

Fintech for digital financial inclusion- A study in reference to Global Findex Database

Dr. Aparna Samudra
Assistant Professor,
Department of Economics,
Rashtrasant Tukdoji Maharaj Nagpur University
Email id: acsamudra@gmail.com

Mr. Rugved Gadge
Assistant Professor,
Department of Economics,
ILS Law College
Email id: gadge.rugved0@gmail.com

Abstract:

Fintech has been the rising sector in the financial world and has a major focus when it comes to the developmental part. It has been associated with financial inclusion recently seeing the potential in being able to achieve the goals of financial inclusion. The paper refers to the World Bank's Global Findex database to understand and analyze the problems faced by the consumer and its challenges. With the reduced cost of the internet and competitive smartphone market, technology is now more affordable than ever before. Reducing inequality is essential in all dimensions to achieve holistic growth. The paper tries to analyze the inequality in the society and understand the use of fintech to reduce such gaps. Using the gaps and the questions the paper tries to identify the type of financial service company relevant for solving the issue. The paper displays a wide variety of scope for fintech to work in order to flourish and suggests few measures to function in a more economical and efficient way.

Keywords: *Fintech, Financial inclusion, Technology, Global Findex, Digitalisation.*

Introduction:

FinTech has been a major player recently. Fintech, or financial technology, refers to the technological innovation in the design and delivery of financial services and products. Technology in finance continues to evolve; advancements include the use of Big Data, artificial intelligence (AI), and machine learning to evaluate investment opportunities, optimize portfolios, and mitigate risks. The extent of the financial services technology has widened during and after the COVID-19 pandemic (Parvez, 2023). The rise of online payment applications, neobank, Unified payment Interface (UPI) has percolated the financial services sector to the roots which

is visible in the Global Findex Database. However, it is still visible from the World Bank's Global Findex Database (World Bank Group, 2023) that there is a lot of scope to reduce the divide between traditional ways to bank and digital banking. This is where the fintech companies may harness the opportunity to further seep into the system and narrow the gap to digitize.

Fintech services are divided into seven major categories:

1. Neobanks
2. Lending services
3. Personal financial services
4. Payment services
5. InsurTech (insurance technology)

6. RegTech (regulatory technology)

India has been very pressing in implementing and executing the United Nations 17 Sustainable Development Goals (SDGs) (*Financial Inclusion and the SDGs - UN Capital Development Fund (UNCDF)*, n.d.). The promotion of fintech and financial inclusion is important for formalizing the economy and streamlining the labor and payment markets. Various schemes have initiated the formalization of the economy in India. 50.09 crore accounts under the Pradhan Mantri Jan Dhan Yojana have been opened as of date.

It is essential to understand that Fintech can create a significant impact towards achieving the financial inclusion goals. It has the potential to transform the traditional banking methods towards digital banking. India has shown a sweeping change in its technological sector. This technological growth is to be accompanied by relevant infrastructure which is gaining traction in India. The Internet and mobile phones are the most important prerequisites for fintech to flourish. According to Nielsen’s India internet report there are around 700 Million plus active internet users as of December 2022 report. Out of the total 425 Million users belong to the rural area and urban area consist of 295 Million users. This is almost 44% above the urban users (Pramshu, 2023). It is important to leverage the power of social media to percolate deeper into the system and familiarize the consumer with new methods of credit distribution. It is crucial for the fintechs to work through the product gaps, understanding the needs of the consumer and the relevance of the product they need. It is key for Fintechs to understand the significance of personalisation rather than focusing on

standardization. The use of data can help in profiling the probable customer to target them seeing their needs and addressing their problems

Review of Literature:

A comparative study has been done between ASEAN and SAARC nations (Imam et al., 2022). Various problems have been identified in different SAARC and ASEAN nations which are an obstacle for the growth of the Fintech industry. According to the study India is a leading nation in digitizing and implementing the use of digital technology. Programs like ‘Digital India’ programme have accelerated the adoption of digital financial services and education. Various Asian Nations are seeing adopting fintech creating a conducive environment for further bloom. Globally seen the financial services sector has paced up after the global financial crisis of 2008 (Asif et al., 2023). COVID- 19 has been a blessing in disguise for the fintech industry. Data has shown that fintech lending and UPI transactions have gained momentum during the pandemic. RBI has been continuously working to promote and regulate the financial sector to protect the interest of the common man and also the financial players. Of the 14,000 newly funded start-ups between 2016 and 2021, close to half belonged to the FinTech industry. FinTech lending is projected to exceed traditional bank lending by 2030 (Anan et al., 2023). The growth in FinTech lending due to digitalization has also facilitated financial inclusion.

One of the major problems for fintech was the cost part. But due to rising competition in the fintech sector it has helped to reduce the cost of funding and

operating thereby further enabling the use of the UPI and other digital payment systems. This competition has helped to work on financial inclusion and has also motivated the players towards innovation. Association of economic development with fintech growth is very well established and visible in various South Asian countries. There are various factor becoming an obstacle for the growth of fintechs

1. Risk factor and user trust: Various countries have listed this as the major obstacle for the adoption and growth of fintech. Associated risk creates a mistrust amongst the users which demotivates them to further increase their transaction and reduces the utility. This was visible in India and Indonesia. Fear of hacking and losing money detaches consumers from further adopting the technology which is also visible in Sri Lanka.
2. Cost factor: cost has a negative impact in countries like Myanmar. However, this cost can be reduced with a proper regulatory environment and healthy competition can be reduced to make fintech a more financially viable option.
3. Regulatory factor: Sri Lanka is an example for negative regulatory oversight which has decelerated the growth of fintechs. It is essential to adhere to the regulatory compliances to successfully grow. However, in countries like Singapore proper regulatory sandboxing has led to a sustainable and healthy growth in the utility of fintechs.
4. Literacy and infrastructure: The Philippines (Imam et al., 2022) has a problem of low financial literacy. This has created problems in accessing funds

and credit. Improper infrastructure i.e. low end technology, internet accessibility etc are important issues to solve which are prominent in under-developed and developing countries.

5. IT spending and Bank charges: The Asia Pacific region has staggered growth due to lower IT spendings and higher banking charges. Higher banking charges makes it expensive to transact, further increasing the scope for fintechs to improve.
6. Religion, culture and borrowing tradition: countries like Malaysia (Imam et al., 2022) have many Islamic fintechs specializing in catering to the needs of the Islam following population. It is observed in the rural areas that they rely more on money lenders due to unavailability of collateral and regulatory process. Traditional and cultural make them more obliged towards the money lenders of their community.

Methodology:

The objective of this research paper is to identify the inequality in the use of digital banking technology tools in India and thereafter identify the opportunities for fintechs to reduce the gap for inclusive growth. The Global Findex Database published by the World bank is one of the most exhaustive databases on the access and use of formal and informal sources of finance. The database for India consists of numerous questions which are divided into methods and ways of traditional banking and that of Digital Banking. Inequality gap for digital banking technology access and usage is calculated for three different years i.e., 2014, 2017 & 2021. This inequality gap is calculated on three dimensions i.e.

1. Gender gap (Male – Female) / Male
2. Income gap (Richest 60% – Poorest 40%) / Richest 60%
3. Geographical gap (Urban - Rural)/ Urban

Gaps are calculated for each of the dimensions;

1. Access to digital financial service
2. Usage of financial instrument or service
3. Perceived Financial wellbeing

On calculation of the gap a trend analysis is done for a particular question to identify the widening or narrowing of the gap during the course of three time periods. Further, based on the extent of inequality gaps, the opportunity for different types of fintechs is classified. Table 1 explains the methodology of data classification of fintech opportunity scale based on the digital banking gap index range. In order to understand the concentration of the data we further calculate the geometric mean of each issue of the given dimensions. The calculated geometric mean will help compare the data averages which further assist to understand the extent of scope.

Table 1: Digital banking gap and fintech Opportunity score

Digital banking Gap index range	Fintech Opportunity Scale
Up to 0.3	Low
Between 0.3 - 0.6	Moderate
Between 0.6 - 1.0	High

Source: Author’s calculations and interpretation

Results & Discussion

Gaps in access of digital financial services/products

Access to financial services is the first step in financial inclusion. Access to financial services refers to the availability and affordability of the financial services or products. In the past decade, the Government of India through the massive PM Jan Dhan Yojana scheme has tried to provide access to banking and financial services. Some additional schemes like Pradhan Mantri Suraksha Bima Yojana and Atal Pension Yojana have also opened up these segments of finance with a scope for introduction to fintechs (Industry & Industry, 2023). Remarkable progress in the number of bank accounts has been well documented, but the dormancy of many of these accounts remains a challenge. An increased smartphone ownership and access to the internet in India and development of financial technology products can be an answer to this challenge.

There exists a huge gap in mobile money accounts access in gender and income. Table 2 shows that there has been a persistent gap in men having higher numbers of mobile money accounts or mobile payment apps since 2014. The gender gap has been reduced in the 2021 survey probably as an impact of pandemic and introduction of UPI in India. The income inequality in mobile money account ownership has been increasing since 2014. This may be attributed to a greater share of cash earnings of the poor compared to the upper income class. Geographically also, the urban population has a greater share of mobile money accounts compared to the rural population.

Table 2: Trends in Gap in access to digital banking

Dimension	Access	Gap index value 2014	Gap index value 2017	Gap index value 2021	Geometric Mean Value	Fintech Opportunity
Gender	Mobile Money account	0.66	0.72	0.66	0.66	High
Income		0.70	0.73	0.77		
Geographical				0.49		
Gender	Has a debit or credit card	0.64	0.46	0.44	0.52	Moderate
Income		0.65	0.60	0.53		
Geographical				0.42		

Source: Author's calculation

Gaps in usage of digital financial services/products

Table 3: Trends in Gap in usage

Dimension	Usage indicators	Gap index value 2014	Gap index value 2017	Gap index value 2021	Geometric Mean Value	Fintech Opportunity
Gender	Has an inactive account	0.09	0.23	0.29	0.24	Low but increasing
Income		0.25	0.34	0.36		
Geographical				0.25		
Gender	Made a digital payment	0.66	0.48	0.52	0.56	Moderate
Income		0.69	0.60	0.63		
Geographical		-	-	0.42		
Gender	Saved using a mobile money account	-	-	0.62	0.68	High
Income		-	-	0.83		
Geographical		-	-	0.62		
Gender	Borrowed from family and friends	0.13	0.15	-0.01	0.05	Low
Income		-0.02	-0.1	-0.05		
Geographical		-	-	-0.05		

Source: Author's calculation

Table 4: Gaps in perceived financial well being

Dimension	Perceived financial well being	Gap index value 2021	Geometric Mean Value	Fintech Opportunity
Gender	Coming up with emergency funds in 30 days: not possible	-0.45	0.47	Moderate
Income		- 0.67		
Geographical		-0.36		
Gender	Most worrying financial issue: money for old age	-0.17	0.25	Low
Income		-0.47		
Geographical		-0.21		
Gender	Most worrying financial issue: paying for medical costs in case of a serious illness or accident	-0.21	0.18	Low
Income		0.16		
Geographical		-0.19		
Gender	Most Worrying financial issue: paying for monthly expenses and bills	-0.13	0.25	Low
Income		-0.51		
Geographical		-0.26		

Source: Author’s calculation

Other Opportunities for Fintech (with and without an account gaps)

Table 5: Trends in gap for not having bank accounts

Questions	Time periods and gaps			Opportunity Index Score
	2014 Gap	2017 Gap	2021 Gap	
No account because financial institutions are too far away	-	-	0.75	High
No account because financial services are too expensive	-	-	0.76	High
No account because of a lack of necessary documentation	-	-	0.76	High
No account because someone in the family has one	-	-	0.75	High
Reason for not using their inactive account: bank or financial institution is too far away	-	-	0.63	High

Source: Author’s calculation

The gap in table 5 is calculated by using the formula

reason for being = without an account - with an account / without an account, which shows the difference between the easy access to account.

Suggestions & Discussion:

According to the World Bank’s Global Findex Database, 78% of adults had a bank account in 2021 in comparison to that of it in 2014 which was 53% (Industry & Industry, 2023).

Fintech needs to be working on three basic principles to flourish which are accessibility, user friendly and safety should help reduce the number of obstacles. Fintech is a cheaper and convenient alternative to traditional banking as it requires minimal infrastructure, significantly reduces cost and improves consumer accessibility. Prominence of data and steps to digitize which will help fintech to leverage to provide a superior customer experience and will help the consumer to access credit easily. This will further help to reduce the gaps and achieve the goal of financial inclusion.

The data in the above table indicates some gaps which can be solved by working out the problems being specific about them. Table 2 to discuss the gap to access digital banking amongst various dimensions discussed. The gap in the mobile money segment points towards a high to moderate opportunity for fintech. The data indicates that the gap is maximum in the gender dimension and in the income dimension. Table 2 discusses the accessibility of fintech or products to the general people. Higher gap shows lesser financial inclusion where the government and the private sector can work in tandem towards a developmental motive. The reason for not having a mobile money account may be due to absence of internet, illiteracy, unavailability of mobile phones etc. Neobanks and personal payment services companies can work towards reducing the lack of infrastructure by coordinating with

the government to implement and execute the literacy programs. Having a mobile money account may solve problems like that of the distance from the financial institution thereby reducing the gap. Another problem with using the credit and debit cards is the associated fees. These fees are supposed to reduce when the company themselves have less operating cost which will reduce with the reduction of infrastructure spending. This will make the cards more affordable or can also be replaced with tools like UPI (Bhakta, 2023) which is clear from the data published by RBI. With hassle free products like UPI lite, products like debit and credit cards can be substituted and the unavailability of smartphones may not be a problem anymore.

The major problem from the data for having no account or having an inactive account is that the financial institution is far away which makes it inaccessible. Fintech can be a precise solution to the problem. The gaps in table 4 can be answered using various new tools and plans available with the fintech companies. Various issues like savings for old age may have use of multiple financial services. Services like Neobanks, personal financial services and insurtech can also solve these insecurities. Neobank and personal financial services may help them engage with different pension and savings plan (which will solve many issues in table 3 simultaneously) whereas insurtech can help them to invest into various endowment plans offered which will provide them with a fixed income source and a life insurance associated with it making the income tax free and life cover in case of the policy holder dies. Insuretechs also aid in providing medical insurances at a cheaper

cost. Due to rising competition various insurance players offer plans as low as Rs 1 per day insurance premium which manages the unforeseen medical expenditure with the medical claims settled at fingertips. Financial instruments like recurring deposits and fixed deposits can help get a periodic ensured sum and risk free investment which can be used as a method to pay for education and also encourage savings more which is usually seen less in low income groups (marginal propensity to save). This regular savings habit can also help manage the regular bills. Various financial products are available using the mobile banking applications and net banking facility with the NBFCs and financial aggregators promoting them with user friendly interface and attractive plans. It is important for the fintechs to customize their plans and provide a variety of options to compare and choose.

With the introduction of digilocker like platform access to and verification of documents is simple. The government recently announced that it will boost public digital infrastructure (PDI) which is believed to help fintech's cut their KYC costs (Banerjee, 2023). Various fintechs outsource the KYC part which increases their cost. Expanded budget on the Digilocker is expected to solve this issue and should make using fintech more affordable.

Conclusion:

Management of cost, customizing according to the need, user friendly and accessible will help introduce fintech at a deeper root by also fulfilling the objective of financial inclusion. It is essential for the government and the technology companies to work together. Development of

infrastructure to support the growth of fintech is important. Technological development has to be similar to that of the urban part to reduce inequality. Various income redistribution schemes need to be promoted using fintechs to increase the formalization of the economy.

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