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Impact of Financial Inclusion (F.I.) on the Economic Growth of India

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Abstract
Financial inclusion (F.I.) is a process of facilitating society to provide financial products and services at an affordable price. The goal of this research paper is to measure the impact of various government's F.I. programs on economic growth. This data is collected from various sources like websites, newspapers, RBI, Finance Ministry & GOI publications, and e-journals. The study has been done from 2017-18 to 2020-21. Researchers have tried to analyze the data with the help of multiple regression and tried to establish the empirical correlation between bank inclusion programs and Indian economic growth.
Key Words: *Digital Financial Inclusion, CDR, GDP, GOI, RBI, and Financial Schemes.*

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1. INTRODUCTION

RBI introduced financial inclusion to the Indian continent for the first time in 2005. Financial Inclusion is a concept that addresses the lack of a formal financial system to meet the monetary needs of society. Khan committee released a report related to rural credit and microfinance. The khan committee advised all the banks that to reduce the regulations regarding account opening or account maintenance for an economically weaker section of the society.

Individuals are offered banking and financial services through financial inclusion. Its main aim is to focus on everybody in society by providing financial services, financial technology, digital transactions, startups, etc.

1.1 Aims of Financial Inclusion (F.I.)

- To provide financial sustainability.
- To offer financial services is low cost.
- To create awareness about the financial services.
- To provide digital financial solutions to the nation.
- Its main objective is to provide financial services at economical prices.
- To fulfill the financial needs of the people especially living in remote areas.

1.2 Challenges in Implementation of F.I.

- Literacy is minimal among rural people.
- Lack of confidence and awareness.
- Adoption of technology is limited.
- Lack of reachability to the tribal areas.
- There is poor connectivity of telecom and infrastructure facility in rural areas.

2. REVIEW OF LITERATURE

Jungo, João, Madaleno, Mara, & Botelho, Anabela (2022), have focused on quantifying the influence of F.I. on bank financial stability while accounting for the role of financial regulation and found that F.I. has a major role in the stability of the economy and finance.

Khan, Falak, Siddiqui, M. A., & Imtiaz, Salma (2022), has studies sample 10,091 studies done on a sample of more than 850,000 people around the world during the last 45 years, to measure the intersection of F.I. So many studies have been done in finance and economics are dominating the literature; the majority of studies are from developed countries, particularly the United States; author citations are unbalanced.

Osuji, Paulinus Igbozurike, Kalu, S. E., & Nenbee S. G. (2022), have declared that t financial inclusion has had no impact on Nigeria's economic growth throughout the time under consideration.

Kumari, Meenu (2022), stated that financial inclusion helps India's economy thrive. The data for this research article was gathered from secondary sources. The study will be conducted in 2019. We look at the state of financial inclusion in 28 Indian states in this post. F.I. is low in some countries, and the further investigation finds a definite correlation between financial inclusion and growth, and standard of living

Sánchez, Francisco JesúsGálvez et al. (2021), declare that there has been exponential growth in financial awareness and people are inclined toward using the banking products.

Vasile, Valentina, Panait, Mirela, & Apostu, Simona-Andreea (2021), were analyzed the deformities in the inclusion of financial instruments past few years, and the challenges by focusing on the five pillars of F.I. and found that financial inclusion has a good impact on the public which helps to boosts happiness and individual quality of life.

Maity, Sudarshan, & Sahu, Tarak Nath (2020), stated that public sector banks perform identically, and overall average efficiency toward F.I. grows significantly throughout.

Durai, Tabitha, and G., Stella (2019), were focused on F.I. in inclusive growth and found that F.I. is possible because of the deployment of cutting-edge financial technologies and a new scenario for banking customers. Nowadays many banks have adopted new banking technologies which act as catalysts for financial inclusion.

Agarwal, Nikita, & Vyas, Anoop (2018), In developing countries Like India, where the rural population makes up around 70% of the total population, financial inclusion is important to the country's overall economic performance, according to the report. The Indian government is always working to guarantee that everyone in the country can access the basic financial products and services, which is the ultimate objective of inclusive growth, in consultation with the RBI and other banking institutions.

Joseph, Divya (2014), states that in terms of purchasing power, development, social structure, and other factors, the rural section differs from the urban segment. These distinctions are directly related to the rural sector's specific demand patterns in many product areas, particularly when it comes to financial services. Given its technological backwardness and widespread illiteracy, the industry poses a significant problem, as individuals are still trapped in exploitative and unproductive financial systems.

3. RESEARCH GAP

After going through a lot of research papers, mainly focused on financial regulations, digital impact on financial inclusion, financial literacy, financial inclusion case study of Canara Bank, the study of PMDJY, etc. Few studies were found suitable which measured the impact of F.I. on GDP. This study will be helpful for the researcher to explore more associations between financial inclusion & its impact on GDP.

4. OBJECTIVE OF THE PAPER

- To explore the diverse types of government schemes for financial inclusion (F.I.).
- To analyze the role of various indicators of F.I. on economic growth.

5. RESEARCH METHODOLOGY

This current research is based on the secondary source of information which is collected from the various websites, newspapers, RBI Reports, Ministry of Finance & GOI, and E-journal. The period for the study is considered for 4 years i.e. 2017-18 to 2020-21. Multiple Regression is applied to analyze the data and to find out the relationship between schemes of F.I. and the growth of an Indian Economy. For Multiple Regression Analysis, GDP is taken as a dependent variable, and branches of banks, growth of ATMs, and Credit Deposit Ratio are taken as independent variables.

6. HYPOTHESIS

H_{01}: There is no significant impact of F.I. schemes on the Indian Economic Growth.

6.1 Sub-Hypothesis of the Study

H01.1: Commercial banks do not affect economic growth.

H01.2: The expansion of ATMs has no impact on the GDP.

H01.3: The CDR does not influence economic growth.

7. ANALYSIS OF THE STUDY

The followings are the various financial inclusion that is governed by the GOI to provide security to the society:

- **Pradhan Mantri Jan Dhan Yojana (PMJDY)**

It had been launched to provide basic banking facilities to the rural and triable people. The government has offered the people to open a bank account with zero balance along with accidental insurance cover of one lakh.

- **Atal Pension Yojana (APY)**

It is mainly focused on retired people who worked in the organized sector. Providing security against illness, accidents, diseases, etc. is the main objective to launch the APY.

The following important information about APY:

Pension amount	Covers up to Rs. 5,000
Age of account holder	Age between 18 to 40 years

- **Pradhan Mantri Vaya Vandana Yojana (PMVVY)**

This scheme is available via online and offline mode from LIC. The main objective is to provide pensions regularly to senior citizens. The PMVVY provides benefits such as a pension provided after the death of the holder, and a loan facility, the holder can surrender these schemes if he/she is not satisfied within 15 days of the policy and so on.

The following important information about PMVVY:

Minimum age	Age must be 60 years or more
Duration of the policy	Tenure is about 10 years

- **Pradhan Mantri Mudra Yojana (PMMY)**

A MUDRA loan is available in these schemes. Micro-Units Development and Refinance Agency is the acronym for Micro-Units Development and Refinance Agency. Loans ranging from Rs. 50,000 to Rs. 10 lakh are available through various schemes such as Sishu, Kishor, and Tarun. These schemes aim to help small-scale businesses.

- **Sukanya Samridha Yojana (SSY)**

These programs are aimed at improving the lives of girls, with the goal of Beti Bachao, Beti Padhao. This strategy aims to save the female child remove the girl child's burden on the family and ensure the girl's future.

The following important information about SSY:

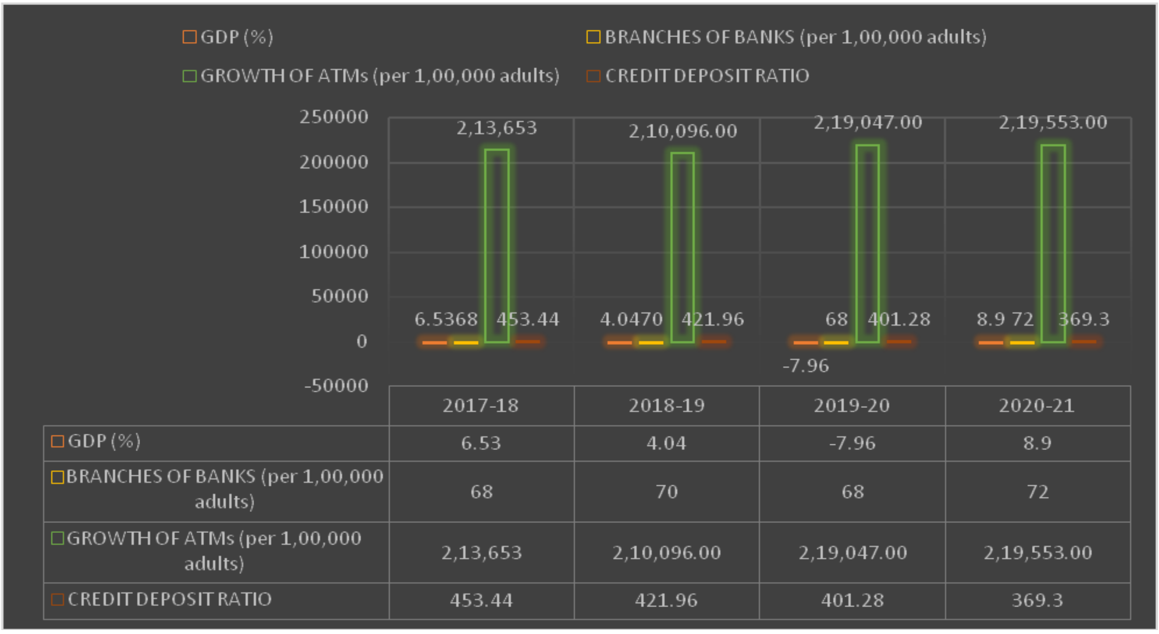
Interest Rate	Up to 7.60% p.a.
Investment amount	Minimum – 250 Rs. And maximum up to Rs. 1.5 lakh p.a.
Maturity period	21 years

7.1 The Impact of F.I. Schemes on the Economic Growth of India

The following table shows the data on GDP, Branches of Banks, Growth of ATMs, and Credit Deposit Ratio:

S. No.	Particulars	2017-18	2018-19	2019-20	2020-21
1.	GDP (%)	6.53	4.04	- 7.96	8.90
2.	Branches of Banks (per 1,00,000 adults)	68.00	70.00	68.00	72.00
3.	Growth of ATMs (per 1,00,000 adults)	213,653	210,096.00	219,047.00	219,553.00
4.	Credit Deposit Ratio	453.44	421.96	401.28	369.30

(Source: Compiled by the researcher from RBI Reports)



Model Summary of the Result of Regression Analysis

R	R^2	Adjusted R^2	Std. Error of the Estimate	Sig.
.985	.990	.890	.150	.001

(Source: Computation by Researcher)

ANOVA

Model	Sum of Squares	df	X^2	F	Sig.
Regression	168.414	3	56.138	102.345	.001
Residual	.000	0			
Total	168.414	3			

a. D.V.: GDP
b. Predictors: (Constant), CDR, Branches of Bank, Growth of ATMs

The table shows the Multiple Regression Analysis of F.I. schemes on the Indian economic growth in which GDP is dependent (constant) variable and Branches of Banks, Growth of ATMs, and Credit Deposit Ratio are independent (predictor) variables.
The researcher has tried to analyze the result with SPSS. The Correlation Coefficient (R) value is 0.985, indicating a positive relationship between the dependent and independent variables. The Coefficient of Determination (R^2) is 0.990, showing that the independent factors explain a large portion of the variation in the dependent variable, indicating that independent variables are a good predictor of the dependent variable.
The value of Adjusted R^2 is 0.890, indicating that 89 percent of independent factors, such as GDP, are well-matched with dependent variables. The p-value or significant value is 0.001 which is less than 0.05 indicating that the multiple regression model is significantly fit and the null hypothesis is rejected which means there is a positive impact of schemes of FI on Indian Economic Growth.

$H_{01.1}$: Commercial Banks have No Effect on Economic Growth

Model Summary

R	R^2	Adjusted R^2	Std. Error of the Estimate
.614[a]	.377	.065	7.24507

a. Predictors: (Constant), Branches of Bank

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	63.432	1	63.432	1.208	.002[b]
Residual	104.982	2	52.491		
Total	168.414	3			

a. D.V.: GDP
b. Predictors: (Constant), Branches of Bank

$H_{01.2}$: The Expansion of ATMs has No Impact on the GDP

Model Summary

R	R^2	Adjusted R^2	Std. Error of the Estimate
.028[a]	.001	-.499	9.17294

a. Predictors: (Constant), Growth of ATMs

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.128	1	.128	.002	.025[b]
Residual	168.286	2	84.143		
Total	168.414	3			

a. D.V.: GDP
b. Predictors: (Constant), Growth of ATMs

$H_{01.3}$: The CDR has No Influence on the Economic Growth

Model Summary

R	R^2	Adjusted R^2	Std. Error of the Estimate
.266[a]	.071	-.394	8.84663

a. Predictors: (Constant), CDR

ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	11.888	1	11.888	.152	.389[b]
Residual	156.526	2	78.263		
Total	168.414	3			

a. D.V.: GDP
b. Predictors: (Constant), CDR

7.2 Summary of Regression Coefficient

Regression Coefficient

Variables	Unstandardized Coefficients B	Standardized Coefficients Beta	t	Sig.	H_0 Accepted/Rejected
(Constant)	-933.864		-1.080		
Branches of Bank	7.292	1.864	1.099	.002	Rejected
Growth of ATMs	.404	1.908	.309	0.25	Rejected
CDR	-0.801	.739	.995	0.398	Accepted

(Source: Computation by Researcher)

The regression coefficient analysis between dependent and independent variables is shown in the table above. Unstandardized Coefficients of Bank Branches has a beta value of 7.292, which has a positive impact on the dependent variable, GDP. The p-value of a bank's branches is 0.002, which is less than 0.05, indicating that bank branches have a substantial impact on GDP. The unstandardized coefficients of growth of ATMs have a beta value of 0.404, which has a positive impact on the dependent variable, GDP. The p-value of ATM growth is 0.025, which is less than 0.05, indicating that ATM growth has a substantial impact on GDP. The beta value of the CDR, or Unstandardized Coefficients, is -0.801, which harms the dependent variable, GDP. CDR has a p-value of 0.398, which is more than 0.05, indicating that it has no meaningful impact on GDP. The regression equation is as follows:

$$\mathbf{Y = - 933.864 + 7.292 + 0.404 - 0.801 + e}$$

8. Conclusion

The government of India has launched so many programs to encourage equitable growth in the country. Financial inclusion (F.I.) plays a critical role in reaching out to the weaker and underprivileged elements of society in a country, especially in developing countries, which have such a huge and geographically dispersed populations. This ensures that the nation's growth is inclusive. The null hypothesis was rejected, indicating that F.I. policies have a major impact on the growth of the Indian economy. The regression coefficient demonstrates that bank branches and ATM growth have a positive impact on GDP, but CDR harms GDP. As a result, the research found that F.I. is strongly linked to economic progress and development. Regardless, strong financial inclusion rules, as well as client awareness programs are essential in the country to access financial services. As a result, financial inclusion is a critical path for India to follow if it is to attain complete prosperity.

9. Suggestions & recommendations

The followings are the suggestions and recommendations:

- To encourage people to use and accept digital payments, as well as to bring them into the formal financial system and promote efficiency and transparency through digital transactions.
- Technological advancements such as an integrated machine with cash withdrawal and deposit capabilities as well as biometric user identification, voice commands, and narration for all services in multi-language formats could assist enhance banking penetration.
- Mobile banking awareness is poor, and there is apprehension, particularly among rural people, owing to a lack of technological and financial knowledge.
- Many governmental and non-governmental organizations are working to bring financial inclusion to the masses. These organizations should concentrate on making it easier to receive government-approved documents.

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