An Analysis of Financial inclusion Indicators and Economic Growth of Jammu and Kashmir

Imtiyaz Hussain Ganaie
Researcher Scholar, School of Economics Devi Ahilya Vishwavidyalaya University, Indore.

Anant Gwal
Dean, Skill Development Acropolis Group of Institutions Indore, (M.P).

Kanhaiya Ahuja
Professor and Head, School of Economics Devi Ahilya Vishwavidyalaya University, Indore.

ABSTRACT

Finance is considered the most important part for the socio-economic development of the economy. The concept of financial inclusion is considered as a new initiative for economic growth, inclusive growth and poverty reduction. Financial inclusion is defined as the delivery of financial services viz, open bank account, savings, enquire balance, deposit cash, insurances, payments and transfer funds to deprived, vulnerable groups and excluded people at affordable cost. Reserve bank of India has taken various efforts to achieve their goals through cooperative banks, nationalization of banks, Self-Help Groups, business correspondents etc. Jammu and Kashmir figures amongst the states where financial inclusion is below average. It has a CRISIL Inclusix score of 36.9 compared to the national score of 42.8. The purpose of this paper is to know the current status of financial inclusion and evaluate growth of bank branches, GSDP and Credit deposit ratio in the state. The study also tries to examine the significance of financial inclusion indicators on growth of GSDP of Jammu and Kashmir economy

Keywords: Finance, Financial inclusion, financial services, financial institution, GSDP, CDR.

INTRODUCTION

Jammu and Kashmir has its own political and geographical importance in the country. The geographical location makes it difficult to provide access to financial services to everyone. The state of Jammu and Kashmir has been divided into three regions Jammu, Kashmir and Ladakh and all three regions have different geographical features. The Jammu and Kashmir State Level Banking

Committee has selected SBI bank and Jammu and Kashmir Bank as the leading banks of the regions. SBI is considered as the lead bank of Jammu region and Jammu and Kashmir Bank for rest two regions i.e., Kashmir and Ladakh. In Jammu and Kashmir there are only 2027 bank branches, 2405 ATMs and 1436 business correspondents operating, which offer banking facilities to 1.25 crore population in the state. Moreover, the business correspondent established by banks fraternity to offer financial inclusion services to the areas where the bank branches are not established yet. The banks have also organized awareness programs related to financial literacy and other financial inclusion services which are provided by the banks in the rural areas. In Jammu and Kashmir the deposit ratio is not good which is below the national average. The CRISIL inclusive score is 36.9 compared to national average 42.8 (Kaur & Abrol 2018).

Financial inclusion is considered an important pillar for the improvement of living standards of poor, farmers, artisans and rural people. On the other hand, financial exclusion means the lack of access of credit from banking institutions, due to lack of access of credit, small and marginal farmers are mostly affected in the country. Banking system has to take courageous steps and make such strategies to expand financial facilities to the rural population, and must advise other institutions such as MFI, NABARD, SHGs to intervene and play their role in the progress of financial inclusion. They have to pinpoint the rising opportunities in rural India and have to create such a platform through which costs can be minimized so that they will acquire benefits from the business models, in this way they will serve the rural people. (Garg 2014).

REVIEW OF LITERATURE

Rashid and Sangmi (2012) undertook a study on the Financial Inclusion and initiatives taken by the bankers in the State of Jammu and Kashmir. The present study try to examine the progress of Financial Inclusion in the State. The research was based on the secondary data, the major findings of this study was, out of 795 villages 622 villages have been covered under the state of the financial inclusion plan. Banking system has adopted the business correspondent's model to cover those areas which are not yet linked to the banking system, this model provides banking services to 614 out of 622. The bank credit lags behind which was depicted by Credit Deposit Ratio 35.71 against the index of 60. A remarkable progress has been seen in the availability of no -frills accounts which was provided to excluded sections of the society. In addition to that it shows progress in the KCC and SHG linkage program and other financial schemes as well. The author concluded that significant progress has been achieved in the state and tried to attain the objective of inclusive growth of the Financial Inclusion Plan. Furthermore, the focus was on changing their plans and keeping an eye on that poor which are still left in the situation of sources of informal finance. They suggested that there is a need to remove the hurdles which come in the path of progress of financial inclusion.

Suhail Qasim "el al."(2014) conducted a study on the effectiveness of financial inclusion and major initiatives taken by the banks. The main purpose of this study was to examine the present status of financial inclusion in Jammu and Kashmir, initiatives taken by banks. The study was primarily based on secondary data. It has been concluded that the banks in the Jammu and Kashmir are functioning according to norms and guidelines of RBI in the process of providing financial services such as opening of new bank branches, opening of no frills account, KCC etc. And suggested that there is a need to put more efforts for financial inclusion, a lot is fulfilled, but a lot is yet to be acquired. They suggested that banks need to amend the previous policy, plans and open more bank branches to those parts especially in rural areas which are not yet connected to the banking system. Major findings of the study show that 99 percent of unbanked villages are covered under the first phase of financial inclusion plan and in the second phase of the plan only 41 percent villages are covered. Moreover, 70% of the KCC cases were sanctioned till December 2013. Under the branch expansion plan, out of 227 bank branches only 85 branches have been opened till date 2013.

Iqbal & Sami (2017) examined the performance of banks in financial inclusion in India. Financial inclusion is considered as a new model of economic growth and development in the economy. It has played an important role in eliminating poverty from the country. The main aim of this study was to investigate the impact of financial inclusion on the economic growth. The research was carried on secondary sources; the researcher has taken seven years of data i.e. (2007-08 to 2013-14) into consideration for the research study, for analysis of data multiple regression was used to find out the relationship between the financial inclusion and economic growth. The study concluded and found that there is a positive impact of the number of bank branches and credit deposit ratio on the GDP of the country. Whereas the growth rate of ATMs revealed a negative impact on the GDP of the country's economy, which means it is insignificantly associated with growth. From the analysis of data it is shown that financial inclusion is strongly related to the progress and economic development of the country. In spite of this there is a need to make proper rules and regulations for financial inclusion and access of financial services. Financial inclusion awareness, programs and other programs should be organized to make financial inclusion successful.

Ahmad, Sharma & Mujtaba (2018) undertook a study to analyze access to financial inclusion and economic growth of Jammu and Kashmir. The research was conducted on secondary data and information was collected from the reports of SLBC, research articles, books and from various websites. The researcher has taken ten years of data for the study i.e. 2005-2015 and the data was analyzed by regression model. The study concluded that financial inclusion information acquired from the various sources revealed that inclusion in the far–flung areas is quite low. The awareness about the self-help groups, KCC and financial literacy is also low in these areas. The information also shows a significant impact on the number of bank branches and insignificant Credit deposit ratio on the state domestic product. Various initiatives have been taken by Govt. and other agencies to achieve the objectives of financial inclusion in the remote areas. **Joseph (2014**) found that a lot of changes have been seen in the last few years in financial inclusion. People are accessing the basic financial services and are also actively using them, but still there is a need to encourage the people to access and make use of the financial services possible. **Srinivas & Upender (2014)** analyzed that half of the populations are debarred from the financial services in the country. In India most of the people do not use their account on daily or even once in the month. The rate of financial inclusion in the country is low as compared to other countries. **Prashanth & Pawar (2015)** found that still most deprived sections of society in India are not aware about PMJDY and its benefits. Lack of banking accessibility is responsible for not maintaining their bank accounts on a daily basis. PMJDY can reduce the informal system of credit creation and boost the habit of saving among the people.

OBJECTIVES

1. To examine the status of banking network and indicators of Financial Inclusion in Jammu and Kashmir.
2. To analyse the impact of financial inclusion indicators on economic growth of Jammu and Kashmir.

RESEARCH METHODOLOGY

Research methodology in economics means using the scientific methods of investigation and analyzing economic phenomena. No research work can be undertaken unless we adopt a proper research methodology. For the present research work, the scientific method will be followed. This consists of various stages such as allocation of data, analysis of data and also interpretation and presentation of the findings. The present study is conducted for the Jammu and Kashmir State pertains to the reference period 2009-10 to 2018-19. The data for the study were collected by various sources; data and other information have been collected from secondary sources. The secondary data related to Banking and GSDP at current prices in Jammu and Kashmir has been collected and compiled from the official records, J&K Economic surveys, and State Level Banking Committee state, Reserve Bank of India, reports, Journals and books. The data obtained from the above sources has been analysed by using the tables, correlation, Percentages, CGR, CAGRs, and Regression.

The Formula for calculating CAGR, first we calculate Annual growth rate as: **(Current Year – Previous Year / Previous Year * 100)** of every considering year after calculating annual growth rates we calculate compound growth rate of considering years.

Compound Growth rate= (Logb-1)*100

Regression Y= β_0+ β_1 (X) + Ut, Y- Dependent variable, X- Independent variable, $\beta 0$ - Intercept

$\beta 1$ - coefficient (Slope), U_t= Error term

Hypothesis

H_0: There is statistically no relationship between financial indicators growth and GSDP growth and there is no significant impact of financial inclusion indicators on the GSDP growth of Jammu and Kashmir Economy.

H_1: There is statistically relationship between financial indicators growth and GSDP growth and there is significant impact of financial inclusion indicator growth on GSDP growth of Jammu and Kashmir Economy.

H_0: There is no statistically relationship between numbers of bank branches growth and CDR growth. There is no significant impact of number of bank branches growth on the growth of credit deposit ratio.

H_1: There is statistically relationship between number of bank branches Growth on CDR growth there is significant impact of financial inclusion indicator growth on growth credit deposit ratio.

Table. No. 1: Banking network of Jammu and Kashmir as on Dec.2020.

	Banking Outlets			
Name of Bank	Branches	BC	ATMs	Total
Public sector banks	453	335	1007	1795
Private sector banks	949	1099	1551	3599
Regional rural banks	332	253	0	585
Central and state cooperative banks	267	0	11	278
Other Financial Institutions (FIs):	6	0	0	6
Payment Banks	7	1248	0	1255
Total	2014	2935	2569	7518

Compiled from JKSLBC

The above shows the Sector wise status of Number bank branches, Business correspondents, ATMs. All the sectors have expanded their banking services to all over the Jammu and Kashmir, but some sectors remain backward in doing so. A private sector bank performing well and has expanded its branches all over the Jammu and Kashmir, and is the leading sector in banking fraternity and holds first place with 949 branches, 1099 BC and 1551 ATMs. Furthermore, public sector banks holds second place in Jammu and Kashmir with 453 bank branches, 335 BCs and 1007 ATMs. Additionally, RRBs, central and state cooperative banks, payment banks and other banking institutions are operating there, but at lowest level. Both private sector and public sectors banks are leading banks in providing financial services to people in the state, and play a pivotal role in financial inclusion with highest number of banking outlets as compared to other banking sectors. Public and private sectors banking have expanded their branch network to all over the state and mostly cover rural areas which are not linked to the banking system and provide them banking services at reasonable cost and also include them in financial inclusion.

Table No. 2: Financial inclusion Indicators

Year	Number of Bank Branches	Growth rate	GSDP at current Prices	Growth rate	CDR	Growth rate
2009-10	1002		4838451		46.88	
2010-11	1302	30%	5807257	20%	35.57	-24%
2011-12	1449	11%	7825555	35%	34.36	-3%
2012-13	1638	13%	8713773	11%	36.51	6%
2013-14	1893	16%	9561874	10%	47.27	29%
2014-15	1936	2%	9836675	3%	46.23	-2%

ISSN No.2349-7165

2015-16	1998	3%	11716795	19%	49.11	6%
2016-17	2005	0%	12484800	7%	44.62	-9%
2017-18	2036	2%	13923972	12%	47.2	6%
2018-19	2066	1%	15595616	12%	49.57	5%
CAGR	7.46%		12.82%		2.86%	

Calculated by author.

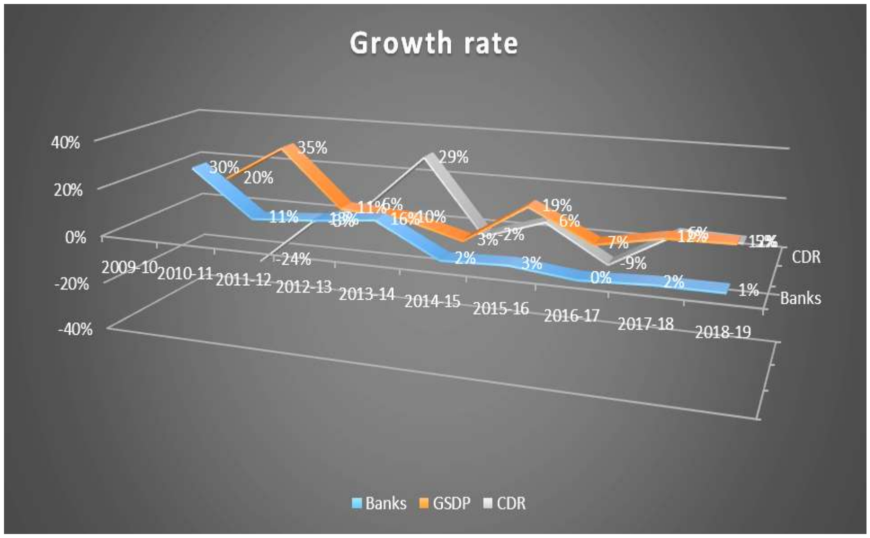

Fig.1

The above table depicts the annual growth rate of Number of banks, GSDP and cash deposit ratio in the state from 2009-10 to 2018-19. There have been continuous fluctuations in the growth of the number of bank branches, the highest growth rate has been recorded in the year 2010-11 (30%) followed by 2013-14 (16%). 2012-13 (13%) and 2011-12 (13%). Whereas, lowest growth rate has been found in the year 2014-15 (2%), 2015-16 (3%), 2016-17 (0%), 2017-18 (2%) and 2018-19 (1%). The highest growth has been seen 2010-11, which is 30 percent and lowest growth recorded in 2018-18 (1%). Moreover, the study covered GSDP of state as an indicator of financial inclusion, the growth rate of GSDP during the reference period is also shown it becomes clear that there are ups and downs, as the growth rate increases from 20% in 2010-11 to 35% in 2011-12 and reached to (19%) in 2015-16, and after that growth starts falling quick intervals i.e. (11%) in 2012-13, to (10%) 2013-14 and (3%)2014-15. Moreover, the growth fluctuates year after year, in 2016-17 (7%), 2017-18 (12%) and 2018-19 (12%). The highest growth rate has been revealed in 2011-12 which is 30% followed by 20% in 2010-11.The CAGR of number of bank branches is state is 7.46 percent and GSDP has 12.82 percent and only 2.86 percent in Credit deposit ratio.

Furthermore, Credit Deposit Ratio shows fluctuating growth rates during the study period and crosses negative sign, growth rates in the first two years goes on negative form then after minor improvement has found in CDR and 6% increase have been seen in 2012-13 and reached to 29% in 2014-15 and again takes down turn and fall to -2 % . The highest growth rate was witnessed in the year 2013-14 which is 29% followed by 6% in 2012-13 and 2018-19 respectively. Maximum Negative growth rates were found in the year 2010-11 and 2016-17 which is -24% and -9% respectively. There are various reasons for decline in GSDP and CDR are due to prevailing conditions, economic disturbances, shutdowns, internet blockade, low investment, agriculture crisis and political instability. To find out the impact of GSDP on financial inclusion indicators i.e., number of bank branches and credit deposit ratio, the logarithm regression model was selected for accurate and significant results.

Table. No. 3: Correlation Variation between number of bank branches, CDR and GSDP of J & K.

Parameter	r^2
Correlation between GSDP and number of bank branches	0.94
Correlation between GSDP and CDR	0.50
Correlation between number of bank branches and CDR	0.44

Calculated by author.

The above table shows correlation between GSDP and number of bank branches, GSDP reveals positive relation with number of bank branches with r^2 value 0.94. When number of number of bank branches increases the GSDP also increase but in same direction. Moreover, GSDP has positive relation with CDR and have value 0.50 and two variables move in the same direction. Relation between number of bank branches and CDR is also positive having r^2 value 0.40 means that when one variable increases the other variables increases too.

Regression results of impact of GSDP on financial inclusion indicators

Table. No. 4: Dependent variable Gross state domestic product

	Coefficient	S.E	P. value	Sig. F	R^2
Intercept	2.066	0.640	0.014	0.000	0.90
CDR	0.259	0.342	0.47		
Number of bank branches	1.389	0.200	0.000		

Level of significance 0.5%

The logarithm regression model for Equation I is:

$\text{Log } Y_{(GSDP)} = b_0 + b_1 \text{ Log}X1_{\text{ CDR}} + b_2 X2_{\text{ number of bank branches}} + u_t$

Where

Y = Dependent variable (GSDP), X1 = Independent variable (Credit deposit ratio)

X2 = Independent variable (Number of bank branches), b_0 = Intercept

b_1= Regression coefficient of X variable, u_t = Error term

The regression results indicate the impact of GSDP on the number of bank branches and CDR during the period 2009-10 to 2018-19, therefore the impact of GSDP remains low by CDR (0.259) and greater by number of bank branches (1.389) during the reference period. Moreover, regression results show that the R^2 value of the model is .90 means 90 per cent of variation on dependent variables (GSDP) is explained by the independent variables (Number of bank branches, Credit deposit ratio) and 10 percent accounted by error. If we see the F-Value which is 0.000 which is less than at 0.5% level of significance, implies reject the null hypothesis. Hence we can say there is a statistically significant impact of Number bank branches and credit deposit ratio on GSDP growth.

Regression Line

$$Y_{(GSDP)} = 2.066 + 1.389X1_{(No.\ B\ branches)} + 0.259X2_{(CDR)} \quad (1)$$

This equation (1) depicts the regression values of variables, the regression coefficient of number of bank branches is 1.389 says that as the number of bank branches increases 1% percent on an average GSDP will increase (1.389). Likewise, the coefficient of CDR is 0.259 means that if f CDR increases 1% on an average GSDP will increase 0.259% during the study period. Thus we can say that the number of bank branches has strong relationship and has a positive impact on growth on the GSDP and CDR has weak relationship but positive impact on growth of GSDP. Bank branches alone have contributed much to growth of GSDP as compared to CDR. Hence we can conclude that there is a statistically significant relationship between financial indicators i.e., Number bank branches and credit deposit ratio on GSDP growth.

Now again simple logarithm regression function was followed to identify the impact of credit deposit ratio on the growth of number of bank branches and analyze how much CDR impact on growth of number of bank branches in the state. In equation II credit deposit ratio is taken as dependent variable whereas, number of bank branches is independent variable.

$$\text{LogY CDR} = b_0 + b_1\text{LogX No.B branches} + u_t \quad (2)$$

Table No. 5: Results output of logarithm regression model II Dependent variable is Credit deposit ratio.

	Coefficient	S.E	P. value	R^2
Intercept	0.789	0.640	0.22	0.20
Number of bank branches	0.262	0.342	0.19#	

Level of significance 0.5%

$$LogY_{CDR} = 0.789 + 0.262_{\text{ number of bank branches}} + u_t$$

The regression results indicate the influence of the number of bank branches on CDR during the period 2009-10 to 2018-19. The regression equation indicates that the credit deposit ratio will increase with respect to the number of bank branches as if there is an average 1 percent increase in dependent variable number of bank branches there is less than 1% increase in dependent variable credit deposit ratio i.e., 0.262. Thus we can say that the number of bank branches has low levels of growth on credit deposit ratio and credit deposit ratio provide less support to number of bank branches in growth during the time 2009-10 to 2018-19. The intercept value is 0.789 indicates that if the number of bank branches is held zero, the credit deposit ratio growth will be 0.789 percent. Moreover, regression results shows that the R^2 value of the model is .20 reveals 20 percent variation on dependent credit deposit ratio is explained by the independent variables (variable number of bank branches) and 80 percent accounted by error. If we see the P – Value which is 0.19 which is greater than at 0.5% level of significance, accept the null hypothesis. Hence we can say there is statistically no relationship of CDR growth on the growth of the number of bank branches. Hence we can conclude that the number of bank branches provides less support in credit deposit ratio growth in the state. There are other factors responsible for the growth of CDR i.,e availability of financial services(Dhiya and kumar 2020)

Table No. 6: The Summary output of logarithm regression model III dependent variable is number of bank branches.

	Coefficient	S.E	P. value	R^2
Intercept	1.978	0.883	0.00	0.20
Credit deposit ratio	0.763	0.539	0.19 #	

Level of significance 0.5%

$$LogY_{\text{ number of bank branches}} = 1.978 + 0.763_{\text{ credit deposit ratio}} + u_t$$

The regression results indicate the influence of CDR on the number of bank branches growth during the period 2009-10 to 2018-19. The regression equation indicates that the number of bank branches will increase with respect to credit deposit ratio, as if there is an average 1 percent increase in credit deposit ratio independent variable there is less than 1% increase in dependent variable number of bank branches i.e., 0.763 percent. Thus we can say that CDR has low linkage with number of bank branches growth and reveals number of bank branches and

CDR provides less support to number of bank branches in growth during the time 2009-10 to 2018-19. The intercept value is 1.978 indicates that if the credit deposit ratio is held zero, the number of bank branches growth will be 1.978 percent. Thus we can say the credit deposit ratio laid an impact on the number of bank branches. Moreover, the R^2 value of the model is .20 reveals 20 percent variation on dependent variable number of bank branches is explained by the independent variables (credit deposit ratio) and 80 percent accounted by error. If we see the P – Value which is 0.19 which is greater than at 0.5% level of significance, accept the null hypothesis. Hence we can say there is no statistically relationship of CDR on the growth of the number of bank branches. Hence we can conclude that CDR provides less support in the number of bank branches growth in the state.

CONCLUSION

The study reveals that the Number of bank branches and credit deposit ratio plays an important role in the economic growth and expansion of financial inclusion in Jammu and Kashmir. The study found that financial indicators like number of bank branches and credit deposit ratio shows positive impact on growth of GSDP of the state. Banks are considered as an important measure for the growth of financial inclusion and economy. The increasing number of bank branches contributes much to state GSDP. Whereas, the credit deposit ratio indicates less contribution to GSDP over the reference period and mostly remains low. The number of bank branches has strong positive relation with GSDP growth and credit deposit ratio has weak positive with GSDP growth of state and also shows positive correlation between them. The study also found that number of bank branches has maximum impact on GSDP and CDR has less impact on GSDP. Moreover, the study finds that there will continuous growth in number of bank branches and CDR and GSDP. Whereas, compound growth rate of indicators of financial inclusion shows positive form, the CAGR of GSDP was highest. GSDP was increasing at an average of 12.86% and growth of number of bank branches growing at the rate of 7.46% and CDR is growing at lower rate i.e. 2.86% during the study period. The study also indicates that both public sector banks and private sector banks are major shareholders in banking network. The study also found that banks are not earning as much as is expected and mostly CDR remains adverse over the study. The results of our study found some similarity with (*Iqbal and Sami, 2017*), their results indicate positive impact of number of bank branches and credit deposit ratio on GDP, while as ATMs has negative impact on gross domestic product of a country. On the other hand the study of (*Ahmad, Sharma and Mujataba, 2018)* found significant impact on number of bank branches and insignificant impact on credit deposit ratio of state. Moreover, the availability of banking services plays a pivotal role in promoting financial inclusion in the state and is strongly related to economic development. Thus the government and banks have to take courageous steps to increase the participation of people in the economic activities through which economic and financial inclusion growth can be achieved and stabilized. Furthermore, policy makers and government should focus on regional rural banks and other financial institutions for achieving higher level of financial inclusion in the state.

REFERENCES

- Ahmad, F., Sharma, L.R., & Mujtaba, A. (2018). Financial inclusion and economic growth of Jammu and Kashmir State. An empirical analysis: *The Index of Council Social Science Research,* 81-96.
- Garg. S., & Agarwal. P. (2014). Financial inclusion in India: A review of initiatives and achievements, Journal of Business and Management, 16 (1), 52-61.
- Iqbal, B. A., & Sami, S. (2017). Role of banks in financial inclusion in India. *Contaduriay Admistracon,* 62 (2), 644 – 656.
- Joseph, D. (2014). A study on financial inclusion and financial literacy. *International Journal of Business and Admistration Research and Review,* 2 (4), 126 -134.
- Khaki, A., & Sangmi, M.U.D. (2012). "Financial Inclusion in Jammu & Kashmir: A study on banker's Initiatives" *Researchers World-Journal of Arts, Science & Commerce*, 3, 115-123.
- Kaur, P., & Abrol, V. (2018).Measuring financial inclusion in Jammu and Kashmir state: An empirical study, *Journal of Business and Management*, 2 (1), 37 – 44.
- Mir, S. Q., Bhat, Isfaq, A., & Zargar, F. N. (2014). A study on the effectiveness of the financial inclusion program in Jammu and Kashmir: initiatives by the major banks. *Global Journal of Finance and Management*, *6*(3), 281-286.

- Prashanth, B. A., & Pawar, G., (2015). Prandhan Mantri Jan Dhan Yojana (PMJDY), Innovative Initiatives towards financial inclusion, *Review, retrieved from* *http://www.kpmg*.
- Srinivas, M., & Upender, P. (2014). Financial Inclusion – A Proactive role played by Indian banking sector & RBI in economic development. *International Journal Innovative Technology & Adaptive Management,* 1(5), 143-149.

Websites

- http:// www.jkslbc.com
- http://ecostatjk.nic.in
- http:// m.rbi.org.in