

## STUDY ON FACTORS AFFECTING ADOPTION OF DIGITAL FINANCIAL SERVICES IN RURAL AREAS IN INDIA

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### Abstract

The adoption of digital financial services (DFS) in rural areas is a multifaceted and evolving phenomenon influenced by a myriad of factors. This abstract provides an overview of the key determinants that shape the adoption of DFS in rural regions. In rural areas worldwide, access to formal financial services has traditionally been limited, often leading to financial exclusion and economic disparities. The advent of digital financial services, facilitated by mobile technology and the internet, has presented an opportunity to bridge this gap and enhance financial inclusion. However, the uptake of these services in rural settings is not uniform and is subject to a complex interplay of factors. Bridging the digital divide in rural areas requires concerted efforts from governments, financial institutions, and technology providers to create an enabling environment for the widespread adoption of digital financial services, thereby fostering financial inclusion and socioeconomic development.

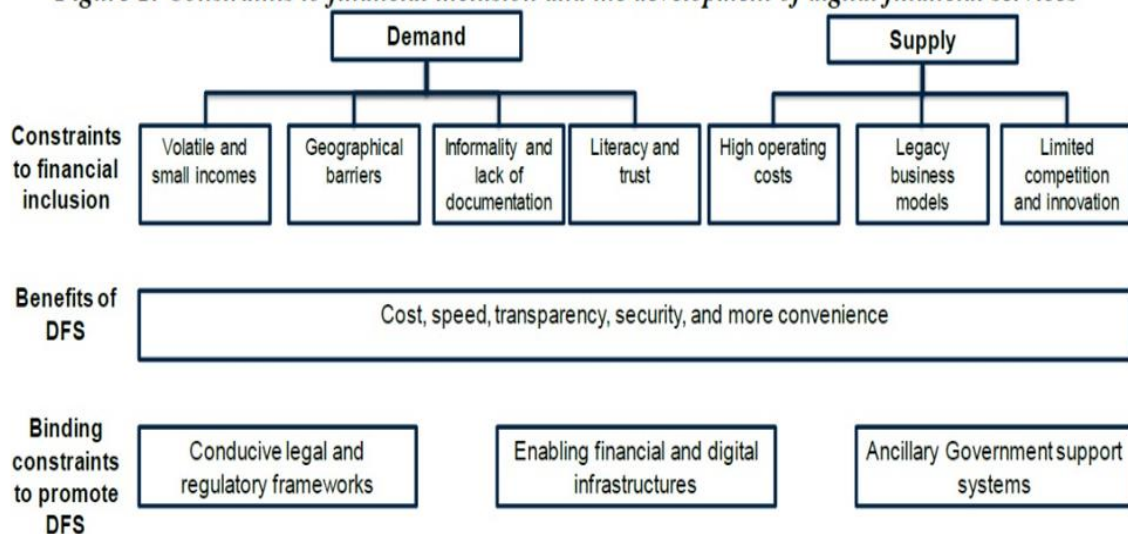
### INTRODUCTION

The Indian economy stands out as one of the world's rapidly advancing economies. Even in the face of global economic uncertainties, the Indian economy remains steadfastly committed to its developmental agenda. In recent times, noteworthy advancements have unfolded within the Indian financial system, sparking substantial transformations, shaping new trends, and altering the dynamics of businesses (Dennehy, D. & Sammon, D., 2015). Although the Indian government has been actively promoting digital transaction initiatives over the past few years, the true impact of digital payments in India has been most pronounced in the aftermath of the demonetization period.

During this moment of social alienation, dropping demand, lower input supply, tightening credit conditions, and rising uncertainty, the current COVID-19 epidemic has emphasized the importance of adopting fintech to maintain financial institutions running and keep people safe. Simultaneously, these new technologies must be properly planned and applied to control their hazards, particularly for the poor and vulnerable, in order to avoid exacerbating the crisis's issues. Investment in the conditions for establishing digital financial services, such as mobile broadband infrastructure (even in remote locations), digital identification expansion, and open application programming interfaces, is also urgently needed. These investments should be accompanied by appropriate legal and regulatory frameworks that allow the majority of people to benefit from digital financial services while maintaining a competitive ecosystem. The benefits of digital financial services in many other areas have been highlighted by this crisis, as well as their vital role in reaching the Sustainable Development Goals. Increased use of

digital financial services can help to speed up the settlement of the health emergency, support economic recovery, and enable the return to economic growth in this way. It will help to promote economic development and alleviate poverty in the long run. Reducing financial access constraints: Digital Financial Services and Their Role Long-standing demand and supply side barriers to delivering inexpensive and acceptable financial services to the poor can be alleviated using DFS. (Figure 1)

Figure 1: Constraints to financial inclusion and the development of digital financial services



Source: Ceyla Pazarb Ceyla Pazarbasioglu, Alfonso Garcia Mora, Mahesh Uttamchandani, (World Bank group)

### Adoption Factors

Digitization of financial transactions extends the traditional mobility benefits to finance, facilitating anywhere, anytime transactions, and flexibility in sending and receiving payments. More than computer-based Internet penetration and broadband extension, therecord growth of smartphones and the 4G network rollout made e-tailing popular even in secondary cities and towns across the country.

1. **More affordable:** Digital payments are making financial services more universally affordable, accessible and therefore, have the opportunity to drive financial inclusion and financial health for billions worldwide.
2. **Secure:** Money held in a digital transaction account is secure, and people have assurance that money will go only to the designated recipient, with a record of transaction.
3. **Convenient:** These services are highly accessible and easy to sign up for and to use.
4. **Catalyst for the provision and use of a diverse set of other financial services:** It includes credit, insurance, savings, and financial education, money-transfer services, microloans, and insurance.

5. **Creates an interoperable ecosystem and revenue sharing business models:** Mobile and internet banking can improve the financial inclusion in the country and can create win-win situation for all parties in the value-chain.
6. **24x7 Availability:** Enables consumers with the facility to make or receive a payment at any time of day or night, any day of the week.
7. **Eco-friendly:** The digitization will help in maintaining the database and records on a digital medium which will reduce the effort of cumbersome paperwork along with the paper too.
8. **Maintains payments history record:** One of the best benefits which an individual gets is the track of the transactional record. Even doing small transactions at a merchant will get recorded and can be used for the referential purpose in future, if needed.
9. **Potential channel:** Digital modes of enhancing financial inclusion for women by targeting self-help groups (SHGs) could be one potential channel for accelerating and promoting digital financial inclusion in India.
10. **Digital transactional platforms:** It enable customers to make or receive payments and transfers and to store value electronically by making the use of devices that transmit and receive transaction data and connect to a bank or non-bank permitted to store electronic value.
11. **Access to formal financial services:** Payments, transfers, savings, credit, insurance, securities, etc. Migration to account-based services typically expands over time as customers gain familiarity with and trust in a digital transactional platform. Government-to-person payments, such as conditional cash transfers, that can enable digital stored-value accounts may provide a path for the financially excluded into the financial system.
12. **Reduces risks:** It reduces risks of loss, theft, and other financial misconducts posed by cash-based transactions, as well as the reduced costs associated with transacting in cash and using informal providers.

### Rationale of the Study

Digital financial services have changed the way banking operations are perceived. Now, the bank is just one click away. In recent few years we have seen huge difference in payment method which is mainly influenced by growing E-commerce sector, E-wallet and propensity towards digital payment. Digital financial inclusion can be defined broadly as digital access to and use of formal financial services by excluded and underserved populations. Such services should be suited to customers' needs, and delivered responsibly, at a cost both affordable to customers and sustainable for providers. The government has to bring transparency and efficiency in e-payment system. In the research plan, the study has explored what are the factors that enable digital payment and what are the challenges that consumers face in digital payment and frequency of digital payment.

## REVIEW OF LITERATURE

**Hasan, A. Mohammed Atif Aman, Mohd Ashraf Ali (2020)** examined in their study about the significant challenges that are faced by Indians on the way towards cashless. To achieve the objectives of this exploratory type of personal study, interviews did conduct. After research concluded a major part of the population is concerned about security and privacy issues. Lack of infrastructure is also a matter of challenge for two- third of the population. One of the challenges faced by Indians is the lack of education and knowledge regarding the cashless economy.

**Kumar, R. Mishra, V. and Saha, S. (2019)** focused on Digital Financial Services(DFS) can be defined as the set of financial services accessed and delivered through certain digital pathways. In another word, DFS are services provided and accessed on the customer's respective mobile phones, computers, Point-of-Sale (POS), ATMs, etc. The merits of DFS can be implemented on payments, credit, savings, remittances, insurance and accessing financial information. The paper focused on the trend of digital transaction and road ahead to increased the digital transaction

**CA Kiran N. Gajjar (2019)** focused on the understanding of the cashless system in India and will draw attention to the significant hindrances faced by the cashless economy and electronic payment systems. The exploratory study was conducted to calculate the cost of transaction borne by the customers and banks on the way towards a cashless society. After research concludes cashless economy beneficial in the present system.

**Ashalatha B (2019)** discussed that after demonetization initiatives, most of the people in India started electronic payments for their transactions. Digital payment methods are often easy to make, more convenient and provide customers the flexibility to make payments from anywhere and at any time. In this study a special attention has been given to rural youth for 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 two years.

**Mohammed Farzana Begum (2018)** stated in study that Digital financial services have the potential to give poor people in developing countries with a variety of affordable, convenient, and secure banking services. The digital India programme can readily connect many segments of society and aid in the attainment of the goal of financial inclusion through digital banking. Mobility has far-reaching implications that go beyond facilitating on-the-go online purchases. Mobility-enabled digital commerce has the potential to significantly increase financial inclusion by providing access to banking services to people who have previously been excluded.

### Research Gap

The rapid advancement of digital technology and its application in the financial sector has the potential to revolutionize access to financial services, particularly in rural areas. However, there are several significant research gaps that remain to be addressed in this domain: While digital financial services have been introduced in many rural areas, there is a lack of comprehensive research into the factors influencing user adoption. Understanding why some individuals or

communities embrace these services while others do not is essential for effective policy development and service design. Rural populations often face challenges related to digital literacy and financial education. Many rural areas still lack reliable internet connectivity and electricity, which are crucial for the use of digital financial services.

## OBJECTIVE OF THE STUDY

To study the factors affecting adoption of digital financial services in rural areas.

## RESEARCH METHODOLOGY

**Research Design:** Descriptive research design is a type of research that seeks to describe and measure the characteristics of a particular phenomenon or population. This study has used descriptive research design.

**Sampling Method:** Convenience sampling is often used in social science research, market research, and opinion polling because it is cost-effective and time-efficient. Hence, in this study, convenience method is used to collect the data from the respondents.

**Sample Size:** Hence, total 500 consumers were included in this study.

**Sample Area:** Indore District.

**Statistical Tests:** To prove the hypotheses ANOVA was applied on SPSS 26.0.

**Table 1: Demographic Profile of Consumers**

Demographics	Category	Frequency	Percentage
<b>Gender</b>	Male	297	59.4
	Female	203	40.6
	Total	500	100.0
<b>Age</b>	18-25 Years	185	37.0
	26-35 Years	115	23.0
	36-45 Years	85	17.0
	46-55 Years	60	12.0
	Above 55 Years	55	11.0
	Total	500	100.0
<b>Education</b>	No Formal education	35	7.0
	Primary	135	27.0
	Secondary	175	35.0
	Tertiary	155	31.0
	Total	500	100.0
<b>Occupation</b>	Farmer	76	15.2
	Small business owner	206	41.2
	Skilled worker	126	25.2
	Unskilled worker	51	10.2
	Other	41	8.2
	Total	500	100.0

### Results on Hypotheses

H<sub>01</sub>: Age wise there is no significant difference in the factors affecting adoption of digital financial services.

H<sub>a1</sub>: Age wise there is a significant difference in the factors affecting adoption of digital financial services.

**Table 2: ANOVA on Age & Factors affecting adoption of Digital Financial Services**

Sum of Squares		df	Mean Square	F	Sig.	
Security & Privacy	Between Groups	3.362	4	.840	.335	.854
	Within Groups	1241.966	495	2.509		
	Total	1245.328	499			
User Interface	Between Groups	1.682	4	.421	.246	.912
	Within Groups	845.118	495	1.707		
	Total	846.800	499			
Affordable transaction charges	Between Groups	12.097	4	3.024	1.587	.177
	Within Groups	943.351	495	1.906		
	Total	955.448	499			

The table exhibits no difference in the factors affecting adoption of digital financial services in terms of age group. It is clear that for the factor of security & privacy, the calculated value of F is 0.335 which is insignificant at  $.854 > 0.05$ , for the factor of easy user interface, the calculated value of F is 0.246 which is insignificant at  $.912 > 0.05$  and for the factor of affordable transaction charges, the calculated value of t is 1.587 which is insignificant at  $.177 > 0.05$  so, the null hypothesis 'Age wise there is no significant difference in the factors affecting adoption of digital financial services' is accepted.

H<sub>02</sub>: Education wise there is no significant difference in the factors affecting adoption of digital financial services.

H<sub>a2</sub>: Education wise there is a significant difference in the factors affecting adoption of digital financial services.

**Table 3: ANOVA on Education & Factors affecting adoption of Digital Financial Services**

Sum of Squares		df	Mean Square	F	Sig.	
Security & Privacy	Between Groups	5.098	3	1.699	.680	.565
	Within Groups	1240.230	496	2.500		
	Total	1245.328	499			
User Interface	Between Groups	1.246	3	.415	.244	.866
	Within Groups	845.554	496	1.705		
	Total	846.800	499			
Affordable transaction charges	Between Groups	.663	3	.221	.115	.951
	Within Groups	954.785	496	1.925		
	Total	955.448	499			

The table exhibits no difference in the factors affecting adoption of digital financial services in terms of education group. It is clear that for the factor of security & privacy, the calculated value of F is 0.680 which is insignificant at  $.565 > 0.05$ , for the factor of easy user interface, the calculated value of F is 0.244 which is insignificant at  $.866 > 0.05$  and for the factor of affordable transaction charges, the calculated value of t is .115 which is insignificant at  $.951 > 0.05$  so, the null hypothesis ‘Education wise there is no significant difference in the factors affecting adoption of digital financial services’ is accepted.

H<sub>03</sub>: Occupation wise there is no significant difference in the factors affecting adoption of digital financial services.

H<sub>a3</sub>: Occupation wise there is a significant difference in the factors affecting adoption of digital financial services.

**Table 4: ANOVA on Occupation & Factors affecting adoption of Digital Financial Services**

		Sum of Squares	df	Mean Square	F	Sig.
Security & Privacy	Between Groups	5.150	4	1.287	.514	.726
	Within Groups	1240.178	495	2.505		
	Total	1245.328	499			
User Interface	Between Groups	3.685	4	.921	.541	.706
	Within Groups	843.115	495	1.703		
	Total	846.800	499			
Affordable transaction charges	Between Groups	3.031	4	.758	.394	.813
	Within Groups	952.417	495	1.924		
	Total	955.448	499			

The table exhibits no difference in the factors affecting adoption of digital financial services in terms of occupation group. It is clear that for the factor of security & privacy, the calculated value of F is 0.514 which is insignificant at  $.726 > 0.05$ , for the factor of easy user interface, the calculated value of F is 0.541 which is insignificant at  $.706 > 0.05$  and for the factor of affordable transaction charges, the calculated value of t is .394 which is insignificant at  $.813 > 0.05$  so, the null hypothesis ‘Occupation wise there is no significant difference in the factors affecting adoption of digital financial services’ is accepted.

## CONCLUSION

Adopting digitization in financial services and including most of population in the net of banking will help in growth and development of country. With several digital financial instruments in the market, the consumer now has more choice than ever. The expansion of digital financial services in rural areas, with a special reference to Indore District, has marked a transformative journey in the financial inclusion landscape of India. It reveals that there is no significant difference in the factors influencing the adoption of digital financial services across different age groups. Regardless of age, consumers consistently prioritize security and privacy, an easy-to-use interface, and affordable transaction charges when considering the adoption of these services. This underscores the universal importance of these factors in driving digital

financial service adoption, highlighting the need for providers to address these key aspects to attract and retain a diverse range of users. It has revealed that there is no significant difference in the factors influencing the adoption of digital financial services across different levels of consumer education. Whether consumers are highly educated or have limited educational backgrounds, factors such as security and privacy, user-friendly interfaces, and affordable transaction charges consistently play pivotal roles in their decision-making processes. It exposes that there is no significant difference in the factors influencing the adoption of digital financial services across various consumer occupations. Factors such as security and privacy, an easy user interface, and affordable transaction charges hold consistent importance for all users, irrespective of their professional backgrounds. To effectively engage consumers across different occupations, financial service providers should prioritize these common factors while tailoring their offerings to individual needs and preferences.

## SUGGESTIONS

Expanding digital financial services in rural areas, especially in a district like Indore, can significantly improve financial inclusion, empower the local population, and boost economic development. Here are some suggestions for implementing digital financial services in rural Indore:

- Develop user-friendly mobile applications that are accessible even in areas with limited internet connectivity. These apps should provide services like digital payments, savings, and access to credit.
- Set up a network of banking correspondents or agents who can assist rural residents in conducting financial transactions, depositing and withdrawing cash, and providing basic financial literacy.
- Organize workshops and training sessions to enhance financial literacy among rural residents. This will help them understand the benefits of digital financial services and how to use them effectively.
- Ensure that digital platforms and customer support are available in the local language(s) to cater to the linguistic diversity in the region.
- Promote the adoption of mobile money wallets that allow users to store and transfer money digitally. Offer incentives such as cashback rewards or discounts to encourage usage.
- Leverage government schemes and initiatives that promote digital financial inclusion, such as Jan Dhan Yojana in India, and ensure that rural residents are aware of and benefit from these programs.
- Ensure the security and reliability of digital financial platforms to build trust among rural users. Implement strong authentication measures and educate users about cybersecurity.



## Research Scope

Investigate the factors influencing the adoption of digital financial services in rural areas, including demographics, education, and cultural factors. Analyze user behavior patterns to understand how rural populations engage with these services. Assess the effectiveness of financial literacy programs in rural areas and their impact on encouraging the use of digital financial services. Develop tailored educational strategies for these communities. Examine the design and functionality of digital payment platforms, considering the unique needs and preferences of rural users. Evaluate the usability and accessibility of such platforms.

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