic the concept of individual identity, Aadhaar has not solely led to a

[1] Report (2019) India Digital Financial Inclusion.
[2] World Bank Report (2017).

secure and simply verifiable system. The combination of Aadhaar, PMJDY, and a surge in mobile communication has reshaped the way citizens access government services. (India Digital Financial Inclusion)[1]

2. REVIW OF LITRATURE

Many studies have been carried out on financial inclusion and its linkage with different variables. Some studies have considered one of the two dimensions (demand side and supply side) of financial inclusion, but it does not show the true picture of the extent of financial inclusion and digital; it is necessary to consider both these dimensions to analyze the emerging dimensions that measures the level of digital financial inclusion makes to the economic growth of a nation. Previous research reviewed in this study deliberate on the extent of digital financial inclusion, its relationship with economic growth, financial sector development and the determinants of digital financial inclusion.

(Dahiya Suman, 2020)[1], has studied on linkage between Financial Inclusion and Economic Growth: An Empirical Study of the Emerging Indian Economy. This study considered three dimensions of financial inclusion: usage, penetration, and accessibility to observe how financial inclusion is linked with economic growth in India. This study was empirical research and methodology has used descriptive statistics and Bayesian vector auto-regression model to explore the linkage of economic growth with financial inclusion and its different dimensions (accessibility, penetration, and usage). Findings of this study was to show a considerable relationship between economic growth and the usage dimension of financial inclusion in India. This study is based on recent data extracted from IMF and World Bank databases. This study has useful for policymakers and banks to frame appropriate policies to achieve complete financial inclusion that would lead to a robust growth of an economy.

(Tony Nisha, 2020)[2], has studied that the impact of digital financial literacy on digital financial inclusion. The main aim of this study is to measure the impact of digital financial literacy on digital financial inclusion.

Methodology was used for collecting data from structured questionnaire and apply reliability and validity test and used descriptive statistics methods on primary data. This study purely contributes towards the issue i.e. low level of financial literacy among Indians. The model can be used to identify different areas that need to be addressed under digital financial literacy in order to have digital financial inclusion in the nation.

(N.S Deepti, 2018)[3], the research paper has on the measure of index on financial inclusion in India. Objective of this study to computes a multidimensional index for financial inclusion. It considered three dimensions of Penetration, Availability, and Usage of banking services in India. Results of the study had financial inclusion index in 2011-12 was 0.00 indicates initial values set to zero upon which the relative multidimensional index has been calculated. In 2015-16 significantly increased by 0.55 with the increase in the dimension penetration, availability of bank outlets, ATMs, transactions and usage of deposits, credit in India. It has concluded that to identify the problems of financial inclusion for policy making and policy evaluation.

(Goela Sweta, 2017)[4], did this research on developing a financial inclusion index for India. Objective of this study has to introduce an index that allows for a general overview of India in terms of financial inclusion. The index is calculated using three dimensions related to the measurement of the levels of access and usage of financial services. Secondary data was used and apply descriptive statistics. this study concluded that the inclusive growth was achieved further during 2014-2015 and India fall under high financial inclusion range in this time period. The value of FII ranged from 0.6 to 1. By accomplishing the high financial inclusion, it will be easy to promote inclusive growth, reduce farmer's indebtedness, promote grassroots innovations and entrepreneurship, and improve the standard of living etc.

(Vasantha, 2016)[5], this research study said that about dimensions of financial inclusion in rural areas of Tamil Nadu. To measure the level of financial inclusion with the three different dimensions such as Branch Penetration of Banking Industries, Credit Penetration and Deposit Penetration in the rural areas of all the districts in the state of Tamil Nadu. In this study was used secondary data collected from various websites like RBI, IMF, World Bank etc. the results of this study was the Ariyalur District has achieved 64.79 IFI that is, the maximum score of financial inclusion in the rural areas by the year 2015. The districts Tiruvarur, Karur, Krishnagiri, Ramanathapuram, Dharmapuri, Thanjavur, Cuddalore, Nammakal, Tuticorin and Villupuram have financial inclusion in rural areas with below average level. And the rest of the districts have extremely low level of financial inclusion. application of this study has been the Government of India and concern authorities should consider those districts which are excluded from receiving financial services to revamp the status of financial inclusion.

(Sethy, 2015)[6], this study on developing a financial inclusion index and inclusive growth in India issues and challenges. Objective of this study has to identify the important indicators to construct a FII in India. To develop and propose an Index by which financial inclusion may be measured in terms of direction, degree, and intensity in the context of India. This study was based on secondary data on the various variables such as Bank branches, ATMs, Deposits, Credits, Small borrowable account (RBI), Female literacy, Decadal population growth, Mobile users

(Census of India). Result of this study has the major difference between the demand side and supply side indicators of Financial Inclusion Index during the period 2010 to 2012 is that, the India is categorized under the high financial inclusion in case of demand side dimensions but low financial inclusion in case of supply side dimensions. This study concluded that in the case of India as a developing nation to use financial inclusion as a platform not just for growing the financial sector but more as an engine for driving an inclusive economic growth.

(Gupta Pallavi, 2013)[7], this study has conducted on role of literacy level in financial inclusion in India. Objective of the study had to assess the correlation between the usage dimension of financial inclusion index and literacy level in India. In this study was used correlation statistical test by using Karl Pearson coefficient of correlation. Results of the study depict a large variation in extent of correlation among the different states of the country with low correlation at the national level. The study concluded that the Government should promote the use of Information Communication Technology models like biometric ATM, telecentres to achieve financial inclusion in India.

(Gupte Rajani, 2012)[8], this research study on computation of financial inclusion index for India stated that the determinants that measure the extent of financial inclusion and focuses on the computation of an index that would comprehensively capture the impact of multi-dimensional variables with specific reference to India. Financial inclusion index which is constructed considering the minimum and maximum values across countries provides a good measure of comparison. This study was highlighting the changes in the various variables and direction to policy makers.

Literature review suggests that many theoretical and empirical studies are available on financial inclusion but most of them focused on the construction of a Financial Inclusion Index. But fewer studies are conducted on the linkage between economic growth and financial inclusion in India. The present research endeavors to bridge this gap by investigating the dimensions that measures the level of digital financial inclusion in India linkage between economic growth and digital financial inclusion by using secondary data after the implementation of various key policies related to digital financial inclusion in India.

OBJECTIVES:

- To identify the emerging dimensions of digital financial inclusion in India
- To analyze the dimensions that measures the level of digital financial inclusion in India.

3. METHODOLOGY

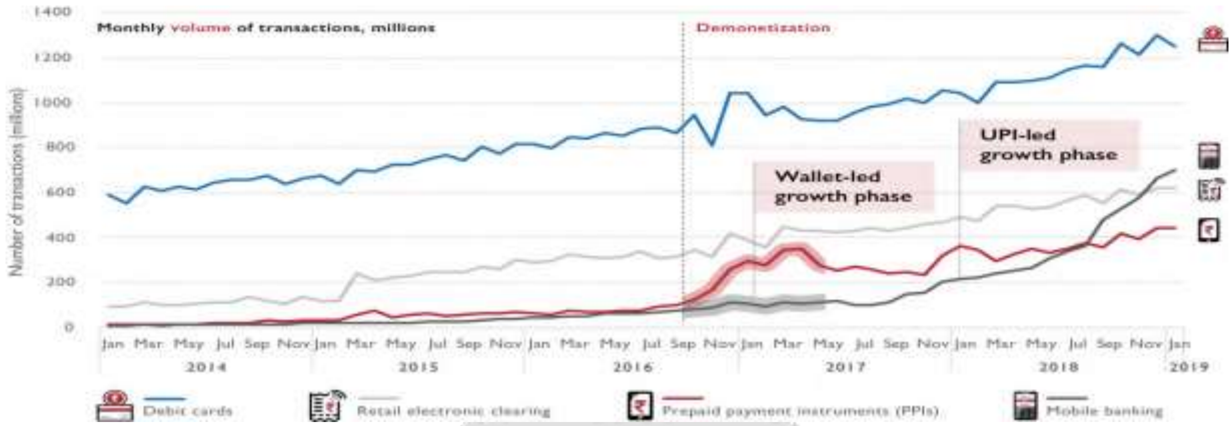
The research study is a descriptive research. The research study is based on the secondary data, which is collected from different magazines, periodicals, Govt. reports, digital financial inclusion report, journals, research articles, websites like RBI, IMF, and World Bank.

Emerging Dimensions of Digital Financial Inclusion

1. Digital Transactions
2. Access of digital Finance
3. Usage of Digital Financial Services
4. Four layers of the India Stack

1. Digital Transactions:

As per a World Bank report, the total volume of digital transactions in India (including various payment channels and mechanisms, such as net banking, mobile banking, debit cards, credit cards, prepaid instruments, mobile wallets, among others) grew by compound annual growth rate (CAGR) of 30% from 1,142 million in April 2015 to 1,928 million in April 2017. On the other hand, mobile banking transactions grew more than five times, from 19.75 million in April 2015 to 106.18 million in April 2017. Similarly, mobile wallet transactions grew from 11.96 million transactions in April 2015 to 387.6 million transactions worth Rs 15,408 crore in January 2020 (World Bank 2018; RBI 2020).



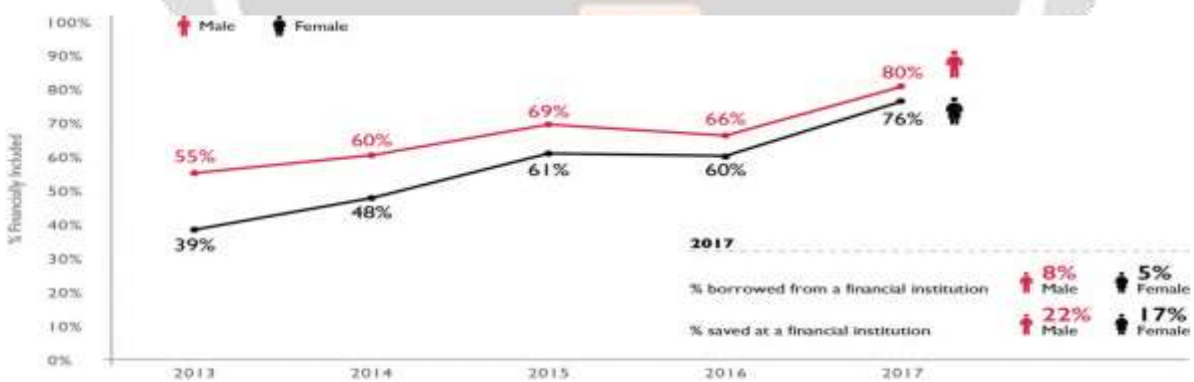
(Source: RBI Data)

Figure-1: Growth in digital transactions 2014-18

In the figure- 1. represent the growth in digital transactions from 2014 to 2018. It shows the use of digital finance like debit card, retail electronic clearing, prepaid payment instrument and mobile banking. After demonetization in 2017 and 2018 drastically increase transactions from mobile banking such as wallets and UPI led in growth phase. It means digital finance is useful for the society.

2. **Access of digital Finance:**

There is also a gender dimension to financial inclusion in the country. According to the 2017 Global Findex database, 83% of males above 15 years of age in India held accounts at a financial institution in 2017 compared to 77% females (World Bank 2018). This is attributed to socio-economic factors, including the availability of mobile handset and internet data facility being higher among men than women.



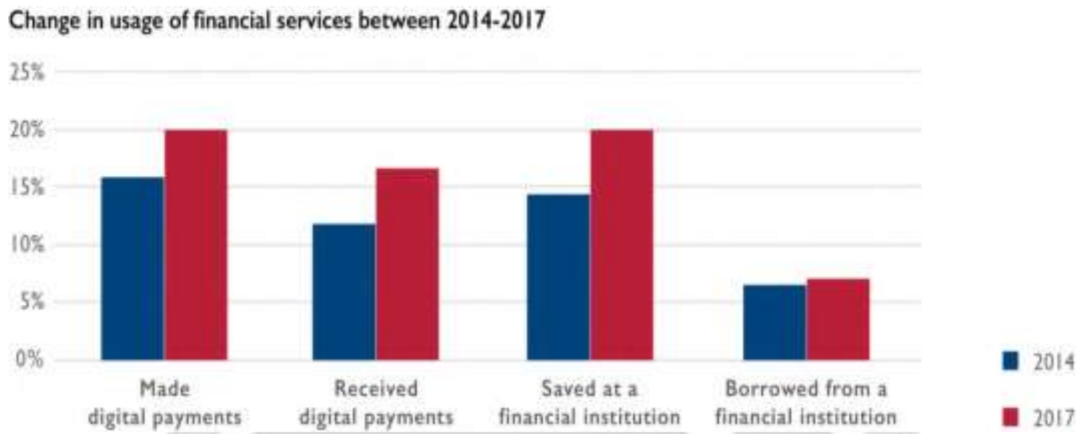
(source: Financial inclusion Report)

Figure- 2: Gender disaggregation of digital financial access

In this figure- 2. represent the gender disaggregation of access of digital finance from 2013 to 2017. It shows the use of digital finance in male and female for borrowed or saved finance. In 2017, 80 percent male and 76 percent female include in digital finance. In this 30 percent male has used both borrowed from financial institutions and saved at a financial institutions and 22 percent female has used both borrowed and saved from financial institutions. This data has showed that still females are not aware about use of digital applications and to trust on banking system.

3. Usage of Digital Financial Services:

Usage of Digital Financial Service embody a broad vary of economic services accessed and delivered through digital channels, together with payments, credit, savings, remittances, and insurance. Digital channels refer to the internet, mobile phones, ATMs, POS terminals etc.



(source: Global Findex data)

Figure -3: Usage of Digital Financial Services

In this figure- 3. represent the usage of digital financial services from 2014 to 2017. It shows the changes in usage of financial services like made digital payment, received digital payment, saved at a financial institution, borrowed from a financial institution. In 2017 maximum usage of digital payment and saved at a financial institution. Overall increase in 2017 as compare from 2014. In 2014 financial services has used less percentage in all as compare to 2017. Within four years digital platform enhance a lot and in near future digital platform explore rural areas as well.

4. Four layers of the India Stack:

The four major layers of India Stack embody the Consent Layer, Cashless Layer, Paperless Layer and Presence-less Layer. This can be explained briefly as follows: Consent Layer: This layer could be modern privacy information-sharing framework with an open personal data store and is owned by the Federal Reserve Bank of India. (source: https://indiastack.org/presentations)

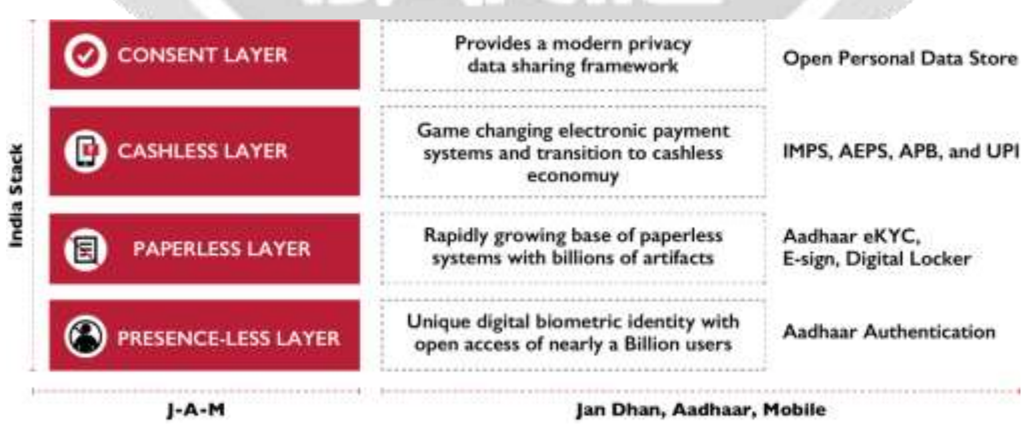


Figure- 4: The four layers of the India Stack

In this figure -4. represent the four layers of the India stack. In this consider four layers consent layer, cashless layer, paperless layer, presence-less layer. These four layers consider as Jan Dhan, Aadhaar, Mobile. In different layers shows different digital finance has used. In consent layer include open personal data store, cashless layer includes IMPS, UPI etc., paperless layer includes Aadhaar eKYC, E-sign, digital locker, presence-less layer includes Aadhaar authentication.

Digital Transactions in Urban and Rural Areas:

Rural India lags behind urban areas in not just Internet penetration but also in Internet access for online financial transactions due to lack of electricity and poor network quality. In both urban and rural areas, online financial transactions, e-commerce activities as well as digital payments still lag considerably, despite demonetization, and the drive to promote digital payments over the last one year, the report said, adding that the situation was worse in rural areas. Only 16% of rural users access the Internet for financial transactions, while in urban areas 44% users access the Internet for this purpose, according to the report. (Kantar IMRB Report)[3]

As of December 2017, India had 481 million Internet users, an increase of 11.34% from a year earlier. Of this, urban India has 295 million Internet users and rural 186 million. While rural India saw Internet, usage grow at 14.11% year-on-year, compared to urban India which grew at 9.66%, this was mainly due to a low base effect as the total number of Internet users in rural India is still critically low, the report points out. It expects the Internet user base in the country to grow to 500 million by June 2018. As far as frequency of Internet usage is concerned, 182.9 million urban users access the Internet every day, as against 98 million users in rural areas. This usage pattern is closely related to connectivity, quality of service and affordability.

Among the urban population, online communication is the top activity with 86% of users accessing the Internet for this purpose, followed by entertainment (85%) and social networking (70%). In rural India, however, entertainment stood out as the most popular Internet activity for 58% of the population surveyed, followed by online communication (56%) and social networking (49%).

While the access patterns of urban and rural areas are similar, the usage of common service centers (CSC) in rural areas for accessing Internet remains quite low. “Unless e-governance and other important digital services offtake increase, the usage of Internet will remain restricted to entertainment and utilization of these centers will remain low," the report said. (Kantar IMRB Report).

CSC e-Governance Services India Ltd is a special purpose vehicle set up by the ministry of electronics & IT to oversee implementation of the CSC scheme and ensure delivery of essential public utility services, social welfare schemes, healthcare to citizens through these centers.

The most common modes of digital banking services offered by Banks are: -

- Credit Cards
- ATM
- Debit Cards
- Smart Cards
- Electronic Funds Transfer (EFT) System,
- Mobile Banking
- Internet Banking
- Telephone banking
- Electronic Clearing Services
- Mobile Wallet – Bhim App, Phone Pe, Paytm etc.

In fact, poor infrastructure coupled with digital illiteracy is the primary reason behind the slow adoption of digital payments in rural areas. According to ET statistics[4], only 20.26% of rural and 64.84% of the urban Indian population have direct access to the internet, thus rendering the rest untapped. Despite the evolution of digital payments in India, the rural-urban divide continues to exist. Even today, unbanked pockets of the country rely heavily on cash, making it the most ubiquitous payment method.

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[3] According to Kantar IMRB Report.

[4] ET statistics. All data collected by this report and ET statistics data.

4. CONCLUSION AND IMPLICATION

The present research study has focused on emerging dimensions of digital financial inclusion. There is no doubt that Republic of India has considerably improved the financial inclusion and Digital India has turned out to be an improvement intervention for reached finance at lower level of society. However, the digital divide is simply too wide and there exist several bottlenecks and challenges which require immediate attention.

These embrace the promotion of economic services as a national plan set up, the necessity to balance innovation and risk, providing legal and regulatory frameworks, and increasing the digital financial ecosystems, among others. Similarly, it suggests the necessity to build investments for digital tools which will facilitate integrate systems and databases creating it easier for auditors and regulators to process information. It conjointly highlights that the arrival of digital systems would mean vast knowledge volumes and while not the presence of adequate data processing and data analytics, countries would need to handle an excessive amount of knowledge with restricted outcomes.

The most common barriers to the digital financial inclusion embody the non-availability of appropriate financial products, lack of skills among the stakeholders to use digital services, infrastructural problems, and low-income consumers who are not ready to afford the technology needed to access digital services.

Another challenge to digital financial inclusion arises from the perspective of the stakeholders. As an example, take the case of Jan Dhan bank accounts. Once the scheme was launched in 2015, banks were got bold targets to open accounts for the marginalized. This has resulted within the opening of many dormant accounts that never saw actual banking transactions. All such activities incur costs on the financial transactions, and thus, immense operative costs only proved to be harmful to the particular objective. To avoid these harmful outcomes, it is necessary that everyone stakeholders participate in such programmes with correct intent and not only for the sake of it.

In conclusion, for the success of digital initiatives, there must be four-dimensional approach through which existing digital platforms, access of digital finance, usage of digital financial services, four layers of the India Stack are strengthened. Additional significantly, human resources ought to be leveraged by skilling and absolutely participating with them to achieve the last-mile connectivity of financial institutions.

If corrective measures are taken to suffice the prevailing issues, interventions, like Digital India, have the potential to amplify the advantages of economic growth to the poor people in the society. Not only will it reduce the costs for the financial transactions, but it would also address safety concerns and accuracy of the information concerned in financial transactions.

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