

# DIGITAL FINANCIAL SERVICES IN RURAL INDIA

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**ABSTRACT** - The cashless system is not just important, but also necessary in today's world. Through pioneering technologies such as mobile-based solutions, digital platforms, and digital money models, Digital financial services (DFS) have a significant potential to provide a number of reasonable, appropriate, and secure banking services to the underprivileged in developing countries. Through digital technologies, DFS enables unbanked individuals to gain access to financial services. DFS, on the other side, faces significant adoption hurdles. As an outcome, the purpose of this research is to identify such difficulties and propose a framework to address them.

**Key Words:** Financial Inclusion, GDP, Digital Financial Services, technological infrastructure, online transaction security

## 1. INTRODUCTION

DFS (Digital financial Services) are not only a necessity but also a need of today's growing economies. Digital Financial Services (DFS) enabled by banks and fintech companies have the capacity to reduce costs while increasing profits, security, speed and transparency while providing the financial services. It also provides more specialized financial services that benefit the underprivileged on a wide scale. It allows unbanked people to get used to financial services through digital technologies. At the same time, many people are unaware about DFS or not adopting it as financial service which is beneficial for these rural people. The study analyzes the necessity for awareness of digital financial inclusion and its various ways

Payments, credit, savings, insurance, and other financial services are accessible and delivered via digital media. The internet, mobile phones (including smartphones and digital feature phones), ATMs, POS terminals, NFC-equipped devices, chips, electronically enabled cards, biometric devices, tablets, and any other digital system are all examples of "digital channels" in this context. Digitalization boosts innovation, convenience of work, new availability of jobs, and rural growth. With different features such as online

payment of their monthly expenses such as electricity bills, payment of premiums, and so on, digitalization speeds up the process of sending or receiving money for the customer.

More than millions of individuals are calculated to be linked through basic mobile payments services, allowing them to send money, pay bills, or purchase prepaid electricity with better simplicity, cost, and access internationally. Governments are increasingly embracing digital finance to offer social safety net cash payments and to improve service charge collection efficiency. However, Digital Financial Services show more potential in terms of increasing economic growth across people in rural areas.

"Digital India" program is to change the society into digitally empowered one. The country also embraced the Bharat Net Project. It is a represents positive pushed by the Indian Government to increase rural internet access, e-banking, e-governance, and e-education.

## OBJECTIVES

1. To understand the importance of Digital financial services for rural areas
2. To study the awareness of DFS in rural areas
3. To study the rate of use of financial services available digitally and thought process of rural people while using digital financial services
4. To learn the satisfaction level of rural people
5. To find challenges faced by rural people while using these services

## LITERATURE REVIEW

- A variety of past research have been conducted in order to better understand individual behaviour when it comes to the adoption of technological innovation in digital financial services.
- A significant number of studies have discovered various models to predict consumer intentions to use digital financial services by recommending

some variables or attributes that may influence a person's decision to accept digital financial services.

- A study conducted by K. Geetha & Dr. K. Kanniammal about the topic 'awareness of Digital Financial Services' among rural households found that even though most part of the world is becoming the cashless economy everyone in the world is not going in the same manner as world is moving. There is a need of development in rural areas.
- Development Research Project (2013) sought to better understand the long- and short-term financial needs of the poor by investigating how surplus funds are used to address short-, long-, and emergency needs in order to build financial inclusion strategies and design financial solutions.
- According to Glen Finau- 'Perceptions of Digital Financial Services'; it is observed that people attend primary schools and get accumulated with basic knowledge and skills, but they fail to apply it in DFS.
- According to the research paper made by Niprenda Rana & Sunil Luthara (June 2018) on topic 'Developing a framework using interpretive structural modelling for the challenges of digital financial services in India' concluded that Digital Financial Services are not widely spread in India and to reduce challenges related to DFS, the developed hierarchical structural model can be used to by various bodies who are taking care of these services.
- In study on Impact of digital finance on financial inclusion and stability by Peterson (Dec, 2017) provides a discussion on positive effects of digital financial services on financial inclusion and stability. The article also indicates some challenges that digital finance hold in financial inclusion and stability.
- CRISIL (2013) created an index to evaluate the amount of financial inclusion in India. The non-monetary aggregates are used to calculate financial inclusion. In this, it helped to understand the situation of financial inclusion in India.
- A study made by Pooja Jain (Jan 2019), suggests that there is theory of innovation called Innovation Diffusion Theory which explains different characteristics that change an individual behaviour

to accept new technology. Also, this theory helps to get answered for various questions related to new ideas and innovation of technology.

- MStar Project (Jun 2021) concludes that due to demonetization occur in 2016, the growth of a digital payment took an on – off boost which resulted in rapid change in digital financial market.

### **RESEARCH METHODOLOGY**

This study includes primary as well as secondary data. Primary data is collected through structured questionnaire from the ones who were from small village in Jalgaon district. The questionnaire formulated and circulated the hardcopy with the respondents.

The questions which were asked in the survey consists of data related to rate of people using internet, accessing bank account, people who knows digital financial services, literacy of people with respect to digital financial services.

Secondary data include information published on digital financial services in the journals, articles, newspapers, government site and other websites.

The data analysis includes statistical tools like ratio & percentage, weighted average ranking, etc.

### **DIGITAL FINANCIAL SERVICES MEANING**

Digital financial services assist those who are connected to banks as well as those who are not. It consists of a variety of financial services delivered via digital media, including payments, allowances, credit services, and insurance. When compared to traditional approaches to retail financial service delivery, digital financial services bring new market parties and distributes tasks and risks in different ways to both new and existing or well-known parties.

Consumers and suppliers alike benefit from digital financial services. Consumers may move their money to a safer environment, transact and handle their accounts in a more timely and dependable manner (including after hours and in better close interactions), and frequently save money. Companies can grow their operations and introduce new products and services in a cost-effective manner for recurring transactions, which enhances their operations and quality of product.

Many people, particularly the poor people in developing countries depends on various new and digital technologies in their day to day live. In case of managing finances people face less barriers while using digital channels in compare to traditional services, this shows us that providing financial services digitally will make these services more accessible to them.

These individuals already utilize a variety of informal techniques to manage their finances, therefore the objective of DFS shifts from introducing the concept of financial management to give them with a more dependable, affordable and accessible manner of managing their financial resources.

**IMPORTANCE**

- Recent advancements in the accessibility and affordability of digital financial services around the world have the potential to assist millions of poor people in moving from cash-based transactions to formal digital financial transactions on secure digital platforms. Digital finance has the strength to give banking services to poor people in developing countries with affordable, convenient, and secure.
- Digital finance has the potential to boost the gross domestic product (GDP) of digitalised economies by facilitating easy access to a larger range of financial products and services (and credit facilities) for individuals and small, medium and large businesses, and hence increasing total expenditure and so GDP levels. Digital finance can also contribute to better economic stability and financial system, helping both consumers and the economy in which they and their family stayed.
- Governments benefits from digital finance as well since it provides an opportunity for higher total expenditure, which leads to more tax collection due to the rise in the frequency of financial transactions.
- Financial and monetary system authorities benefit from digital finance because widespread adoption can greatly reduce the circulation of illegal (or false) money, among other factors. Other advantages of digital finance for customers include better control over their own finances, the potential to make and accept money in seconds, and the opportunity to maintain and accept money in real time.

**DATA INTERPRETATION:**

| Characteristics           |                      | Frequency | Percentage |
|---------------------------|----------------------|-----------|------------|
| Age                       | Less than 25         | 12        | 24%        |
|                           | 25-30                | 9         | 18%        |
|                           | 30-35                | 11        | 22%        |
|                           | 35-40                | 7         | 14%        |
|                           | 40-45                | 8         | 16%        |
|                           | 45 & above           | 3         | 6%         |
|                           | Total                | 50        | 100        |
| Occupation                | Government Employee  | 8         | 16%        |
|                           | Private Employee     | 6         | 12%        |
|                           | Professionals        | 7         | 14%        |
|                           | Daily Wages          | 14        | 28%        |
|                           | House Wife           | 11        | 22%        |
|                           | Others               | 4         | 8%         |
|                           | Total                | 50        | 100        |
| Educational Qualification | Up to SSCL           | 9         | 18%        |
|                           | Plus two/ pre-degree | 13        | 26%        |
|                           | Graduation           | 10        | 20%        |
|                           | Post-Graduation      | 6         | 12%        |
|                           | Professionals        | 8         | 16%        |
|                           | Others               | 4         | 8%         |
| Total                     | 50                   | 100       |            |
| Monthly Income            | Below 5000           | 10        | 20%        |
|                           | 5000-15000           | 15        | 30%        |
|                           | 15000-25000          | 12        | 24%        |
|                           | 25000-35000          | 7         | 14%        |
|                           | 35000-45000          | 3         | 6%         |
|                           | 45000 & above        | 3         | 6%         |
|                           | Total                | 50        | 100        |
| Monthly Spending          | Below 5000           | 10        | 20%        |
|                           | 5000-15000           | 14        | 28%        |
|                           | 15000-25000          | 15        | 30%        |
|                           | 25000-35000          | 7         | 14%        |
|                           | 35000-45000          | 2         | 4%         |
|                           | 45000 & above        | 2         | 4%         |
|                           | Total                | 50        | 100        |
| Methods of Payment        | COD                  | 32        | 5.3333     |
|                           | ATM/ Credit Card     | 26        | 4.3333     |
|                           | Mobile Wallet        | 27        | 4.5000     |
|                           | Online Payment       | 19        | 3.1667     |
|                           | Net Banking          | 6         | 1.0000     |
|                           | Others               | 8         | 1.3333     |

**Problems Faced by Respondents**

| Problems           | Scores & Scales values of ranks |     |    |    |    |    | Total | Rank |
|--------------------|---------------------------------|-----|----|----|----|----|-------|------|
|                    | Scale (X)                       | 5   | 4  | 3  | 2  | 1  |       |      |
| Lack of Security   | Freq (F)                        | 14  | 6  | 16 | 12 | 3  | 51    | 2    |
|                    | FX                              | 70  | 24 | 48 | 24 | 3  | 169   |      |
| Lack of Confidence | F                               | 7   | 14 | 21 | 4  | 4  | 50    | 3    |
|                    | FX                              | 35  | 56 | 63 | 8  | 4  | 166   |      |
| Lack of Knowledge  | F                               | 24  | 6  | 9  | 7  | 4  | 50    | 1    |
|                    | FX                              | 120 | 24 | 27 | 14 | 4  | 189   |      |
| Fear of Use        | F                               | 7   | 8  | 14 | 12 | 9  | 50    | 4    |
|                    | FX                              | 35  | 32 | 42 | 24 | 9  | 142   |      |
| Cost               | F                               | 6   | 3  | 4  | 16 | 21 | 50    | 5    |
|                    | FX                              | 30  | 12 | 12 | 32 | 21 | 107   |      |

**Reasons for Using Digital Financial Services**

| Reasons             | Frequency | Average |
|---------------------|-----------|---------|
| Convenience         | 38        | 6.33    |
| Easy Accessibility  | 35        | 5.83    |
| Lower Cost          | 19        | 3.17    |
| Service Quality     | 26        | 4.33    |
| Security            | 14        | 2.33    |
| Technology oriented | 29        | 4.83    |

**Digital Financial Services Application Using Different Tools**

| Tools          | Scores & Scales values of ranks |     |    |    |    |    | Total | Rank |
|----------------|---------------------------------|-----|----|----|----|----|-------|------|
|                | Scale (X)                       | 5   | 4  | 3  | 2  | 1  |       |      |
| ATM            | Freq (F)                        | 33  | 7  | 4  | 3  | 3  | 50    | 1    |
|                | FX                              | 165 | 28 | 12 | 6  | 3  | 214   |      |
| Credit Cards   | F                               | 9   | 24 | 12 | 3  | 2  | 50    | 2    |
|                | FX                              | 45  | 96 | 36 | 6  | 2  | 185   |      |
| Mobile Wallets | F                               | 6   | 13 | 21 | 7  | 3  | 50    | 4    |
|                | FX                              | 30  | 52 | 63 | 14 | 3  | 162   |      |
| Net banking    | F                               | 7   | 11 | 26 | 2  | 4  | 50    | 3    |
|                | FX                              | 35  | 44 | 78 | 4  | 4  | 165   |      |
| Others         | F                               | 2   | 4  | 3  | 10 | 31 | 50    | 5    |
|                | FX                              | 10  | 16 | 9  | 20 | 31 | 86    |      |

**Various Factors Explaining Awareness of DFS**

| Variables                                       | Options           | Frequency | Percentage |
|---|-------------------|-----------|------------|
| Knowledge of Digital Financial Services         | Strongly Agree    | 6         | 12%        |
|   | Agree             | 12        | 24%        |
|   | Neutral           | 20        | 40%        |
|   | Disagree          | 8         | 16%        |
|   | Strongly Disagree | 4         | 8%         |
|   | Total             |           | 50         |
| Usage of Digital financial Services Permanently | Strongly Agree    | 5         | 10%        |
|   | Agree             | 10        | 20%        |
|   | Neutral           | 18        | 36%        |
|   | Disagree          | 9         | 18%        |
|   | Strongly Disagree | 8         | 16%        |
|   | Total             |           | 50         |
| Online Transaction Security                     | Strongly Agree    | 2         | 4%         |
|   | Agree             | 10        | 20%        |
|   | Neutral           | 18        | 36%        |
|   | Disagree          | 12        | 24%        |
|   | Strongly Disagree | 8         | 16%        |
|   | Total             |           | 50         |

**ANALYSIS OF THE STUDY:**

- 20% of respondents in a sample of 50 are housewives.
- It has been discovered that about 30% of women have qualifications up to the SSLC level.
- According to the research, 24% of rural individuals include people aged below 25.
- Many of the respondents' monthly income is less than \$5,000. (20%).
- It has been discovered that employment (56%) is the primary source of income for rural households. According to the findings, rural households' monthly expenditure is less than \$10,000. (45%). Food is the most popular spending category among rural

households (12%), while entertainment is the least popular (1.5%).

- It has been discovered that 70% of rural families use Digital Financial Services.
- According to the findings, total awareness of DFS among rural households is rather low (40 percent people were expressed their neutrality towards the complete awareness about DFS).
- According to the studies of the survey, just 10% of rural households use DFS on a permanent basis, while 36% are neutral about it.
- It has been discovered that 36% of consumers are neutral with the security of online transactions. Also, findings states that 30% of individuals feel that using Digital Financial Services to save money is a good idea.
- It has been discovered that the primary factor driving them to use DFS is convenience (6.33%). The lowest reason given by 5.83% of respondents for utilising DFS is its ease of access and reduced cost.
- According to the analysis, the main issue that rural households have when dealt with DFS is a lack of understanding (1st rank).
- Another significant result in the study is that Cash on Delivery (COD) is the most favoured method of payment (5.33%) when compared to other modes of payment.
- It has been discovered that the primary objective of DFS among rural households is cash withdrawal (1st rank). Utility payments, such as energy bills, are a less desired reason (5th rank)
- It has been discovered that ATMs are the primary DFS tool used by rural households (1st rank) over other tools.
- According to the analysis, the majority of families use the EFT technology (60%). At the similar time, 88 percent of rural families don't have exposure to Net banking, whereas 65 percent of rural households use online payment.
- These are the key conclusions from the data analysis.

## **CHALLENGES IN RURAL AREAS FOR APPLICATION OF DIGITAL FINANCIAL SERVICES:**

Cashless or minimum cash economy concepts got more exposure after the demonetization in the country. In all

this, the one who were already known with digital and new way transactions did not face any difficulties while doing any types of transactions. But in our country majority of population was not aware about the same. Mainly, rural areas had to go through various obstacles during any type of transaction and competing with these obstacles required a multidimensional approach. For this, merging of rural and formal economies was the option and which was overdue for long time.

From the primary data and secondary data following are the challenges faced by rural areas;

### **1. Financial Literacy:**

People should not be literate only; it means knowledge about how to read & write is not sufficient. They should be financially literate, which is more challenging in rural areas, where financial literacy is not considered as important topic of discussion. This results, when literate people struggle to fill the cheques and various document which banks provides.

### **2. Digital Illiteracy:**

Residents in rural areas are less familiar with the digital world and computers/smartphones. They don't even know the basics of how to use a smartphone or a computer. A bad internet connection is also worsening the matter.

### **3. Unstable system and uncertainty:**

Many people believe that if money is put at a bank, it will be stolen or blocked, making them even more suspicious of digital transactions. Furthermore, frauds complicate the problem.

### **4. Lack of infrastructure:**

There is a lack of usage of smartphones, internet connection, electricity, and banking facilities. Even India's largest nationalised banks are having difficulty providing basic banking services in rural areas.

### **5. Minimal number of transactions:**

A larger number of trades with the same retailer may lead a person to shift to a handier mode of payment. However, because the number of trades in rural areas is limited, particularly near the month's



end, customers would be less likely to use the digital mode of payment.

## RESTRICTIONS ON DIGITALIZATION BECAUSE OF IT PROBLEMS IN INDIA

In India, more than 70% of the population lives in rural areas. Following the demonetization of currency in 2016, the government emphasised the use of digital payment services such as e-wallets, online gateways, and point-of-sale (PoS) portals, and several companies such as free-charge and Paytm launched services in rural India, and the government's BHIM app. To do so, a person must have a working smartphone with an internet connection, as well as an active bank account and a debit card or credit card. As a result, it is clear that IT infrastructure is a major impediment to the Digital India campaign's success.

### Technological Advancement

According to World Bank estimates, there about 290 million Indians do not have access to electricity, which is required for advances in technology. As per the Indian Telecom Regulatory Authority (TRAI), India had more than a billion active cellphone subscription services in 2016, but these are not all unique customers and are simply an indicator of the amount of sim cards supplied by telecom operators, with approximately 25% of them remaining dormant. Furthermore, almost half of these memberships lack an active internet connection and are thus inaccessible. As a result of recent telecom operator plans, rural India is seeing a rise in mobile usage; nevertheless, the majority of these phones are only used for calling and lack basic internet access.

### Infrastructure of Technology

Rural India's infrastructure is likewise concerning. The following illustration depicts the current state of technical infrastructure in rural India. The Indian government has recognised that internet services are limited in rural India and has created a project dubbed the National Optical Fibre Network, which aims to provide internet access to India's rural villages by supplying high-speed internet to local panchayats.

### Illiteracy

One of the greatest hurdles to India's technological infrastructure upgrade is illiteracy and superstition. Local religious bodies and even panchayats have reportedly

prohibited the usage of cell phones in certain areas. They also deny access to the internet and basic education to children and women.

### Customer Perspective with respect to Digital System

Technological development has unleashed a plethora of digital payment alternatives, allowing consumers to conduct transactions in a simple and acceptable manner. Aspects such as perceived ease of use, soulfulness, and the usage of a digital wallet as a payment method all played a significant role. These crucial influences are referred to as architects, and they play an important role in the adoption of digital payment solutions

### Infrastructure

In post-demonetisation India, digital payments have a bright appearance but suffer basic issues in terms of their functioning requirements. The regulations governing e-wallets are a good example. Because e-wallets are not covered by regular banking legislation, they are prone to ambiguity and additional infringement of consumer and producer rights. Because the RBI has not issued any rules, section 43A of the IT Act is the only provision for ensuring the security and privacy of information handled by private enterprises. Fintech organisations, such as e-wallets, are required to manipulate the system.

To maintain 'reasonable security practices and procedures' under section 43A of IT. Without a method or requirement to prove such security measures that are to be adopted by corporations, there is a potential way.

- Aadhaar and Digital Financial Services

Aadhaar is a 12-digit, one-of-a-kind identity number backed by biometric authentication at the point of service delivery. It can be used as identification, such as when opening a bank account, or as a digital signature for a paperless cash transaction. Over 1 billion people in India have joined up for the programme, and Aadhaar authentications account for roughly 13 million every day.

- Digital Legal Environment Evolution in India

Fintech regulation encompasses a wide range of measures, from larger IT infrastructure to banking procedures. The Reserve Bank of India (RBI) is continually regulating and supervising India's payment systems and services. In this context, RBI has taken a number of steps, including launching the Bharat Bill Payments System (BBPS), permitting non-banks to operate as system operators and

technology service providers in the payments industry, and authorising NPCI payment systems such as NACH, AEPS, and IMPS.

## **RESULTS/FINDINGS**

The study comes up with the following results:

- It is observed that people prefer ATM more than other DFS tools such as net banking and mobile wallets.
- Cash on delivery is more preferred in comparison to other payment modes. The main reason behind such preference is lack of knowledge. They basically prefer security over digital payment.
- In rural areas, there is a lack of awareness which need to be looked up. It's not that bookish knowledge will provide awareness, but people need to come forward and take up their own stand and make India cashless.
- As India is not yet developed, it's developing so the infrastructure is not balanced across the boundaries it might take a decade for stabilization of digital financial services.

## **CONCLUSION AND RECOMMENDATIONS**

The study concludes that there is a lack of awareness among rural areas. The importance of digital financial services is yet to be circulated over the boundaries. There is a great impact of DFS in the current century as it makes the work easier and more convenient. The infrastructure needs to be updated time to time to get better output from rural areas. Rural people have a fear of security because they are more confined to their zone and this is the major concern. In rural area too, people don't look over cost, they prefer quality services.

## **LIMITATIONS OF THE STUDY**

As the pandemic hasn't been yet overcome, it is difficult to connect with all people and get the information from them. We cannot collect all the data from overall population of the rural area we have to restrict with 50 samples from the population. There is a lack of secondary data in the online portals, which led to decrease in content of literature review.

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