Significance and Impact of Financial Inclusion on Indian Economy: An Empirical Study

Received: 1st August 2021
Review: 23rd February 2022
Accepted: August 19, 2022

Arjit Saxena[1] Varun Panwar[2]

Abstract

Purpose: This research is an attempt to assess the current state of financial inclusion empirically, its significance and impact in the Indian context.

Methodology: The present study examines the impact of financial inclusion on the economic growth of India. A multiple regression model was developed based on secondary data from 2010-11 to 2019-20.

Findings: The results of the study found a positive as well **as a** significant impact **on the** total number of transactions through ICT-A/Cs-BC and the number of basic saving bank deposit account (BSBDA) on the GDP of India. Hence, the study concludes that financial inclusion has a significant impact on the growth of the Indian economy.

Practical Implications: The concept of financial inclusion in the context of macroeconomics gives **researcher innumerable opportunities** to explore. The paper **allows** future researchers an opportunity to study the change in financial behaviour of the people after being financially included, to discuss the technicalities and dynamics of our financial inclusion indicators, and to suggest **policymaking** that may align for successful implementation of financial literacy,

Originality/ Value: Financial inclusion aims to include each individual in the financial framework of the country. It focuses on the accessibility and affordability of banking services for everyone irrespective of their financial status. This study by and large analyses the quantitative aspects **of financial inclusion**, its impact and significance on **the Indian** economy from **the empirical** research point of view.

Keywords: Financial inclusion; ICT A/Cs -BC, Basic saving bank deposit account(BSBDA), Banking sector, Business correspondents.

SVKM'S NMIMS Deemed to be UNIVERSITY

NMIMS
Management Review
ISSN: 0971-1023
Volume XXX
Issue-4 | July 2022

http://doi.org/10.53908/NMMR.300405

INTRODUCTION

Financial inclusion has been referred to as the way toward assuring access to financial services on time and sufficient credit for low-pay, weaker section groups and other vulnerable groups at a moderate expense. It is progressively being perceived as a critical driver of financial development and poverty eradication over the world. Access to formal sources of finance can reduce vulnerability to economic crises, boost job creation, and raise human capital investment. However, the insufficiency of this access would otherwise limit households and firms to depend on exorbitant casual sources of finance to meet their monetary needs. As the level of financial inclusion is low, people tend to have a high degree of dependence on money lenders or other informal sectors. Limited access to financial services leads to exploitation of the poor and underprivileged section of the society.

The causes of financial exclusiveness include the absence of surplus income, absence of imperative documents, dearth of awareness about the product, trust issues with the banking and financial framework, high transition costs, remoteness of service providers, Low quality of services rendered, etc.It's noteworthy to express that out of the seventeen United Nations Sustainable Development Goals (UN-SDG) of 2030, seven goals focus on financial inclusion. They find financial inclusion as a tool for empowering the poor and underprivileged section of the society.

Status of Financial Inclusion in India:

India started its journey of financial inclusion early in 1956 with the nationalization of LIC. This was followed by the nationalization of banks in 1969 and 1980. The GICs were nationalized in 1972. It shows that a large group of drives has been attempted over the years in the area of financial inclusion.

India is also actively engaged with different nations and multilateral forums such as *"Global Partnership for Financial Inclusion"*(GPFI) and *"Organization for Economic Co-operation and Development"* (OECD). *"Global Partnership for Financial Inclusion"* (GPFI) sub-group is being **co-chaired** by India and it also time and again publishes appropriate research and guidelines on financial inclusion, digitalization and regulation, etc. that belongs to India. In addition to this, RBI is a member of four working groups established within the framework of the*"International Network for Financial Education"*(INFE) set up under*"Organization for Economic Co-operation and Development"* (OECD). Viewing the worldwide development of financial inclusion, India began to formulate its National Financial Inclusion Strategy under the auspices of the Financial Inclusion Advisory Committee (FIAC) in June 2017. The document was prepared based on feedback from various stakeholders including the Ministry of Finance (MoF), the Department of Commerce (DEA), the Department

NMIMS
Management Review
ISSN: 0971-1023
Volume XXX
Issue-4 | July 2022

of Financial Services (DFS), SEBI, RBI, the Indian government, PFRDA, NABARD, NPCI, IRDAI, etc.

PROBLEM STATEMENT

Access to the **financial framework of the economy as per financial inclusion is a critical step towards the inclusive growth. It contributes to the overall economic well-being,** advancement, and prosperity of the impoverished population. Several pieces of literatures and related studies with different research methodologies, basic and advanced have been conducted in past on financial inclusion in connection with various variables such as Indian economic growth, human development, economic indices etc. However, the findings evidenced mixed nature of the results, sometimes contradictory too. With this foreground, this research is an attempt to assess the current state of financial inclusion empirically, its significance and impact in the Indian context. It becomes even more important to do so in the post-Covid era where the new normal is cash-less transactions, giving umpteen opportunities to digital financial inclusion in the ever-developing economy, India. Additionally, there are various general determinants/ indicators of financial inclusion, this paper studies ICT (Information and Communication Technology) and Number of Basic saving bank deposit account (BSBDA) as the indicators of financial inclusion.

LITERATURE REVIEW

Several pieces of research have already been performed on financial inclusion and its impact on the growth of the economy.

Morgan &Pointine (2014) observed that a prominent financial inclusion can have a dual impact on financial stability that could be either positive or negative. Positive impact includes bank assets diversification, accordingly, lessening their exposure; expanded deposit base stability, decreasing liquidity exposure; and better transmission of financial policies, whereas negative consequences incorporate the depletion of credit principles/ standards (for example, subprime), the inadequate guideline of MFIs, and bank reputational risk.

Paramasivan & Ganeshkumar (2013) concluded that literacy is an essential requisite to create investment awareness, and subsequently, instinctively it appears to be a vital tool for Financial Inclusion and the Branch density has a huge effect on financial inclusion.

Chauhan (2013) concludes that India is at a moderate level of viewing financial inclusion when contrasted with different nations in regard to ATMs, Number of branches, bank deposits, and bank credit. They also showed banks play a significant job in the promotion of financial inclusion as RBI has tried different approaches like the use of local dialects, vernacular language, no-frill accounts, basic KYC standards, and so forth to reinforce financial inclusion.

Sarma &Pais (2006) found a strong positive correlation between financial inclusion and the level of human development. They tracked down that the extent of NPAs is negatively connected and the Capital asset ratio is adversely connected with the financial inclusion. Also, government ownership and interest rates do not have any significant effect.

Sanderson, Mutandwa & Le Roux (2018) found that education, age, financial literacy, internet availability, and income show a positive relationship with financial inclusion in Zimbabwe. On the opposite end, the more extended distance to the closest financial access point lessens the chances of individuals being financially included. Documentation as well depicts a negative relationship with financial inclusion.

Iqbal & Sami (2017) tracked down the positive effect of the Credit deposit ratio and the number of bank offices on India's gross domestic product (GDP). However, the growth rate of ATMs did not show a significant impact on the GDP of India. Therefore, they concluded that financial inclusion is strongly related to economic progress and development.

Sujlana & Kiran (2018) inferred that India is at a high speed towards accomplishing financial inclusion and this can be speeded up by synergistic endeavours of RBI, Government, and the people of the nation. Technological advancement has played an imperative role in bridging the gaps in financial inclusion in the country. People have begun utilizing (IMPS) Immediate Payment Service, ATMs, and e-banking. Yet at the same time, some fragment of the country is lingering behind despite financial inclusion drives in the reformist stage, and therefore, there is a desperate need to offer quality monetary services in the rustic areas for financial development.

Sarma (2008) proposed a multidimensional index to measure financial inclusion named as Index of Financial inclusion (IFI) created in accordance with widely recognized indices like GDI, HDI, GEM, and HPI. Such an index can deliver a relationship between economic development and financial inclusion and analyze the degree of inclusion across various economies and screen the economies' evolution over time. The outcomes showed that a huge number of countries, including a few industrial ones, have low degrees of financial inclusion.

Shekhar&Verma (2018) observed that financial Inclusion has coordinated the comprehensive development which itself begins from the provincial level where Regional Rural Banks (RRBs) pave the path with different difficulties. The count of financial outlets in the countryside has grown so far since 2005 to carve financial inclusion. Furthermore, Pradhan Mantri Jan Dhan Yojana (PMJDY) pours its endeavours to venture up the financial inclusion with an unexpected expansion in the number of records throughout its period. It has been valuable from multiple points of view, majorly to get the insurance, Direct Benefits Transfer, Rupay debit card, Kisan credit card, and so forth and all the facilities that connect many families from provincial India.

Barik & Sharma (2019) attempts to examine the progress made and the prospects for financial inclusion in India. As per their findings, although there is still a long way to go to realise the dream of universal financial inclusion, there is no doubt that tremendous progress has been made by India in recent years. The recent implementation of PMJDY has made it easier for the poor and marginalised to open an account with no or a minimal balance. Over and above PMJDY, the post-demonetization and Covid-19 period, fintech services have seamlessly

encouraged digital financial inclusion through non-cash platforms like UPI, Mobile banking etc. which also provide constant technical support and value-added services.

Pradhan & Sahoo(2021)examined the association of financial inclusion with mobile telephony nexus in India and found they share a relationship in long run equilibrium, i.e in long run, there exists a one-way causality from financial inclusion to mobile telephony. However, there exists a two-way causality between Per -capita state domestic product and mobile telephony, which recommends encouragement to either of the variable will affect the other one positively. Hence any future research on the related topic that does not considers ‘diffusion of mobile phones’ and ‘economic growth’ simultaneously, will tend to provide incomplete or biased results.

Tharlapally & Mahesh (2022)studied how the Business Correspondents and Business Facilitators act as a catalyst of Financial Inclusion in India. They observed these intermediaries have impacted, rather improved the financial habits of the people of rural/ semi-urban pockets as people of such areas find it convenient to visit BC/ BFs instead of banks due to various reasons, few of which are vernacular language to communicate and interact which gives them a feeling of belongingness with localities, support for reading and writing or fill different forms (online & offline), getting basic financial literacy through the BC/BFs staff such as government schemes etc. In addition to this, regular awareness camps by Centre of financial literacy, and the mutual efforts of other rural organisations such as NABARD, BC/ BFs are providing a boost to the financial inclusion; and to bring digitalisation in such rural pockets is a yet to achieve target of our government in the roadmap of financial inclusion.

OBJECTIVES

1. To examine the current status of financial inclusion in India.

2. To identify the impact of banking variables on financial inclusion in India.

3. To study the impact of indicators of financial inclusion on the GDP of India.

HYPOTHESIS OF THE STUDY

H_A: There is a significant impact of financial inclusion on the GDP of India.

Sub-Hypothesis:

H_A1.1: There is a significant impact of the total transactions through ICT-A/Cs-BC on the GDP of India.

H_A1.2: There is a significant impact of the Number of Basic saving bank deposit accounts on GDP of India.

RESEARCH METHODOLOGY

The research is conducted on the data that has been collected through secondary sources, majorly from the reports of the Reserve Bank of India. The period that has been considered for the analysis is ten years starting from 2010-11 to 2019-20. A Multiple regression model has been used for the analysis of data to demonstrate an empirical relationship between financial inclusion and the economic growth of India. The economic growth of India has been analyzed by the GDP of India at current prices, therefore GDP of India at current prices is a dependent variable. Similarly, financial inclusion has been analyzed by indicators like, the total transactions through ICT-A/Cs-BC (where ICT stands for Information and Communication Technology) and the Number of Basic saving bank deposit account (BSBDA).Indicators of financial inclusion have been taken as the independent variables of the study.

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2$

Y = GDP at current prices

X_1 = ICT-A/Cs-Business Correspondents-Total transactions.

X_2 = Number of basic saving bank deposit account (BSBDA)

DATA ANALYSIS AND INTERPRETATION

GDP is the most widely used indicator for the economic growth of the country. The data used for analysis is GDP at current prices from 2010-11 to 2019-20. Fig. 1 shows the upward trends in GDP of India.It shows year-on-year growth in the past ten years, the highest being in 2019-20. The highest GDP recorded among these years was in the year 2019-20 of Rs. 145692680 million (an increase of 4.04 percent from the previous year). The highest growth was seen in the year 2011-12 by 14.43 percent over the ten years. It shows India has grown steadily in terms of economy as a whole.

Fig. 2 shows the total number of transactions through ICT Account-Business correspondents. BCs are the intermediaries that act as the face of the bank for the people living in rural areas and create a close connection or relationship between the banking framework and rural people to serve the banking services to them. ICT A/Cs (Information and communication technology) refers to the advancement of technology in the banking framework. It focuses on the digital structure of banking. The figure depicts there has been significant year-on-year growth in the number of transactions through information and communication technology.

The research also covers basic saving accounts as an indicator of financial inclusion. Fig. 3 depicts the number of the Basic Saving Bank Deposit Account (BSBDA) in the past ten years. It is considered an essential banking service that shall be accessible to all. There are other services attached with BSBDAs such as a debit card, ATM card, deposits, demand draft, digital transactions, etc. It has also grown year on year in the last ten years.

Table 3 illustrates the analysis of the multiple regression model. The value of *R* is .989 which depicts a high degree of correlation between GDP of India and financial inclusion. The value of *R* square is 0.978 which shows that model has 97.8% variance is explained by the model. Adjusted *R* square is 0.972 which shows a high degree of reliability. The *p*-value is 0.000002 which is less than 0.05 which depicts that the statistical model is a fit-model and leads to acceptance of the alternative hypothesis. Thus, we conclude that overall financial inclusion has a significant impact on the GDP of India.The Durbin-Watson test measures the problem of autocorrelation in the residuals of regression analysis. The value between 1 to3 indicates the absence of autocorrelation problem. The summary in Table 3 shows the value of the Durbin-Watson measure 1.568, which shows the model is free from autocorrelation problem.

Table 4 indicates the results of regression coefficients analysis between the GDP of India and the indicators of financial inclusion. The results reveal that the beta value of ICT-A/Cs-BC-Total transactions is 895.193 which shows a positive impact on the GDP of India. At a 5% level of significance, the *p*-value is 0.007 which is less than 0.05, indicating there is a significant impact of the total transactions through ICT-A/Cs-BC on the GDP of India.

It further shows that the beta value of the number of basic saving bank deposit account (BSBDA) is 0.008 indicating a positive impact on the GDP of India. At a 5% level of significance, the *p*-value is 0.0004 which is less than 0.05 which leads to acceptance of the alternative hypothesis, i.e., there is a significant impact of the number of basic saving bank deposit account on the GDP of India.The variance inflation factor (VIF) is the test for collinearity problems within the variables. The VIF value ranging from 1 to 10 is acceptable as it indicates the non-existence of collinearity between the variables. Any value beyond this range indicates collinearity among the variables. This regression model is independent of the collinearity problem as the value of VIF is 3.33 each.

The regression equation obtained from this model is as follows:

$Y = 7288559.201+895.193X_1 + 0.008X_2+e$

Therefore, the research found that there is a high degree of positive correlation between indicators of financial inclusion and the GDP of India. Similarly, financial inclusion has a significant impact on the GDP of India. These findings are consistent with the findings of Iqbal & Sami (2017). Their study also concludes the positive impact of financial inclusion and economic growth in India (GDP of India).

CONCLUSION AND DISCUSSION

In developing countries like India, the banking sector plays a very critical role by acting as a mobilizer for savings and credit allocators for investment and production. Financial inclusion makes financial services accessible to the vulnerable group of the country that can boost their standard of living by improving their financial condition through various facilities that are provided by the banks. There has always been a need for proper accessibility and affordability of financial services to the deepest root of the country. There shall not be any region left unserved. The Government of India with the help of RBI has taken several measures to promote financial inclusion such as incorporating a business correspondents' model, ICT A/Cs, digital banking, ATMs, GCC (General credit cards), KCC (Kisan credit cards), number of bank branches, Pradhan Mantri Jan Dhan Yojana (PMJDY), etc.

The present study has inferred the positive significant impact of the total number of transactions through ICT-A/Cs-BC and the number of basic saving bank deposit account (BSBDA) on the GDP of India. Hence it is concluded that financial inclusion plays a vital role in the growth of the Indian economy. Thus, all the prospective measures shall be adopted by the RBI and the Government of India to promote financial inclusion and ensure that each and every individual of the country is included in the banking & financial framework of the country and no Indian is deprived of his right to avail financial services that are meant for the public welfare. Therefore, financial inclusion is a long journey that India needs to cover to make it successful.

As per the recent annual report of RBI dated May 27, 2022, an impressive picture of the strengthening of Credit delivery and financial inclusion can be painted. The continuous efforts of RBI in accordance with NSFI (National strategy for financial inclusion) have been remarkable in the past few years. The recent reports show, as on 31st March 2022, India has 1107 Centres for financial literacy. A financial inclusion index has been prepared by the RBI to monitor its progress both quantitative and qualitative. Additionally, the content of financial education has also been incorporated by CBSE and 19 state boards in the school curriculum so that even students understand the significance of financial literacy and they in turn can guide their parents about the same.

The limitation of this paper provides scope for further advanced studies and analysis. This study by and large analyses the quantitative aspects of the financial inclusion, its impact and significance on the Indian economy from empirical research point of view that leaves the scope for discussion from the societal point of view. Future research in this domain can study the transformation that people have gone through after being included in the financial framework as per financial inclusion. It may include the behavioural change in people, change in their financial habits, inclusivity in saving-investment framework, and other qualitative human aspects beyond this research.

The paper also allows future researchers an opportunity to incorporate the suggestions for policy making or decision making that government may align for successful implementation of financial literacy which in turn encourages people to get financially included.

It provides ample room to discuss the technicalities and dynamics of our financial inclusion indicators, ICT-A/Cs-Business Correspondents and BSBDAs as well. A specific study can be conducted to see how both the indicators can be leveraged as a strategy formulation for financial inclusion, and in what econometric equation the growth in both indicators can affect the financial inclusion.

Arjit Saxena is a Due Diligence Analyst at Ernst & Young - GDS, Advant Navis Business Park, Noida Sec-142. He can be reached at saxenaarjit1998@gmail.com

ORCID ID: 0000-0001-8292-030X

Corresponding Author:

Varun Panwar is an Assistant Professor at Shyam Lal College, University of Delhi

He can be reached at varunpanwar.du@gmail.com

ORCID ID: 0000-0001-8682-4243

REFERENCES

Barik R, Sharma P. Analyzing theprogress and prospects of financial inclusion in India. J Public

Affairs. 2019;e1948. https://doi.org/10.1002/pa.1948

Chauhan, A. A. (2013). A study on overview of Financial Inclusion in India. *Indian journal of applied research*, *3*(12), 351-353.

Iqbal, B. A., & Sami, S. (2017). Role of banks in financial inclusion in India. *Contaduría y administración*, *62*(2), 644-656. https://doi.org/10.1016/j.cya.2017.01.007

Morgan, P., &Pontines, V. (2014). Financial Stability and Financial Inclusion, *SSRN Electronic Journal.*http://dx.doi.org/10.2139/ssrn.2464018

Paramasivan, C., &Ganeshkumar, V. (2013). Overview of financial inclusion in India. *International journal of management and development studies*, *2*(3), 45-49.

Rudra P. Pradhan &Pragyan P. Sahoo (2021) Are there links between financial inclusion, mobile telephony, and economic growth? Evidence from Indian states, Applied Economics Letters, 28:4, 310-314, DOI: 10.1080/13504851.2020.1752893

Sanderson, A., Mutandwa, L., & Le Roux, P. (2018). A review of determinants of financial inclusion. *International Journal of Economics and Financial Issues*, *8*(3), 1.

Sarma, M., &Pais, J. (2010). *Financial Inclusion and Development. Journal of International Development, 23(5), 613–628.*https://doi.org/10.1002/jid.1698

Sarma, M. (2008). Index of Financial Inclusion, Working Paper, No. 215, *Indian Council for Research on International Economic Relations (ICRIER).*http://hdl.handle.net/10419/176233

Shekhar, S., &Verma, H. (2018). Journey of Regional Rural Banks in Financial Inclusion. *International Journal of Academic Research & Development (IJAR&D), 4(8),*96-106.

Sujlana, P., & Kiran, C. (2018). A study on status of financial inclusion in India. *International Journal of Management Studies*, *2*(3), 96-104.http://dx.doi.org/10.18843/ijms/v5i2(3)/12

Tharlapally, N., & Mahesh, P. (2022). A Study on The Impact of Business Correspondents and Business Facilitators in Financial Inclusion. SpecialusisUgdymas, 1(43), 1557-1567.

Website:

https://rbidocs.rbi.org.in/rdocs/content/pdfs/NSFIREPORT100119.pdf

https://www.rbi.org.in/Scripts/AnnualReportPublications.aspx?Id=1346

TABLES/ FIGURES/ GRAPHS

***Titles of Table, Figure and Graphs are mentioned below them.**

Particulars	**2018-2019**	**2019-2020**	**Change**
Banking Outlets in Villages – Branches	52,489	54,561	2,072
Banking Outlets in Villages – Branchless Mode	5,44,666	5,44,656	-10
Banking Outlets in Villages – Total	**5,97,155**	**5,99,217**	**2,062**
Urban locations covered through BCs$	4,47,170	6,35,046	1,87,876
BSBDA - Through branches (No. in Million)	255	262	7
BSBDA - Through branches (Amt. in Billion)	877.65	958.31	81
BSBDA - Through BCs (No. in Million)	319.5	338.8	19
BSBDA - Through BCs (Amt. in Billion)	531.95	725.81	194
BSBDA - Total (No. in Million)	**574.2**	**600.4**	**26**
BSBDA - Total (Amt. in Billion)	1409.6	1684.12	275
OD facility availed in BSBDAs (No. in million)	5.9	6.4	1
OD facility availed in BSBDAs (Amt. in Billion)	4.43	5.29	1
KCC - Total (No. in Million)	49.1	47.5	-2
KCC - Total (Amt. in Billion)	6,680.44	6,390.69	-290
GCC - Total (No. in Million)	12	20.2	8
GCC - Total (Amt. in Billion)	1,745.14	1,940.48	195
ICT-A/Cs-BC-Total transactions (Number in million)	**2,101.90**	**3,231.80**	**1,130**
ICT-A/Cs-BC-Total Transaction (Amount in billion)	5,913.47	8,706.30	2,793

Table 1: Financial inclusion plan of 2018-20

Source: Reserve Bank of India

Website link: https://m.rbi.org.in/Scripts/AnnualReportPublications.aspx?Id=1288

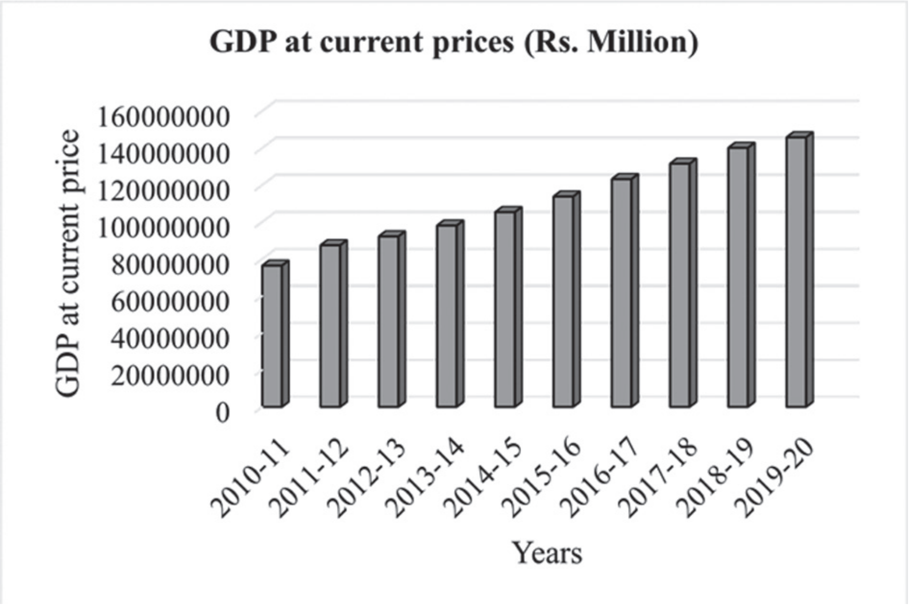

Fig.1: GDP of India

Source: Complied on the basis of secondary data by MS Excel
Website Link: https://dbie.rbi.org.in/DBIE/

Years	Current price GDP (Rs. Million)	ICT-A/Cs-BC-Total transactions (Number in million)	Number of BSBDA (Number in million)
2010-11	76344720	84.16	104.76
2011-12	87363290	155.87	138.5
2012-13	92130170	250.46	182.07
2013-14	98013700	329	242.9
2014-15	105276740	477	398
2015-16	113694930	827	469
2016-17	123081930	1159	534
2017-18	131445820	1489	536
2018-19	140033160	2101.9	574.2
2019-20	145692680	3231.8	600.4

Table 2: Financial variables of the study

Source: Reserve Bank of India

Website Link: https://m.rbi.org.in/Scripts/AnnualReportPublications.aspx?year=2021

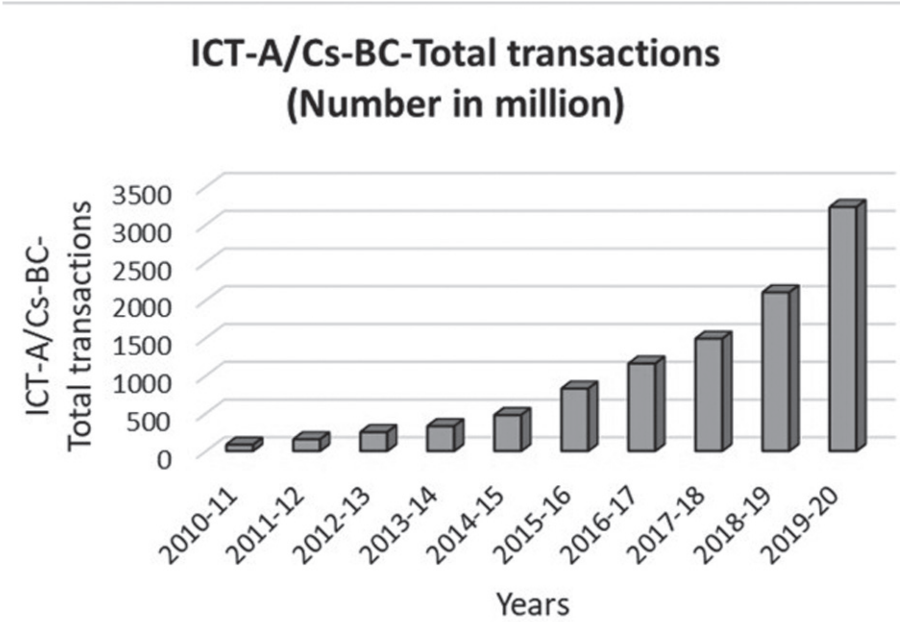

Fig.2: ICT-A/Cs-BC-Total Transactions

Source: Complied on the basis of secondary data by MS Excel

Website Link: https://www.rbi.org.in/Scripts/publications.aspx

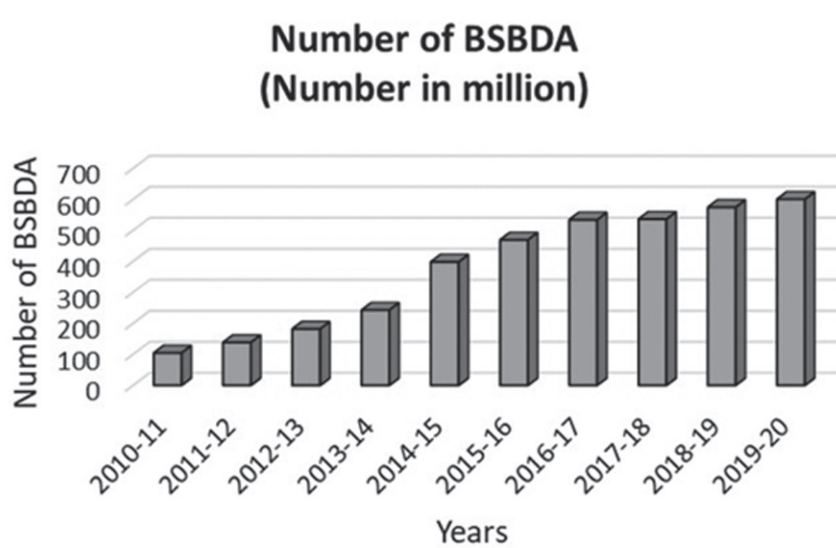

Fig.3: Number of Basic Saving Bank Deposit Account (BSBDA)

Source: Complied on the basis of secondary data by MS Excel

Website Link: https://www.rbi.org.in/Scripts/publications.aspx

R	*R* square	Adjusted *R* square	*F*	Sig.	Durbin-Watson
.989	.978	.972	156.035	.000002	1.568

Table 3: Results of Regression Analysis: Model Summary

Source: SPSS Output

Variables	Unstandardized Coefficients *B*	Standardized coefficients *Beta*	*t*-value	Sig.	VIF	H_0 rejected/ accepted
Constant	7288559.201		22.431	.000		
ICT-A/Cs-BC-Total transactions	895.193	.389	3.805	.007	3.33	Rejected
Number of BSBDA	0.008	.640	6.257	.0004	3.33	Rejected

Table 4: Regression coefficients

Dependent variable: GDP

Source: SPSS Output