



# Analysis of Development of Financial Inclusion and Fintech in India

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## ABSTRACT

*India has recently made a number of efforts toward financial inclusion in order to achieve more inclusive growth. Only via adequate mechanisms that channel all resources from top to bottom can inclusive growth be achieved. Financial inclusion is such a concept which makes alternative techniques to promote financial habits among not only the financially educated but also those who are not aware of these. This research aims to investigate the link between financial inclusion and development by findingspecific characteristics that are linked to financial inclusion levels. It determines the extent to which India's financial inclusion has progressed.*

## I. INTRODUCTION

The phrase inclusiveness has made its way into numerous areas of the economy throughout the years, particularly in emerging nations like India. The financial industry is one example of a sector that has been actively working to adapt to the notion of inclusion. The phrase "financial inclusion" refers to the accessibility and equality of financial services for both individuals and businesses. Financial inclusion is viewed as an important part of the country's inclusive growth and long-term development. It enhances the availability of economic resources and promotes the notion of saving among the poor, so assisting the country's overall growth.

The Reserve Bank of India sowed the seeds of financial inclusion in 2005, and the government, RBI, and other authorities have taken several measures and achieved great progress in this area since then. In the last few decades, efforts to increase financial inclusion have included the establishment of strong channels of scheduled commercial banks, regional rural banks, and co-operatives, nationalisation of banks, allowing banks to appoint business journalists and facilitators to provide banking services at the customer's doorstep, zero balance basic savings bank deposit accounts, and Jan Dhan accounts. Numerous conferences have been hosted on a regular basis to address and

promote the notion of financial inclusion in India, such as the ADBI annual conference and the financial inclusion summit. Furthermore, via financial inclusion, various policies have been developed to ease financial stress, not only on people but also on small and medium-sized firms (SME's) in India.

India continues to have the world's highest proportion of inactive bank accounts. According to the Global Findex Report 2017, this might be attributed to India's Jan Dhan Yojana plan, which was implemented by the Indian government with the goal of increasing account ownership. By March 2018, the initiative has brought 310 million individuals into the official banking system in just four years, however many of these people may not have had access to continue utilising their new account. India also boasts the world's second-largest unbanked population, with women making up the majority. As a result, even if numerous steps have been done to achieve complete financial inclusion, there is still room for improvement.

Financial inclusion in India has clearly evolved over time, and the Financial Technology industry, also known as Fintech, has recently provided a major boost to financial inclusion in the country through a variety of initiatives including banking facilities, digital India, banking process simplification, and many others. Fintech refers to innovative technology that aims to automate and improve the delivery and utilisation of financial services. The fast growth of the Fintech industry is causing unprecedented changes in global financial markets that have not been achieved through substantial regulatory reform measures.

While India has made tremendous progress in terms of financial inclusion, the country's digital divide and financial literacy issues have recently appeared as a result of the implementation of digital payment systems. The most prevalent hurdles include a lack of skills among the general public to use digital services, a lack of infrastructure, and customers' inability to buy the technology required to obtain digital financial aid. As a result, this paper



will go through four components of financial inclusion from a digital standpoint, namely, mobile network/smartphone access, digital payments, fundraising, and insurance, all of which are done through fintech businesses in India.

## II. OBJECTIVES OF THE STUDY

1. To understand financial inclusion and fintech
2. To assess the impact of fintech on the country's growth and economy
3. To understand the present scenario of financial technology and its improvement
4. To identify the different limitations of the current financial technology

## III. RESEARCH GAP

Financial inclusion is a critical component of inclusive growth. It contributes to the poor population's overall economic growth. In India, effective financial inclusion is required to help the poor and disadvantaged individuals rise out of poverty by providing them with customised financial goods and services. This leads to inclusive growth, which benefits the poor and underprivileged. Some research on financial inclusion have been done by evaluating chosen banks, while other work has been discovered on state-by-state financial inclusion growth. The influence of financial inclusion on Indian economic growth has been studied in a few research, with conflicting findings. In light of this, the purpose of this research is to determine the current state of financial inclusion in India and to examine the significance of financial inclusion in the country's economic progress.

## IV. RESEARCH METHODOLOGY

### SECONDARY SOURCE

The research paper done based on Secondary source of data. This was done, to expand the domain of information that was present with me and to improve the accuracy of the research paper.

### TYPE OF RESEARCH USED

#### External research

External data is information that has been organised or gathered by Government Sources, Business Source Complete, ABI, IBISWorld, Statista, and CBCA Complete. The information that was gathered, was based on external sources because the knowledge that I had about the topic was extremely low and the various sources outside my domain helped me conduct and complete my research well.

### RESEARCH DESIGN USED

#### Quantitative-research

The quantitative research used in the study are through figures taken from directorate of statistics India and statics of india websites. Other figures were also shown in the form of line graph for better understanding of the improvement in financial technology.

#### Qualitative research

The study included qualitative research taken from numerous reports from different authors, analysis of theories related to financial inclusion and also used case studies to understand what are the different fintech used to make the population be more accessible to financial world.

Other research designs used are:

#### Descriptive research

In Descriptive Research Design, the researcher goes into great detail in their research materials to explain/describe the circumstance or case. This is a completely theoretical study approach in which the researcher gets data, analyses it, prepares it, and then delivers it in an intelligible manner. It is the broadest category of study design.

In the study done, theories like public good theory, which argues about the delivery of financial services to the entire population and also the unrestricted access were discussed thoroughly.

#### Explanatory research

Since the topic for study is very vast, the research paper also included the thoughts and ideas of my own on subjects like "financial inclusion through fintech in countries that are underdeveloped" Other unexplored aspects like quality of the products and services that help in financial inclusion of countries like India.

### SOURCES OF DATA

Most of the study consisted of collecting data from secondary sources. Some of them are:

1. Published sources- Here the credibility is based on the writer or the scholar that has published the research papers or their publishing.

The study is done based on many other published sources like research papers to gain a good amount information about the fintech services since the past 5-6 years.

2. Journals- journals are mostly preferred rather than books because they give up to date information about the present and current data. Journals published by many institutions are taken help of to



understand the objective of financial inclusion in developing countries like India.

3. Newspapers- newspapers are another way to find a reliable information but the opinions of varied news papers vary from each other. The study used information from economic times, the Hindu etc to get a good grip on the covid effects and recent barriers that were faced while improving the financial technologies like digital payments, digital fundraising etc.

#### VARIABLES

The study done is mainly based on depended variables. The following are given below: Depended variables

1. Population access to financial services
2. Population that has financial knowledge
3. Number of bank branches
4. Points of services in a particular area- ATMs

#### DATA

The data used in the study combined of not only theoretical parts of financial inclusion but also included the different statistical data taken from International Monetary Fund Financial access surveys, World Bank global index and World Bank global payments systems. These various Data helped me to analyse not only the increase in use of financial services and products across countries but also helped to analyse holistic assessment of evolving technology and business models.

#### NUMBER OF OBSERVATIONS

The number of observations vary from 1000 people to 1000sq, and related to the number of ATMs and financial products, services available. Whole of this data is taken on a large scale since, as it was already given on websites. This large scale data helped me to understand the difference between various countries like developing one as India and under developed ones like Bangladesh to developed country like USA. The vast difference in the number of people who are financially knowledgeable and are accessible is very huge.

#### TIME PERIOD

Financial models which are used to estimate the valuation of a business or to compare businesses to their peers in the industry, are also used in strategic planning to test various scenarios, calculate the cost of new projects, decide on budgets, and allocate corporate resources. This research highlights the dynamic nature of changing financial models and technology in the last 10 years. The

research expands all the required criteria such as Balance sheets, Valuation, Charts, Graphs etc to make a better sustainable financial model with the rapid changes in fintech.

#### TIME SERIES

The statics and study was based on time series, as the finance sector is ever changing and dynamic in nature, there fore all the factors and sub topics under financial inclusion must be measured from Time to time to keep understanding the changes that occur in the technology, financial methods, and financial models.

#### NORMALITY CHECKING

Based on the data that I have gathered and visualised in the form of charts and graphs, the obtained results were optimised only to some extent. The data used was not following the properties of normal distribution and hence to make a effective normality test of the data, I have used the converted the values to those which satisfy the distribution curve by using data cleaning and curve equations.

#### TOOLS

The following tools were used while creating various tables, data analysis, graphs, charts etc.

The data extracted was analysed using the best analytical dashboard, Google Data Studio. It is the most powerful and robust tool to develop insightful data relationships and patterns by making an effective analysis on our data.

The creation of reports and dashboards in Google Data Studio is mainly for data analysis. In marketing analytics, it is important to have a tool that consolidates data from different sources to allow deeper analysis.

Tableau is the rapidly growing visualization tool used for different business applications.

Tableau is crafted in such a way that all kinds of charts, plots, and graphs with different designs can be positioned simultaneously for visualization. Tableau has plenty of easily accessible functions that can create highly simplified graphs or charts for any set of complex data. Data is published with various supported features like collaboration, models of security, automation, distribution, etc.

#### RESEARCH HYPOTHESIS

Financial Inclusion refers to attempts to make a financial product or service available and cost effective to all businesses and individuals regardless of net value or size of the business. The major philosophy of a Financial Inclusion is that it is a very important part to not only have a better



understanding of the economic position of an individual, business, country, but also also helping to protect those who are secluded from having to use the financial instruments. We believe that it aims to remove the obstacles that prevent from partaking in the financial system and benefitting from its services. This was considered the major tagline for the hypothesis framing for the entire literature review and conclusions were drawn based on it.

### V. DATA ANALYSIS AND INTERPRETATION

Banking has been considered one of the major ways to cope up the slow paced growth of financial inclusion in india. There were hardly any initiatives for micro finance as india is an agrarian economy. Therefore, to give access to every part of the country, more schemes of micro finance like Jan Dhanalakshmi Yojana have been established.

This not only led to the increase in population accessing to Reddit but also helped the banks to increase the branches in the country especially in rural and semi- urban areas.

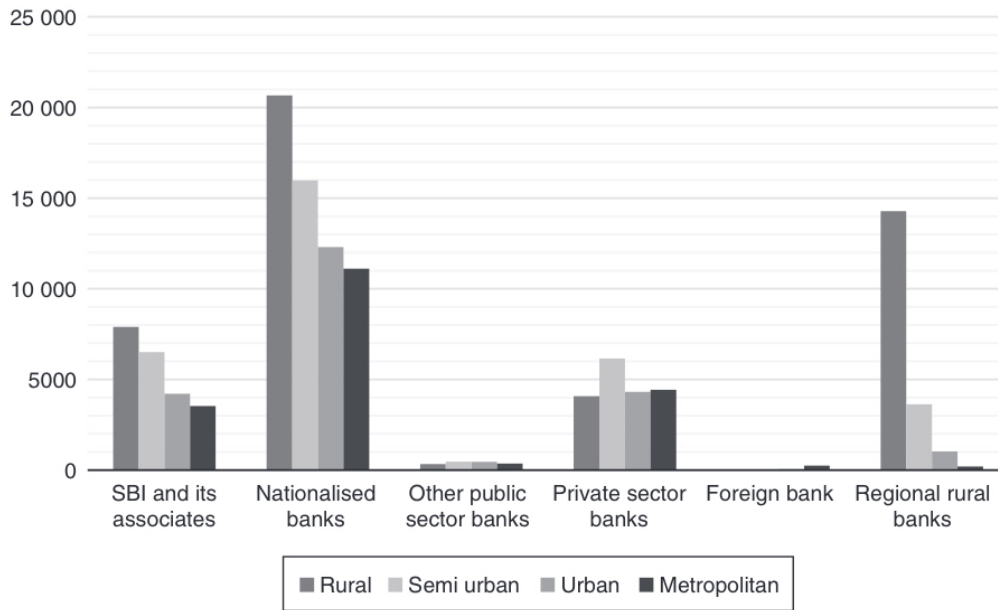
Another indicator is the number of ATMs established as it shows the population using the financial services at different areas. Indicator like financial education was also used to realise the importance of financial education about the various financial products available in the country.

Table-1 shows the different types of bank branches opened by different banks. The huge change from 2015 to 2020 says that the banks are accessible by a huge number of people have increased drastically. Not only in the urban and metropolitan areas, the branches have increased even in rural areas from 29,033 to 35,649 in 2020.

The number of private sector and commercial banks have rose in an impeccable manner, showing that India is on the right path to provide these services to numerous people

Table-1 Number of bank branches opened in the country.

2020-21				Total	2015-16				Total
Rural	Semi-urban	Urban	Metropolitan		Rural	Semi-urban	Urban	Metropolitan	
					31	5	13	10	59
					42	25	24	30	121
108	725	846	242	1,921	133	97	118	172	520
					7	8	3	11	29
					14	5	10	7	36
					14	7	2		23
108	725	846	242	1,921	241	147	170	230	788
					51	30	17	9	107
					97	71	56	88	312
3	1	21	31	56	45	48	35	30	158
1		1	1	3	69	35	19	14	137
5	32	43	15	95	8	3	3	8	22
6	24	76	44	150	58	60	32	27	177
1	5	25	40	71	6	11	8	14	39
					56	45	20	36	157
					38	38	27	8	111
1	10	35	24	70	45	34	41	33	153
					9	15	8	2	34
					31	23	21	27	102
1	1	1	4	7	10	8	14	1	33
5	58	292	205	560	67	61	29	44	201
					75	101	43	34	253
1				1	29	13	14	4	60
2		14	6	22	29	49	25	20	123



Reference- created by the researcher

Fig-1

The following figure shows the number of different bank branches in the year 2019.

Reference- created by the researcher

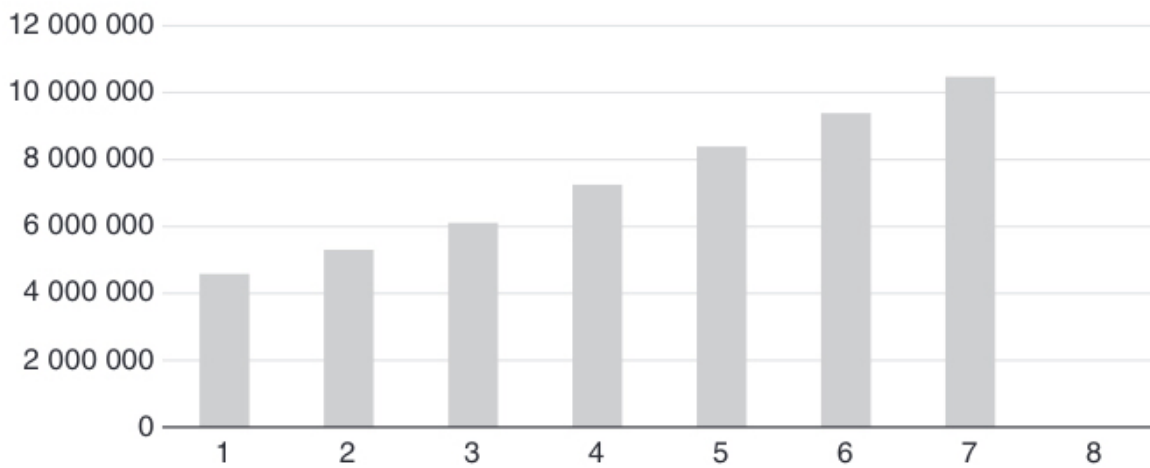


Fig-2

This figure shows the increase in ATMs installed from 2013-2019  
This is an indicator of financial inclusion in India





Table-2 The percentage of population aware and not aware about the financial products.  
Reference- Taken from official website of RBI

Financial Product	Fully Aware (%)	Moderately Aware (%)	Not Aware at all (%)	Total (%)
Savings Account	60.6	39.4	0	100
Current Account	18.2	43.9	37.9	100
Recurring Deposit	6.1	16.7	77.2	100
Fixed Deposit	9.1	28.8	62.1	100
PPF	1.5	16.7	81.8	100
Post office schemes	0	19.7	78.8	100
Life Insurance	13.6	30.3	56.1	100
Other Insurance	3	12.1	84.9	100
Govt. Life Insurance	4.5	10.6	84.9	100
Govt. Medical Insurance	3	16.7	80.3	100
Govt. Pension scheme	4.5	12.1	83.4	100
Other Pension schemes	3	7.6	89.4	100
Bond / Debenture	6.1	3	90.9	100
Gold / Jewelry	25.8	28.8	45.4	100
Stock Market	3	6.1	90.9	100
Mutual Fund	1.5	10.6	87.9	100

The following table shows the percentage of people who are educated about the various financial products, according to the year 2019.

Financial education is important to make use of the financial products and services, it is not only the responsibility for the government to educate the population about the available financial products and services but also a huge responsibility of the people to learn about them for future use and better standard of living.

According to the table, a lot of the percentage of population don't know about products like insurances provided by government, pension schemes, bonds, stock market, mutual funds. But are aware of varied bank accounts, gold, jewellery.

## VI. RECOMMENDATIONS/DISCUSSION

1. Banking technology has advanced quickly enough, and the realisation that the impoverished can be banked has come. Various immediate steps that the Indian government should adopt or that are now being implemented but might be implemented more effectively

2. Agency banking, micro-finance institutions, business facilitators, and business correspondents should all be strengthened. Our very old post offices would be a great avenue for pursuing agency banking's long-term ambitions, particularly in rural India.

3. To extend reach, create synergies between technology suppliers and financial channels. Core banking and micro financial applications will have to work together, according to application developers.

## VII. CONCLUSION

Banks play a key role in emerging economies like India, acting as savers and allocators of credit for production and investment. Banks, as a financial intermediary, contribute to the country's economic growth by recognising and crediting entrepreneurs with the highest odds of successfully launching new commercial ventures. Financial access may significantly improve the financial situation and living conditions of the country's impoverished and disadvantaged citizens. Access to inexpensive, adequate financial services has long been a concern in India, and a successful inclusive financial system



is required for the country's economic progress. The Reserve Bank of India (RBI) and the government play a critical role in fostering financial inclusion for economic growth through increasing banking penetration, installing new ATMs, and implementing other initiatives in India.

The number of branches in a region is an indicator of the country's financial inclusion potential. Because literacy is a requirement for raising investment awareness, it appears to be a significant instrument for financial inclusion. However, the above data suggest that literacy alone cannot ensure a state's high degree of financial inclusion. The number of branches has a big influence on financial inclusion. Financial inclusion cannot be achieved only by raising investment awareness without also considerably boosting India's investment options.

#### VIII. LIMITATIONS

1. Due to the lack of any quantitative foundations and statistical procedures, the study's qualitative and exploratory approach offers a significant barrier to the validity of the claims.
2. Another restriction for the study is the lack of historical data, as well as the age of the existing data, because trends must be examined in the current situation.
3. The research fails to consider the impact of fintech on financial inclusion in the aftermath of a pandemic.
4. The study's reach and viewpoint are limited, and it may be expanded by incorporating figures from the country's rural areas, which are also financially disadvantaged. In addition, there are other financial indicators.
5. The report fails to examine the country's fintech industry's possible dangers and obstacles in terms of financial inclusion.

#### IX. APPLICATIONS

It benefits almost all stakeholders involved in some way or the other. The data provided and analysed shows the exponential growth of population that are financially included with the help of various government policies and access to varied places providing these financial services and products.

1. Financially uneducated- The following study is useful for those who want to understand about financial inclusion and fintech. The various statistics

about the financial products and the people accessible to financial services is all available in the study

2. Students- The research study is also helpful for students to not only understand the basic concepts but also to do their own research papers, articles etc.

3. Educational organizations- The above study can also be used by various educational organizations to teach the students, for research etc.

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