

# **Financial Inclusion and Economic Growth**



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**Prof. (Dr.) Aftab Anwar Shaikh  
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## Preface

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Financial inclusion is identified as the access to and use of financial services by households and firms (Sahay et al., 2015). Many countries have implemented various policies to increase the financial inclusion by education programs of financial literacy and structural measures considering its positive microeconomic and macroeconomic implications. As a consequence, the number of people having an account in a financial institution raised by 700 million during 2011-2014 period and currently 69 per cent of adults have an account ([globalindex.worldbank.org](http://globalindex.worldbank.org)), but about 1.7 billion adults worldwide do not have access to an account at a financial institution by year 2018 (World Bank Data, 2018). Various steps are taken by the RBI and Government of India towards achieving the ultimate goal of financial inclusion for inclusive growth and emergence of cashless economy in India.

Financial inclusion has potential to create benefits for individuals and societies. In this regard, financial inclusion can contribute to the improvements in poverty and inequality by encouraging the people to use their money more efficiently, invest for the future, and manage the risks. Furthermore, use of the money in the financial system by the economic parameters increase the transparency, efficiency and decrease the shadow economy. Also increasing financial inclusion can facilitate the educational and business investments.

Digital finance provides quick, reliable and convenient banking services through internet or mobile phones and aims to ensure universal access to financial services. As a result of improved penetration of financial services, the unbanked segments of the society get access to manage their cash flows better, increase their savings and investments, thereby giving a boost to an economy's Gross Domestic Product (GDP). By providing equal opportunities to all, digital finance plays

a significant role in a countries' inclusive growth process. The chapters included have analyzed the progress made by India in terms of financial inclusion, journey of India's financial inclusion, innovations made in digital finance in the past few years, benefits and challenges of using digital finance.

The purpose of this book is to assess the dynamic impact of financial inclusion on economic growth in developing countries like India. The scholarly articles reveal that there is a positive and long run relationship between financial inclusion and economic growth. Various institutional frameworks for inclusive economic growth have been studied under the chapters like micro finance institutions, small finance banks & digital finance. The emerging challenges of growth like gender and regional disparities in growth and rising NPAs and banking crisis were discussed in detail. This book also discussed the policy framework for inclusive economic growth through make in India, skill India, digital India, smart cities initiatives for a better understanding of overall economic development.

**Prof. (Dr.) Aftab Anwar Shaikh**  
**Dr. Ana Mateen**

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# 1

## **Inter-district Disparities in the Level of Human Development in Assam and its Causes: Evidence From Assam Human Development Report, 2014**

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**DR. MANASH ROY**

### **Abstract**

Human Development Reports (HDRs) are great assets in assessing the overall progress of human development at different levels. However these reports more or less remain silent in addressing the determinants of human development, which is very important from the point of view of policy prescription. The present chapter attempts to fill up this research gap by exploring the determinants of human development in Assam with reference to the Second State Human Development Report of Assam, 2014. A multivariate analysis in the form of logistic regression shows that the level of human development in Assam is negatively and significantly influenced by poverty while work force participation rate and educational infrastructure have affected it in a positive and significant way. Muslim population is found to be relatively better placed in terms of human development. The significant value of regional dummy indicates that Brahmaputra Region has an edge over Barak Valley Region on the matter of human development.

**Key Words:** Human Development Reports, Human development, logistic regression

### **1. Background of the Study:**

Economic growth is considered as an important instrument for analysing the economic performance of various economies across the globe. However, economic growth can not be a true reflection of the sum total of human existence. Since people are the real wealth of a nation, voices raised strongly against the use of economic growth for the assessment of overall performance of the economy. Hence independent researchers during the last few decades have shifted their emphasis from economic growth to economic development and subsequently to human development and inclusive development. Economic development actually means growth plus structural and institutional changes in the economy where again people's choices are not reflected explicitly. Therefore, to enhance people's choices the concept of human development has been evolved with special emphasis on people as the ultimate end of all the developmental activities. Since then human development has become an important issue of research and discussion in all parts of the globe.

The construction of Human Development Index (HDI) and ranking of the countries on that basis has been a regular feature of the global Human Development Reports (HDRs) since 1990. Apart from the global HDRs, efforts are also put from time to time to publish HDRs at different disaggregate level. This has made possible to have a series of national, regional and state level HDRs (Haq, 2009). The importance of such reports is precious as all the micro level problems and facts can not be fully masked under macro level representation. However one serious criticism against all such reports is that they somehow remain silent in analyzing the factors affecting human development at various levels. Efforts also seem to be scanty amidst the research fraternity regarding this important issue of human development. This becomes a hindrance in identifying the shocks and stimulants of human development from empirical point of view and thus solid policy prescriptions for further advances in the level of human development is not possible. At this back drop, the present study attempts to fill up this research gap by exploring the possible determinants of human development in Assam. The state of Assam is

considered as one of the most backward states of India in terms of various socio-economic indicators and also from human development perspective. Hence it would be of great importance in identifying the correlates of human development for this north-eastern state, which might help the policy makers in adopting right sort of development policies for the state. It should be noted that the analysis of the present study is based on the secondary data from recently published second HDR of Assam (2014).

The present chapter is organised into seven sections. Section 1 provides the background of the study while Section 2 incorporates the conceptualisation of human development and human development index. Objectives and research questions are represented in Section 3 and Section 4. Section 5 takes care of data source and methodology. Results and discussions are shown in Section 6 while summary and conclusions of the study are represented in Section 7.

## **2. Conceptualisation of Human Development and Human Development Index:**

**Human Development:** The concept of Human development in Assam HDR (2014) is conceptualized in the same line with Global HDR, 2010 with some modifications and adjustments. That is to say in this report also human development means widening of people's choices in three basic dimensions of life viz. health measured by life expectancy at birth, education measured by mean years of schooling and expected years of schooling and standard of living measured by per capita annual income. Life expectancy at birth at the district level was estimated based on five-year death-age data obtained from Human Development Report (HDR) survey by using Chiang's method. The mean years of schooling and expected years of schooling were estimated from the HDR survey data, 2013. The first is based on the number of years to complete a particular level and actual level of educational attainment of individuals obtained from the survey and the second is based on enrolment ratios. Instead of using district domestic product, the report uses directly obtained household income data from the survey for measuring standard of living (Assam Human Development Report, 2014).

**Human Development Index:** Human Development Index (HDI) is a summary measure showing the average level of progress made by a nation/state/region in the level of human development. For constructing HDI, first a dimensional index has to be calculated by following the max-min approach and then the final HDI is calculated as a geometric mean of all dimensional indices.

### **3. Objectives:**

1. To assess the inter-district disparity in the level of human development in Assam.
2. To explore the factors influencing the level of human development in Assam.

### **4. Research Questions:**

1. What is the status of inter-district disparity in the level of human development in Assam?
2. What are the factors influencing the level of human development in Assam?

### **5. Data Source and Methodology:**

**5.1 Data Source:** The present study is based on secondary data. The relevant secondary data required for analysis are taken from HDR survey of Assam, 2013 and Statistical Hand Book of Assam, 2014.

**5.2 Methodology:** For analysing the first objective statistical tools like range and standard deviation are used. The second objective is analysed by running a logistic regression model. The specification of the model is shown below.

**5.2.1 Specification of the Logistic Regression Model:** HDI of different districts of Assam for the year 2013 is regressed on the explanatory variables like poverty rate, work participation rate, educational infrastructure index, public health infrastructure index, percentage of Muslim population living in a district, percentage of SC & ST population living in a district and regional dummy. The dependent variable HDI is bounded between 0 and 1 but its estimated value may not be bounded within the same range because of different natures of explanatory variables. Hence we have specified our model

in the following non-linear form to avoid the unboundedness problem (Ramanathan, 2008).

We take a non-linear model of the form

$$Y = \frac{1}{1 + e^{-z}} \dots\dots\dots (1)$$

Where  $Z = \beta_0 + \sum_{i=1}^k \beta_i X_i + u_i \dots\dots\dots (2)$

Here Y stands for HDI (0 < Y < 1), X<sub>i</sub>'s are the factors influencing human development of i<sup>th</sup> district, β<sub>i</sub>'s are the parameters to be estimated and u<sub>i</sub> is the random disturbance term .

Equation (1) can be re-written as:

$$Y = \frac{e^z}{1 + e^z}$$

$$\text{Or, } \frac{Y}{1 - Y} = e^z$$

$$\text{Or, } \log\left(\frac{Y}{1 - Y}\right) = Z$$

$$\text{Or, } \log\left(\frac{Y}{1 - Y}\right) = \beta_0 + \sum_{i=1}^k \beta_i X_i + u_i \quad [\text{Using equation (2)}]$$

$$\text{Or, } H = \beta_0 + \sum_{i=1}^k \beta_i X_i + u_i \dots\dots\dots (3)$$

$$[\text{Let, } H = \log\left(\frac{Y}{1 - Y}\right)]$$

Now, incorporating the explanatory variables as mentioned earlier the final functional form of the model to be estimated by the Ordinary Least Square Method (OLS) becomes

$$H_i = \beta_0 + \beta_1 PR_i + \beta_2 WPR_i + \beta_3 EII_i + \beta_4 PHII_i + \beta_5 M_i + \beta_6 S_i + \beta_7 RD_i + u_i; \quad i = 1, 2, \dots, 27$$

Where,

$$H_i = \log\left(\frac{Y}{1 - Y}\right), \text{ Y stands for the value of HDI of } i^{\text{th}} \text{ district}$$

PR<sub>i</sub> = Poverty rate of i<sup>th</sup> district

$WPR_i$  = Work participation rate of ith district

$EII_i$  = Educational Infrastructure Index <sup>2</sup> of ith district

$PHII_i$  = Public Health Infrastructure Index<sup>3</sup> of ith district

$M_i$  = Percentage of Muslim population in ith district

$S_i$  = Percentage of SC & ST population in ith district

$RD_i$  = Regional dummy <sup>4</sup> which takes value 1 for the districts of Brahmaputra Valley and takes value 0 if a district belongs to Barak Valley

$u_i$  = Random disturbance term

## 6. Results of the Study and Discussions:

This section first shows the results related to ranking of the districts in terms HDI values and the disparities among them in the level of human development and finally shows the results of the logistic regression.

**Table 1 Human Development Ranking of the Districts based on Assam HDR, 2014 and Descriptive Statistical Measures of HDI and other Dimensional Indices**

Districts	HI	Rank	EI	Rank	SLI	Rank	HDI	Rank
Baksa	0.34	26	0.606	23	0.404	21	0.437	26
Barpeta	0.768	2	0.684	9	0.462	16	0.624	6
Bongaigaon	0.53	16	0.667	13	0.507	8	0.564	14

<sup>2</sup> Educational Infrastructure Index (EII) is constructed as an equal weighted average (geometric mean) of five indicators viz. % of schools having separate class room, % of schools having sufficient desk/bench, % of schools having electricity, % of schools having drinking water facility and % of schools having girls' toilet facility.

<sup>3</sup> Public Health Infrastructure Index (PHII) is constructed as an equal weighted average (geometric mean) of five indicators viz. number of health institutions per 1 lakh population in a district, number of beds per 1 lakh population in a district, number of staffs per 1 lakh population in a district, % of households having toilet facilities and % of households having safe drinking water facilities.

<sup>4</sup> It is to be noted that the state of Assam is mainly comprised of two regions viz. Brahmaputra Valley and Barak Valley. As per as Census (2011), there are all total 27 districts in Assam out of which three districts viz. Cachar, Karimganj and Hilakandi fall under Barak Valley and the rest 24 come under Brahmaputra Valley.

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Cachar	0.319	27	0.647	16	0.479	13	0.463	24
Chirang	0.746	4	0.677	12	0.457	17	0.614	7
Darrang	0.62	8	0.566	27	0.399	23	0.519	19
Dhemaji	0.481	21	0.688	7	0.393	24	0.507	21
Dhubri	0.51	19	0.579	26	0.38	26	0.482	23
Dibrugarh	0.518	18	0.7	5	0.483	9	0.56	15
Dima Hasao	0.748	3	0.662	14	0.525	6	0.638	3
Goalpara	0.718	7	0.612	22	0.47	14	0.591	10
Golaghat	0.543	13	0.684	8	0.431	19	0.543	16
Hilakandi	0.366	24	0.605	24	0.376	27	0.437	27
Jorhat	0.587	11	0.744	3	0.643	2	0.655	2
Kamrup (R)	0.798	1	0.648	15	0.483	11	0.63	4
Kamrup (M)	0.554	12	0.783	1	0.8	1	0.703	1
Karbianglong	0.743	5	0.645	17	0.48	12	0.612	8
Karimganj	0.3618	25	0.627	19	0.42	20	0.456	25
Kokrajhar	0.539	14	0.645	18	0.402	22	0.519	20
Lakhimpur	0.612	9	0.693	6	0.468	15	0.583	11
Marigaon	0.73	6	0.678	11	0.386	25	0.576	13
Nagaon	0.588	10	0.684	10	0.516	7	0.592	9
Nalbari	0.496	20	0.721	4	0.535	4	0.576	12
Sibsagar	0.521	17	0.758	2	0.63	3	0.629	5
Sonitpur	0.444	22	0.615	21	0.532	5	0.526	17
Tinsukia	0.425	23	0.625	20	0.483	10	0.505	22
Udalguri	0.538	15	0.602	25	0.441	18	0.523	18
Mean	0.561		0.661		0.481		0.558	
Values of Student's t	t  = 3.50*		t  = 2.48**		t  = 8.72*			
Range	0.479		0.217		0.424		0.266	
Standard Deviation	0.136		0.052		0.091		0.068	

**Source:** Ranking of the districts are based on Assam HDR Survey, 2013 and statistical measures are calculated by the Author, Note: \* and \*\* represent statistically significant at 1 and 5 per cent level of significance

Table 1 shows that Kamrup metro ranks first while Hilakandi ranks last in respect of human development in Assam. So far as the dimensions of human development are concerned, Kamrup rural tops the list in case of health dimension while Kamrup metro ranks first in case of the other two dimensions. Cachar sits at the bottom in case of health dimension while in case of education and standard of living; Darrang and Hilakandi have obtained the last ranks respectively. 37.03 per cent of the districts are performing better than the state average in respect of health dimension measured by life expectancy. 48.15 per

cent of the districts have done better than the state average in terms of education and standard of living dimension. 55.56 per cent of the districts have performed better than the All Assam average in the level of overall human development. Only three districts viz. Dima Hasao, Nagaon and Jorhat have performed better than the state average in respect of overall human development and its dimensions while Seven districts viz. Baksa, Dhubri, Kokrajhar, Udalguri, Cachar, Karimganj and Hilakandi have performed worse than the state average. Different significant t values also indicate that significant differences exist between different pairs of dimensions of human development in Assam.

It also appears from Table 1 that Assam is relatively worse off in case of standard of living in relation to overall human development and its other dimensions. It is apparent from the t values that significant differences exist between different pairs of dimensions of human development in Assam. The range values exert that disparities between two extreme districts is relatively higher in case of health and standard of living. The values of standard deviation indicate that inter-district disparities are found relatively higher in case of health dimension. Disparities are found negligible in case of overall human development and its two other dimensions.

**Table 2 Result of Logistic Regression**

Variables	Coefficients	Standard Error	t  values	P >  t	VIF
Poverty rate	-0.0145*	0.0033	4.34	0.000	1.56
Work participation rate	.04454*	0.01512	2.95	0.008	2.35
Educational Infrastructure Index	1.2480**	0.4709	2.65	0.016	3.38
Public health infrastructure index	0.8061	0.5965	1.35	0.192	2.55
% of Muslim population	0.0066**	0.0026	2.48	0.023	3.35
% of SC & ST population	0.0051	0.0031	1.65	0.116	2.63
Regional dummy	0.2226***	0.1265	1.76	0.095	2.23
Constant term	-2.3562*	0.7279	3.24	0.004	
F( 7, 19) = 33.95*		R <sup>2</sup> = 0.6553		Adjusted R <sup>2</sup> = 0.5283	

**Source:** Calculated by the Author, Note: \*, \*\*, \*\*\* represent significant at 1, 5 and 10 per cent level of significance respectively

The value of  $R^2 = 0.6553$  shows overall a good fit of the model as 65 per cent of the variations in human development is explained by the explanatory variables. The F value is highly significant indicating the joint effort of all the explanatory variables in capturing the variations in the level of HDI together. As not a single value of VIF (Variance Inflating Factor) comes out to be greater than 10, it can be

safely said that our model is free from multicollinearity<sup>5</sup>. The model is also found unaffected by heteroskedasticity<sup>6</sup> problem after conducting Breusch-Pagan/Cook-Weisberg test (1979).

Table 2 shows that poverty has negatively and significantly affected human development while work force participation rate, educational infrastructure, percentage of Muslim population and location of district are found to have positive and significant impact upon human development. This means that poverty is a great hindrance on the path of capability expansion in the three dimensions of human development in Assam. The positive and significant effect of work force participation rate implies that as the size of work force gets increased, people will enjoy more purchasing power which accordingly helps to enhance the level of human development in the districts. The result regarding educational infrastructure is quite justifiable and meaningful as without a minimum required infrastructure, mean and expected years of schooling can not be very satisfactory. Logistic regression in this study indicates a surprising result that Muslim population is enjoying a higher level of human development in relation to their other religious counterpart. It is generally observed/expected that minorities are at the bottom line of various development indicators. But the result of the present study in this regard tells the audience somewhat a different but empirically true story. It conveys a good message about the condition of Muslim population in Assam in line with human development. The positive and significant result about regional dummy means that districts located in Brahmaputra Valley are better placed in terms of human development in relation to their counterparts in Barak Valley region. It is also to be noted that the constant term has negative and significant influence upon human development. This gives the indication that the model fails to accommodate some negative determinants of human development in Assam.

## **7. Summary of the Study and Concluding Remarks:**

The present paper attempts to investigate about inter-district disparities in the level of human development in Assam and also to

<sup>5</sup> It means the existence of perfect and higher linear relationship among the explanatory variables. For a detailed discussion see Gujarati, D.N (2004)

<sup>6</sup> It means unequal variance of random disturbance terms. For a detailed discussion see Gujarati, D.N (2004)

explore the determinants influencing human development. The result of the study shows that inter-district disparities are relatively higher in case of health dimension while it is negligible in case of overall human development and its two other dimensions. Econometric analysis in the form of logistic regression shows that poverty has negatively and significantly affected human development while work force participation rate, educational infrastructure, percentage of Muslim population and location of district are found to have positive and significant impact upon human development.

The policy recommendations of the study include cutting short of poverty in order to ensure a higher level of human development. It suggests that mere introduction of poverty reduction programmes will not solve this problem rather the state has to be proactive in monitoring these programmes so that benefits and support services reach to the door step of the actual beneficiaries. This chapter also prescribes for increasing the size of work force and development of school infrastructure. In fine, it suggests that special emphasis should be given on the progress of human development in Barak Valley Region of Assam. The preparation of a separate HDR in this regard can throw more light on the shocks and stimulants of human development for this region.

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## Financial Inclusion and Poverty

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### Abstract

Over time, it has been argued that economic growth is a powerful instrument for poverty reduction, the improvement of the standard of living and quality of life in developing countries. However, in recent times, increasing economic growth has not been influencing poverty reduction significantly and among other precarious development indicators, especially in developing countries. And with the growing number of extreme poverty resulting from lack of out-of-pocket among low-income households, this had prompted the principle of financial inclusion to become globally accepted due to poverty reduction role play in society. It is on this note that this chapter reviews the importance of financial inclusion on poverty reduction, the effect of financial exclusion on poor, financial education and how financial institutions can enhance financial inclusion to perform better poverty eradication roles. Thus, it concludes that financial inclusion provides a low-income household with affordable financial credit to jumpstart business which generates income to improve the living standard thus reducing poverty. It gives the household an opportunity to create values and use them to provide basic needs such as education, health, and nutrition. It also provides standby finance for health spending in case of health shocks through insurance and health savings accounts.

**Keywords:** Financial Inclusion, Poverty, Financial Exclusion

## **INTRODUCTION**

Poverty has been one of the global syndromes, which has affected a significant global population and continued to receive the attention of governments, civil society organizations, international donor agencies and among all become one of the sustainable development goal agendas. Due to the fact that poverty is a multidimensional phenomenon, there is however no unanimity on what constitutes poverty, as scholars have tried to define the concept according to norms, value, and convention of the society they leave (Bakari, Donga, Idi, Hedima, Wilson, Babayo and Ibrahim, 2019). Over time, due to the continuous rise in the level of poverty, the reduction/alleviation and elimination of poverty have therefore formed the basis of discussions and policy formulation among world leaders, politicians, policymakers, economists, researchers, concerned individuals, among others. Aside the introduction and implementation of tools, strategies, and programs from the perspectives of religion, education, job creation, growth of the national output, management of macroeconomic variables and asset ownership (Sakanko & David, 2018), among others to combat poverty yet poverty rate remain very high in less developed countries like Nigeria where out of 200 million populations 87 million which now lives in extreme poverty (Central Bank of Nigeria {CBN}, 2018).

In recent times, financial inclusion has been on the debating floor both in developing and developed nations as to whether it fosters economic growth and development. This is largely due to its potential role in accelerating growth and development through the mobilization of funds from the unbanked population, value creation of small businesses and the generation of local savings, which tend to increase productive investments in local businesses, with positive spill-over effects on improvements in human development indicators – health, nutrition, and education (Onaolapo, 2015). Financial inclusion is the availability and equality of opportunities to access affordable financial services (Nanda & Kaur, 2016; Grant & Kagan, 2019). Many empirical studies have established that financial inclusion has a significant effect on poverty reduction across Sub-Sahara Africa, Asia and the Middle East and North Africa (MENA). These studies include (Hussaini and

Chibuzo, 2018; Sakanko et al, 2018; Cyn-Young and Rogelio, 2018; Gunarsih, Sayekti and Dawanti, 2018)

Furthermore, increased access to financial services that are well suited for low-income earners has the tendency of boosting effective demand, which in turn induce investment, employment, income generation and reduce poverty (Bakari et al, 2019). It has been argued that high rate of financial inclusion is often associated with a high rate of investment, sustained economic growth, employment, high income, low poverty rate which accelerate sustainable and inclusive growth and development, and efficient and equitable distribution of scarce resources to improve societal wellbeing (Martinez, 2011). In other words, access to financial services that are well suited for low-income earners, promote enormous capital accumulation, credit creation, and investment boom. This is because financial inclusion boosts the effective demand, which induces investment, generates employment and income (Bakari, et. al., 2019).

### **CONCEPT OF FINANCIAL INCLUSION**

Financial inclusion is a situation in which an individual has access to affordable, effective and cheap financial services or products that guarantee investment needs or is the drawing of the unbanked segment of the population to financial inclusion. In addition, Financial inclusion is a situation in which individuals and businesses have access to useful, effective and affordable financial products and services that meet their needs, store value and call for any time including; access to a bank, payments, savings, credit, and insurance delivered in a responsible and sustainable way (Sibos, 2014). When an individual meets his/her needs (saving, transacting, making and receiving payments, receiving credit at the lower interest rate or free, and insurance) at accessible, timely and affordable for his immediate usage is refers as financial inclusion. Low-income is less privileged in terms of accessing social amenities, so financial inclusion bridges this gap between the poor and the rich through access to affordable financial product thus, reducing their poverty and income inequality. It assumed that if an individual has access to a financial product it eases the transaction and facility fast exchange of goods and services that creates income and improves social welfare (Marwa, 2017).

### **APPROACHES TO FINANCIAL INCLUSION**

Basically, there are two approaches to financial inclusion given as; Rural and Urban inclusion approach. Rural financial inclusion is the creation and enablement of rural individuals' access to financial institutions, financial advice, ownership of account and payment. The rural population basically has little or not at all knowledge of financial inclusion let alone ownership of an account. In Nigeria, the financial exclusion rate shows that 52.2 percent of rural dwellers are financially excluded as against 24.4 percent urban population. This, however, implies that the majority of urban dwellers are financially included, in comparison to the rural dwellers in Nigeria (Kazeem, 2018). This call for radical rural financial inclusion awareness while urban financial inclusion evolved ease access to affordable financial credit, technology and payment system and security of the payment system.

Three potential explanations for this high level of financial exclusion in rural areas, coupled with wide disparity across gender and regional line are, first, the physical distance to bank branches in most areas is long and this poses a high cost for accessing financial services. Secondly, the lower economic activity in rural areas limits the profitability of financial institutions. Thirdly, a commonly low degree of education and financial literacy in rural areas decreased the probability for clients to make use of financial products and services (Solomon, 2014). However, the high exclusion rates can also be attributable to cultural/religious barriers, difficulties in profitably serving excluded groups, high levels of unemployment, security challenges and continuing high levels of informality in the economy (Sakanko et al, 2018).

### **IMPORTANCE OF FINANCIAL INCLUSION**

Overall, since financial services are fundamental to economic growth and development, coupled with the fact that when household have access to affordable financial products they are more likely to increase consumption, productivity and income, increase investment in preventive health, and reduce vulnerability to illness and other unexpected events (Dupas & Robinson 2009). Based on these financial inclusion roles can be classified as:

**Creation of Values for Small Businesses and Generation of Local Savings:** This is one of the important role playings by financial inclusion through drawing of unbanked people to formal financial services, banks are at the liable source of enough credit for potential investors to borrow and finance their productive investment which tends to increase productive investments in local businesses, with positive spill-over effects on improvements in human development indicators – health, nutrition, and education

**Increase Income:** as access to basic financial services increases, it tends to result to increase in economic activities and employment opportunities of households, which will cause the disposable income of households to rise, thus leading to more savings and a robust deposit base for the bank, and the multiplier effect resulting in inclusive economic growth and national development.

**Increase in Consumption:** Increased access to financial services that are well suited for low-income earners have the tendency of boosting effective demand, which in turn induce investment, employment, income generation and improvement of societal wellbeing which ultimately sets the path towards the attainment of inclusive growth and National development.

**Reduced Financial Catastrophe of Out-Of-Pocket Expenditure:** This is done by improving access to health services by enrolling household into government health scheme, health savings account, and credit services to meet health spending thus reduce out-of-pocket expenses.

**Enhance Food Security:** food is very paramount, so access to credit provides affordable funds for local farms to enlarge their agricultural activities thus, improve production output for national food security which accelerates economic growth.

**Unlocks Business Opportunities:** involvement in the financial system may lead to all forms of household benefits, as a willingness to start and grow a business, which gives poor people an opportunity through any financial institutions to better long term prospects such as being able to pay for children education, settle health expenditure and provision of the nutritional diet which in turn enables a new generation of educated and informed individuals (Writers, 2018).

**Information Asymmetric:** This is related to information about a product, today people get stuck as a result of lack of awareness or information. Financial inclusion creates awareness of financial services and how to access it. Many are cut short of several opportunities because of information. Therefore, information is power, security, access, and window to explode investment ceiling by low-income households.

**Ownership of Personal Account:** Before one can explode financial inclusion any advantage an individual must have an active account. This has a multiplier effect in economics. First, the supply-side which is the regulators through the mobilization of more savings which means more funds for potential investors and second, demand side which is purely for the services users or households. This is very important because is through an active account that they can access credit and enables the poor in the society to step out of poverty hence reduces the inequality in society.

### **FINANCIAL EXCLUSION OR POOR FINANCIAL INCLUSION**

Financial exclusion is a situation in which a large segment of the population lack or does not have access to formal financial products either due to their background or economic situation of the country. Financial inclusion is very paramount to the poor because it liberates them from the informal economy to fully formal economy with vary access to improve welfare such as receiving and making payment, reduce the cost of transaction which hinders upward mobility and risk, access to affordable credit timely, access to bank and others. Financial exclusion has significant negative effects on low-income households and the whole economy. Writers (2018), enumerates four negative consequences of poor financial inclusion as:

**Default Income:** It sets poor on failure path and keeps them in a vicious cycle of dependency where their only access to finances is through illegal means such as crime, pocket-picking, smuggling, prostitution, trafficking and illicit brain drain.

**Limited Access to Credit:** The inability to access financial services means limited access to credit. A greater number of the global low-income population are found in the informal economy. They are

peasant farmers that grow crops and animals on a small scale, small entrepreneurs that sell basically consumable and stationery items such as food, vegetables, books, ruler and many others. Despite these great investment hubs to improve their living standard to sustain a living and overcome poverty, lack of access to obtain formal credit which would have assisted a number of them accomplished such a goal have undermined the expansion of the business and it will remain small and local.

**Lack of formal savings:** Savings help people build up financial resources that can be used to grow an enterprise or improve life in general. For instance, a farmer can save to acquire more livestock in the future so as to increase his produce and income. Savings also shield people from failure during uncertain times. It gives more ages to the borrower for not financial institutions turning down credit requests. In the case of bad harvest, a farmer with sufficient savings can tie-up with the situation because the cash can be used to restore his hardship, maintain production and income despite the catastrophe.

**Insurance:** Financial exclusion prevents households from accessing insurance. Every daily work, not business alone financial shocks and risks are part and parcel of it. Insurance helps individuals at the time of business catastrophes involving financial shocks or loss of property or both. For instance, a businessman can insure his/her shop or store against any natural calamities. By doing this the property is protected and himself from falling into the poverty trap if not insured but with this, the continuity of the business income through production is guaranteed.

## **FINANCIAL EDUCATION**

The process of improving household understanding of financial products and its benefit against the informal financial system to create awareness of financial opportunities and risk to improve financial well-being. Financial education is the process by which financial users (households) improve their understanding of financial products, concepts, and risks. This could be through information, instruction or objective advice to develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices

and to take other effective actions to improve their financial well-being (OECD, 2005). Scholars argued that financial inclusion and financial literacy are correlated, low financial literate connotes low financial inclusion.

According to Central Bank of Nigeria (2016), a survey of financial inclusion on achieving 20% reduction of adult financial excluded by the year 2020, the report shows that majority of the rural household lack financial knowledge which is tagged to their culture, religion, large informal size, increasing insecurity and illiteracy. These serve as barriers to achieving appropriate financial products aim. Also, World Bank (2017) and Marwa (2017) on financial inclusion conducted for Lesotho and Swaziland, it was discovered that several laborers or workers forfeit not less than 40 percent of their income because of high-interest rates on loan repayments while financial inclusion aimed at providing affordable and timely access to financial services. likewise, Financial inclusion should inculcate a low-interest rate or free interest financial services to consumers.

The following are benefits of direct and indirect financial education for the unbanked household noted by (OECD, 2005) cited in (Marwa, 2017).

- Improved understanding of financial services that encourage financial provides to avoid substandard services.
- An insight understanding of the benefits of financial services such as credit helps consumers to make righteous decisions.
- Reduced cost of information, transaction, and risk of unbanked.
- Higher household savings.
- Well aware of predatory lenders
- Reduced cost of money transfers.

## **FINANCIAL TECHNOLOGY AND INCLUSION**

Financial technology is also known as the digital economy. This is much more apparent in developed countries only feasible in few developing economies, especially, in Nigeria we have the ministry of communication and digital economy which is solely responsible for how to model financial technology that will generate values and

employment opportunities for the youth. Freedman (2006), financial technology is concerned with building systems that model, value, and process financial products. In addition, it refers to the use of software and digital platforms to deliver financial services that are efficient, affordable and fast to consumers. Through financial technology financial inclusion is achieved because financial products such as credit and money are distributed widely to different places at the same time (Marwa, 2017), playing a major role in developing efficient, affordable and fast financial solutions. These digital tools often disrupt established business models by creating new and efficient means of providing services e.g. mobile money, mobile account, e-commerce, e-payment, point of services, and different payment platform. These had drastically reduced the quantity of cash among business partners ease of doing business and cashless policy has come to stay in Nigeria, especially the current government which had also increase patronize of banking systems.

### **ROLES OF GOVERNMENT AND BANKS IN FINANCIAL INCLUSION**

It is evident from the literature that inclusion means to access and use of affordable banking and other financial services (Kim, 2016), therefore, those services need to be closer to the people. Offering deposit-taking, payments processing, microfinancing, mortgages, and insurance are very vital for financial inclusion. In other words, all the products and services that fold investment, job creation and enhance growth are paramount. Central banks and government play a significant role in the regulation and creation of an enabling environment for household financial access through provision or creation of stable playing ground for financial organizations, promoting vigorous competition and enhancing financial infrastructure. Also, as part of the role, they established the right balance between the poor and the banks by ensuring access to financial instruments and protecting banks from instability and risks. Financial services actively contribute to the economic development of the society in so many ways among is poverty reduction (Stephen & Tom, 2015), which leads to a social safety net that protects families from economic shocks.

### **WAYS BANKS CAN IMPROVE FINANCIAL INCLUSION**

**Zero accounts:** This is a banking service that is based on three fundamental stands such as; low cost of borrowing or zero lending cost, no minimum balance requirement, and no maintenance fees covering ATM, debit and credit alert and other charges. These are done to promote and allow easy access to financial services include free ATM withdrawals and deposit between banks, no minimum amount for opening an account, free ATM renewal, and acceptable collateral for the loan. It is basically targeted at the low-income household that found difficult to afford expensive financial institutions services. The apex bank does these to strengthen intermediate banks by lowering interest rate which encourages them to borrow out at rates lower and make a normal profit

**Financial Education** is the ability in which an individual understands how to earn, manage finances, invest and how money works in the economy. Commercial banks involved in the financial literacy of their clients through financial advice and awareness.

**Accessibility:** Financial services must be provided in a way that poor people can access without suffering from financial difficulties. A low level of financial inclusion is associated with the lack of availability of access to banks or financial development or bank agent. The development and improving information technology system can assist in ensuring affordable and timely access to financial services. For instance, in Nigeria, before the introduction of 4G network mobile applications to make and transfer funds or pay bill online is a headache but today with improving telecommunication queuing in banks has drastically reduced because is what you can sit in your house and execute.

**Risk Management:** Any business involves risk, bankers become wise on a daily basis because tracking customer credit assessment detail is risk and difficult. Therefore, the previous credit track record of the bank clients will give the financial institutions, a piece of better knowledge and understanding in disbursing of the credit to them. This reduced credit risk and provide prudence way of maintaining bankers-customers' relation and more financial institutions will follow suit, hence the development of financial inclusion

**Automated Teller Machine in Rural Areas:** Expansion of ATM networks and allowing of ATM withdrawals and deposit. This was provided in Nigeria to ease customer counter stress and queuing for the betterment of services delivering to them.

**Banks Agent or Organizational Agency:** another financial development step-up strategy in Nigeria is the use of banks agent to provide financial services for the rural household to withdraw, deposit, pay bills, transfer funds and buy goods online. These services are as well available in urban areas to cater for the minority or the underserved.

**Mobile Banking Applications:** Provision of Mobile banking service to complement ATM and promotion funds transfer without a physical appearance in bank premise was a welcome financial development in Nigeria financial institution. For example, banks in Nigeria allow their customers to use any financial regulation approved or licensed mobile application to transfer funds, pay bills, and pay school fees.

## **FACTORS INFLUENCING FINANCIAL INCLUSION**

**Political Instability:** This influences poor macroeconomic policy which then affects financial development. It is believed that political instability disrupts the economic system resulting in a reduction in economic growth (Willis, 1990 cited in Marwa, 2017). This information is supported by the Global Findex data for 2014 implying countries with political peace such as Kenya and South Africa leading in financial development while politically unstable countries such as Nigeria, Somalia, and South Sudan rate low.

**Educational Status:** one of the basic needs of life is education. Once an individual has basic education, he is expected to be value-oriented, resourceful and able to access all financial systems to explore its benefit. However, lack of education could also serve as a mirage to financial inclusion, as it processes evolve some psychological touch, an individual that lacks such knowledge will be left out. Therefore, the lack of education influences financial inclusion negatively. The probability of being educated reduces the tendencies of one being poor. This is one of the reasons why financial inclusion strategies established

in Nigeria involves in financial education on how and where to access financial products and its benefits.

**Age:** Age is the length of the period of time that a person has lived. It is expected that financial inclusion will initially have some depth and then decline with age. This was reported by the financial inclusion strategies of Central bank of Nigeria (2016) that adult within the age of 56 above in Nigeria recorded 47.2% of financial included compare to 55 years below which stand at 38.9% excluded.

**Gender:** In some backward economies, the female is more involved in domestic activities like cooking, washing, nursing baby, and fetching firewood than engage in decision making. This is due to their cultural and religion believes which has significant effect on their decision regarding to financial services. According to CBN (2016) females are less likely to own bank account as compared to their male counterparts. In addition, in Nigeria gender survey report, (42.6% and 54.5%), (10.9% and 8.7%), and (46.5% and 36.8%) respectively of women and men operate in formal financial services, informal financial institutions and financial excluded in Nigeria (CBN, 2016).

**Insecurity:** People sometime could not frequently access or operate formal financial products as a result of life threaten like kidnapping, armed robbers, terrorists, etc like part of Nigeria North East Boko Haram dean.

## **SUMMARY**

Several policies option has been adopted and adapted in some less developed economy by their successive government, especially, Nigeria to addressed rising poverty yet it has been on the increasing ladder and inappropriate curtail of it could lead to many social problems like high rate of crime, kidnapping, crises, death, etc. Therefore, urgent needs for a new strategy to address this and the perceived global scheme currently in practice both in the developed and developing countries is financial inclusion. It provides a low-income household with affordable financial credit to jumpstart business which generates income to improve the living standard thus reducing poverty. It gives the household an opportunity to create values and use them to provide basic needs such as education, health, and

nutrition. Financial inclusion creates financial awareness which reduces the cost of transaction and convenience. It also provides standby finance for health spending in case of health shocks through insurance and health savings accounts.

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# 3

## Integrating Micro Finance into Commerce Education

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AMIT KUMAR DUTTA

### **Abstract**

Education is a medium of human enlightenment and a vehicle of progress and development. Commerce education is extremely significant as a catalyst for the economic development of a nation and nurturing entrepreneurship, which is needed for generating employment and spurring economic growth. Even though Commerce education began in our country during the British rule, it received tremendous momentum after independence with the opening of several colleges and universities. Despite its popularity among students for offering manifold career opportunities, one of the biggest limitations of Commerce education is its lack of practical orientation. Knowledge of Micro Finance, which offers opportunities for practical micro entrepreneurship could be extremely useful for Commerce students. Moreover, Micro Finance which provides financial inclusion for the poor could be extremely useful for students coming from poor and marginalized background. The present paper advocates the need for integrating Micro Finance into Commerce education in order to promote entrepreneurial mindset and a plethora of other benefits which Micro Finance can provide to Commerce students.

**Key Words** – Education Commerce Entrepreneurship Micro Finance Mindset

### **Introduction**

The purpose of education is enrichment of the human soul – mental, psychological and emotional. Education should promote critical thinking and appreciation for social problems, so that every educated person can contribute towards a better society. The rapid growth of trade, industry and commerce in the post independence period spurred the large scale growth of Commerce education in our country. Despite Commerce education's popularity among students, lack of practical orientation has severely dented the utility of the subject in the present century. Therefore, there is an urgent requirement to relook and overhaul Commerce education in our country with special emphasis on entrepreneurship to address the growing problem of educated unemployment among Commerce graduates and post graduates.

### **Commerce Education in India**

Commerce education or business education imparts knowledge in various aspects of business with the objective of preparing students or learners to pursue a career in business. According to Chesseman, Commerce education is defined as “Commerce education is that form of instruction which both directly and indirectly prepare the businessman for his calling”.<sup>1</sup> According to Fredrik G. Nichols, “Commerce education is a type of training which, while playing its part in the achievement of the general aims of education of any given level, has for its primary objective the preparation of people to enter upon a business career, or having entered upon such a career, to render more efficient service there in and to advance from their present levels of employment to higher levels”.<sup>2</sup>

Commerce education as a branch of knowledge was initiated in our country during the British rule. The first Commerce School was established in 1886 in Chennai by Trustees of ‘Pachiyappa’s Charities’. In 1913, the Sydenham College of Commerce and Economics was established as the first institution for higher education in Commerce.<sup>3</sup> After independence, there has been a huge proliferation in Commerce education with the opening of several colleges and universities in different parts of our country. In our country, a student can opt for

Commerce education at 10<sup>th</sup> level or at 10+2 i.e intermediate level. Moreover, a student can pursue Commerce as a branch of knowledge at College through B.Com ( General ) or B. Com ( Honours ) degree in a particular subject. Post Graduation study and beyond can be done through M.Com and Doctorate Degree. The Subjects for Study which are offered to undergraduate students of Commerce are Advanced Accountancy, Cost Accounting, Management Accounting, Income Tax, Business Mathematics, Business Statistics, Business Laws, Company Law, Economics etc. At the Post Graduate Level advanced subjects of Commerce besides specialisation papers in Accounting & Finance, Marketing, HRM, Taxation, Banking are offered to the students.

**Table 1- Enrolment in M.Com programme in Regular mode of Education**

Year	M.Com – Master of Commerce
2011-12	152228
2012-13	179813
2013-14	193373
2014-15	222709
2015-16	271266

(Source – All India Survey On Higher Education 2015-16 )

**Table 2- Enrolment in B.Com programme in Regular mode of Education**

Year	B.Com – Bachelor of Commerce
2011-12	2364094
2012-13	2810308
2013-14	3117265
2014-15	3338111
2015-16	3422312

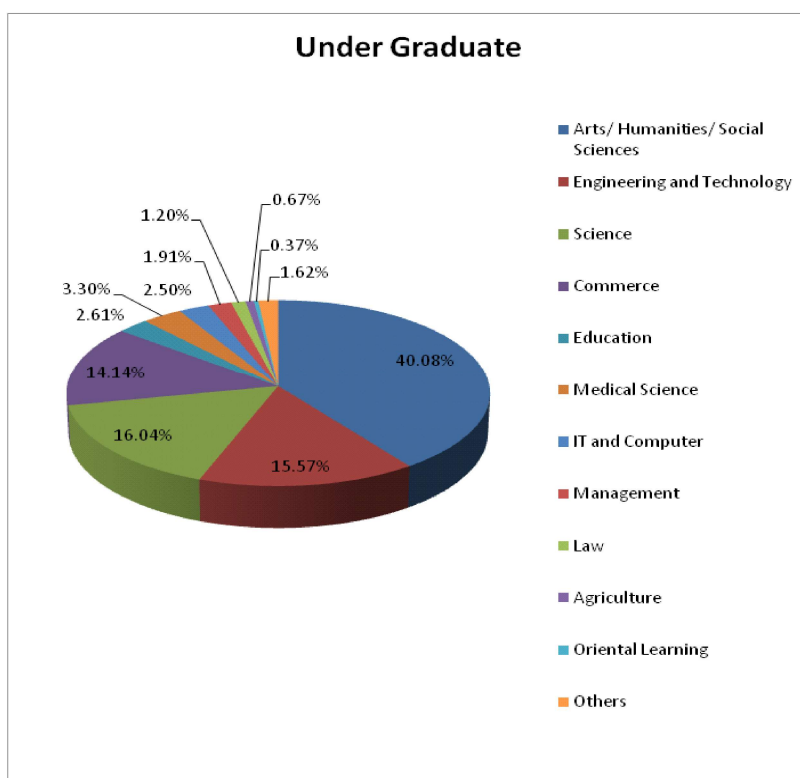
(Source – All India Survey On Higher Education 2015-16 )

**Table 3- Enrolment in B.Com and M.Com programme through Distance Mode**

Year	B.Com – Bachelor of Commerce	M.Com – Master of Commerce
2011-12	346432	80644
2012-13	372801	86467
2013-14	408957	148419
2014-15	460644	147253
2015-16	453274	149447

( Source – All India Survey On Higher Education 2015-16 )

**Percentage Enrolment in various Disciplines at Under Graduate Level in Higher Education : 2015 – 16**



(Source : Department of Higher Education, MHRD, Government of India )

**Table 4- Percentage Enrolment in B.Com and M.Com Programmes in Higher Education : 2015–16**

Programme	Male	Female
B.Com – Bachelor of Commerce	12.54%	11.90%
M.Com – Master of Commerce	1.04%	1.65%

(Source : Department of Higher Education, MHRD, Government of India)

### **Issues before Commerce Education**

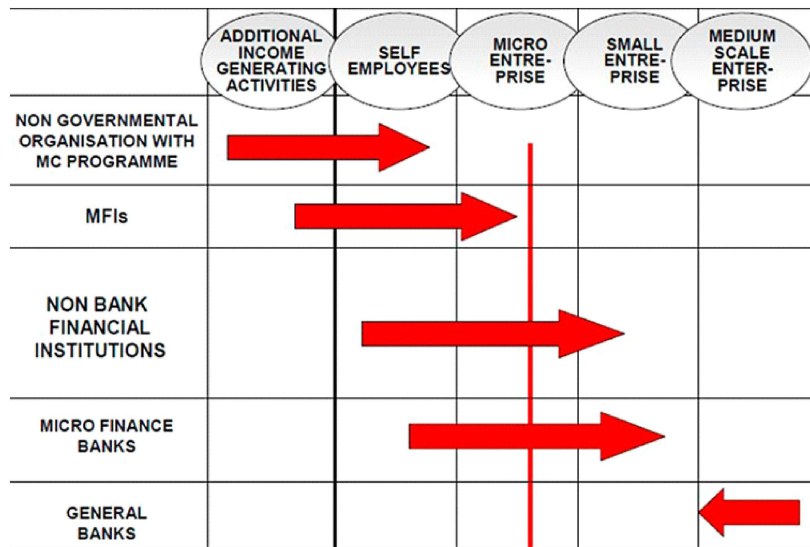
Commerce education in our country is confronted with several issues, which are as follows–

- 1. Several Core level Subjects** – Commerce education at the graduate and post graduate level is a combination of several different subjects without focus on any particular subject. Therefore, it is not possible for students to develop specialisation in any particular subject. Since there are several core level subjects the students end up being “Jack of all trades, Master of none”.
- 2. Restricted knowledge about any specific subject** – One of the biggest problems of Commerce education is that it does not offer an opportunity to gain in depth knowledge in any particular subject as students have to study multiple subjects. This prevents students from gaining specialised knowledge of a particular subject.
- 3. Lack of practical orientation** – Commerce education in our country is completely theoretical without offering students any exposure to practical knowledge. The teachers also adopt a theoretical approach in teaching without focussing on practical aspects of the subject. Therefore, the students do not acquire any practical job relevant employable skills leading to an employment or under employment. Moreover, the curriculum and syllabi of Commerce education in most of our Universities do not provide the necessary opportunity to pick up entrepreneurial skills to the students which are necessary for setting oneself in a career in entrepreneurship.
- 4. Lack of Professional Orientation** – The theoretical nature of Commerce education has led to the development of several professional branches of knowledge such as Management, CA, CMA, CS, etc which are highly revered by the industry. Therefore, due to lack of professional outlook / orientation of Commerce education, students of Commerce finds it extremely difficult to compete against MBAs, CAs, CMAs, etc in the job market.

**Micro Finance and Entrepreneurship**

Micro Finance is the provision of credit through micro credit, a plethora of financial services to the poorer and unbanked sections of the society. The purpose of Micro Finance is creation of financial inclusion among those sections of the society having no access to the formal credit system. One of the important objectives of Micro Finance is encouraging and creating micro enterprises so that the poor can generate and own tangible assets. Micro Finance offers opportunities for entrepreneurship to the vulnerable sections of the society and become economically self reliant in the process<sup>5</sup>. The Government of India, NABARD, Non Banking Finance Companies, Micro Finance Institutions, Banks etc have several schemes and programmes to promote entrepreneurship through Micro Financing among the poor.

**Development and Evolution Trends of Organizations offering Microfinance**



**Source:** Triodos Facet, based on the classification by Farbman and Lessik (Facet 2007) in Ferdousi, Farhana ( 2015 ) “Impact of microfinance on sustainable entrepreneurship development” *Development Studies Research*, Vol.2, No. 1 pp 51 - 63

### **Integrating Micro Finance into Commerce Education**

Globalisation and liberalisation of the Indian economy has brought in a paradigm shift in the employment profile in our country. Today, Commerce graduates and post graduates can aspire for career opportunities in various sectors of the economy such as Banking and Finance, IT and ITES, Services, etc. However, one of the painful truths of liberalisation of our economy is joblessness and reduced job growth due to the sluggish performance of the Indian economy. Therefore, it is imperative that Commerce students develop a positive attitude towards entrepreneurship which can lead to job creation and growth of the economy besides offering an opportunity of self employment. Lack of practical orientation of Commerce education and absence of internship opportunities has reduced the employability of Commerce students in comparison with other streams of knowledge as revealed from data from the following table on employability percentage of various under graduate and post graduate students for the year 2014 – 2020.

### **Employability Percentage of Various Under Graduate and Post Graduate Students from 2014 – 2020**

	2014	2015	2016	2017	2018	2019	2020
<b>B.E / B.Tech</b>	51.74%	54%	52.58%	50.69%	51.52%	57.09%	49%
<b>MBA</b>	41.02%	43.99%	44.56%	42.28%	39.4%	36.44%	54%
<b>B.Arts</b>	19.10%	29.82%	27.11%	35.66%	37.39%	29.3%	48%
<b>B.Com</b>	26.99%	26.45%	20.58%	37.98%	33.93%	30.06%	47%
<b>B.Sc</b>	41.92%	38.41%	35.24%	31.76%	33.62%	47.37%	34%
<b>MCA</b>	43.62%	45%	39.81%	31.36%	43.85%	43.19%	25%
<b>ITI</b>	46.92%	44%	40.90%	42.22%	29.46%	NA	NA
<b>Polytechnic</b>	11.53%	10.14%	15.89%	25.77%	32.67%	18.05%	32%
<b>B.Pharma</b>	54.65%	56%	40.62%	42.30%	47.78%	36.20%	45%

(Source : India Skills Report 2020 )

In order to create a positive attitude towards entrepreneurship among the Commerce students and minimize the negative effects of inadequate practical exposure, it is imperative that knowledge of Micro Finance is integrated into Commerce education. This will enable

students to develop practical insights about micro entrepreneurship and provide them the necessary motivation to start micro enterprises, thereby creating jobs and providing employment to themselves and others. Moreover, knowledge of financial inclusion through Micro Finance can be very useful to the poor and disadvantaged students.

### **Conclusion**

The Indian economy is poised for a \$3 Trillion economy which is possible with a positive entrepreneurial attitude among the youth. The Commerce students can play a positive role in providing the necessary momentum for sustained entrepreneurial growth of the nation. For this to happen, there is an urgent requirement to inject the necessary entrepreneurial attitude among the Commerce students through integration of Micro Finance in the curriculum and syllabi of Commerce education in the various Colleges and Universities of our country.

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# 4

## **First Class Jobs Gravitate to First Class Infrastructure**

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### **Abstract**

Infrastructure is a key measure of a country's position on the global stage. Infrastructure is the backbone of national and regional economies – it supports growth, employment, social uplift and sustainability. Investments in modern infrastructure lay the foundations for economic development and growth. But old and broken infrastructure makes a country less competitive than many of its major trading partners, and makes manufacturers less efficient in getting goods to market. The quality of a nation's infrastructure is a critical index of its economic vitality. Reliable transportation, clean water, and safe deposit of wastes are basic elements of a civilized society and a productive economy. Their absence or failure introduces a major obstacle to growth and competitiveness. The maintenance of infrastructure as well updating to new technology is very important for any positive growth of a country. Countries that prioritise to invest in infrastructure attracts direct FDI and therefore improvement in commerce and trade as well flourishing local business. The paper attempts to understand how infrastructure leads to good employment opportunities and the ripple effect that has on the supply chain and logistics. Therefore, this paper has concentrated on understanding what policy approach is required discussing the current scenario quoting success stories in the supply chain and logistics and what planning

approach is required in infrastructure. The second contribution this paper makes is to focus the policy approach in strengthening the GDP as well the resultant of poor investment in infrastructure and infrastructure deficiencies.

### **Objectives and Methodology**

- To study the impact of infrastructure on job opportunities
- To understand the link between infrastructure growth and supply chain and logistics
- To understand the policy approach on infrastructure

The methodology adopted is mixed approach qualitative and quantitative study, review and analysis of secondary data mostly government documents, case studies and world bank reports, Brookings analysis, Mckinsey report and working papers on infrastructure at Indian and International context.

### **Efficient Infrastructure –the need of the hour**

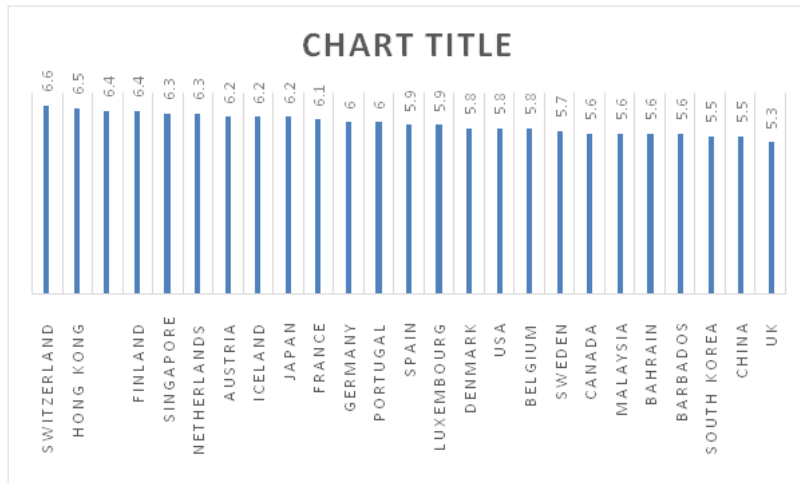
Good infrastructure influences country's competitiveness in the global context and in turn it can imply a regional and greater global economic advantage because the positive effect is often reflected in an area's gross domestic product, wealth and income levels. Investing in infrastructure constitutes one of the main mechanisms to increase income, employment, productivity and consequently, the competitiveness of an economy. As a spill over effect good and fully developed infrastructure provides greater connectivity, limits the distance between regions, integrating the national market and also to markets in other countries and regions.

Investment in infrastructure creates jobs and economic growth. One of the biggest challenges currently facing local government is the demand for local growth, from building new homes and boosting small businesses. Businesses depend on a network infrastructure for all aspects of daily operations. Reliable customer contact ensures gaining new clients and retaining current ones. Poor infrastructure impedes a nation's economic growth and international competitiveness. Insufficient infrastructure also represents a major cause of loss of quality of life, illness and death.

Investment in infrastructure is an ongoing process. Changes in technology, the business environment and the economy will drive new needs and with the passing of time existing infrastructure assets will need to be maintained, updated or replaced.

**Opportunity Measured in Terms of Job**

Countries have got to make sure that they are on the cutting edge of new manufacturing technologies and techniques; because in today’s global economy, first-class jobs gravitate to first-class infrastructure. From the figure we are able to acknowledge how Switzerland is the global leader in overall infrastructure.



**Global rankings 2014 (Countries with best infrastructure):**  
**Switzerland is the global leader in overall infrastructure with a value of 6.6 on a scale of 1 to 7.**

**Challenge Today! Methodological Approach Needed**

India faces the crucial policy challenge today of ensuring that its 473 million strong workforce has access to adequate employment. The need of a dynamic private sector has become essential to meet this challenge. By prioritising infrastructure investment, direct employment in large numbers can be met by the government. The private sector can enable the hampered or poor infrastructure.

Infrastructure investment has a significant impact on economic growth, employment generation and quality of life. It is very important that the government makes the best use of it by wisely investing in infrastructure, which has been a continuing challenge to countries like India. In the absence of a formal method to aid decision-making, such investment is guided by previously conceived predispositions, political motives, or a crude experiential understanding of the impact of infrastructure. Moving to an evidence-based and methodical approach is essential — not just for catalysing growth but also for making a dent in India's jobs problem. (1) India's working age population is growing by about 16 million every year (Mckinsey & Company, 2017). Estimates suggest 10-12 million people from this will enter the workforce every year, over the next two decades (Mody and Aiyar, 2011; World Bank, 2017). Another estimate, widely quoted, is that 1 million people enter the labour force every month, according to Labour Ministry data (Mishra, 2016). As per the latest available data from 2012, India's current workforce stands at 473 million and 300 million will be added by 2040 (Mody and Aiyar, 2011; International Labour Organisation, 2017). Even though the figures exhibiting job creations contradict they are not satisfactory. The policy makers should consider this requirement as the need of the hour and prioritise accordingly.

### **How can new infrastructure accelerate creation of more and better jobs?**

The infrastructure investments will lead to direct and indirect jobs with an aftermath effect on other economic opportunities. For example, good transport systems and agro-logistics services help move freight from farms to locations where value can be added (like intermediate processing, packaging and sorting of agricultural produce) and ultimately to consumers. However, the anticipated benefits of these investments are not always fully realized, or sometimes they happen much later. How can investments in infrastructure have a multiplier effect in stimulating the economy and, eventually, facilitate job creation?

To maximize their impact, infrastructure projects should explicitly analyze and include complementary investments (e.g., industrial parks or processing facilities) and soft interventions (financial services, ICT, laws and regulations, etc.) needed to unlock the potential of new markets. As part of a broader effort to link investment in rural roads to economic opportunities, the *Roads to Jobs* study analyzed strategic value chains in the agriculture sector in Rajasthan, India, to better understand the challenges faced by farmers in accessing markets and provided recommendations to address constraints.

Rajasthan has prioritized investments in the road network – with the goal of improving 20,000 km through a combination of state and federal government support; along with investments from international finance institutions. The Pradhan Mantri Gram Sadak Yojana (PMGSY) rural roads program and Rajasthan Road Sector Modernization Project, which together cover a significant part of the road network, helped to critically examine the value chain and logistics. The World Bank and the Government of Rajasthan together set out to understand how this could accelerate economic benefits for poor farmers and create jobs along targeted value chains.

After analyzing strategic value chains, a study focused on two key crops in Rajasthan —coriander and mandarin— owing to steady demand, quality of produce, use of mechanization, and higher participation rates for women. This study analyzed four stages of the value chain —production; storage and logistics; processing; and marketing— to understand the potential for job creation.

#### ***Four stages of the value chain***

***Production:*** *Using fragmented land production was escalated. Land regulations and tenancy laws make it difficult to achieve the economies of scale seeking private investments. This has also led to an increase in contract farming, characterized by informal and limited recourse in case of disputes. Amending land leasing laws and improving land title records would help increase the area under cultivation, enable solutions to combine outputs and enhance productivity. Formalizing aggregation mechanisms, such as farmer*

*producer organizations (FPOs), will improve access to seeds, technology, and market information for farmers.*

**Storage and Logistics:** *The existing storage facilities are insufficient to fulfill the increase in horticulture production and often don't have temperature control facilities. Cold storage facilities are located far from farms and transporting produce is challenging due to limited alternatives. Developing regulations to encourage private investments in cold storage facilities, promoting the use of warehousing financing, and moving government storage facilities close to farms could facilitate smoother logistics and storage of produce.*

**Processing:** *While the quality of produce from Rajasthan may meet international standards, the produce is only sold in local and regional markets where there is limited quality grading. The packing materials used are not durable and sometimes unfit for longer trips throughout the country. Adopting national grading standards and implementing best practices for packaging will improve the marketability of produce and fetch higher rates in national markets. Additionally, juicing and bottling of mandarin has a huge potential to generate employment in the processing sector.*

**Markets:** *“Mandi” are the local markets where licensed traders buy and sell produce from the farmers. Bureaucratic licensing procedures discourage entry of new traders who could lead to fair prices for farmers. Streamlining and centralizing the licensing process will generate more economic activity in the markets. Markets also need to modernize and introduce new financial products —such as forward contracts and crop insurance— to manage risk and price fluctuations, in addition to trading produce in commodities exchanges. The coriander commodity exchange is an example of how financial products can create opportunities for high value crops.*

*As more consumers in cities in India look to online – rather physical markets, new opportunities are emerging. Acknowledging this change in the market structure, the team also engaged with innovative startups in the agro-industry to understand the trends and direction in which the sector may develop in future.*

*Notable amongst these startups are Suri Agro Fresh a market leader in fresh produce trade in India; Citrus Processing India Limited a producer of citrus concentrate and citrus by-products; and Go4Fresh a unique marketplace connecting farmers and local producers to retailers, wholesalers, restaurants, and exporters through a collaborative approach.*

### **Paving the way for more and better jobs**

*The study concludes that targeted investments and enabling regulations along strategic value chains can better address the bottlenecks identified in an end to end manner. When functioning seamlessly, such value chains anchored on integrated infrastructure can help farmers tap into new markets, receive higher prices, access quality inputs and ultimately increase household incomes, and improve livelihoods. Additionally, investments in infrastructure can benefit from partnership with private and public stakeholder such as venture capitalists, research institutions and NGOs in the region.*

### **Glimpses on the Policy**

Infrastructure is the backbone of any economy for growth and development. For, economic growth of any country infrastructure need to be strengthened. A lot of initiatives has been taken by our country towards infrastructural growth for the past few decades. The opportunities and growth-drivers of infrastructure development in India is thoroughly analysed due to its importance and need as of today.

The recent trend and pattern of Indian infra-structure sector is characterised by high budgetary allocation for the sector, rising infrastructure deals, increasing private sector investment, improvement in logistics and rising FDI in the sector. In the Union Budget 2017-18, the government allocated a massive amount of US\$ 61.92 billion for the sector. Moreover, India witnessed 33 deals in FY2016-17 involving US\$ 3.49 billion as against US\$ 2.98 billion raised across 31 deals in FY2015-16, with most of the deals in the power, roads and renewable energy sectors. It is worthwhile to mention that the private sector is emerging as a key player across various infrastructure segments,

ranging from roads and communications to power and airport. The FDI received in townships, housing, built up infrastructure and construction development projects from April 2000 to September 2017 stood at US\$ 24.66 billion; and in construction activities stood at US\$ 10.70 billion.

The strong advantages of infrastructure development in India is governed by the huge demand as it has a requirement of investment worth Rs 50 trillion (US\$ 777.73 billion) in infrastructure by 2022 to have sustainable development in the country. Sectors like power transmission, roads and highways, and renewable energy will drive the investments in the coming years. There are attractive opportunities in India such as favourable valuation and earnings, the Regional Connectivity Scheme and immense scope for improvement as only 24 per cent of the National Highways are those with four lanes.

Interestingly, with strong policy support like ‘Housing for All’ and ‘Smart Cities Mission’ the Government of India is working on reducing bottlenecks by pushing growth in the infrastructure sector. With the UDAY Scheme, that will help in a financial turnaround and revival of the electricity distribution companies of India, the power sector has been registering strong growth. Also 100 per cent FDI is permitted under the various infrastructure sectors.

Cumulative FDI inflows in the Construction Development sector, which includes townships, built-up infrastructure and construction development projects, reached US\$ 24.66 billion between April 2000 and September 2017.

**Table 2: Summary of Infrastructure Projects Completed  
During the 12th Five Year Plan**

<b>Sector</b>	<b>Number of Projects</b>	<b>Cumulative Expenditure (US\$)</b>
Road Transport and Highways	91	8.7 billion
Power	73	16.63 billion
Petroleum	65	19.48 billion
Railways	33	3.81 billion

Steel	20	8.13 billion
Shipping and Ports	20	1.78 billion
Telecommunications	14	463.62 million
Coal	9	2.26 billion
Fertilisers	6	596.24 million
Civil Aviation	5	861.16 million
Urban Development	5	678.83 million
Atomic Energy	1	168.93 million

**Source:** Ministry of Statistics and Programme Implementation (MoSPI)

The Indian energy sector is expected to offer investment opportunities worth US\$ 300 billion over the next 10 years.

The eight core infrastructure industries include coal, crude oil, natural gas, refinery products, fertilisers, steel, cement and electricity. The growth-drivers for infrastructure in India are government Initiatives, Infrastructure Need, Housing Development, International Investment, Public Private Partnerships. The total allocation for infrastructure in the Budget of 2017-18 stands at US\$ 61.48 billion and the major sectors covered are Railways and Metro Rail, Construction, Telecom and Energy, Roads and Airport. The topmost priority has been given in the wish list to increase allocation in infrastructure, agriculture and rural development, health care and education by the forty global economists from India, Singapore and India in the Reuter's survey and The Local Circles Citizens Budget 2018 Survey.

This is the first Budget of independent India that brought the social sector infrastructure into the centre-stage. The social sector is important for ensuring a productive workforce. Job creation will also happen in education and health other than agriculture and industry.

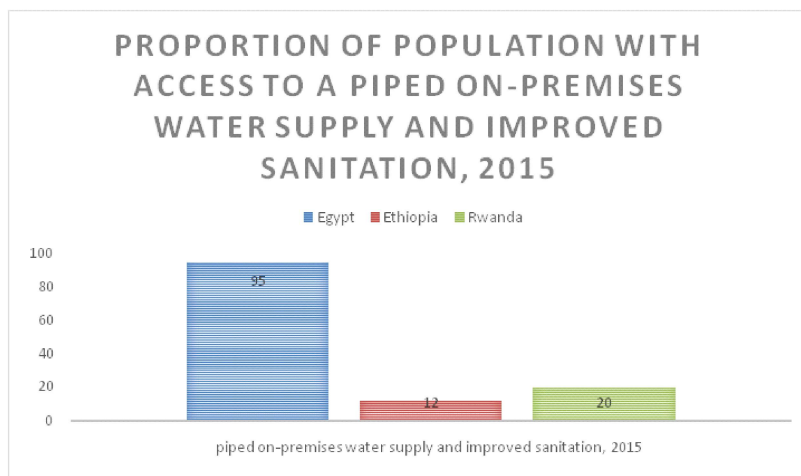
### **Infrastructure Gap and Sustainable Goals'**

To bridge the infrastructure gap is very important in nearly all countries, especially developing/emerging countries who look forward to meet the sustainable goals and meet numerous challenges.

Infrastructure is critical for economic and social development the world over.

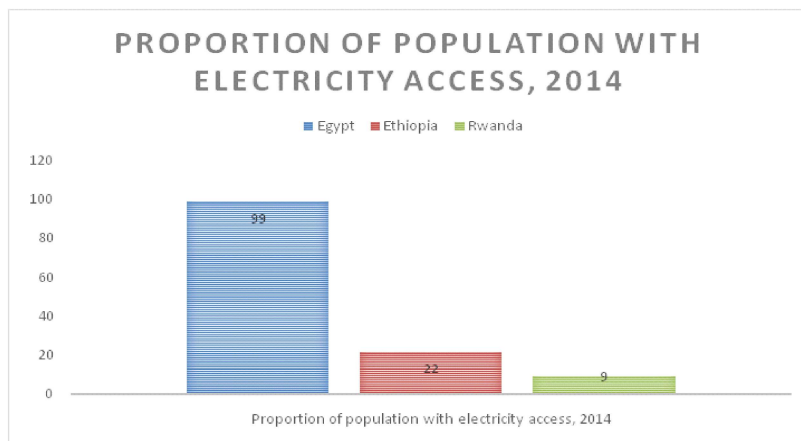
Consider for example two specific sustainable development goals:  
SDG 6: “Ensure availability and sustainable management of water and sanitation for all”

SDG 7.1: “Ensure access to affordable, reliable, sustainable and modern energy for all”



Proportion of population with access to a piped on-premises water supply and improved sanitation, 2015

**Source:** WHO/ UNICEF



Proportion of population with electricity access, 2014

**Source:** World Bank World Development Indicators

For many countries there is insufficient investment in infrastructure. In part this is because of the enormous up-front financial commitment and the many years before the full benefits of new projects show fruit. The savings gap in many lower and middle-income nations makes financing big capital projects problematic and full of risk and the result can be a lack of investment which ultimately hampers growth and affects people's everyday lives. Attracting foreign direct investment to help fund and build infrastructure has become a common feature for many developing countries.

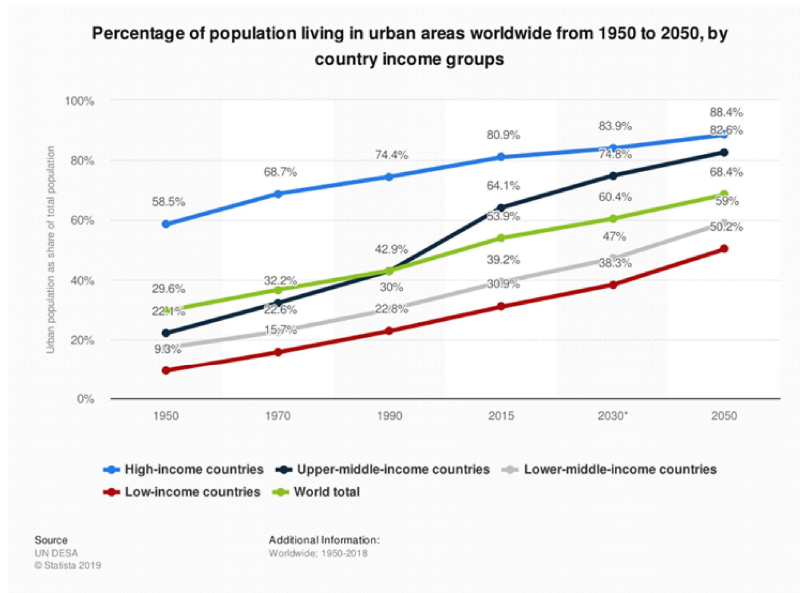
Evidence shows that there is a strong positive correlation between a country's development stage and the quality of its road network. Poor infrastructure causes higher supply costs and delays for businesses. It reduces labour mobility and hurts the ability of exporters to get products to global markets. According to the World Bank, transport costs are 25-30% of product costs in developing countries partly because of deficiencies in infrastructure

### **Examples of Infrastructure Deficiencies**

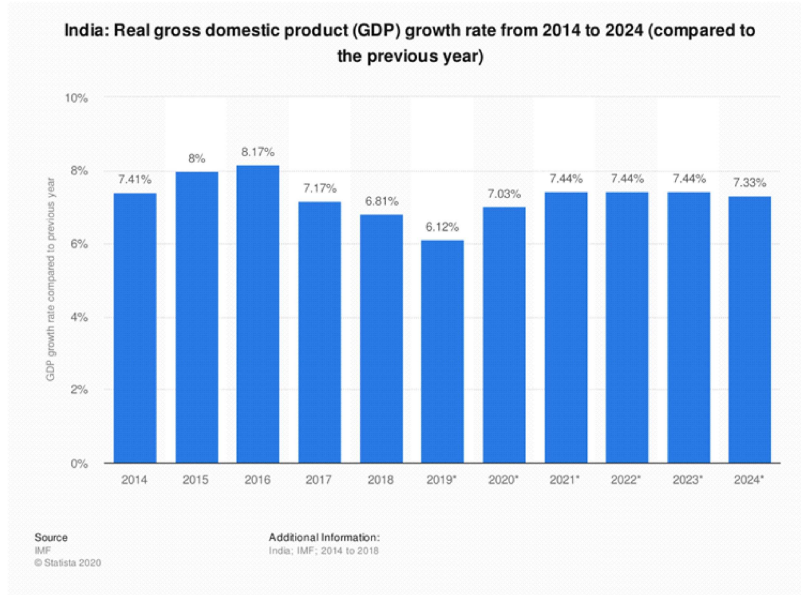
**India:** India's irrigation system is deficient and not properly managed and this has made it difficult to sustain food grain production when rainfall is less than expected – as was the case in 2012. This has led to a surge in food prices which hits the poorest communities hardest. For a few days in the summer of 2012, much of northern India was plunged into darkness. About 700 million people were left without power, a situation that affected transport, communication, healthcare, industries and farming. India needs an estimated \$400bn investment in the power sector if it is to meet their development goals. About half of India's roads are not paved.

**Brazil:** Host for the 2014 World Cup and the 2016 Olympics. Brazil's growth is constrained by infrastructure weaknesses: In 2011, only 14% of her roads were paved. The World Economic Forum ranks Brazil's quality of infrastructure 104th out of 142 countries surveyed, behind China (69th), India (86th) and Russia (100th).

**Sub-Saharan Africa:** The combined power generation capacity of the 48 countries of Sub-Saharan Africa is 68 gig watts – no more than Spain’s. Excluding South Africa, this figure falls to 28 GW, equivalent to the capacity of Argentina (except Argentina has a population of 40 million and Africa has 770 million!) Poor road, rail and harbour infrastructure adds 30-40% to the costs of goods traded among African countries. A chronic shortage of energy - with firms and people facing acute shortages of power – is a major barrier to growth and development. According to the Asian Development Bank Report for 2013, Africa currently invests just 4% of its GDP in infrastructure, compared with China’s 14%

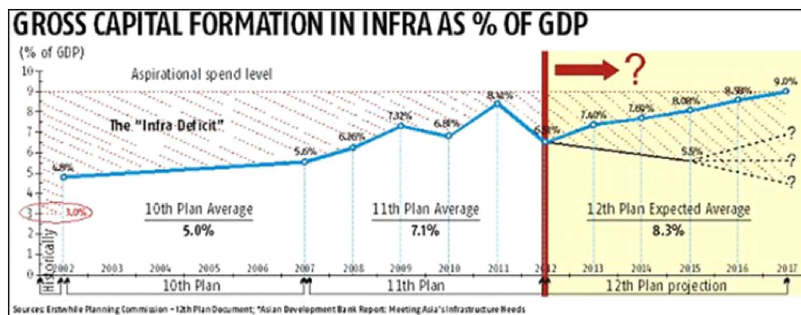


From the above figure it is evident that more the increase in Urbanisation the increase in infrastructure therefore job opportunities.



Asian Development Bank’s report titled “Meeting Asia’s Infrastructure Needs” lays out that “India invested 5.5% of GDP in infrastructure”.

That is indeed quite far from the intended eight per cent for 2015, and as the graphic shows, the infra deficit is increasing, and should be setting off alarm bells in the policy corridors.



Consider the following. The infra investment in the 12th Plan period was expected to be Rs 56.32 lakh crore. Assuming a modest 33 per cent increase (had there been a 13th Plan) would give us an infra

investment requirement for the 2017-2022 period at Rs 75 lakh crore. That means an infra investment of Rs 15 lakh crore every year in this period.

How does this Rs 15 lakh crore then stack up between public and private sources?

Back-of-the-envelope calculations reveal the following so far as public investments are concerned. The total infra sector investment in the 2017-18 Union Budget is Rs 3.96 lakh crore. Let us assume that this is matched 100 per cent by “off-budgetary sources” available to states, ministries, public sector undertakings and departments. That then positions the public funding capacity at about Rs 8 lakh crore.

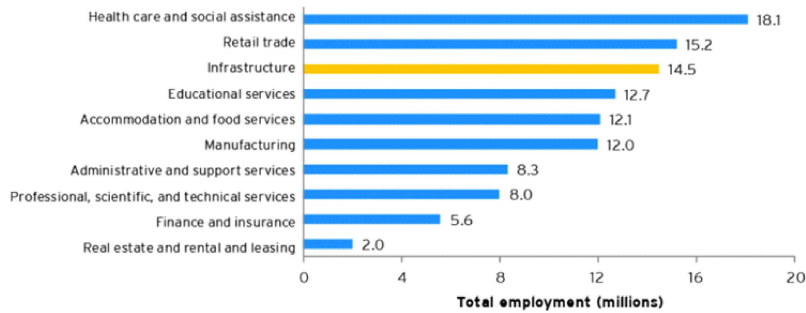
Now Rs 8 lakh crore on a requirement of Rs 15 lakh crore is 53 per cent of the game. The balance Rs 7 lakh crore or 47 per cent (almost similar to the 12th Plan projection of 48 per cent from PPP) has necessarily to come from private sources of capital, both domestic and foreign.

<b>INVESTMENTS IN INFRA : 10TH, 11TH AND 12TH PLANS</b>			
	<b>10th Plan</b>	<b>11th Plan</b>	<b>12th Plan*</b>
	(2002-07)	(2007-12)	(2012-17)
Grand total (₹ lakh crore)	9.16	23.86	56.32
Share of public expenditure (%)	78	63	52
Share of private capital (%)	22	37	48
*Projection Source: Erstwhile Planning Commission – 12th Plan Document			

It is amply clear that the void left by disappearing private investments cannot be made up by public investments. Thus, creating a positive enabling environment to galvanise PPPs strongly suggest itself as a priority area for government. The latest Economic Survey candidly postulates “a political dynamic that would banish the ambivalence towards embracing the private sector”. Otherwise, the infra deficit would widen again in the early period of the 21st century.

**Total employment, by selected industry sectors**

2013



Note: Total infrastructure employment is based on an aggregation of occupational employment across several different industries, including utilities, heavy construction, information, and transportation and warehousing.

**Source:** Brookings analysis of BLS Occupational Employment Statistics

**Table 1. Levels of Educational Attainment for the 20 Largest Infrastructure Occupations, By Employment, 2013**

Infrastructure occupation	Employment	Percent with high school diploma or less	Percent with bachelor's degree or higher	Infrastructure activity	Typical on-the-job training
Laborers and freight, stock, and material movers, hand	2,284,650	68.4%	5.4%	Operate	Short-term
Heavy and tractor-trailer truck drivers	1,585,300	67.7%	5.0%	Operate	Short-term
Light truck or delivery services drivers	776,930	67.7%	5.0%	Operate	Short-term
Packers and packagers, hand	672,020	79.4%	4.7%	Operate	Short-term
Electricians	542,880	46.7%	7.2%	Construct	Apprenticeship
Industrial truck and tractor operators	504,560	75.5%	2.4%	Operate	Short-term
Bus drivers, school or special client	496,110	56.0%	7.9%	Operate	Short-term
Plumbers, pipefitters, and steamfitters	351,380	63.0%	4.3%	Construct	Apprenticeship
Civil engineers	262,170	2.9%	85.3%	Design	None
Bus and truck mechanics and diesel engine specialists	238,150	63.4%	3.2%	Operate	Long-term
Telecommunications equipment installers and repairers, except line installers	209,350	34.7%	13.3%	Construct	Moderate-term
First-line supervisors of transportation and material-moving machine and vehicle operators	197,800	44.0%	17.0%	Operate	None
Dispatchers, except police, fire, and ambulance	185,270	39.4%	13.5%	Operate	Moderate-term
Taxi drivers and chauffeurs	170,030	52.1%	17.0%	Operate	Short-term
First-line supervisors of helpers, laborers, and material movers, hand	167,190	44.0%	17.0%	Operate	None
Bus drivers, transit and intercity	157,830	56.0%	7.9%	Operate	Moderate-term
Reservation and transportation ticket agents and travel clerks	141,900	27.6%	27.6%	Operate	Short-term
Highway maintenance workers	139,070	69.9%	2.9%	Construct	Moderate-term
Logisticians	120,340	15.4%	41.7%	Design	None
Telecommunications line installers and repairers	120,050	43.8%	10.1%	Construct	Long-term
<b>20 infrastructure occupation total</b>	<b>9,322,780</b>	<b>60.9%</b>	<b>9.3%</b>		
<b>All U.S. occupations</b>	<b>132,588,810</b>	<b>34.3%</b>	<b>34.7%</b>		

**Source:** Brookings analysis of BLS Occupational Employment Statistics and Employment Projections data

From 2010 to 2013, infrastructure employment jumped 5 percent, exceeding the national average across all occupations (4.3 percent) while expanding opportunities to workers with less formal education.

Over the next decade, infrastructure occupations are projected to increase their employment by 9.1 percent and will need to replace almost 2.7 million workers due to retirements and other employment shifts. Some occupations, like solar photovoltaic installers and wind turbine service technicians, are expected to grow quickly. In contrast, plant operators, subway operators, and other related occupations in water utilities and transit agencies are expected to see a growing number of retirements, prompting the recruitment of a new generation of workers.

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# 5

## **Macroeconomic Variables Predict the Indian Islamic Stock Indices - An Empirical Analysis**

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ARYA KUMAR

### **Abstract**

A stock market is highly sensible towards the macroeconomics variables which change the stock return in the long run. A market player seeks the best predictive methods to identify the market growth, direction and expected risk to avoid the risk and maximize the return. As far as Sharia stock exchange is concerned, several restrictions are made as per the Sharia investment law so it is necessary to identify which are the macroeconomic factors that influence the performance of Sharia stock exchange as the result of the conventional stock exchange cannot be considered here unless it is measured. Hence, the present paper will consider four major macro-economic factors i.e. consumer price index (CPI), an Exchange rate (ER), Interest rate (IR) and Money Supply (MON) to identify its effect on the Indian Sharia indices. The analysis is carried on Johansen Co-integration test to understand the long run relationship through VECM, Granger causality to measure the cause and effect relationship i.e. the direction of the relationship. But prior to that the test of normality through the JB test and Unit root test through ADF and PP test will be conducted on Sharia stock exchanges to evaluate the stationarity of the data. The paper confirms that the macroeconomic variables explain the Islamic stock indices as there lies positive and negative correlation, a further

study identified no long-run association among the variables and the test of Granger causality confirms the presence of directional movement from macroeconomic to Islamic stock index and vice versa.

**Keywords:** Sharia Stock Exchange, India Sharia Index, Co-integration, Granger Causality,

**JEL Classification:** C12, C32, F62

### **Introduction**

Research on the stock market is a continuous activity. Every single activity can affect the development of the stock market like a change of government policy, investors' perceptions, micro-economic and macro-economic and etc. Arya (2018) said that the announcement of demonetization affected almost every sector listed in Indian stock exchange. The Auto and FMCG sectors were affected badly.

When there is the permission of the new market or product by a country then its effect in stock market is observed in all over the world. While after a certain period of time such a market will start to be influenced by other factors like other markets. In recent days few emerging financial markets came into existence which is segregated as Sharia Stock markets. Sharia means "The way", the way of doing an activity. Sharia is an accepted legal law prepared as per the Islamic law which discusses every activity that is HALAL (legally accepted by the Islam law) so when similar law is applicable on the investment activities in the stock exchange it becomes Sharia Stock Exchange. Due to the growth of information technology the Islamic research gets wide support as it provides an innovative research tool to identify various factors that affect the economy or that influence the stock market.

The development of LPG and free flow of exchange and transaction within cross country develops several factors that may influence stock exchange worldwide for example; any favorable change like safety measures for investors, robustness in the government infrastructure, policies and etc. or an unfavorable change like terrorist attack, election of a country, strike, wars and etc. will influence the investment decision of an investor which will affect the stock market

positively or negatively. Arya (2018) stated by analyzing the banks that are listed in BSE and NSE that the recent implementation of fiscal and monetary policy affected the Indian banking industry.

There are several macroeconomic factors which influence stock market performances. Kwon and Shin(1999) state that a stock market provides a base with inflation free market which motivates investors and it leads to a high degree of volatility in the stock market. Chen, Roll, & Ross (1986) and Maysami & Kho (2001) implemented a co-integration test for measuring the macroeconomic variable relationship with stock returns of developed countries like the US, European countries, Canada and Australia. The result confirms a lesser degree of variation due to basic macroeconomic variables that influence the stock return. Arya et al. (2019) measured the causality between Indian stock market and various economic factors i.e. forex, oil price and gold price which states that gold price is affected by the stock market while other factors show no direction of causality between the variables.

Several empirical analyses are carried on to explore the association between conventional stock prices and macroeconomics. (Chen et al. 1986; Maysami and Sims, 2002; Chong and Goh, 2005; Gunasekarage A. et al. 2004; Herve D. B. G. et al. 2011; Hsing, 2011 Bayezid, 2011; Singh et al. 2011; Tajana and Iva, 2011; Naik and Padhi, 2012; Samadi et al. 2012; Arya, 2018) stated that a stock price is influenced by several macro-economic factors like interest rate, money supply, rate of exchange, real output and etc. Circumstantial evidence is observed in the financial press that monetary policy and macroeconomic events make the stock market volatile. Gan et al., (2006) stated that an investor's decision on investment may be biased form the macroeconomic forces.

Osamwonyi and Evbayiro (2012) measured the Nigerian capital market index and the macroeconomic variable to identify the relationship between each other. The test used VECM model to study the short run and long run association among GDP, money supply, fiscal deficit, exchange rate, interest rate, inflation rate as macroeconomic variables and the stock the study confirms that these

factors influence the performance of Nigeria stock market. It is necessary to consider appropriate economic policies decision so that it will uplift the stock market index and it will support the capital market. Gan C. et al. (2006) analyzed the association among variables of macroeconomic and the stock market from 1990 to 2003 by considering co-integration test and Granger causality, the result confirms the presence long-run association between macroeconomic variables and NZSE40. However, NZSE is not a factor for changes in macroeconomics.

Similarly, a study, Pilinkus (2009) analysed the association among stock exchange of Lithuanian (OMX Vilnius index) and macroeconomic variable by implementing Granger causality to find the relationship and explain the leading behavior of stock prices towards the macroeconomic variables. The result depict that some of the factors of macroeconomic i.e. FDI, net export, GDP deflator etc. lead the stock markets return of Lithuanian returns while other variables like (construction volume index, GDP, material investment, etc.) are led by the stock exchange while another variable like payment balance, money supply shows a bidirectional relationship in Granger causality test.

The study also found an adverse result, Mukherjee, and Naka (1995) state though co-integration test that government bond rate (ong-term), real economy activity, call money rate, exchange rate, and inflation explains the Stock market of Japan in long run. Ibrahim (2003) analysed a relationship between four macroeconomic variables (exchange rate, money supply, real output and price level) and Kuala Lumpur Composite index as proxy for equity monthly data for a period from 1977 to 1998 of Malaysia and concluded by using co-integration and VAR model that there is a presence of short-run and long run association among the stock exchange and variables. Followed with Chong and Goh (2005) studied the variables like economic activities, real money balance, stock price, real interest rates and stock exchange of Malaysia and found that there is a long run statistically relation. Maysami R. C. and Koh T. S. (2000) studied the changes in short and long run with various macroeconomic variables with stock market of

Singapore. The result confirms from co-integration that there exists a long run relationship between them.

From the past studies, a very less or no evidence discovers that is there any kind of relationship exist among the Islamic stock market and macroeconomic variables and can the macroeconomic variable explain the leading behaviour with Islamic stock market or vice versa. As a result, to contribute in the existing literature an empirical analysis is conducted to detect the relationship of causality and the co-integration between the Islamic stock market listed in India and some of the macroeconomic variables of India to understand the effect on fast-growing Islamic financial market.

### **Methods and Materials**

**Data sample:** he data considered for the analysis are from secondary sources i.e. the Indian Sharia stock markets (FTSWIND, Nifty 500 Sharia, Nifty Sharia 50 and S &P BSE 500 Sharia) and the Indian macroeconomic variables i.e., Exchange rate (ER), Consumer price index (CPI), Interest Rate (IR), and Money Supply (MS). For the analysis change in monthly data from July 2008 to March 2019 is considered. However, as per the objective of research different data set is used.

**Research Process:** the objective of the study is to identify the relationship and degree of dependency between the variable which is measured through correlation. The next step was to identify the presence co-integration through Johansen co-integration and identify the long run relationship between the macroeconomic variables and stock index through VECM. Lastly, the paper also uses Granger causality test to find the directional movement and predictable variable for others. But prior to solving the objective of research the study will measure the data normality and stationery which can be measured through JB- Test and Unit root test.

### **Data Analysis and Interpretation**

Stock market price and its return are dependent on its past price even though several factors which determine the prices of such stock market. so as per the objective of research the initial activity is to

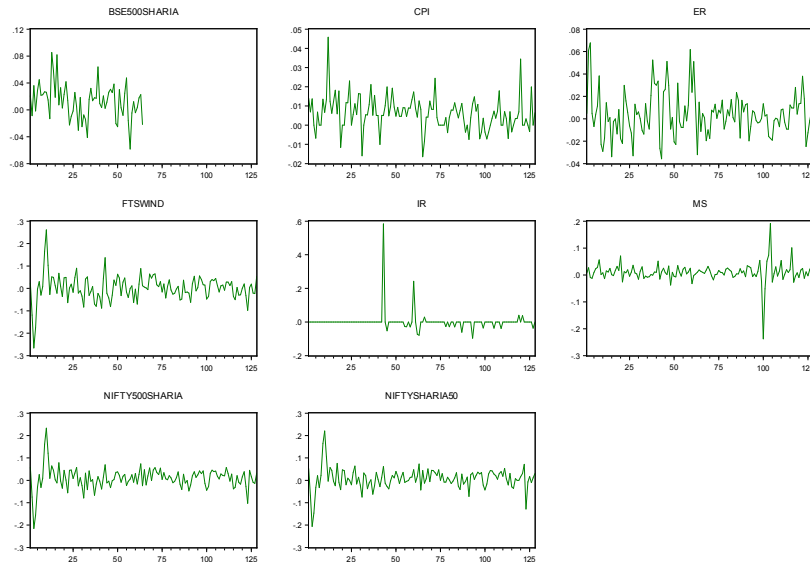
calculate the descriptive statistics to understand the distribution of data series. Table 1 below explains the normality of data series that is carried on separately for every variable through Jarque Bera test.

**Table-1 Test of normality among the Indian macroeconomic variables and Islamic stock exchange**

	BSE500SHARIA	CPI	ER	FTSWIND	IR	MS	NIFTY50SHARIA	NIFTYSHARIA50
Mean	0.012618	0.006075	0.004003	0.001918	0.001960	0.010162	0.009392	0.007865
Median	0.015021	0.005391	0.003074	0.005082	0.000000	0.009564	0.011558	0.010671
Maximum	0.085365	0.045752	0.067769	0.261387	0.583333	0.191441	0.232924	0.220000
Minimum	-0.058413	-0.016461	-0.035691	-0.265679	-0.096774	-0.237643	-0.215581	-0.206472
Std. Dev.	0.026492	0.008706	0.019766	0.057986	0.058877	0.035178	0.048626	0.047335
Skewness	0.154790	0.771272	0.708556	-0.131861	8.048006	-1.456251	-0.175565	-0.197576
Kurtosis	3.771324	6.287030	4.019737	8.967130	77.79366	26.02644	9.935744	9.563542
Jarque-Bera	1.842081	70.31471	16.25638	190.2730	31216.92	2873.065	257.2151	230.5932
Probability	0.398105	0.000000	0.000295	0.000000	0.000000	0.000000	0.000000	0.000000
Sum	0.807580	0.777584	0.512339	0.245540	0.250889	1.300711	1.202192	1.006733
Sum Sq. Dev.	0.044215	0.009627	0.049620	0.427015	0.440250	0.157165	0.300295	0.284553
Observations	64	128	128	128	128	128	128	128

From table-1 of normality test shows that all the data series are not normally distributed which tends to rejection of null hypothesis at 5% level of significance but the variable BSE500Sharia is normally distributed. The result of skewness of the Islamic stock exchanges and macroeconomic variable shows that FTSWIND, NIFTY50SHARIA, NIFTYSHARIA50 and MS values are less than the normality i.e. 0 which agrees that this variable is negatively skewed or long left tailed. While other variables i.e. BSE500SHARIA, CPI, ER, and IR values are more than normality, that makes the variables as positively skewed or long right-tailed.

The result of kurtosis confirms the variables are platykurtic as all the variables show the values more than the normality i.e. 3. It means the variables in the data series are flat-tailed. The output of standard deviation shows the result of FTSWIND and IR which is high with 5.77% and 5.88% respectively it means that these two variables are more volatile than others.



**Fig-1, Graphical representation of the log of stock markets**

Fig-1 shows that all the variables are following a random walk that it cannot be predicted while BSE500 Sharia is not following a random walk it means that one can predict the movements of the time series.

Form the analysis of JB test the data series confirms the non-normality of data. After the confirmation, the next analysis done with the data series is about the stationary of data through the ADF test and PP test. Table-2 below shows the output of Unit root test. It is desirable for further analysis as per the objective when the data are found to be stationary in nature.

**Table 2- Data Stationary of India Islamic Stock Exchanges and Macroeconomic Variables**

Data Set	ADF		PP		Null Hypothesis
	t-statistics	Prob.	t-statistics	Prob.	
BSE500SHARIA	-6.807760	0.0000	-6.807451	0.0001	Rejected
FTSWIND	-6.701964	0.0000	-7.178382	0.0000	Rejected
NIFTY500SHARIA	-7.251004	0.0000	-7.368381	0.0000	Rejected
NIFTYSHARIA50	-5.596501	0.0000	-7.725248	0.0000	Rejected
CPI	-7.899750	0.0000	-9.349952	0.0000	Rejected
ER	-7.991353	0.0000	-7.615866	0.0000	Rejected
IR	-11.03861	0.0000	-11.12433	0.0000	Rejected
MS	-8.667914	0.0000	-11.49684	0.0000	Rejected

Note: At level (Trend and Intercept) at 5% level

Table-2 is an analysis of unit root with level and trend and intercept which states that all the data series are stationary in nature through both the test of Unit root that the data series has a constant mean throughout the period.

After analyzing the basic descriptive statistics and data stationary of the variables and confirming the desired result for further analysis that as per the objective of the study the data series will be compared with each other to identify the correlation between the Islamic stock exchanges of India and its macroeconomic variables. Table- 3 describes the result of the correlation coefficient between the four Islamic stock exchange and four macroeconomic variables.

**Table-3 Correlation coefficient matrix**

	BSE500 SHARIA	CPI	ER	FTSWIND	IR	MS	NIFTY500 SHARIA	NIFTY SHARIA50
BSE500 SHARIA	1							
CPI	0.145990	1						
ER	-0.211433	0.114626	1					
FTSWIND	0.361787	0.143681	-0.736493	1				
IR	-0.125452	0.118363	0.346326	-0.149814	1			
MS	-0.012955	-0.069399	-0.203746	0.173974	-0.054037	1		
NIFTY500 SHARIA	0.374622	0.186761	-0.505994	0.797285	-0.048793	0.220646	1	
NIFTY SHARIA50	0.252162	0.238579	-0.424846	0.729842	0.036672	0.183552	0.886914	1

The result from Table-3 describes the coefficient correlation between the variables which shows both positive and negative correlation among the variables. From the analysis, a high degree of positive relationship is observed between NIFTY500 SHARIA and

NIFTY50SHARIA with 88.69 percent followed with FTSWIND and NIFTY500 SHARIA and NIFTY50 SHARIA with 79.72 percent and 72.98 percent respectively which means any rise in the variable will increase the respective variable in large.

However, a high degree of negative correlation is also observed among the variables that are ER has a negative correlation between FTSWIND, NIFTY500 SHARIA, and NIFTY500SHARIA with 73.64 percent, 50.59 percent, and 42.48 percent respectively. It means any rise in the variables will decrease ER or vice versa. By this analysis, a degree of relationship is identified but the direction of movement among the variables are unidentified which can be analyzed in subsequent part in this study through Granger causality test.

As per the research objective, the following analysis is made on identifying the co-integration among the Islamic stock exchange and the four macroeconomic variables. This analysis will help to further analyze the existence of the long run relationship. Table- 4 shows the co-integration output which is divided into four parts considering four Islamic stock exchanges individually.

**Table 4 (a) BSE SHARIA500 and Macroeconomic Variables-A Test of Co-integration**

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.	Max-Eigen Statistic	0.05 Critical Value	Prob.
None	0.608265	134.6396	69.81889	0.0000	57.16728	33.87687	0.0000
At most 1	0.387871	77.47232	47.85613	0.0000	29.93952	27.58434	0.0245
At most 2	0.319049	47.53280	29.79707	0.0002	23.44020	21.13162	0.0232
At most 3	0.238312	24.09260	15.49471	0.0020	16.60534	14.26460	0.0209
At most 4	0.115508	7.487260	3.841466	0.0062	7.487260	3.841466	0.0062

Table 4(a) gives a summary at 5% level of significance that the trace statistics rejects the null hypothesis; in the simple word the variables has no co-integration. The BSE Sharia 500 index shows a long run relationship between macroeconomic variables. The result at a 5% level of significance establishes that trace statistics indicates 4 co-integration equations. It means macroeconomic variables and BSE Sharia 500 has long-run equilibrium. The result at 5% level of significance of Max-Eigen statistics rejects the null hypothesis. The macroeconomic variables i.e. CPI, ER, IR, and MS have long run

association with BSE Sharia 500 index. Max-Eigen also confirms at a 5% level of significance that it has 4 co-integration equations. It means macroeconomic variables and BSE Sharia 500 has long-run equilibrium.

**Table 4 (b) FTSWIND and Macroeconomic Variables-A Test of Co-integration**

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.	Max-Eigen Statistic	0.05 Critical Value	Prob.
None	0.630931	152.9975	69.81889	0.0000	60.80302	33.87687	0.0000
At most 1	0.459840	92.19449	47.85613	0.0000	37.56930	27.58434	0.0019
At most 2	0.376344	54.62519	29.79707	0.0000	28.80156	21.13162	0.0034
At most 3	0.265616	25.82363	15.49471	0.0010	18.83209	14.26460	0.0088
At most 4	0.108291	6.991544	3.841466	0.0082	6.991544	3.841466	0.0082

Table 4(b) the result; at a 5 % level of significance rejects the null hypothesis of trace statistics. It means the variables have no co-integration. FTSWIND has a association with the macroeconomic variables in the long run. The test of trace statistics at a 5% level of significance also confirms 4 co-integration equations; it means CPI, ER, IR and MS as macroeconomic variables have long-run equilibrium with FTSWIND. At 5% level of significance the Max-Eigen statistics confirms the rejection of null hypothesis i.e. FTSWIND and macroeconomic variables has a long run relationship. At 5 % level of significance the Max-Eigen value test shows no co-integration as the max-Eigen statistics is more than the critical value which confirms the FTSWIND and macroeconomic variables has long run association. Here, at a 5% level of significance, Max-Eigen has 4 co-integration equations.

**Table 4 (c) NIFTY500SHARIA and Macroeconomic Variables- A Test of Co-integration**

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.	Max-Eigen Statistic	0.05 Critical Value	Prob.
None	0.594069	146.5213	69.81889	0.0000	54.99591	33.87687	0.0000
At most 1	0.450401	91.52536	47.85613	0.0000	36.51253	27.58434	0.0028
At most 2	0.362730	55.01284	29.79707	0.0000	27.48432	21.13162	0.0056
At most 3	0.275822	27.52852	15.49471	0.0005	19.68577	14.26460	0.0063
At most 4	0.120648	7.842749	3.841466	0.0051	7.842749	3.841466	0.0051

Table 4(c) gives a summary at 5% level of significance that the trace statistics rejects the null hypothesis; in the simple word the

variables has no co-integration. The Nifty500 Sharia index shows a long run relationship between macroeconomic variables. The result at a 5% level of significance establishes that trace statistics indicates 4 co-integration equations. It means macroeconomic variables and Nifty500 Sharia has long-run equilibrium. The result at 5% level of significance of Max-Eigen statistics rejects the null hypothesis. The macroeconomic variables i.e. CPI, ER, IR, and MS have long run association with Nifty500 Sharia index. Max-Eigen also confirms at a 5% level of significance that it has 4 co-integration equations. It means macroeconomic variables and Nifty500 Sharia has long-run equilibrium.

**Table 4 (d) NIFTYSHARIA50 and Macroeconomic Variables- A Test of Co-integration**

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.	Max-Eigen Statistic	0.05 Critical Value	Prob.
None	0.588543	146.0441	69.81889	0.0000	54.17113	33.87687	0.0001
At most 1	0.446433	91.87300	47.85613	0.0000	36.07377	27.58434	0.0032
At most 2	0.365503	55.79923	29.79707	0.0000	27.75029	21.13162	0.0051
At most 3	0.295958	28.04894	15.49471	0.0004	21.40593	14.26460	0.0032
At most 4	0.103181	6.643002	3.841466	0.0100	6.643002	3.841466	0.0100

Table 4(d) the result; at a 5 % level of significance rejects the null hypothesis of trace statistics. It means the variables have no co-integration. NiftySharia50 has an association with the macroeconomic variables in the long run. The test of trace statistics at a 5% level of significance also confirms 4 co-integration equations; it means CPI, ER, IR and MS as macroeconomic variables have long-run equilibrium with NiftySharia50. At 5% level of significance the Max-Eigen statistics confirms the rejection of null hypothesis i.e. NiftySharia50 and macroeconomic variables has a long run relationship. At 5 % level of significance the Max-Eigen value test shows no co-integration as the max-Eigen statistics is more than the critical value which confirms the NiftySharia50 and macroeconomic variables has long run association. Here, at a 5% level of significance, Max-Eigen has 4 co-integration equations.

As per the study objective of identifying the long run association among the variables of macroeconomic and Islamic stock exchange

are measured through vector Error correction method (VECM) as the variables of macroeconomic and Islamic stock exchange has co-integration with each other. Table 5- shows the output of VECM.

**Table-5 Long run association among Macroeconomic Variable and Islamic Stock Index A Test of VECM**

*BSE500 SHARIA					**FTSWIND					***NIFTY500SHARIA					****NIFTYSHARIA50				
Variables	Coefficient	Std. Error	t-Statistic	Prob.	Variables	Coefficient	Std. Error	t-Statistic	Prob.	Variables	Coefficient	Std. Error	t-Statistic	Prob.	Variables	Coefficient	Std. Error	t-Statistic	Prob.
C	0.009036	0.046417	0.194666	0.8465	C	0.154055	0.117178	1.314709	0.1947	C	0.059960	0.055774	1.075059	0.2876	C	0.040295	0.079936	0.504090	0.6165
*(c-1)	-0.556005	0.142399	-3.904554	0.0003	**(-1)	-0.414595	0.62006	-0.6678	0.5002	***(-1)	-0.615619	0.153920	-3.9232	0.0002	****(-1)	-0.14394	0.07931	-1.7330	0.0800
*(c-2)	-0.393311	0.129975	-3.026059	0.0023	**(-2)	-0.414917	0.177282	-2.34043	0.0224	***(-2)	-0.495015	0.153609	-3.22257	0.0033	****(-2)	-0.15233	0.07909	-1.889	0.0500
CPI(-1)	0.605366	0.475382	1.273429	0.2089	CPI(-1)	0.839617	0.839617	1.00	0.316	CPI(-1)	-0.794023	0.514463	-1.54340	0.129	CPI(-1)	0.603209	0.4307	1.399	0.161
CPI(-2)	-0.134903	0.536422	-0.251486	0.802	CPI(-2)	0.751424	0.60164	1.24894	0.2176	CPI(-2)	0.728227	0.53350	1.36499	0.178	CPI(-2)	0.711928	0.3185	2.215	0.022
ER(-1)	0.397507	0.264109	1.505088	0.138	ER(-1)	0.404566	0.46297	0.87384	0.386	ER(-1)	0.253126	0.31323	0.80809	0.422	ER(-1)	0.218500	0.33419	0.65380	0.516
ER(-2)	0.403989	0.266390	1.516531	0.135	ER(-2)	0.059998	0.42745	0.14036	0.882	ER(-2)	0.111951	0.31662	0.35358	0.725	ER(-2)	0.142314	0.31626	0.44998	0.654
IR(-1)	0.006286	0.147269	0.042682	0.966	IR(-1)	0.051567	0.17642	0.29228	0.771	IR(-1)	0.027282	0.15512	0.17587	0.861	IR(-1)	0.016692	0.16727	0.09979	0.920
IR(-2)	-0.096894	0.106834	-0.906957	0.368	IR(-2)	0.221694	0.12156	1.82363	0.074	IR(-2)	0.036485	0.11196	0.32587	0.745	IR(-2)	0.028220	0.11749	0.24017	0.811
MS(-1)	0.097128	0.070024	1.387065	0.171	MS(-1)	0.193860	0.07193	2.42607	0.019	MS(-1)	0.212066	0.07307	2.90193	0.005	MS(-1)	0.196482	0.07609	2.58198	0.012
MS(-2)	0.036304	0.070739	0.513207	0.601	MS(-2)	0.029425	0.08189	0.35928	0.720	MS(-2)	0.075352	0.07464	1.00948	0.317	MS(-2)	0.093854	0.07558	1.2417	0.220
R-squared	0.418452				R-squared	0.492272				R-squared	0.458669				R-squared	0.522451			
F-statistic	3.205268				F-statistic	4.318944				F-statistic	3.774336				F-statistic	4.873380			
Prob(F-statistic)	0.002402				Prob(F-statistic)	0.000167				Prob(F-statistic)	0.000602				Prob(F-statistic)	0.000048			

Table-5 gives a summary of the VECM regarding the existence of long run association among the variables. This result confirms that our null hypothesis is accepted as the coefficient value of constant are not negative and the significant value of p are not significant. However the probability of F-Statistics is significant but the R<sup>2</sup> values for all the series are less 60 percent. So it can be said that there is no long run association among the variables of macroeconomic and Islamic stock exchanges.

From the above analysis, we got the data series as non-normal and stationary. After implementing correlation coefficient statistics various variables shows positive as well as a negative correlation but the direction of relation or the movement between the variables is not identified. This movement of relationship can be identified through Granger causality test. Table- 6 below shows the result of Granger causality between the variables to identify which variable help to predict the other variable.

**Table-6, Granger Causality between Islamic Stock Exchanges And Macroeconomic Variables of India**

Null Hypothesis:	Obs	F-Statistic	Prob.
CPI has no causality relationship with BSE500SHARIA	62	0.48757	0.6167
BSE500SHARIA has no causality relationship with CPI		0.01079	0.9893
ER has no causality relationship with BSE500SHARIA	62	0.75699	0.4737
BSE500SHARIA has no causality relationship with ER		1.79346	0.1756
FTSWIND has no causality relationship with BSE500SHARIA	62	0.93996	0.3966
BSE500SHARIA has no causality relationship with FTSWIND		6.71204	0.0024
IR has no causality relationship with BSE500SHARIA	62	0.17817	0.8373
BSE500SHARIA has no causality relationship with IR		0.52948	0.5918
MS has no causality relationship with BSE500SHARIA	62	0.67328	0.5140
BSE500SHARIA has no causality relationship with MS		0.00369	0.9963
NIFTY500SHARIA has no causality relationship with BSE500SHARIA	62	0.51975	0.5975
BSE500SHARIA has no causality relationship with NIFTY500SHARIA		8.00404	0.0009
NIFTYSHARIA50 has no causality relationship with BSE500SHARIA	62	1.26201	0.2909
BSE500SHARIA has no causality relationship with NIFTYSHARIA50		6.48941	0.0029
ER has no causality relationship with CPI	62	0.82432	0.4437
CPI has no causality relationship with ER		1.66272	0.1987
FTSWIND has no causality relationship with CPI	62	0.53554	0.5883
CPI has no causality relationship with FTSWIND		0.00100	0.9990
IR has no causality relationship with CPI	62	0.04021	0.9606
CPI has no causality relationship with IR		0.70860	0.4966
MS has no causality relationship with CPI	62	1.55288	0.2205
CPI has no causality relationship with MS		0.28896	0.7501
NIFTY500SHARIA has no causality relationship with CPI	62	0.41651	0.6613
CPI has no causality relationship with NIFTY500SHARIA		0.66568	0.5179
NIFTYSHARIA50 has no causality relationship with CPI	62	0.41438	0.6627
CPI has no causality relationship with NIFTYSHARIA50		1.07081	0.3495
FTSWIND has no causality relationship with ER	62	0.22334	0.8005
ER has no causality relationship with FTSWIND		0.27457	0.7609
IR has no causality relationship with ER	62	6.84441	0.0022
ER has no causality relationship with IR		2.16785	0.1238
MS has no causality relationship with ER	62	1.73077	0.1863
ER has no causality relationship with MS		0.92706	0.4016
NIFTY500SHARIA has no causality relationship with ER	62	0.46624	0.6297

ER has no causality relationship with NIFTY500SHARIA		0.36093	0.6986
NIFTYSHARIA50 has no causality relationship with ER	62	3.34571	0.0423
ER has no causality relationship with NIFTYSHARIA50		0.17042	0.8437
IR has no causality relationship with FTSWIND	62	2.27159	0.1124
FTSWIND has no causality relationship with IR		1.86496	0.1642
MS has no causality relationship with FTSWIND	62	3.35057	0.0421
FTSWIND has no causality relationship with MS		0.52737	0.5930
NIFTY500SHARIA has no causality relationship with FTSWIND	62	0.24471	0.7838
FTSWIND has no causality relationship with NIFTY500SHARIA		0.06528	0.9369
NIFTYSHARIA50 has no causality relationship with FTSWIND	62	0.49406	0.6127
FTSWIND has no causality relationship with NIFTYSHARIA50		0.35652	0.7017
MS has no causality relationship with IR	62	0.46039	0.6334
IR has no causality relationship with MS		0.27364	0.7616
NIFTY500SHARIA has no causality relationship with IR	62	0.11976	0.8874
IR has no causality relationship with NIFTY500SHARIA		0.29751	0.7438
NIFTYSHARIA50 has no causality relationship with IR	62	1.57236	0.2164
IR has no causality relationship with NIFTYSHARIA50		0.01144	0.9886
NIFTY500SHARIA has no causality relationship with MS	62	0.77895	0.4637
MS has no causality relationship with NIFTY500SHARIA		2.60265	0.0829
NIFTYSHARIA50 has no causality relationship with MS	62	0.96263	0.3880
MS has no causality relationship with NIFTYSHARIA50		1.45898	0.2410
NIFTYSHARIA50 has no causality relationship with NIFTY500SHARIA	62	1.09251	0.3423
NIFTY500SHARIA has no causality relationship with NIFTYSHARIA50		2.10393	0.1313

Table 6 shows the Granger causality output that rejects the null hypothesis at 5% level of significance as MS granger causes FTSWIND. While Islamic stock exchange also explains a predictive as BSE500Sharia granger causes with FTSWIND, NIFTY500Sharia and NIFTY50Sharia an interesting fact also found that NIFTY50Sharia granger cause ER even the macroeconomic variables also explains each other i.e. IR granger cause ER. Here, all the causal relationship shows a uni-direction.

### Conclusion

The development of Islamic stock exchange index is a recent origin but have a high preference among the convention stock indices. Due to the high demand, the indices are found to be highly volatile. Adding to several factors mainly macroeconomic variables affect the stock exchange a lot which makes them riskier. But the market player always prefers a less risky investment with high return. So a predictive behaviour of a stock exchange can help the investor to protect from uncertainties. The present paper analyses the link between the

macroeconomic variables and Islamic stock exchange to identify the relationship and predictive behaviour. The study explains the normal distribution except BSE500 Sharia but it has a stationary effect. The correlation analysis is done which shows a mixed result that some of the variables have a strong positive relation some has a high negative correlation. The Johansen co-integration test confirms the data series are co-integrated but has no long run relationship between the variables. However, the Granger causality explains the objective of study that which macroeconomic variable affects the stock exchange i.e. MS is the cause for FTSWIND while the stock exchange also has a predictive behavior i.e. BSE500Sharia is the cause for change in FTSWIND, NIFTY500Sharia, and NIFTY50Sharia. In an average, it can be concluded that Islamic stock exchanges are followed by the macroeconomic variable so an Islamic stock exchange investors should design their portfolio after considering the policies involved in such macroeconomic variable which may change in long run to make maximum profit and reduce the chances of loss.

#### **Limitation of Study**

The analysis is carried on with only four macroeconomic variables so there must be other variables which might explain the movements of these stock exchanges. Adding to it there might be personal biases of the investors in India as far as investment in Islamic stock exchange is concerned.

#### **Future Study**

An Islamic stock exchange follows Sharia Law states about the ethical practice in every activity also in finance. This practice makes the stock exchange more active with several opportunities. So this is an area of research which may include several other macroeconomic variables as well as other factors that may cause the performance of the stock exchange. It is expected that soon there will be the growth of Islamic insurance, Islamic microfinance, Islamic bond and etc. like Sharia banks.

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# 6

## **Migration of Laborers from Domestic Agriculture and its Impact on Crop Income in Assam**

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**BODRUL ISLAM**

### **Abstract**

Present study was undertaken with objective of understanding the influence of migration of labourer from domestic agriculture on crop income using primary data collected from 224 farm (cultivator) household in Nagaon and Morigaon district of Assam during 2019. With the theoretical foundation of New Economics of Labour Migration, the study applied Three Stage Least Squares for the fitted system equations. The analysis of the data reveals that migration of labourer from domestic agriculture has negative and significantly reduced income from crop output while remittance has partially compensated for this lost labour effect. The migration in the study area significantly induced by household size, total value of assets holding, age of the migrant, networking influence whereas the number of migrants, number of dependent, and age of migrants seen to be strong predictor to inflow of remittances. Findings of this study offer the evidence to support New Economics of Labour Migration theory.

**Keywords:** Assam, Crop Income, New Economics of Labor Migration, Three Stage Least Square, Migration, Remittances.

### **INTRODUCTION**

Agriculture and allied activities are one of the largest

employments generating sectors in India as it is primary source of livelihood for 60 per cent of the country's total population (Meghwal et al. 2016). Assam is one of the predominantly agrarian state of North East India where agricultural sector contributed 19.34 per cent to Gross State Domestic Product during 2016-17 (Economic Survey Assam, 2017-18) and provided employment of 50 percent workforce as farmer, agricultural labourer, or both for their livelihood (Census, 2011). There are many issue and challenges faced by Indian agriculture, but one of the major challenges faced in recent years that can become an overwhelming problem in the anticipated future is the scarcity of labour (FICCI, 2015). The share of agricultural labourer in total work force has been declining over the years while the corresponding ratio in the secondary and tertiary sectors has been increasing (Census Report, 1991; 2001; 2011). Since workforces are migrated outside domestic agriculture as a result share of employment in secondary and tertiary sectors has been increasing (FICCI, 2015). The share of agricultural workforce in total workforce in Assam has declined from 68 per cent in 1991 census to 53 per cent in 2001 census and further to 50 per cent in 2011 census (Census Report, 1991; 2001; 2011).

The impact of migration of labourer from agriculture has been subject of interest in the works of various scholars. Migration of labourer to other sector caused by occupational changes, people's mindset and government policies brought significant fall in the availability of labourer in agriculture across Indian states (Gunabhagya et al. 2017). Usually, as an economy matures, excess agricultural workforce starts moving to higher productive nonfarm sectors such as manufacturing and services, and thus from agriculture to non-agriculture, from rural to urban, and from lower to higher wages (Lewis, 1954; Harris and Todaro, 1970). Subsequently, low earnings, high unemployment rate, lack of employment security, poor job satisfaction, lengthy working hours, bad working conditions, seasonal nature of work, debt settlement, upgradation of educational status, MGNREGA are determining factors for migration of labourer from household agriculture (Paris et al. 2005; Korra, 2011; Babu and Gurunath, 2013; FICCI, 2015). Similarly, the existing literature came up with mixed findings on the impact of out migration of labourer on

farmer's crop income. The studies of Taylor and Wyatt (1996) observed that income remittances sent home by family migrants stimulate household farm incomes indirectly by relieving credit and risk constraints on household-farm production. Works of Rozelle et al. (1999); Taylor et al. (2003); Tuladhar et al. (2014); Imran et al. (2016) established that migration negatively influenced agricultural output, though its effect on crop yields being non negative and remittances partially offset some of these losses. Sindi and Kirimi (2006) claimed that remittances do not offset labour loss effects as a result of migration, though, migration and remittances taken together, play a role in households income generation activities in rural Kenya.

Through the studies of available literature reveals that there is limited attempt being made so far in India to investigate the determinants of labour shortage and migration outside agriculture. To be the best of our literature survey there has been no attempt for the state of Assam in the works of earlier scholars. Hence, the main aim of this study is to examine the impact of migration of labourer from domestic agriculture on crop income in the source households and its determinants in the study area.

### **THEORETICAL FOUNDATION**

While migration affects crop income primarily through the induced shortage of labour, remittances tend to relax household's credit and risk constraints, which affect agricultural productivity in the long run (Lucas, 1987). The New Economics of Labour Migration (NELM) theory states that wage differential alone does not determine an individual's decision to migrate rather it is a collective decision made by households and not by individuals. The households attempt to maximize income and minimize risks resulting from market failures in unstable economies to improve their income relative to the rest of the community (Stark, 1991). Hence, migration and remittances are endogenous to household income and yield (Rozelle et al. 1999; Taylor et al. 2003; Quinn, 2009). The NELM theory asserts that household crop income is influenced by three factors such as migration (M), remittance (R) and household characteristics ( $X_v$ ). Thus, the relationship between crop income and M, R and  $X_v$  being specified in the following functional form as in equation (i);

$$Y = f(M, R, X_v) \quad (i)$$

Where, Y stands for crop income of farm household; M stands for member of the household who has migrated from household farm activity to outside household remunerative unskilled engagements for at least six months in the preceding farming season during the survey period; R stands for remittances received by the household from the migrated member;  $X_v$  stands for household specific characteristics. The data on crop income for this study has been estimated from Farm Business Income (FBI) generated by a household. Let FBI defined as;

$$\text{FBI} = \text{Total revenue earned from crops production} - \text{Cost of Cultivation of the Crop} \quad (ii)$$

The cost of cultivation in agriculture has been well defined by the Commission for Agricultural Cost and Price (CACP) in 1979. There are nine different types of cost for agriculture as identified by CACP viz. A1, A2, A2+FL<sup>2</sup>, B1, B2, C1, C2, C2\*, C3. With regional differences in farming the CACP cost concept being used in works of Narayanmoorthy (2013) and Goswami (2016). Therefore, given the difficulty of capturing the information's on interest value of own capital goods the present study has used only three cost concepts, viz. A1<sup>3</sup>, A2<sup>4</sup> and A2+FL while measuring FBI.

## DATA AND SUMMARY STATISTICS

In this study, in-depth empirical research has been carried out. Primary data has been collected using multistage random sampling from a sample of 224 paddy cultivating farm households from 28

<sup>2</sup> FL stands for imputed value of family labour

<sup>3</sup> A1 = Includes all actual cost incurred in production by owners which includes values of (i) hired human labour, (ii) hired bullock labour, (iii) owned bullock labour, (iv) owned machinery, (v) hired machinery charges, (vi) seeds, (vii) manures, (viii) fertilizers, (ix) plant protection chemicals, (x) irrigation charges, (xi) depreciation on farm buildings and implements, (xii) interest on working capital, (xiii) insurance premium, (xiv) land revenue, and (xv) miscellaneous expenses.

<sup>4</sup> A2 = A1+ rent paid for leased in land.

<sup>5</sup> Reported FBI has been estimated using cost A2 to understand the variation in FBI with absence of family labour for occupational Migrant household.

villages in Nagaon and Morigaon district of Assam during 2019. The data from sample household has collected with a break up of 112 farm household where migration of labourer from household agriculture has taken place and another 112 household where no such migration from agriculture. The primary survey gathered detailed information on household characteristics, migrants' characteristics, village characteristics and enabling factors from paddy cultivating household. The rationale for choosing the paddy cultivating farm household for field survey is that paddy is the dominating crop in terms of share of land area in both the sampled districts of the study area. Among the seven major crops in Assam, the percentage share of area under paddy farming is largest in both Nagaon and Morigaon district of Assam. Nearly 83.06 per cent of the total crop area being shared by paddy farming in Nagaon district of Assam while it was 82.88 per cent in Morigaon district during 2013-14 (Directorate of Economics and Statistics, 2014).

**Table 1: Summary Statistics**

<b>Variables</b>	<b>Units</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>Min</b>	<b>Max</b>
Education of Household Head	Year	7	4	0	15
Household Size	No	7	3	2	20
Age of Household Head	Year	49	10	21	68
Land Per Household	ha	1.45	0.80	0.54	7.63
Area Under Paddy	ha	1.27	0.78	0.33	7.36
Migrant	No	1.34	0.65	1	5
Farm Business income <sup>5</sup>	INR	46,148	44,800	3,060	411,500
Remittances Received	INR	78,840	92,982	0	600,000

*Source:* Authors estimation based on Field Survey Data, 2019.

N=224

With subject to the summary statistics results reported in Table 1, it can be noticed that, mean years of schooling of household head across sampled households in the study area was seven years. The average sampled household consisted with seven members. The average age of the household head was 49 years; hence household head in the study area are middle-aged adults. The results (Table 1)

also indicted that average land holding among sampled households was 1.45 hectare and earned INR 46,000 as farm business income during the preceding farming season. On an average migrant sending sampled households received INR 79,000 as remittance during the previous farming season.

### ECONOMETRIC MODEL AND ESTIMATION STRATEGY

If we consider migration (M) can influence  $Y_c$  by relaxing the credit constraint through remittance (R). Therefore, the fundamental equations of our analysis are as follow;

$$Y_{ci} = \lambda_0 + \lambda_1 M_i + \lambda_2 R_i + \lambda_3 Z_i + \lambda_4 F_i + \lambda_5 V_j + \varepsilon_{Yc} \quad (\text{iii})$$

$$M_i = \delta_0 + \delta_1 Z_i + \delta_2 V_j + \delta_3 T_q + \delta_4 D + \varepsilon_M \quad (\text{iv})$$

$$R_i = \gamma_0 + \gamma_1 M_i + \gamma_2 Z_i + \gamma_3 V_j + \gamma_4 T_q + \varepsilon_R \quad (\text{v})$$

$$i = 1, 2, 3, \dots 224; j = 1, 2, 3, \dots 28;$$

$$q = 1, 2, 3, \dots 112.$$

Where,  $Y_{ci}$  is the farm business income from paddy cultivation of the  $i^{\text{th}}$  farm household;  $M_i$  is the number of out migrants from the  $i^{\text{th}}$  farm household;  $R_i$  is stands for remittances received by the  $i^{\text{th}}$  farm households;  $Z_i$  is a vector of household characteristics such as household size, number of dependent, experienced of household head, years of schooling of household head, land per capita, total assets value excluding land, family income of the  $i^{\text{th}}$  farm household;  $F_i$  is a vector of farm characteristics of the  $i^{\text{th}}$  farm household such as cost of hired labour, own machinery labour, hired machinery labour, seeds, insecticides and pesticides, fertiliser, irrigation charges, land revenue, rent paid for leased in land etc;  $V_j$  is a vector of  $j^{\text{th}}$  village characteristics such as distance to pucca road, bus stands, weekly market, commercial bank, fertilizer store, fuel store and village wage rate and dummy of village flood;  $T_q$  is a vector represent socio-demographic characteristics of migrants such as age and year of schooling of  $q^{\text{th}}$  migrant; D stands for migration network dummy.

The equation (iii) to (v) constituted a system of simultaneous equation model which are subject to several types of estimation issues which need to be addressed prior to reporting of results; issues like status of identification (under or over identification), and problem of

endogeneity needs to be addressed before deciding a particular estimation technique and obtaining the estimated coefficient. There are several standard techniques for addressing the issues relating to identification and endogeneity. To determine the status of identification present study has used order and rank condition of simultaneous equations and its results indicates that our system of equation is over identified. Furthermore, migration and remittances are endogenously determined together with farmer's incomes; therefore, to check endogeneity problem Hausman test of endogeneity (Hausman, 1976) has been used to test various instruments that identify migration and remittance. The simultaneity behavior of migration, remittance, and crop incomes makes the disturbances term across the equations are correlated, therefore to deal such endogeneity problem 3SLS has preferred over 2SLS (Rozelle et al. 1999; Quinn, 2009; Tuladhar et al. 2014).

## **RESULTS AND DISCUSSION**

The estimated result (Table 2) shows that except number of migrants, the coefficient of the household characteristics such as remittances, household size, land per capita, total assets value have turned out as significant with positive elasticity in crop income equation. While, coefficient of farm inputs such as seeds, insecticides and pesticides have shown positives and significant relationship with crop income. Hence, an incremental use of these inputs helped in enhancing the crop income of the sampled farm households in the study area.

The positive significant coefficient of remittances in the crop income equation implies that, inflow of remittances has helped in rising crop income of the farm household by 0.02 per cent points. As per field survey the farm households reported to use a significant percentage of their remittances in domestic agriculture relative to expenditure on other heads; it might help the farm household in making appropriate use of farm inputs which might have complemented the income of the sampled household in the study area. However, the negative significant coefficient of number of migrants in crop income equation implies that migration of labourer from domestic agriculture

lowered the income of the farm household by 0.68 per cent points. Such result may be because of the fact that migration of labourer from domestic agriculture compelled the farm household to depend on hired labour for continuation of farming activity there by raising the total production cost. In addition, imputed manpower absence in domestic agriculture could have contributed towards output loss thereby lowering the crop revenue.

**Table 2: 3SLS Estimation Results on determinants of migration and remittances and their effects on household's crop income**

Variables/ Constant /others	Crop income	Migration	Remittances
<i>Farm Characteristics and Enabling Factors</i>			
No of Migrant	-.675 (.278)**		4.06(.796)***
Remittances received	.016(.007)**		
Household Size	1.104(.176) ***	.236(.072) ***	-.383(.524)
No of Dependent	-.150(.095)	-.046(.043)	.707(.327)**
Experienced of head	.009(.084)		
Year of schooling of household head	-.013(.060)	-.013(.025)	-.033(.187)
Land per capita	.756(.107) ***	.061(.045)	.427(.303)
Total Assets Value, household	.097(.039)**	.107(.018) ***	-.342(.122) ***
Family income		-.184(.024)***	
Year of schooling of migrant		.001(.061)	.215(.451)
Age of migrant		.013(.044)	2.96(.331) ***
Migration network (1 if yes)		.144(.042)***	
Distance to Pucca Road from Village		.050(.032)	
Distance to Bus Stand from Village		-.024(.031)	
Distance to Weekly Market from Village		-.041(.031)	
Distance to Bank from Village		.057(.029)*	
Distance to Fertilizer store from Village	.578(.417)		
Distance to Farm Fuel store from Village	-.374(.411)		
Wage rate in village	.189(.141)		
Exposure of flood (1 if yes)	-.004(.079)	.073(.040)*	.249(.221)
<i>Farm inputs</i>			
Cost of Hired Labour	-.035(.009)***		
Maintenance cost of own machinery	-.080(.012) ***		
Cost of Hired Machinery	.008(.020)		
Cost incurred in Seeds	.359(.075) ***		
Cost of Insecticide and Pesticide	.174(.080) **		
Cost of Fertiliser	-.067(.023)**		
Irrigation charges	-.095(.016) ***		
Land revenue	-.003(.022)		
Rent paid for leased land	.016(.014)		
Others expenses incurred in farming	-.075(.030)**		
Constant	6.13(1.26) ***	.531(.265)**	4.39(1.47) ***
Number of Observation (N) = 224			
R- squared	0.675	0.402	0.914
Chi-2	514.73	151.91	2477.08
(p-value)	(0.00)	(0.00)	(0.00)

Source: Same as Table 1. (Estimation has been performed in STATA11)

Notes: \*\*\* p < 0.01; \*\* p < 0.05, \*p < 0.10. Figures in the parenthesis are the Standard Error

Present results are consistent with findings of Rozelle et al. (1999), Kirimi and Sindi (2006), Tuladhar et al. (2014) who reported presence of negative relationship between outmigration of labourer from domestic agriculture and farm business income of the farm household. Such finding supports the predictions of NELM theory, that migration is associated with lost-labour effects and remittances loosen capital constraints on farm production in general. Hence, remittances enhance crop income and migration reduced crop income of the household in the study area.

With reference to the estimated coefficient of determinants of migration in the study area it has been observed that the coefficient of household size, total value of assets, information network dummy, distance to commercial bank from village, and exposure of flood dummy have turned out to be positively significant. Thus, farm household with larger family size, greater amount of assets holding are few non categorical factors positively influencing migration of labourer outside domestic agriculture in the study area, while information networking, distance to commercial bank and exposure of flood in village are categorical factors encouraging outmigration of unskilled labourer from domestic agriculture in the study area. Probable explanation for such findings could be the fact that families with larger family members has less difficulty in releasing the additional family members engaged in domestic agriculture for their engagement in gainful and remunerative occupation outside domestic agriculture. Interestingly, information networking by a predecessor migrant has signaling possible vacancy of job has played an important role in pulling the unskilled labourer of the farm household to migrate outside agriculture in non-farm activities for financial security in the study area. The distances of commercial bank to village have significantly induced migration of labourer from agriculture. Under the present wave of financial inclusion via no-frill account and improved financial literacy among member of households in rural areas as allowing the unskilled members to apply for small loan; which might be inspired them engaging in self-employment activity such as grocery store, vegetables store, hardware store, rice mill, electronic

repairing shop etc. The crop damage caused by flood forced the unskilled member of the farm household to migrate outside domestic agriculture as per estimated regression result for the sampled households in the study area. However, aggregate family income from all sources seen to have significant inverse relationship with occupational migration outside agriculture. Families with larger farm size earning higher income managed to maintain a decent standard of living thereby able to retain their family member in indigenous farming activities.

Taking account of determining factor of remittances obtained from simultaneous estimation of system equations as in Table 2 reveals that coefficient of number of migrants, number of dependent and age of migrant has turned out positive and significant relationship with remittances. Thus, age of the migrant, large number dependents and larger army of family out-migrant from domestic agriculture contributed towards higher inflow of remittances across farm households. Remittance is the cost of migration, when a family labour has occupationally migrated outside agriculture, family has lost its labour and received remittances as a compensation of lost labour. The estimated results reflect that outmigration of an additional member from domestic agriculture increased the inflow of remittances by 4.06 percentage points while remittances stimulate crop income by 0.02 percentage points in the study area (Table 2). In addition, coefficient of number of dependents has turned out positive and significantly related to inflow of remittance; which might be due to the fact that larger the number of dependent the higher will be the cost of living thereby urging the migrant labourer to remit more money for family. As per estimated regression results, increased service experience with age of labourer, enhances the skills and capabilities of labourer which allowing them in earning higher salaries and enabling them in sending greater amount of remittances towards their family member. However, value of assets across the sampled farm household found to have significant inverse relationship with the amount inflow of remittances towards the farm households in the study area. The possible reason behind such result may be due to the fact that rich households rely

less on remittances from migrant, allowing them higher propensity to save with less to remit towards their family.

## CONCLUSION

Using a representative cross-sectional household survey data, this study efforts to understand the effects of migration on crop income of paddy cultivating farm households and its determinants. The study observed that migration in the study area significantly induced by household size, total value of assets holding, age of the migrant, networking influence while the number of migrants, number of dependent, and age of migrants seen to be strong predictor to inflow of remittances. The econometric results also demonstrated that the transfer of labourer resulting from migration to outside domestic agriculture has negatively influenced the crop income of the household though its influence has not been found to be negative on crop yield. The estimated results provide evidence that inflow of remittances sent by the unskilled migrant labourer partially compensate for this lost labour effects, contributing to household incomes directly and indirectly by stimulating crop production or crop income. The findings in this study offers evidences in support of the NELM theory that labour migration adversely affected household crop income (through rising cost of cultivation) while remittances could compensate for this by relaxing credit and insurance constraint.

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# 7

## Microfinance - The Evolution Perspective

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### Abstract

The current financial system around the globe, exhibits that more than half the population in the world- around three billion – do not qualify to take out a loan from a bank (Muhammad Yunus). This reason turned out to be the actual driving force behind the birth of the microfinance movement starting from Grameen Bank in Bangladesh in 1983 to Grameen America movement today. Microfinance has received increasing attention as an effective strategy to alleviate poverty by providing financial services to the poor who have little or no access to capital and formal financial services, as well as providing additional support services such as training on education, healthcare and other basic needs. Yet despite the increasing attention and reputation that microfinance institutions (MFIs) have achieved, their contribution to poverty alleviation on a global level remains limited.

The current chapter focuses on the evolution perspective of the entire microfinance movement and how it proved to be a strong tool to enhance the financial inclusion movements in developing countries like India.. This chapter inclusively throws light on the historical background of the phenomena, the support it gained from nationalised banks like State bank of India, its relation with financial inclusion and poverty and to conclude, the current debates on the ongoing issues of microfinance as a successful movement in the world at large .

**Keywords:** Microfinance, Financial System, Financial Inclusion

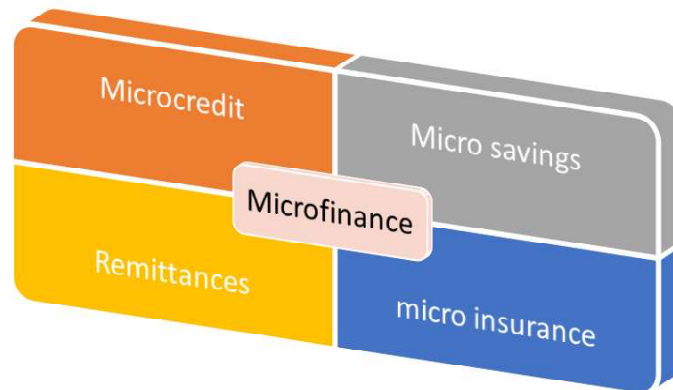
## **1 Historical background**

**1.1 Microfinance Institutes in Bangladesh:** Bangladesh has been acknowledged as a pioneer in the field of microfinance. (Yunus, 2005) Muhammed Yunus, professor of Economics in Chittagong University of Bangladesh, was an initiator of an action research project 'Grameen Bank'. The project started in 1976 and it was formally recognised as a bank through an ordinance issued by the government in 1983. Even then it does not have a scheduled status from the central bank of the country, the Bangladesh Bank. The Grameen bank provides loans to the landless poor, particularly women to promote self-employment. At the end of December 2001, it had a membership of 23.78 lakhs and cumulative micro-credit disbursements of Taka 14.653 crore. Bangladesh Rural Advancement Committee (BRAC), Association of Social Advancement (ASA) and PROS HIKARU are the principle Micro-credit finance institutions operating for over two decades and their activities are spread in all the districts of that country. BRAC is the largest NGO of Bangladesh with a total membership of 41.38 lakh. Initially set up in 1972 as a relief organisation, it now addresses the issue of poverty alleviation and empowerment for women in the rural areas of the country.

**1.2 The Grameen Bank Model in Bangladesh:** The Grameen bank was launched as a project in a village of Bangladesh in 1976 to aid poor families by providing credit. In 1983, it was formed into a formal bank under a special law. It is owned by the underprivileged borrowers of the bank who are mostly women. GB has changed conventional banking practices by providing loans without collateral security. The GB shaped a banking system based on trust, accountability, participation and creativity. It offers loans for creating self-employment opportunities, income-generating activities and housing for the poor. It initiated financial services at the doorsteps of the poor and low-income. Each person as a matter of financial inclusion. In order to obtain a loan, a borrower must be in a group, each group must have five members and no guarantee for a member is required. The repayment of the loan is rested with the individual borrowers while the bank and the group oversee that the group

members behave in a responsible manner so that none gets into repayment problems. No group is liable to pay on behalf of the defaulting members. New borrowers can borrow their previous loans are repaid. Loans are to be repaid back in instalments (weekly or fortnightly). The GB initially targeted providing credit facilities and paid little attention to the voluntary deposit mobilisation. This policy was changed in 2000, with its increased emphasis on the deposit mobilisation.

### 1.3 Microfinance activities:



**Figure 1. 2: microfinance activities at a glance**

- **Micro credit:** It is a small amount of money given ( financial loan) to a client (poverty stricken individuals to start their own business, by any bank or any financial institution. Microcredit are offered against nominal interest with no collateral security.
- **Micro savings:** it is deposit service that allows one to save small amounts of money for future use. Often without minimum balance requirements, these saving amounts allow households to save in order to meet unexpected expenses and plan for future expenses.
- **Micro-Insurance:** It is a mechanism to protect poor people against risk (example: accident, illness, death in family and natural calamities.) In exchange for payment tailored to their needs. It is aimed primarily at the developing world's low – income workers, especially those in formal economy, who tend

to be underserved by mainstream, commercial and social insurance schemes.

- **Remittance:** Microfinance institutions provide remittance facility to low income people in order to avoid carrying cash for the purchase of goods or for business purpose, the customer or client of microfinance are able to conduct transfer.

## 2. Growing importance of the subject

Institutional Microfinance has lately emerged as an attention seeking portfolio, in all developmental debates. It has emerged as an important tool to support the financial requirements of poor households across developing economies. A monotonic illusion always prevailed about the banking sector that it caters to only those who have credit worthiness. Banking sector in almost all the countries has been growingly involved in expansion of credit base to financially excluded sections, including India.

Microfinance policies as a tool for financial inclusion in the country aims at delivering of financial services at affordable costs to the 'unbanked' section of the society. Microfinance literature reveals that MFIs are confronting numerous challenges amongst which lack of research to appraise their policies through client interaction is one of the major issues.

Microfinance has been very important in the global poverty reduction debate. The popular assumption is that enabling poor households begins microfinance entrepreneurship which enables them to improve their incomes and eventually escapes poverty. Evidences from so far done researches have been scanty for a district like Bhopal and many results have been highly contested for their validity.

**2.1. Microfinance and India:** Microfinance in India also has a considerably long history of microfinance. Notwithstanding the efforts made so far, a sizable portion of the country especially vulnerable groups continue to remain excluded from the financial opportunities. With a view to correct this situation The Government of India 22<sup>nd</sup> June 2006 constituted a 'committee on financial inclusion'.

In Indian scenario also provision of loans and financial services was always a challenge because of the lack of security and high

operating costs. As a result microfinance took a plunge as an alternative for easy financing in absence of collaterals. Mohammad Yunus, a Nobel Prize winner, introduced the famous concept of microfinance in Bangladesh in the form of “Grameen Bank”. The National Bank for Agriculture and Rural Development (NABARD) got motivated from this concept and started the movement of microfinance in India. This mechanism works by linking SHGs, NGOs and Banks. The NGOs nurture the SHGs to maintain a decent level of internal savings and credit and lending’s operations, only then they qualify for the loans from the banks. The SHG and Bank linkage program initiated in the year 1992 is one of the main areas of research in this thesis. (NABARD, 2011)

**2.2 Microfinance and the Banking Sector:** The main reason for financial exclusion is the lack of regular or substantial income. In most of the cases with low income group do not qualify for a loan. Moreover accessibility to these services is another constraint. There is lack of awareness and they fail to avail the benefits of the products exclusively designed for them. Taking up a loan from money lenders even at a very high interest rate seems very easy for the poor households. In addition to this banks usually focus on their financial targets and concentrate on high end accounts, thus ignoring the unbanked population. Thus banks play a major role in success of financial inclusion drives in any country.

In case of India, the banking sector has witnessed large scale branch expansion after the nationalization of banks in 1969, which facilitated the shift in focus of banking sector from **class banking to mass banking**. It was not realized that notwithstanding the widespread of formal finance institutions, these institutions were not able to cater completely to small and frequent credit needs of the most of the poor. This led to search for alternative policies and reforms for reaching out to the poor to satisfy these credit needs.

The following micro delivery models were accepted time and again by the banking sector to initiate mass banking:

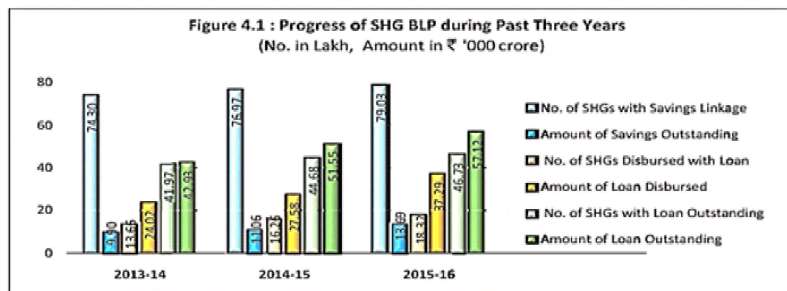
- 1) Self Help Group-Bank Linkage model
- 2) Microfinance institution Model (MFI)

- 3) Grameen Model
- 4) Individual lending model

**2.3 SBI and Microfinance:** State bank of India as a pioneer bank has been actively participating in promoting financial inclusion through NABARD’s SHG bank linkage program and kiosk banking efforts. Business correspondents have been playing major roles in administering these schemes (NABARD, 2011).

SBI is an Indian multinational, public sector banking and financial services company. The bank is a regional banking behemoth and has 20% market share in deposits and loans among Indian commercial banks. It gives wholesale loans to NGOs and MFIs, in addition to its direct self-help group business. It is a pioneer in bulk lending to the MFIs and finally is building up the largest microcredit base in the country.

State Bank of India has been involved in India’s poverty alleviation programs and has suffered heavy losses as a result but the bank has also entered the rapidly growing SHG market from the very onset of the SHG revolution in the country. In 2004, SBI was lending to 1,75,000 SHGs, with over two million women members and approximately the same number having bank accounts in the bank at different branches. However only 25% of branches are directly involved in direct transaction with SHGs.



25% of branches are directly involved in direct transaction with SHGs

**Figure 1. 3 : Progress of SHG BPL during past three Years (SOURCE: NABARD report on microfinance 2015-16.)**

#### **2.4 The SHG Model:**

The SHG model is the dominant form of microfinance in India. SHGs have grown explosively in India in recent years. One of the reports suggest over 2 million SHGs were approaching 33 million members by the first quarter of 2003. Such outreach appears to represent a major breakthrough in a country where every fifth Indian is a poor. SHG\_BPL program has been a major breakthrough in the microfinance movement through banks. However according to the report published by NABARD on status of microfinance in India there has been a considerable slow down in the progress of the program due to take over by the MFI model (NABARD, 2011)

#### **2.5 What is Microfinance**

1. (colombet, Dec, 2002) define microfinance as “the attempt to improve access to small deposits and small loans for poor households neglected by banks.
2. (Otero, 1999)Microfinance, according to is “the provision of financial services to low-income poor and very poor self-employed people”.
3. These financial services according to Ledgerwood (1999) generally include savings and credit but can also include other financial services such as insurance and payment services. (Ledgerwood, 1998)

#### **2.6 Microfinance and microcredit**

1. Within the literature, the terms microcredit and microfinance are usually used interchangeably, however it's vital to focus on the distinction between these two as each terms square measure usually confused.
2. (Frances Sinha, 2009) states “microcredit refers to tiny loans, whereas microfinance is suitable where NGOs and MFIs support the loans with different money services(savings, insurance etc)”.
3. Thus microcredit may be an element of microfinance in this it involves provision
4. Of credit to the poor however microfinance additionally involves additional services like savings , insurance , pensions and payment services (Okiocredit, 2005)

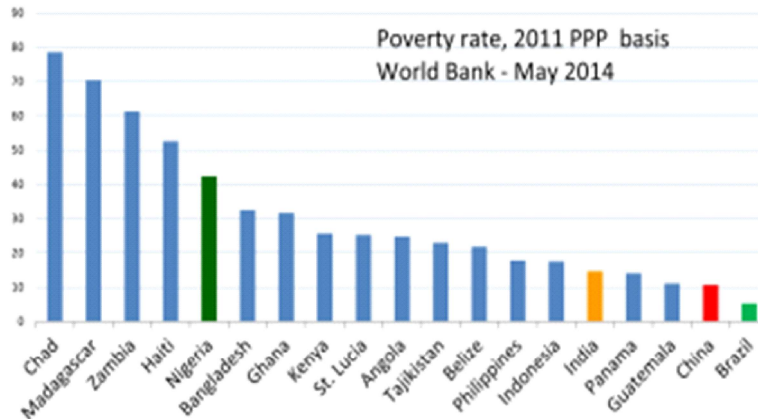
### 3. Poverty and the Microfinance

**3.1 Poverty and The world:** Poverty may be a broad, many-sided and third-dimensional conception that involves the economic, social, political and environmental well-being of the folks (WB, 2002). It is tough to supply single absolute and standardised definition of financial condition conception. however the wide used definition of financial condition is indicated within the (WorldBank, Annual Report, 1999):

A capability to achieve a minimum normal of living ,Poverty means that a shortage of getting enough to eat, a coffee anticipation, a better rate of death rate, low academic normal, entrance opportunities, poor beverage ,health care, unfit housing conditions and lack of active participation within the higher cognitive process.

(Englama, 1997) competently summarized the definition of financial condition, in each absolute and relative terms as a state wherever a personal isn't able to cater adequately for his/her basic desires of food, covering and shelter, meet social and economic obligations; lacks profitable employment, skills, assets and self-esteem; and has restricted access to social and economic infrastructures.

The world bank has additionally revised its definition and benchmarks to live financial condition since 1990, with 1.25\$ per day financial gain on getting power parity basis because the definition in use from 2005-2013 (martin Ravallion, Shaohuachen and Prem sangraula,2008).The World Bank Reviewed and projected revisions in could 2014,to its financial condition calculation methodology and buying power parity basis for measure financial condition worldwide. consistent with this revised methodology ,the world has 872.3 million folks below personal income.



**Figure 1.3 : Poverty rate ,2011 On the basis of world bank report May 2014, (source :investopedia)**

Assaultive persistent financial condition in low and middle financial gain countries is that the single greatest challenge facing the world development community because the world moves forward within the twenty first century. but financial condition isn't a primary concern in extremely industrialized countries, however it's a strategic issue in developing countries. Financial condition is usually the manifestation of developing countries in Africa, Latin America and Asia. Financial condition and food security square measure the most challenges and basic problems with economic and social development.

The international financial condition standards measure compared as below:

**Table 2.1 : National poverty lines comparison (source : Wikipedia)**

National poverty lines comparison (Note: this is historical data, not current)			
Country	Poverty line (per day)	Year	Reference
<a href="#">India</a>	32 rupees (\$0.53)	2007	India today May 2011
<a href="#">Argentina</a>	6 pesos (\$0.74)	2012	The Economist, Sep 2012
<a href="#">China</a>	3.49 yuan (\$0.56)	2010	China white paper on poverty reduction 2011
<a href="#">Nigeria</a>	65 naira (\$0.4)	2011	JICA Japan



Figure 1. 4: Why does poverty exists, (Source : self-generated)

### 3.2 .Standard of living and microfinance:

Micro credit refers to the little loans created accessible to poor folks (Mamiza Haq\*, 2008). it's a very important supply of capital for several folks in low financial gain countries (Margureite, 2008). in line with , small credit has insufficiently penetrated the poor strata of society UN agency comprise of the marginalized and therefore the underprivileged class of individuals living below the personal income (el, 2009). concerning ninety you look after the poor folks in developing countries don't have access to money services for either credit or savings (Mamiza Haq\*, 2008). This limits their capability to access capital that affects productivity, domestic savings and therefore the ability of units to have interaction in businesses which might improve their household financial gain (el, 2009) (Mamiza Haq\*, 2008) Mohammed (2008).

A key objective of the many microfinance interventions is to empower girls. (Mosedale, 2005) states that if we would like to envision individuals sceptre it suggests that we have a tendency to presently see them as being disempowered, deprived by the means

power relations form their decisions, opportunities and well-being. She states that direction can not be given by a 3rd party however should be claimed by those seeking direction through associate degree in progress method of reflection, analysis and action .

(Mosedale, 2005) states that girls would like direction as they're unnatural by "the norms, beliefs, customs and values through that societies differentiate between girls and men". She additionally states that direction refers to the "process by that those that are denied the power to form strategic life decisions acquire such associate degree ability", wherever strategic decisions are "critical for individuals to measure the lives they need (such as alternative of bread and butter, whether or not and United Nations agency to marry, whether or not to possess youngsters, etc)" (Kabeer, 1999, p.437).

(Hulme, 1996) state that microfinance comes will cut back the isolation of girls as once they close in teams they need a chance to share data and discuss ideas and develop a bond that wasn't there antecedently. From studies of the Grameen Bank and BRAC they show that shoppers of those programmes suffered from considerably fewer beatings from their husbands than they did before they joined the MFI.

However, in an exceedingly separate study of a BRAC project (Choudhary, 2002) found that violence against girls really hyperbolic once girls joined the programme, as not all men were able to settle for the amendment in power relations, so resorted to violence to specific their anger. This violence did decrease over time. The study found that once the violence did rise, the members, as a result of their hyperbolic awareness, reported back to the cluster on their martial life and got support from the cluster.

### **3.4 Models of microfinance interventions**

MIX defines associate degree MFI as "an organisation that gives monetary services to the terribly poor." (MIX, 2005). In keeping with the UNCDF (2004) there are about ten,000 MFIs within the world however they solely reach four % of potential shoppers, concerning thirty million individuals. On the opposite hand, in keeping with the **Microcredit Summit Campaign Report (Microcredit Summit, 2004)** as of January 31st 2003, the 2,931 microcredit establishments

that they need information on, have reported reaching “80,868,343 shoppers, 54,785,433 of whom were the poorest once they took their 1st loan”.

Albeit they confer with microcredit establishments, they make a case for that they embrace “programs that offer credit for self-employment and alternative monetary and business services to terribly poor persons” (Microcredit Summit, 2004).

The variations between these sources highlight variety of points. Firstly, however the two terms, microcredit and microfinance are typically confused and used interchangeably, they are within the strictest sense microcredit ought to refer solely to the supply of credit to the poor. Secondly, the distinction between the statistics shows however tough it’s to induce a real image of what number MFIs are alive nowadays and the way many consumers they’re reaching.

The IMF state that “no systematic and comprehensive information on MFIs is collected and there are not any authoritative figures on key characteristics of the microfinance trade, like the quantity and size of MFIs, their monetary state of affairs, or the population served” (2005, p.6).

Despite the shortage of information on the arena, it’s clear that a large sort of implementation strategies are used by totally different MFIs. The Grameen Bank (2000a) has known fourteen totally different microfinance models of that it will be able to concentrate on three; Rotating Savings and Credit Association (ROSCAs), the Grameen Bank and also the Village Banking models, as these are the 3 microfinance models that I encountered throughout my field analysis.

**1. Rotating Savings and Credit Associations :** These are fashioned once a bunch of individuals close to form regular alternate contributions to a typical fund, that is then given as a payment to at least one member of the cluster in every cycle (Grameen Bank, 2000a). In keeping with Musicians (2002), this model may be a quite common sort of savings and credit. He states that the members of the cluster are typically neighbours and friends, and also the cluster provides a chance for social interaction and are highly regarded with girls. They’re additionally referred to as merry-go rounds or help teams (Fisher and Sriram, 2002).

**2. The Grameen commonality cluster model** :This model relies on cluster peer pressure whereby loans are created to people in teams of 4 to seven (Berenbach and Guzman, 1994). cluster members conjointly guarantee loan reimbursement, and access to succeeding loans depends on winning reimbursement by all cluster members. Payments are typically created weekly (Ledgerwood, 1999). in keeping with Berenbach and Guzman (1994), commonality teams have evidenced effective in deterring defaults as proved by loan reimbursement rates earned by organisations like the Grameen Bank, United Nations agency use this kind of microfinance model. They additionally highlight the very fact that this model has contributed to broader social advantages as a result of the mutual trust arrangement at the guts of the cluster guarantee system. The cluster itself typically becomes the building block to a broader social network (1994, p.121).

**3. Village Banking Model** : Village banks are community-managed credit and savings associations established by NGOs to produce access to monetary services, build community help teams, and facilitate members accumulate savings (Holt, 1994). They need been alive since the mid-1980s. They typically have twenty five to fifty members United Nations agency are low-income people seeking to enhance their lives through self-employment activities. These members run the bank, elect their own officers, establish their own by-laws, distribute loans to people and collect payments and services (Grameen Bank, 2000a). The loans are backed by ethical collateral; the promise that the cluster stands behind every loan (Global Development analysis Centre, 2005).The sponsoring MFI lends loan capital to the village bank, United Nations agency successively lend to the members. All members sign a loan agreement with the village bank to supply a collective guarantee.

#### **4. Current debates on the impact of microfinance in development**

**4.1 Livelihood security and microfinance: Carney (1998, p.4)** defines a bread and butter as comprising "...the capabilities, assets (including each material and social resources) and activities needed for a method of living".

**Chambers (1997, p.10)** states that bread and butter security is “basic to well-being” which security “refers to secure rights and reliable access to resources, food, financial gain and basic services. It includes tangible and intangible assets to offset risk, ease shocks and meet contingencies.”

**Lindenberg (2002, p.304)** defines bread and butter security as “a family’s or community’s ability to keep up and improve its financial gain, assets and social well-being from year to year.”

**Concern** additionally state that bread and butter security is over simply economic well-being as they outline bread and butter security as “the adequate and property access to and management over resources, each material and social, to modify households to realize their rights while not undermining the resource base” (Concern, 2003). bread and butter security so, like financial condition, isn’t with reference to financial gain, however includes tangible and intangible assets, and social welfare.

**Johnson and Rogaly (1997, p.122)** state that “NGOs aiming for financial condition reduction got to assess the impact of their services on user’s livelihoods.” They argue (1997) that in addressing the question of the impact of microfinance, NGOs should transcend analysing quantitative information particularisation the numbers of users, and volumes and size of loans disbursed, to understanding however their comes ar impacting on clients’ livelihoods. They state (1997, p. 118) that the supply of microfinance will offer poor individuals “the suggests that to shield their bread and butters against shocks moreover on build up and diversify their livelihood activities”. so once analysing the impact of microfinance the impact of the microfinance services on the livelihoods of the poor has to be taken into thought. that’s the main focus of this study.

## **4.2 Social impact analysis**

Traditionally, the impact of microfinance was assessed by the changes within the financial gain or well being of the purchasers. Mansell-Carstens, cited in Rogaly (1996, p.103) argues that such a spotlight is imperfect as a result of respondents might provide false information. It’s conjointly terribly tough to establish all the sources

of financial gain of a consumer, therefore a causative impact is tough to determine, and it's conjointly tough to determine what would have happened if the loan wasn't given. so a broader analysis is required that takes over economic impact into thought.

We have seen that economic condition and keep security comprises economic and social conditions, therefore, once analysing the impact of microfinance, social impact should be assessed.

Kabeer (2003, p.106) states that wider social impact assessment is vital for associate organisation's internal learning method, as associate MFI ought to bear in mind of the "full vary of changes related to its efforts and uses these to enhance its performance". She considers social impact to relate to human capital like nutrition, health and education, still as social networks (2003).

Impact should be assessed on every of those problems if a real image of the impact of microfinance is to be obtained. However, Kabeer moves on the far side individual or unit analysis to state that analysis ought to even be conducted at community, market/economy and national/state levels (2003). She refers to those as "domains of impact" as a result of societies ar comprised of various institutional domains every with their own rules, norms and practices which might be influenced by microfinance interventions in numerous ways in which (2003, p.109). Kabeer (2003, p.110) not solely refers to domains of impact however conjointly highlights dimensions of modification that ought to be assessed. She lists psychological feature change<sup>12</sup>, behavioral change<sup>13</sup>, material change<sup>14</sup>, relative modification<sup>15</sup> and institutional change<sup>16</sup> as dimensions of change that require to be taken under consideration if the broader effects of microfinance interventions ar to be understood.

Zohir and Matin (2004, p.301) create an identical purpose once they state that the impact of microfinance interventions is being underestimated by "conventional impact studies that don't take under consideration the potential positive externalities on spheres on the far side households".

Chowdhury, Mosley and Simanowitz (2004) argue that if microfinance is to fulfil its social objectives of transfer monetary

services to the poor it's necessary to grasp the extent to that its wider impacts contribute to economic condition reduction. Within the following sections i will be able to examine the findings from wider assessments of microfinance interventions at a unit and community level, to indicate what learning will be gained once impact assessments have a broad scope of research.

### **4.3 Current debates regarding MFIs and their role in development**

When examining the impact microfinance has on keep security and economic condition it's necessary to bear in mind of this debates that ar going down within the field of microfinance.

One amongst those debates, as we've seen, is on impact mensuration. However, there are two alternative major problems which will be examined during this section of the study, reaching the poor and monetary property. Reaching the Poor As highlighted, one amongst the key roles microfinance must play in development is in transfer access to monetary services to the poor, to people who ar neglected by the formal banking sector. this can be their social mission. thought banks target purchasers that have collateral. The poor don't have assets to act as collateral, so they're unnoticed by the formal monetary sector. These banks tend to be found in urban centres whereas the bulk of the poor within the developing world sleep in rural areas, wherever monetary services don't seem to be provided. Therefore, if MFIs ar to fill this void they have to reach the agricultural poor. However, in step with most studies, microfinance is just reaching alittle fraction of the calculable demand of the poor for monetary services (Littlefield and Rosenberg, 2004).

MFIs don't have the depth of reaching that's required to satisfy the strain of the agricultural poor. Serving the agricultural poor within the developing world involves a serious monetary commitment, because it is pricey to run rural microfinance comes. Claessens (2005) states that prime dealing prices, tiny volumes and therefore the high prices of increasing reaching, create it unprofitable to serve the agricultural poor. it's for this reason that industrial banks ar positioned in areas of high population density. However, if MFIs ar to satisfy

their social mission of serving the poor then monetary services have to be compelled to reach the agricultural poor.

Another common criticism of this operational procedures of MFIs, as an example, coevals self choice and therefore the drive for self-sustainability, is that they find yourself operating with the moderately poor, and marginalising the poorest of the poor. Simanowitz (2001a, p.5) highlights variety of things resulting in the social process of the poorest, that lessens the impact microfinance has on poverty; selfexclusion , exclusion by alternative members, exclusion by MFI workers and exclusion designedly. Markowski (2002) and Rogaly (1996) argue that MFIs in their project styles ar failing to satisfy the requirements of the terribly poor and necessitous, UN agency do have a requirement for microfinance services, particularly for savings (Littlefield and Rosenberg, 2004 and Dichter, 1999). they're unnoticed, nevertheless associate objective of the Microcredit Summit is to succeed in a hundred seventy five million poor folks by 2015 however MFIs don't appear to air target for meeting this objective. Organisations like BRAC with their IGVD27 and CFPR28 programmes have shown that the poorest folks will be targeted during a property manner (Halder and Mosley, 2004). Johnson and Rogaly (1997) state that some options of savings and credit schemes ar ready to meet the requirements of the terribly poor.

This shows that once properly managed, programmes that concentrate on the terribly poor will become financially property. The burden is so on alternative MFIs to develop product and services which will meet the requirements of the terribly poorest if the social mission of microfinance is to be achieved. MFIs so have to be compelled to improve their depth and breath of reaching. {they should|they need to|they have to} style acceptable product supported the requirements of the poorest and that they must guarantee such product ar delivered during a cost-efficient manner (Simanowitz with music director, 2002).

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# 8

## **Socio Economic Conditions of Handloom Workers in Anantnag District of Kashmir Valley**

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MUDASIR AMIN

### **Abstract**

The state has a rich social inheritance of Handloom sector having the greatest Handloom industry in the entire world. The handloom industries of Jammu and Kashmir are producing famous products includes silk saris, tweeds, Raffal, pattsos, Blankets, Loies and Pashmina etc. The handloom sector expects a critical job in the money related improvement of the provincial and urban zones. It contributes extensively by creating enormous number of work openings and giving pay to the rustic and urban people. These workers are needy upon the salary earned through weaving of the handloom items. The vast majority of the workers are exclusively reliant up on weaving for their employment. They don't have some other wellspring of occupation to continue their family; this study depends principally on essential and optional sources. The present study focussed to contemplate the socio-economic status of handloom workers in Anantnag region of Kashmir valley.

**Key words:** Handloom Industry, Socio Economic Conditions of workers.

### **Introduction**

Handloom industry is a maturity industry of the state. The

handloom industries of Jammu and Kashmir are producing famous products includes silk saris, tweeds, Raffal, pattsos, Blankets, Loies and Pashmina etc. It is the main methods for vocation to individuals who altogether rely on it. Handloom sector assumes a significant job in the state economy. It provides huge employment especially in rural and urban areas. Weaving is the fundamental strategy among the different assembling phases of handloom garments. The sound of the handloom is the tune of provincial and urban home. In this paper an exceptionally point by point investigation is given to the Socio-economic status of the handloom workers legitimately relies on the pay through handloom weaving of the items when they got more orders for the weaving of handloom products by the customers, they got enough money through weaving then they think about for the better facilities of, education, and also they have the power in decision making process of their society.

#### **Objectives of the Study:**

The present study pertains the socio-economic conditions of handloom workers in Anantnag district of Kashmir valley. These workers are dependent upon their income through weaving of the handloom products. Most of the workers are solely dependent upon weaving for their livelihood. They do not have any other source of livelihood to sustain their family needs. This study was taken up with the following objectives.

1. To analyze the socio economic status of handloom workers.

#### **Methodology:**

The study was conducted in one of the districts of Kashmir valley, namely, Anantnag. The design of the study is exploratory in nature and major concern of the study is to evaluate the functioning of handloom sector in Kashmir valley. The units of observation for the present study were workers of handloom industries. The selection of the sample area was based on simple random sampling. Two handloom industry units were selected randomly from each block. From each handloom industry 5 handloom workers were sampled for the study. Thus in total 30 respondents were sampled from the selected sampled

area. The study used both primary and secondary data to achieve the objectives of the study. Primary data was collected through schedules prepared for the study. After analyzing data was presented both in tabular form. The tools which were utilise for the analysis include percentages. Secondary data were collected from the published and unpublished sources like annual reports, research journals, books, magazines etc.

### **Area of Study**

Anantnag locale is arranged in the southern piece of Jhelum River. The locale base camp is Anantnag city. Arranged at fifty five kilometers from Srinagar, on the north side it is confined by Ganderbal, pulwama and Srinagar on north west, Doda on south, kulgam on west, kargil and kishtwar on east and on north east individually. Most southern part and critical eastern zone strewn with wide forests and mountains. Among all regions of Jammu and Kashmir, Anantnag contains the most number of Nallas like, Arpath, Breng, Sundran and Lidder. Among these waterways most basic is Lidder which raise from Sheshnag Lake and waters most prominent zone of area. The District has 6 squares viz Dooru, Anantnag, Bijbehara, Kokernag, Shangus and Pahalgam. District contains 8 network improvement squares viz Dachnipora, Breng, Achabal, Khoveripora, Qazigund, Shangus, Qaimoh and Shahabad. According to Census 2011 Anantang is a third packed crowded area among twenty two locales.

### **Data Analysis and Interpretation**

The way toward assessing information utilizing scientific and coherent thinking to analyze every segment of information gave. This type of analysis is only one of the numerous means that must be finished when leading an exploration test.

- (1) Socio-Economic status of Workers

**Table 1.1**  
**Age of the Respondents**

Age wise classification	Frequency	%
30-35 age	8	26.7
36-40 age	2	6.6
41-45 age	3	10.0
46-50 age	5	16.7
51 and above	12	40.0
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field Survey**

The table 1.1 demonstrates the age of respondents. Out of 30 respondents 40.0 percent is in the age gathering of over 51 years, 26.7 percent are falling in the age gathering of 30-35 years, 16.7 percent are in the age gathering of 46-50 years, 10.0 percent are in the age gathering of 41-45 years, 6.6 percent are in the age gathering of 36-40 years. It was found that most of handloom workers are falling in the age gathering of over 51 years.

**Table 1.2: Education of Respondents**

Education	Frequency	%
Illiterate	9	30.0
Literate	1	3.4
Middle	10	33.3
High school	5	16.7
Higher/Sec	3	10.0
Graduate	2	6.6
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field Survey**

Education is perceived as a significant angle for human asset improvement and explicitly capital development. The above table 1.2 demonstrates the education capability of respondents. Out of 30 respondents, 60 percent respondent goes under tutoring, 30 percent respondents are uneducated, 3.4 percent are educated and 6.6 percent are graduate. This plainly demonstrates most extreme quantities of respondents were concentrated up to middle class.

**Table 1.3: Marital status**

<b>Marital Status</b>	<b>Frequency</b>	<b>%</b>
Yes	25	83.4
No	5	16.6
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Primary data**

Conjugal status impacts purchaser conduct. The buying conduct of wedded individuals is not same as those of the unmarried individuals. Among the wedded individuals the impact of life partner on purchasing conduct is noteworthy. The impact of guardians and other relatives among the unmarried individuals is significant. The table additionally demonstrates that out of the complete number of respondents, low numbers of respondents were found unmarried. Basically it implies that with expanding family obligations, these people think about weaving as great chance to win money. The above table 1.3 uncovered that the conjugal status of respondents. Out of 30 handloom workers, 83.4 percent were married and the staying 16.6 percent were unmarried. It is obvious from the above examination that the most extreme number of respondents were married.

**Table 1.4: Main Occupation of House Hold**

<b>Main Occupation</b>	<b>Frequency</b>	<b>%</b>
Weaving	26	86.7
Agriculture	4	13.3
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field Survey**

The table 1.4 shows the occupation of household. Out of 30 handloom workers, 86.7 percent are associated with weaving and 13.3 percent are engaged with Agriculture. It can be found that dominant part of house hold units was occupied with weaving exercises.

**Table: 1.5: Monthly income of weaving**

Monthly income	Frequency	%
1000-5000	8	26.6
5001-10000	20	66.7
10001 and above	2	6.7
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field Survey**

the above table indicates 66.7% respondents are earning monthly income from weaving between Rs 5001 to Rs 10000, 26.6 % workers were acquiring between Rs 1000 to Rs 5000 and 6.7% respondents procuring lie between Rs 10001and above. It was found that the majority of the respondents are acquiring between Rs 5001 to Rs 10000.

**Table 1.6: Nature of Production**

Nature	Frequency	%
Continuous	10	33.3
Seasonal	20	66.7
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field Survey**

The table 1.6 demonstrates the nature of Production. Out of 30 workers, 66.7 percent workers are seasonal weavers and 33.3 percent handloom workers are associated with incessant weaving. It was found that the majority of the workers are utilized seasonally in handloom weaving. Handloom weavers are more interested in seasonal production as it is more profitable in a shorter period of time. Then again, the pace of production among the weavers associated with persistent production is moderate. It diminishes the profitability in longer run.

**Table. 1.7: Type of looms**

Type	Frequency	Percent
Owned looms	9	30.0
Borrowed looms	21	70.0
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field Survey**

The table 1.7 highlights the type of looms. Obviously 70.0 percent workers are working in borrowed looms and 30.0 percent respondents were having owned looms. It can be seen that most extreme quantities of respondents are acquiring their borrowing looms. Handloom unit holders generally incline toward borrowed looms when contrasted with owned looms. In owned looms, the proprietor has met all expenditures of handloom units himself. While as in borrowed looms the proprietor makes great benefit since he has offer restricted uses. Acquired borrowed looms increasingly prevalent, the proprietors make a decent benefit.

**Table. 1.8: Problems in weaving**

<b>Problems</b>	<b>Frequency</b>	<b>%</b>
Breaking of yarn	6	20.0
Shortage of Electricity	11	36.7
Low availability of raw material	3	10.0
Lack of finance	6	20.0
Labour problem	4	13.3
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field Survey**

The table 1.8 demonstrates the issues faced by the handloom workers during weaving. Out of 30 respondents, 36.7 percent respondents are confronting deficiency of electricity issues during weaving, 20.0 percent respondents are confronting breaking of yarn issues during weaving, 10.0 percent respondents are confronting low accessibility of raw material issues and 20.0 percent are confronting absence of fund issues, 13.3 percent are confronting labour issues. It obviously demonstrates that most of respondents are confronting sufficiency of electricity issues during weaving. Lack of Electricity is principle issue all through Kashmir valley. The weaving work generally experiences breakage of electricity in winter season; in this season there is substantial snowfall which altogether upsets electricity. These units additionally face monetary issues because of political turmoil in the valley. Political turmoil means shut down in the valley which disturbs every working unit in the valley. As the proprietor

needs to pay all expenditures like, pay of representatives, lease for units and so on in long stretches of shut down however his unit don't give any production. This imbalance in production and expenditure causes financial problems.

**Table. 1.9: Unit of production established**

Unit of Production	Frequency	%
Rented Area	8	26.6
Own Area	22	73.4
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field Survey**

The above table 1.9 demonstrates that 73.3 percent respondents in unit of production are set up in own area and 26.7 percent respondents set up handloom units in leased territory. It tends to be discovered that most of workers have set up their units in own areas as handloom workers need to pay lease for leased areas and own territory is free from lease. This is the principle reason that the workers prefer establishment of own areas

**Table. 1.10: Working status**

Working	Frequency	Percent
Independent weavers	1	3.3
Co-operative weavers	29	96.7
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field Survey**

Independent weavers play out all the capacity identifying with the handloom weaving alone that is, from obtaining of raw yarn and colours, arrangement of Finance, weaving of material, to the advertising and completed merchandise. The dangers related with the business are borne by them. Much of the time independent workers have little activities the benefit from which is likewise little. While as co-operative weavers cooperate in handloom units. Co-operative weavers produce more production in handloom units, more production makes more benefit. Co-operative weavers are working and keeping up their units appropriately and they don't have all weights of uses. In

the above table 1.10 demonstrates the working status of workers. The table shows that 96.7 percent respondents are co-operative weavers and 3.3 percent respondents are independent weavers. It tends to be discovered that the majority of the respondents are co-operative weavers of handloom units.

**Table. 1.11: Working hours**

<b>Working Hours</b>	<b>Frequency</b>	<b>%</b>
up to 8 hours	20	66.6
9-11 hours	6	20.0
12 to 15 hours	4	13.4
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field survey**

The table 1.11 shows working hours of workers. Out of 30 respondents, the table demonstrates that 66.6 percent workers were occupied with weaving exercises for as long as 8 hours. While 20.0 percent respondents are working up to 9-11 hours and 13.4 percent workers are working up to 12 to 15 hours out of every days. It very well may be discovered that dominant part of the workers of handloom units are working as long as 8 hours. Handloom weaving is fine workmanship, it isn't finished by machines and it is just done by hands. This is the fundamental reason that workers work for just 8 hours.

**Table 1.12: Number of Working days per month**

<b>Number of Working days</b>	<b>Frequency</b>	<b>%</b>
20 days	18	60.0
26 days	6	20.0
28 days	4	13.3
30 days	2	6.7
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field survey**

The above table 1.12 demonstrates that the number of working days of respondents. It is obviously the table uncovers that 60.0 percent respondents are working for 20 days in a month, 20.0 percent respondents are working for 26 days, and 13.3 percent respondents

were working for 30 days and 6.7 percent workers are working for 28 days out of each month. It very well may be seen that most of workers are working for 20 days in a month.

**Table. 1.13: Health Problems**

<b>Health Problems</b>	<b>Frequency</b>	<b>Percent</b>
eye sight weakness	9	30.0
back pain	12	40.0
knee pain	4	13.3
joint pain	5	16.7
<b>Total</b>	<b>30</b>	<b>100.0</b>

**Source: Field Survey**

Table 1.13 uncovers that the health issues of respondents. The table demonstrates that 40.0 percent respondents are experiencing back pain, 30.0 percent respondents are experiencing visual perception shortcoming, 16.7 percent workers are experiencing joint pain and 13.3 percent were experiencing knee pain. It very well may be discovered that the greater part of the respondents were experiencing visual perception shortcoming.

## **CONCLUSION**

To sum up, it can be said that the Handloom workers in Anantnag region of Jammu and Kashmir, fundamentally the individuals who have innate this work, are in a pitiable condition inferable from the poor financial conditions. Most of the workers are falling in the age gathering of over 51 years. Therefore, from the above analysis obviously the support of more youthful workers in handloom units is exceptionally low. Because of this finding, the more youthful ages don't, dear working in handloom sectors they lean toward different sectors like education sectors, farming sectors and so forth where as matured people incline toward working in handloom units. These people are increasingly educated and experienced in handloom weaving. It is fascinating to take note of that the educational status among the weaver network was not discouraging. It tends to be discovered that a large portion of the respondents are co-operative weavers of handloom units. Co-operative weavers produce more

production in handloom units, more production makes more benefit. Co-operative weavers are working and keeping up their units appropriately and they don't have all burdens of expenditures.

### **Major Findings of the Study**

The main findings of the study which are as under:-

1. It was found that the majority of handloom workers are falling, the age group of 51 years. The reason behind that, old aged workers are more skillful and experienced, in other words old aged workers are helpful for the design of handloom products and better marketing awareness of handloom weaving.
2. It was found that the majority of the respondents are acquiring between Rs 5001 to Rs 10000
3. It was found that the majority of the workers are utilized seasonally in handloom weaving. Handloom workers are more interested in seasonal production as it is more profitable in a shorter period of time. On the other hand, the pace of production among the workers involved in continuous production is very slow. It decreases the profitability in longer run.
4. It can be found that majority of the workers of handloom units are working up to 8 hours. Handloom weaving is fine workmanship, it is not done by machines and it is only done by hands. This is the main reason that workers work for only 8 hours.

### **Suggestions:**

Handloom industry of Kashmir valley is important part of Indian culture. But however this sector faces certain problems in its growth. Government and handloom department should pay attention towards this sector. Keeping in view the problems mentioned above some suggestions are proposed for the holistic development of this sector .

1. Government should set up special training programmes to aware the illiterate people about handloom weaving. It will help them to complete successfully in the growing market.
2. Handloom Department must provide support and financial aids to young generations and take positive steps for their involvement in this sector.

3. The Government as well as Handloom Department must take every possible steps to make supply of yarn available to handloom workers, to avoid discontinuity in handloom weaving.
4. There is another problem of electricity in the handloom units by which a handloom worker suffers a lot and shows disinterest to run the weaving work in the future. So handloom department should provide the alternatives for overcoming the electricity deficiency, i.e. a generator should be made available by department at subsidy.

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# 9

## **Study on the Impact of Sustainable Agriculture Practices on Food Security**

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NAGENDRA KUMAR CHANDRAWANSHI

### **Abstract:**

The Indian economy is the fastest growing economy in the globe. The economic revolution is significantly depending on the performance of agriculture and other allied sectors. The agriculture practices are the most important custom tradition developed by human beings for survival on the earth at ancient. The most population proportion of India belongs to rural areas. Thus, majority of the population depend on indirectly or directly in agriculture practices for employment opportunities. According to the food and agriculture organization (FAO) report for India, as 70% of rural population depend on primary employment as agriculture, among to them only 82% of farmers have small and marginal level. The population will continually increasing in last decade. Therefore some emerging challenges has appears such as huger rate, malnutrition, contaminated food products, along with reduced agriculture land, loss of agriculture productivity, less fertile, climate changes, pest be resistance, due to heavy used in chemical or pesticides in era of green revolution. The objective of this chapter, to deal with inclusive economic development through sustainable practices in agriculture, development of bio economy, implementing of advance and biological practices in cropping fields, furthermore, to prepares the future policy to incorporating in developed country schemes for betterment for economic and social empowering

etc. In the segment of sustainable practices, must be compulsion on livelihood skill programme for inclusive development of economy and assurance of food security to population.

**Keywords:** Indian economy, Food and Agriculture organization, climate changes, food security, sustainable development.

### **Introduction**

Agriculture practices are the most important custom practices developed by human beings for survival on the earth, consequence, the agriculture activities populations have settled in villages, towns, and cities, etc. With the periods, an unprecedented increase in population the pressure on agriculture also increases. However, The Indian economy is mainly based on rural and agricultural sectors. Indian agriculture has the responsibility of providing national as well as household food and nutritional security to its spilling over millions. But limited fertile land and space, and acquire higher yield, the intervention of pesticides and chemical fertilizers began in the 19<sup>th</sup> and 20<sup>th</sup> centuries. It was beginning with resulted in boom output in the sector of agriculture. Extensive uses of fertilizer and pesticides, the occurrence of ill-effects of green revolution technologies in all intensively cultivated areas like Punjab and Haryana is threatening the sustainability of the important agricultural production systems. Another side, the declining trend in the size of landholding poses a serious challenge to the sustainability and profitability of crop growing (Conway & Pretty, 1991).

The average size of the landholding has declined to 1.16 ha in 2010-11 from 2.28 ha in 1970-71. If this trend continues, the average size of holding in India would be mere 0.68 ha in 2020 and would be further reduced to 0.32 ha in 2030 (Agriculture Census, 2010-11). Although, enormous progress in technology and uncontrolled use of chemicals such as fertilizer, along with climatic changes, the current report indicates the present situation about the production loss, in the globe, just about 870 million people are facing a food shortage due to the variety of resource insufficiency and as a result, FAO in 2012 stated that the requirement of increasing the production of agriculture up to 60%, so, therefore, in the future have to fulfil supply the

agriculture produce product approx 9 billion population in 2050. In the present situation, we need an inclusive sustainable growth in Indian economics.

### **Inclusive sustainable growth**

Rapid and persistent poverty reduction requires an inclusive sustainable growth that set aside peoples to contribute to and benefit from economic growth. However, inclusive growth involves a direct relationship with micro and macro determinants of growth. The micro dimension of growth captures the importance of structural transformation for economic competition and diversification, as well as the creative creation of jobs and firms. Inclusive growth refers both to the pace and pattern of growth, which is considered, interlinked and therefore in need to be addressed together. The idea that both the pace and pattern of growth are critical for achieving a high with sustainable growth records, as well as poverty reduction, is consistent with the finding in the growth report: strategies for sustained growth and inclusive development of the economy (Commission on Growth and Development, 2008). This situation in India calls for an incorporated effort to address emerging issues. It is imperative to develop strategies and agricultural technologies that enable adequate employment and income generation, especially for small and marginal farmers who constitute more than 80 % of the agriculture community. The integrated farming system approach is considered to be the most powerful tool for enhancing the profitability of farming systems. These integrated farming systems required to be planned, designed, implemented and analyzed for increasing productivity and profitability. These systems also need to be socially acceptable, economically viable and eco-friendly (Argade and Wadkar, 2013).

### **Sustainable Rural Livelihood approaches**

Conceptually 'livelihood' defined as an activity, entitlements, and assets by which people make a living. Property is defined as natural (water and land), societal (family, community, and social networks), political (participation and empowerment), human (education, labor, health, and nutrition), physical (roads, clinics, markets, schools, and

bridges) and economic (*jobs*, saving and credit), etc. So, the sustainability of livelihoods becomes a function of how women and men utilize asset portfolios on both a short and long-term basis. Sustainable livelihoods are those that can cope with and recover from shocks and stresses such as drought, hunger, and policy failure through adaptive and coping strategies (Jirli *et al.*, 2008).

These will be overcome by following the equity, capability, and sustainability combine in the concept of sustainable livelihood. The concept is known as Sustainable Rural Livelihood (SRL) promotes to fight against hunger and poverty eradication (Argade and Wadkar, 2013).

### **The food and nutrition challenge: Need more sustainable production and consumption**

Food is essential to the provisions of life, but the world's food systems and natural resource base are under increasing strain to provide food for all. According to the World Food Summit (1996), food necessitates explained as 'when all human being avail a healthy nutritious and at sufficient food, according to the dietary measure, that one is essential for healthy and active lifestyle'. Furthermore, it's very much linked to agricultural production as well as issues related to 'food access and use' (Wageningen UR, 2013).

Nutrition security refers to everyone having access to not only food but also to health care and hygienic conditions. For many people, having access to a safe nutritionally adequate diet daily is a challenge, making it difficult for them to lead active, healthy lives. Population growth, urbanization, diet change, the pressure on the ecosystem and climate change is among the factors contributing to greater uncertainty about future food and nutrition security.

Food and nutrition security is therefore increasingly being addressed as a global public good and needs to be supported for the sake of security and stability for the global population. An estimated 842 million people or 12 % of the global population in 2011-2013 (FAO 2013) suffer from chronic hunger and 2 billion people around the globe suffer from malnutrition due to insufficient or unbalanced diets (IFPRI 2014).

Although the global supply of food is sufficient to feed the population and significant gains have been made in tackling the hunger problem, considerable differences in the level of undernourished people across regions remain. The food challenges are not part of developing country but also faced the same situation in a developed country in the world. The maintain agri-food matters are facing social, economic, political and environmental conditions, that lead to challenges for assuring the food supply. Therefore, nutritional food supplies to all consumers have not assured (Thom, et al. 2014).

### **Food Scarcity: An alarming stage**

Many policymakers have aware of the fact that agriculture sectors need a strong drive towards greater productivity. The most advocated pathway is to look up resource efficiency without growing land area used for agriculture. This requires developing creative ways to avail available resources lacking with higher scale natural processes. Therefore, need a wide range of innovations practices will be required for sustainable production. The rising prospect of market shocks may lead trading nations like the Netherlands etc. Sustained efforts are needed from policy-makers and the private sector to address agriculture's role in today's nexus around food security and scarcity. Annual growth in demand for food, in terms of calories, is expected in the range of 1-2% per year until 2050- quite comparable or even lower than what has been experienced over the past four decades (van Ittersum 2018; Alexandratos and Bruinsma 2019). But food systems have become very dynamic, and this adds to the challenge of sustaining the output growth that is required to meet the expanding demand. Factors affecting the demand have to do with population growth, rising affluence and changing consumption patterns, including the call for convenience or processed foods. On the production side, farmers are facing problems such as extreme weather conditions, low productivity, poor market access, missing markets for farm inputs, land, and environmental degradation, etc. Poverty and food insecurity have become deep-seated problems in developing countries, contributing factors include, soil depletion, nutrition insecurity, food losses and waste, and the ambiguous role of policies, land and environmental

degradation, the land grab problem, climate change and the growing demand for renewable energy, etc.

### **Food prices**

World food markets are increasingly interconnected thus direct impact on the Indian economy etc. For example, political instability in Ukraine, the third-largest exporter of wheat, has brought some measure of uncertainty to the world's cereal markets, resulting in raised feed costs for Dutch livestock. Similarly, commodity prices have also increased, compounded by the fact that some agricultural crops are being used as a source of energy. So, in general, food prices have become more volatile. The recurrence of high prices of staple crops over the last decade has, in part, been responsible for social unrest and riots across the globe- most notably in North Africa where some autocratic governments have been toppled (Thom, et al. 2014).

### **Land and environmental degradation**

Since the middle of the 20th century, agricultural intensification with land-saving technologies has been the main engine of the growth in global farm output-between 1955 and 2005, which can land increased by around 15% whereas agricultural production tripled (Schmitz et al., 2013). This has come at some cost to the environment-there is substantial degradation of land resources in many parts of the globe-increasing salinization, soil erosion, and waterlogging desertification, serve to limit land productivity. Due to using an extreme amount of chemical fertilizers in agro-sector has also led to detrimental environmental problems like contamination in soil, water, and air, soil salinity, increase of pest resistance, thrashing of the soil fertility, the threat to biodiversity, and food security, etc. These ones reduced by incorporating a new style of farming that is ecologically compatible, holistic and are organic in nature. Sustainable approaches in the agricultural sector are of utmost importance to improve the food security and nutrition problem around the globe. Despite higher yields on land, there has been wide-scale clearing of forests over the last 40 years to make way for large, industrialized farms, which have led to a loss of biodiversity.

### **Land and water grabbing**

While investments in agriculture is needed, large-scale acquisition of prime agricultural lands by foreign investors, particularly in Africa and South America, is expected to adversely affect agricultural production and food security. Land and water grabbing is a reaction to ever-increasing scarcity and it is a way in which countries, communities, and corporations try to secure raw materials. This is generally at the expense of local populations and small farmers who can be displaced and forced on to marginal lands to eke out a living. Strengthened land tenure systems are required, along with more comprehensive investment and research and development (R&D) policies based on local development needs(Thom, et al. 2014). Improved governance mechanisms for natural resources will be required to address trade-offs, for example, landscape management has emerged as a new platform to address the trade-offs in public and private interests around land and water resources.

### **Climate change**

Climate change is visible in the form of widening fluctuations in temperature and rainfall patterns. These changes are expected to hamper development processes and increase the vulnerability of already marginalized people and regions. The recent assessment report by Working Group II of the Intergovernmental Panel on Climate Change states that climate change is a threat to global food stocks, human security and will affect all sectors, regions, and people. In Africa, the adaptive capacity of climate-sensitive sectors such as agriculture and fisheries is considered low, because of limited access to finance, knowledge, technology, and governance setting. More data and analysis are needed to examine the vulnerability of African regions and communities. Adapting to these changing conditions is inevitable. Climate-smart agriculture, combining food security and climate change goals, will be essential for future food security (Thom, et al. 2014).

### **The bio-based economy**

Developing bio-based economies or 'greener' economies based on bio-mass as the main raw material seems to be a plausible, even

strategic alternative. According to the EU's Research and Innovation and Science Commissioner, the bio-economy in the EU is worth Euro 2 trillion and has already created 22 million jobs. Nevertheless, big questions remain about the sustainability of this alternative, particularly regarding bio fuels because of the large tracts of agricultural land used to grow crops for the non-food sector and the increased pressure on land markets and forest resources that are associated with producing sugar or palm oil as a biofuel feedstock.

### **Market development and trade as drivers of food security: the case of India**

In the past, global food security issues were often perceived as the domain of the leading industrial countries, United Nations agencies, and international non-governmental organizations. This global landscape is changing- newly emerging countries (in particular Brazil, China, and India) are now also contributing in a significant way to the food security agenda. These countries account for a significant proportion of the world's population and are home to a large share of the world's undernourished people. They have experienced rapid economic growth, increasing their trade with the global economy in recent years. The impacts of policies undertaken to combat poverty and hunger in these countries and to boost production and trade affect the lives of millions. In the past, global food security issues were often perceived as the domain of the leading industrial countries, United Nations agencies, and international non-governmental organizations. This global landscape is changing – newly emerging countries (in particular Brazil, China, and India) are now also contributing in a significant way to the food security agenda. These countries account for a significant proportion of the world's population and are home to a large share of the world's undernourished people. They have experienced rapid economic growth, increasing their trade with the global economy in recent years. The impacts of policies undertaken to combat poverty and hunger in these countries and to boost production and trade affect the lives of millions. The food and nutrition security situation in India is mixed (Sen, 1994). Although projections indicate that food grain availability is not a problem and

that there is food grain security at the national level, widespread food insecurity exists at the household level. In addition to this, high food inflation and price volatility of non-cereal crops (e.g., pulses) pose a problem for the stability of food and nutrition security. Women and children, in particular, suffer malnutrition –around 40% suffer from underweight and 45% from stunting (Thom, et al. 2014).

### **The role of agriculture in the Indian economy**

India is a large country with over a billion people. Since its independence in 1947, the country has made considerable progress economically and has demonstrated increasing resilience to economic shocks, such as during the global food, fuel and financial crisis of 2008-2009 (Sahn, 1994). The agriculture sector has, however, not performed as well as other sectors in the economy. Agricultural growth remained less than the targeted rate of 4%. The main reasons for this include the slowing of irrigation expansion, near-stagnation of public investment, increasing cost of agricultural subsidies (such as the National Food Security Mission), poor access to credit, fragmentation of land, marginalization of agricultural labor and environmental stress (Repetto & Baliga 1996). Government policy also had a dampening effect on the sector, serving to discourage the private sector from engaging in a wide range of agricultural activities- from seeds to storage, and from processing to retailing.

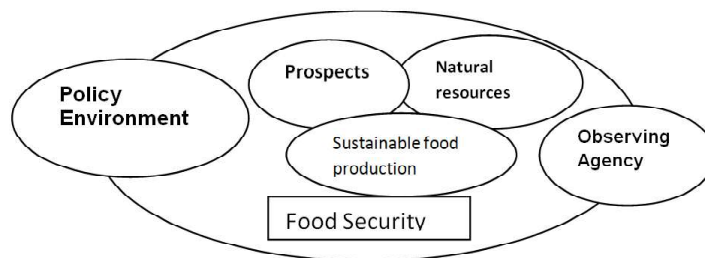
### **The importance of trade and agriculture**

During much of the period from 1970 to 1990, government support to the agriculture sector fell relative to the manufacturing sector as a result of an overvalued exchange rate and high levels of protection applied to the manufacturing sector through a combination of tariff and non-tariff measures. In the wake of rising crude oil prices and dwindling foreign exchange reserves, and economic reform package was adopted to help get through the Balance of Payments crisis in June 1991. Key reforms included the devaluation of the Indian rupee, reduction in the levels of protection in the manufacturing sector and liberalization of the agricultural trade market. As a result, foreign exchange reserves began to build-up and with the gradual removal of

trade restrictions and the licensing the system, trade increased. The liberalization of rice exports was one of the most significant reforms (Thom, et al. 2014).

### **Agro Production promise of Natural Resource Connections**

The associates between sustainable agriculture production and food security are depicted in figure (1). This demonstrates how achieving food security depends on ensuring through three key approaches. There are connected by each one such as preserved natural resources by practicing and using technologies, which promote and enhance human health and diversity, without hampering natural resources. These honestly connected with food production with sustainable approaches, containing technical participation of crop and grain production, having good planning, research extension with and management, etc. Furthermore, it is a sustained food supply to society, and support for livelihood empower and economic sustainability (Pretty, 1995). As these below model recommend that the linked together, then possible to achieving of goal for sustainable food security.



**Figure: Cycle of sustainable agriculture production and food security**

### **Rural Economies and the Wider Policy Environment**

The agricultural productivity is recovering by implying the sustainable technologies and practices, enhance the yields capacity for local food availability. According to the recent research by the International Institute for Environment and Development (IIED), stated that sustainable agriculture practices can contribute to the nurturing and strengthening of the rural economy, potentially able to

produce a sufficient amount of food (Hinchcliffe et al., 1996). There are major impacts on empowering and sustainable development in agriculture sectors, as resulted in increases in real income and establishing the capacity to save that lead to employment generation and the diversification of livelihoods (Bebbington, 1994). Another way, rising the cropping land values and greater investment on farms, it will look like a reduced dependence on credit. Also, to create market and economic sustainability, society more empower through education and a healthy lifestyle. But only sustainable agriculture will not be adequate to meet many people's food security needs. Even where food supplies are adequate, the absence of employment opportunities to provide income to purchase food can result in hunger (Swaminathan, 1995). In other areas, increasing population pressures have led to the complete absence of free land for development (Tiffen et al., 1994). And of course, while many farmers also migrate seasonally to supplement their incomes, most of them would rather not (Baker, 1995) Such mechanisms might include new marketing arrangements and the incorporation of a processing stage to develop new forward and backward linkages within the regional agricultural system. Aside from the direct creation of employment in agro-processing, agro-industry and marketing, the resulting positive impact on farmer income would be to create a derived demand for non-agrarian goods and services that could be generated locally.

### **Enterprising for future empowering**

Sustainable agriculture stands for capital investment as it helps in natural capital formation. It replenishes the capital stock of soil fertile, richness in water resources, and of predators and other beneficial wildlife. Most agriculture today progressively depletes natural and human capital, by removing soil nutrients, organic matter and water, and by diminishing human capacity and skills. Current levels of agricultural productivity are maintained by these processes of asset stripping and underinvestment. A shift to sustainable agriculture will require many different investments if productivity and environmental sustainability are to be enhanced and if they are to be linked to food security (Hinchcliffe et al., 1996).

### **Sustainable management exercising in Agriculture for higher-yielding**

Agricultural sustainability can be attained by deployment and functioning of modern techniques of farming which would enhance the production of crops to fulfill of demands of a growing population, alongside, to conserve and protect the environment, containing natural sources (Thomas & Rocheleau, 1995). Thus, soil microbial diversity can be a significant tool that performs as a sign of soil health and plant growth. Also, crop rotation, incorporation of productive soils with non-fertile, and promotion of use organic-based compost, etc. has been in practice since time immemorial. The majority of these sustainable procedures involve the implication and appreciation for supportive of soil microbes diversity. Hence, such known microbes called plant growth-promoting microorganisms (PGPM) and it can play an important role in green solutions in the agricultural sector (Arora, N.K., 2018). According to FAO, among the group of peoples severely affected by nutrient deficiency such as Mg, Ca, Fe, I, etc. The United Nations has reported, according to the data of the sustainable development goals report of (2018) continually increasing the ratio of the undernourished population in the world.

### **Conclusion**

The present scenario, using the mineral-rich food grains, that combat against the mineral deficiency in the society. Towards, the sustainability practice, enhance the utilizing of improved microbial inoculants (biofertilizer and biopesticides) that can play a lead role in organic farming. These alarming stage and has taken necessary action for combat against food security, by the participation of all intellectual groups of the society (organization (govt and non-govt. Organization), authorities, scientist, agriculturist, farming communities and governments, etc.), and prepared with strong determining a policies to tackle an emerging problem, and promote sustainable production of agriculture products, furthermore, these also effect on the current scenario of climate change, improve the production of wastelands and fight against biotic and abiotic stresses in ways of an eco-friendly manner (Faeth, 1993). According to the Sustainable Development

Goals Report (2018) stated that ensure to attain sustainability practices, will directly support economic growth, which is an essential segment of development, furthermore, which is directly linked to achieving food security. Furthermore, its developments look towards in improvement of nutrition and sustainable agriculture practices. According to Arora (2018), the biological substitutes are the solitary approaches to decline the possibility of the calamity in agriculture and maintain food security via incorporating sustainability **practicing in agriculture.**

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# 10

## Financial Inclusion Initiatives for Persons with Disabilities (PwDs) in the BFSI Sector in India

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MRS. KAVITA PANDEY (MISHRA)

### Abstract

Banking, Financial and Insurance Sectors (BFSI) indicate the growth of country. Financial inclusion is not a term, it is a multi-dimensional concept. The main purpose and objective of financial inclusion is to include the exclude communities/sections of society in financial aspects and help them to lead a better, self-reliant and economic independent life. Persons with Disabilities (PwDs) who is around 2.21 % of India's population need to be included in financial inclusion initiatives in the BFSI sector. It is important to develop favorable policy/initiatives for PwDs in BFSI sector in terms of their employment to stimulate financial inclusion and economic growth.

This chapter is an attempt to understand the reason of PwDs financial exclusion in BFSI sector and steps to be taken into consideration for the economic empowerment.

*Keywords : BFSI, PwDs, employment, economic growth, policy initiatives*

### Introduction

According to RBI report on National Strategy on Financial Inclusion, "*Financial inclusion is increasingly being recognized as a key driver of economic growth and poverty alleviation the world over.*"

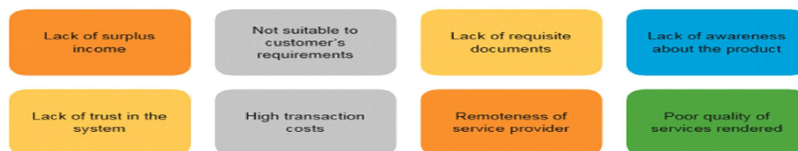
*Access to formal finance can boost job creation, reduce vulnerability to economic shocks and increase investments in human capital”.*

Therefore, the purpose of financial inclusion is to provide economical financial services to all sections of society which are affordable to improve their standard of living. It is imperative for growing economic countries like India to spread affordable financial services for the betterment of each section of the society.

In a larger perspective, financial inclusion is the process of allocation of the financial services to the weaker section of the society at an affordable cost. The knowledge of financial inclusion is crucial in terms of micro and macro level because at micro level, unless there is an adequate access to formal financial services, ignorant communities force to rely on their own limited resources or rely on costly informal sources of financial to meet their financial needs and pursue growth opportunities. It is an accepted fact at macro level that greater financial inclusion can support sustainable and inclusive socio-economic growth for all. It also has a multiplier effect in boosting overall economic output, reducing poverty and income inequality at the national level.

Financial inclusion of Persons with Disabilities (PwDs) is particularly important for inclusive growth and their economic empowerment. With greater control over their financial lives, PwDs can help themselves and their families to come out of poverty; reduce their risk of falling into poverty; eliminate their exploitation from the informal sector; and increase their ability to fully engage in measurable and productive economic activities. An inclusive financial system not only brings stability and integrity but also equitable growth. In spite of having high importance to bring PwDs in mainstream employment opportunities and financial inclusion, as per RBI report, there are many causes of financial exclusion which is exhibited on picture 1:-

Figure I.1 - Causes of Financial Exclusion



### **Definition of Financial Inclusion as per the Indian Context**

Committee on Financial Inclusion - Chairman: Dr C Rangarajan, RBI, 2008:- *Financial inclusion has been defined as “the process of ensuring access to financial services, timely and adequate credit for vulnerable groups such as weaker sections and low-income groups at an affordable cost”*

Chairman: Shri Deepak Mohanty, RBI, 2015 :- The Committee on Medium-Term Path to Financial Inclusion has set the vision for financial inclusion as, *“convenient access to a basket of basic formal financial products and services that should include savings, remittance, credit, government-supported insurance and pension products to small and marginal farmers and low income households at reasonable cost with adequate protection progressively supplemented by social cash transfers, besides increasing the access of small and marginal enterprises to formal finance with a greater reliance on technology to cut costs and improve service delivery.*

Thus the above definition endorse the points that financial inclusion can be successful if the benefit of financial services reach to the marginalized and vulnerable communities of society.

#### **Persons with Disabilities (PwDs) and microfinance-**

According to WHO (World Health Organization) Disability is an umbrella terms for impairment, activity limitations and participation restrictions which is caused by an interaction between the health conditions of an individual and the contextual factors related in the socio-economic environment. The understanding about the disability has moved away from a biological perspective to question of accessibility, inclusion and empowerment. Civil society and activists and policy makers have started thinking about the issue of disability in terms of right based and inclusive paradigm. Earlier, it was based on charity and medical models but now moved on understanding the main barriers of their growth and the environment of social construct. The social models builds policies on removing barriers to include person with disabilities (PwDs) in health, education, skill development, employment and other political and cultural schemes of programmes. Disability issues are now development and human rights issues.

The most acceptable form of definition of Person with disability is defined under the **Rights of Person with Disability Act, 2016** states that, “*person with disability*” means a person with long term physical, mental, intellectual or sensory impairment which, in interaction with barriers, hinders his full and effective participation in society equally with others.

The concept of disability may be seen as human rights issues since 2006 after its entry into the United Nations Convention on the Rights of Person with Disabilities. It is imperative to bring them into mainstream employment as the empowerment and leverage of the ability of disability is not only vital for them but for society and nations at large.

According to **census 2011**, 26.8 million people in India were categorized as “Person with Disabilities (PWD) which means 2.21 % are under this category. These figure covering all eight types of disability which have been enumerated in the list. The disability category is: Sight (18.8%), Hearing (18.9%), Speech (7.5%), Movement (20.3%), Mental Retardation (5.6%), Mental Illness (2.7%), multipledisabilities (7.9 %) and any other (18.4 %). However, as per act, there are 22 types of disabilities which has been identified and exhibited in **Figure 2 (below)** :-Types of disabilities (Source – JP Morgan and Youth 4jobs study 2016)

**Types of Disabilities**

**A disability is a functional limitation or restriction of an individual's ability to perform an activity.**

*The Rights of Persons with Disability (RPwD) Act 2016 recognizes 21 disabilities compared to the earlier 9. These are as follows:*

Blindness	Low vision	Leprosy cured persons	Hearing Impairment (Deaf & Hard of Hearing)	Locomotor Disability	Dwarfism	Intellectual Disability
Mental illness	Autism Spectrum Disorder	Cerebral Palsy	Muscular Dystrophy	Chronic Neurological conditions	Specific Learning Disabilities	Multiple Sclerosis
Speech & Language Disability	Thalassemia	Hemophilia	Sickle Cell Disease	Multiple Disabilities Including Deaf-Blindness	Acid Attack Victim	Parkinson's Disease

The disability pattern in India is different in terms of their age, gender, states and types of impairment. The literacy level is low across all types of literacy and illiteracy is estimated as per census 2011, around 53 % against 35 % in the general population. Even the literate PwDs, get a chance to complete primary education widely and secondary education rarely. The unemployment rate is proportionally

very higher as compared to general population. Around 65 % to 70 % of PwDs are out of the labour force. It is very disappointing to state that out of 26.8 million of disabled population in India, approximately 15.7 million are in the age group of 15-59 years which may be considered as an official age for participation in the labour workforce. Out of this numbers, roughly 5.8 million are employed as main workers and the rest are marginal workers. In order to bring them into mainstream employment, the Government of India has brought a number of skilled formulation initiative and advice to private and public sectors to leverage the ability of disability.

According to a **case study conducted in 2017** on Center for financial inclusion, Key challenges for low level of financial inclusion among PwD are as follows:-

1. Not able to reach and informed about the existing government supported schemes.
2. Low understanding needs of PwDs as prospective client segment.
3. Lack of awareness about the challenges faced by PwDs in accessing microfinance.
4. Non-inclusion of PwDs in finance related services or less inclusion.

**BFSI sectors& PwDs employment in India-** The term BFSI stands for Banking, Financial Services and Insurance. **Banking** includes retail banking, private banking, corporate banking, investment banking and debit/credit cards etc. **Financial Services** include stock-broking, payment gateways, mutual funds, pension funds etc. and **Insurance** covers life insurance (living) and general insurance (non-living).

The BFSI Sector in India is expanding and many companies are doing well. The entrance of new entities and existing financial services are projecting high growth. The changes in business and Indian economy compel the BFSI sectors to respond the market and boost Indian economy with innovation and ethical policies. The sector is considered to be structured, capitalized and well-regulated.

Many studies on Market, credit and liquidity risk agree that Indian banks are generally resilient and can stand in the global

downturn as well. Recently, the roll out of innovative banking models like payment and small finance banks opened the doors of various innovative banking services like the penetration of ATMs and the digital payments system in India has evolved exponentially with the Immediate Payment Service (IMPS) and mobile wallets gaining good acceptance amongst consumers. Advancements in technology have brought mobile and internet banking services to the foreground. The sector is working hard to understand the needs of their clients and changing technology infrastructure in line with their expectations to give companies a competitive edge. The growth of BFSI and boost in economy automatically indicate about the needs of trained personnel. The Indian government which is committed for financial inclusion and economic growth of all excluded communities brings perfect opportunities for PwDs in urban, semi-urban and rural areas to be an employee of such sector and leverage the opportunities to be employable and contribute for nation's growth.

There are many good public sector banks and private banks have hired PwDs. Though, the hiring was done under the pressure of Government's policy of 3 % (now 4 % as per RPWD Act 2016) reservation for the disabled initially, the employers are convinced with their performance and loyalty and believed confidently that they are equally competent and performers.

As per data provided by the Research & Statistics division of the IBA (Indian Bank Associations) published in JP Morgan and Youth4Jobs study (2016), in response to an emailed questionnaire, the current distribution of jobs in the banking sector is as follows:  
Exhibit 3

S. no	Type of information	PSU Banks		Pvt. Sector Banks		Other Banks	
		Male	Female	Male	Female	Male	Female
1	Total no. of employees*	6,30,524	1,96,759	2,91,915	71,133	91,597	19,006
2	Total no. of employees in urban branches *	3,24,719	1,29,905	2,06,558	55,552	25,499	10,796
3	Total no. of employees in semi-urban branches *	1,60,401	43,221	60,634	12,229	16,374	3,829
4	Total number of employees in rural branches*	1,54,404	22,633	49,724	3,352	24,723	3,352
5	Total no. of employees in clerical cadre/ grades*	2,21,401	82,354	16,366	9,017	26,048	6,345
6	Total no. of employees in officers/ above grades*	2,82,589	93,611	2,67,916	60,469	55,015	11,464
7	Total no. of disabled employees in clerical cadre/ grades #		7264	NA	NA	NA	NA
8	Total no. of disabled employees in officer/ above cadre/ grades #		7785	NA	NA	NA	NA

\* The information provided from Sr.Nos.1 to 6 are as on 31<sup>st</sup> March 2016  
# The information provided in Sr.No.7 and 8 pertains to only Public Sector Banks and as on 31.12.2017  
Source: Reply to Youth4Jobs Questionnaire by Indian Banks' Association, the Research & Statistics division

According to above data it can be seen that out of 8.3 lakh employees in PSU Banks, only approx. 15,000 (1.8%) had employees with disabilities. The 1.8 % is lower than the 3% minimum prescribed number of PwD employees in the government sectors by the government of India. It is not difficult to estimate the dismal number of PwD employees in private sectors. We may still have some good private organisations like JP Morgan, Barclays Bank, Kotak Bank etc who are hiring them and including them for nation's economy contribution but in the high growth Insurance sector, there is little or no information available on hiring persons with disabilities.

**Financial inclusion of PwDs in BFSI sector and its importance-** Experts, policymakers and CEO's of various reputed organizations agree that to meet the manpower requirements, to bring PwDs in mainstream employment, to put the financial inclusion into reality, there is an urgent need to get them into work and trained as potential manpower. As there are lots of changes occurring in BFSI sector on everyday basis, there is no doubt that market is positive in long term for their growth and major contribution in terms of economy and recruitment. It is important for an organizations, training agencies and governments to collaborate together to break the vicious circle of poverty, unemployment, low self-esteem of PwDs. There are many good examples of their successful contribution of PwDs in the business growth and task performance with utmost honesty and commitment.

Some organizations in the BFSI sector have discovered that persons with disabilities in the right jobs are more focused than and at least as productive as regular employees. For example, somebody with a visual impairment generally has an excellent memory and creative problemsolving skills – which can give a totally different perspective to the workplace. Organisations like JP Morgan, ANZ Bengaluru, Bank of Baroda, State Bank of India, Synchrony Financial Services, Hyderabad, Barclays Bank, and many more are hiring them and empowering them to be a part of labor workforce and contributor of Indian economy.

### **Conclusion**

The term “Financial Inclusion” is not a dream but a philosophy,

empowerment and inclusion of exclusion communities and opportunity to them for their growth. India, a country where we celebrate “**Unity in Diversity**” and pledge to support each other, is important now to empathize and support PwDs to be an enabler and leader of productivity and development.

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## **Financial Inclusion : A Step Towards Cashless Economy**

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### **ABSTRACT**

Higher penetration of formal financial services is a positive developmental indicator. Finance has become an important component of an economy for development of the society as well as the entire economy. A strong financial system has to be incorporated for sustainable growth in the country as the majority of the rural population in India is still not included in the inclusive growth; the concept of financial inclusion becomes a challenge for the Indian economy. Many concrete steps are taken by the Reserve Bank of India (RBI) and Government of India (GoI) in favour of financial inclusion but the impact of these did not yield satisfactory results. Reserve Bank of India's vision for 2020 is to open nearly 600 million new customers' accounts. The government should encourage the banks to adopt financial inclusion by means of financial assistance, financial literacy, advertisement, awareness program, etc. to achieve the aim of 11th plan of Inclusive Growth. This paper examines the concept of financial inclusion by analysing the various steps taken by the RBI and GoI and discusses the emergence of cashless economy as a result of inclusive growth. This study focuses on approaches adopted by RBI & GoI towards achieving the ultimate goal of financial inclusion for inclusive growth and emergence of cashless economy in India and

analyses of past years progress and achievements. The relevant data for this study has been collected with the help of from various Research journals, Articles, reports of RBI, reports of NABARD and online resources.

**Keywords:** Financial Inclusion, Micro finance, Digital Finance, Self-Help Groups (SHGs)

## **INTRODUCTION**

Financial inclusion is a broad term used to describe the provision of savings and loan services to the poor in an inexpensive and easy to use form. It includes opening of bank accounts for those that have never had one, and allowing people to send and receive money easily. The main objective is ensuring access to formal credit for people who depend on informal means for their financial needs and also financial education to ensure that the poor and marginalised make the best use of their money. The goal of financial inclusion is not new in India. Over the past five decades, the Indian government and banking regulators led by the Reserve Bank of India have put several measures in place, starting with the nationalization of banks (1969), building up a robust bank branch network, and mandating priority sector lending targets.

Within the past decade, it has further focused on increasing customer access to financial services through simpler Know Your Customer (KYC) norms and “no-frills” basic accounts (2005), “branchless banking” (2006) and the liberalization of bank branches and ATMs (2009). On a parallel thread, digital banking and payments through the internet and mobile have been promoted and encouraged by the Reserve Bank to reduce dependence on paper-based payments such as check and cash.

Financial inclusion is the process of ensuring all sections of the country; the vulnerable and poor sections, in particular, have access to appropriate and affordable financial products and services. The need is to look beyond traditional banking as up until now, the financial inclusion process has put the primary responsibility on banks for serving the ‘bottom of the pyramid’ customers. However, banks alone have been unable to bridge the “last mile” the chasm between where

the banks are and where the customer is, and have struggled to further extend their network through brick and mortar branches or to address the bottom of the pyramid in cost-effective ways.

India is emerging as a cashless economy while it is still one of the most cash-intensive economies in the world, and the heavy dependence on cash has several pitfalls for the Indian economy. The much talked-about pitfall has been the existence and growth of a “black” economy, where large chunks of money in the Indian economy are neither accounted for nor taxed. Heavy cash dependence has also meant that despite large budgetary sanctions through many decades of planning and five-year plans, the intended money has not reached the intended beneficiaries. Cash dependence also costs the Reserve Bank of India and commercial banks a huge expense annually just in currency operational costs.

#### **OBJECTIVES OF THE STUDY**

The main objectives of this research paper are:

1. To understand the financial inclusion & cashless economy and to find out the approaches adopted by banks, steps taken by the regulatory bodies and various government initiatives to achieve financial inclusion.
2. To analyze the past years performance and achievements towards reaching out to the unbanked areas under financial inclusion.

#### **LITERATURE ON FINANCIAL INCLUSION**

According to the Planning Commission (2009), financial inclusion refers to universal access to a wide range of financial services at a reasonable cost. These include not only banking products but also other financial services such as insurance and equity products. The household access to financial services includes access to contingency planning, credit and wealth creation. Access to contingency planning would help for future savings such as retirement savings, buffer savings and insurable contingencies and access to credit includes emergency loans, housing loans and consumption loans. On the other hand, access to wealth creation includes savings and investment based on household’s level of financial literacy and risk perception.

GoI (2008) defines Financial inclusion as the process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low income groups at an affordable cost. The meaning of financial inclusion is delivery of financial services to the low income groups especially the excluded sections of the population with the provision of equal opportunities. The main target is the access of financial services for better standard of living and income.

According to Chakraborty (2011), financial inclusion is the process of ensuring access to appropriate financial products and services needed by all sections of society including vulnerable groups such as weaker sections and low income groups at an affordable cost in a fair and transparent manner by mainstream institutional players.

### **IMPORTANCE OF FINANCIAL INCLUSION**

The importance of Financial Inclusion can be revealed from the following:

1. It is a necessary condition for sustaining equitable growth.
2. It protects the poor people from the clutches of usurious moneylenders.
3. It will make possible for the governments to make payments under the social security schemes like National Rural Employment Guarantee Program (NREGA) through bank accounts of the beneficiaries, by Electronic transfers. This will minimize transaction costs including leakages.
4. It provides an avenue for bringing the savings of the poor into the formal financial intermediation system and channel them into investment.
5. The large number of low cost deposits will offer banks an opportunity to reduce their dependence on bulk deposits and help them to better manage both liquidity risks and asset liability mismatches.

### **FINANCIAL LITERACY**

Financial literacy is crucial for imparting efficacy to the financial inclusion initiatives of the Reserve Bank and a number of new

initiatives were undertaken during 2018-19 by implementing Centres of Financial Literacy (CFL). Measures undertaken for enhancing credit delivery and financial inclusion are:

- (a) CFL project has been extended to 20 tribal blocks of Rajasthan, Jharkhand and Madhya Pradesh, and will run for a period of two years;
- (b) Various recommendations made by the Expert Committee on MSME (Chairman: Shri U. K. Sinha) will be examined for implementation; and
- (c) Reserve Bank has constituted an Internal Working Group in January 2019 to review agricultural credit (Chairman: Shri M. K. Jain, Deputy Governor). The Working Group is likely to examine the issues of regional disparity in agricultural credit disbursement and arrive at workable solutions and policy initiatives for addressing skewed distribution of credit for agriculture including allied activities and augmentation of capital formation.

### **MEASURES BY RBI AND GOI TOWARDS FINANCIAL INCLUSION**

RBI on the basis of recommendations of High Level Committee on Lead Bank Scheme directed lead banks to draw a road map to provide banking services through a banking outlet in every village having a population of over 2000 and such banking services may not necessarily be through a brick and mortar branch but can be provided through various forms of ICT-based models with the help of hand held machines, smart card & Business Correspondents (BC). The Reserve Bank of India (RBI) and the Government of India (GOI) have been making efforts to increase banking penetration in the country. Some of these measures are:

- Growth of Cooperative Banks
- Setting up of State Bank of India Branches in Rural Areas
- Nationalization of banks
- Lead Bank Scheme
- Regional Rural Banks

- Self Help Groups and Business Correspondents

Based on the recommendations of the Interim Report of the Committee on Financial Inclusion, headed by Dr. C. Rangarajan, Government of India has taken following initiatives:

- a) Government of India has constituted two funds viz., Financial Inclusion Fund (FIF) for meeting the cost of developmental and promotional interventions of financial inclusion and Financial Inclusion Technology Fund (FITF) to meet the cost of technology adoption. Each Fund consists of an overall corpus of Rs.500 crore, to be contributed by the GOI, RBI and NABARD in the ratio of 40:40:20 in a phased manner over five years, depending upon utilisation of funds. Financial inclusion fund was set for meeting the cost of development and promotional interventions
- b) Aadhar card – The government initiative of providing Unique Identification Number through Aadhar card will go long way to support financial institutions for meeting KYC norms and smoothen the business processes.
- c) Swabhiman is path-breaking initiative by Gov. of India and banks in state to cover the economic distance between rural and urban India. It promises to bring basic banking services to all unbanked villages in the country with population above 2000. The Swabhiman movement facilitate opening of bank accounts, provide need based credit, remittance facilities and help to promote financial literacy in rural India using various models and technologies including branchless banking models through Business correspondents
- d) The Pradhan Mantri Jan Dhan Yojana (PMJDY) aims to make sure that every Indian has a bank account. It is now the world's most successful financial inclusion scheme to provide access to savings accounts, credit, remittance, insurance and pensions, to the financially excluded of India. MicroSave conducted three rounds of assessments of PMJDY scheme between October 2014 and December 2015. The detailed analysis of data on Bank Mitrs (BMs) and PMJDY customers revealed bottlenecks prevalent in PMJDY scheme at both policy and operational levels. This

survey presents key policy and operational interventions that need to be addressed to improve the overall scheme effectiveness, enhance the usage of PMJDY accounts and improve the sustainability of the BM channel.

- e) No frills account or the zero-balance accounts come with several benefits such as insurance & RuPay cards to withdraw money. These accounts will also be used to make Aadhar-based Direct Benefit Transfers.

### IMPACT OF MEASURES BY RBI AND GOI

Given the enormity of the tasks and complexity of the issues, the financial policies with necessary structural reforms where the government has a central role can deliver real financial inclusion in a sustainable and stable manner. Banking penetration of rural and semi-urban areas has increased significantly. At the turn of the century, the expansion of brick-and-mortar branches, despite several efforts, was limited. The low penetration of formal banking led the Reserve Bank to look at financial inclusion as a major policy drive.

**Table 1.1: Branch Expansion of SCBs**

As on March	Number of Branches			of Estimated population* (in million)			Branches/ 100,000 population		
	Rural Semi-urban	+ Urban + Metropolitan	Total	Rural + Semi-urban	Urban + Metropolitan	Total	Rural + Semi-urban	Urban + Metropolitan	Total
2001	44,905	20,713	65,618	851	177	1,028	5.3	11.7	6.4
2006	45,673	23,904	69,577	920	195	1,115	5.0	12.3	6.2
2010	53,086	31,072	85,158	980	211	1,191	5.4	15.2	7.2
2014	76,753	40,958	1,17,711	1,044	228	1,272	7.3	17.9	9.2
2015	82,358	43,716	1,26,074	1,061	233	1,294	7.8	18.7	9.7
June 2015	82,794	43,910	1,26,704	1,065	235	1,300	7.8	18.7	9.7

\*Population estimates are based on CAGR between Census 2001 and Census 2011 data

Source: RBI Report

The slew of measures that followed were the introduction of Business Facilitators (BFs) and Business Correspondents (BCs) and deregulation of the opening of ATMs and branches, while ensuring sufficient coverage to hitherto unbanked areas. Concurrently, relaxations in the BC model were made to bridge the 'last mile' problem. This accelerated the pace of branch opening, with more

branches being opened in rural and semi-urban areas. Notwithstanding this development, the number of branches per 100,000 of population in rural and semi-urban areas is still less than half of that in urban and metropolitan areas (Table 1.1).

Concurrent with higher branch expansion in semi-urban and rural areas, the compound annual growth rate (CAGR) for both the number of individual saving bank deposit accounts as well as deposit amounts outstanding therein was the highest for semi-urban regions followed by rural, urban and metropolitan regions. (Table 1.2)

Population Group	Number of Individual Saving Bank Deposits Accounts (million)				Individual Saving Bank Deposits' Amount Outstanding (₹. billion)			
	2006	2010	2015	CAGR (%)	2006	2010	2015	CAGR (%)
Rural	104	167	384	15.6	962	1,703	3,601	15.8
Semi-urban	85	136	320	15.9	1,124	2,155	4,470	16.6
Urban	68	97	186	11.8	1,246	2,381	4,541	15.5
Metropolitan	71	100	180	10.9	1,838	3,731	6,476	15.0
All India	329	500	1,070	14.0	5,170	9,970	19,088	15.6

CAGR is for all scheduled commercial banks (SCBs) including regional rural banks (RRBs) during 2006-15.

Apart from the regulatory thrust on branch expansion, in order to provide basic banking services to the marginalised sections of society, banks were advised to open 'no-frills' accounts, which were subsequently labelled as Basic Saving Bank Deposit Accounts (BSBDA).

BSBDA is intended to give access to basic banking facility to the citizens without any fee. It was introduced by RBI on 10<sup>th</sup> August, 2012. RBI advised banks to offer this type of account without any charges and adhere to following requirements:

- The account shall not have the requirement of any minimum balance.

- The services will include the usual deposit and withdrawal facilities like any savings account along with the facility of ATM card or ATM-cum-Debit Card.
- There will be no limit on the number of deposits but account holders will be allowed a maximum of four withdrawals in a month, including ATM withdrawals.

**Table 1.3 BSBDA and Savings Bank (SB) Accounts (*No. of Accounts in crore*)**

Year	No. of BSBDA	No. of SB Accounts	No. of non-BSBDA	Percent BSBDA	Percent non-BSBDA
	(1)	(2)	(3)	(4)	(5)
Mar-10	7.3	56.0	48.6	13.1	86.9
Mar-11	10.5	62.4	51.9	16.8	83.2
Mar-12	13.9	70.3	56.4	19.7	80.3
Mar-13	18.2	82.3	64.1	22.1	77.9
Mar-14	24.3	97.8	73.5	24.9	75.1
Mar-15	39.8	117.0	77.2	34.0	66.0
Mar-16	46.9	135.1	88.2	34.7	65.3

Source: RBI's Annual Reports

In the past five and a half years, these BSBD accounts have risen more than six-fold and nearly half of these accounts were opened through Business Correspondents (BCs). There has been a tremendous increase in BSBS accounts from 13.9 crores accounts in 2012 to 46.9 crores in 2016 showing an increase of 34.7 percent. (Table 1.3)

### **TOWARDS A CASHLESS ECONOMY**

Cashless Economy can be defined as a situation in which the flow of cash within an economy is non-existent and all transactions must be through electronic channels such as direct debit, credit cards, debit cards, electronic clearing, and payment systems such as Immediate Payment Service (IMPS), National Electronic Funds

Transfer (NEFT) and Real Time Gross Settlement (RTGS) in India. India must learn from other countries in the developing world, which have managed to reduce their dependence on cash even while bringing in more people in the folds of the formal banking system. Kenya has been a well-documented success story, where mobile money has spread much faster and deeper than in India. Kenyan households with access to mobile money were able to manage negative economic shocks (like job loss, death of livestock or problems with harvests) better than those without access to mobile money. By invest in building the required financial and digital infrastructure; nationwide financial and digital literacy campaign accompanied by a medium-term strategy to improve access to, and awareness of, electronic payments. Targeted financial education programmes can improve financial skills and credit management, and increase account ownership. The government must undertake task of changing attitudes towards digital payments among customers and merchants and also put in place all necessary cyber security measures

### **TYPES OF CASHLESS MODES AND PAYMENTS**

**Mobile Wallet:** It is basically a virtual wallet available on your mobile phone. You can store cash in your mobile to make online or offline payments. Various service providers offer these wallets via mobile apps, which is to be downloaded on the phone, money is transferred into these wallets online using credit/debit card or Net banking. To pay a bill or make a purchase online via the wallet, one doesn't have to furnish the card details.

**Plastic money:** It includes credit, debit and prepaid cards. The latter can be issued by banks or non-banks and it can be physical or virtual. Cards can be used for withdrawing money from ATMs, making online payments and swiping for purchases or payments at PoS terminals at merchant outlets like shops, restaurants, fuel pumps etc.

**Net banking:** This is a online transfer of funds from one bank account to another bank account, credit card, or a third party. To use it, log in to bank account on the internet and transfer money via national electronic funds transfer (NEFT), real-time gross settlement (RTGS) or immediate payment service (IMPS), all of which come at a nominal transaction cost.

### **ADVANTAGES OF A CASHLESS ECONOMY**

The main advantage of a cashless society is that a record of all economic transactions through electronic means makes it almost impossible to sustain black economies or underground markets that often prove damaging to national economies. It is also much more risky to conduct criminal transactions. An economy that is largely cash based facilitates a rampant underground market which abets criminal activities such as drug trafficking, human trafficking, terrorism, extortion etc. Cashless transactions make it difficult to launder money for such nefarious activities. Circulation of Fake Currency notes can be curbed easily.

A cashless economy will help reduce corruption and increase tax base. It is difficult to avoid the proper payment of due taxes in a cashless society, such violations are likely to be greatly reduced. Increased tax base would result in greater revenue for the state and greater amount available to fund the welfare programmes. Digital transactions bring in better transparency, scalability and accountability. Digital transactions are convenient, improves market efficiency and transaction costs will come down in the long run. It would bring down the logistics & cost involved in printing, managing and moving money around. It will eliminate the risks associated with carrying and transporting huge amounts of cash

### **CHALLENGES IN TRANSITIONING TO A CASHLESS SOCIETY**

Acceptance infrastructure and digital inclusion: Lack of adequate infrastructure is a major hurdle in setting up a cashless economy. Inefficient banking systems, poor digital infrastructure, poor internet connectivity, lack of robust digital payment interface and poor penetration of PoS terminals are some of the issues that need to be overcome. Increasing smart phone penetration, boosting internet connectivity and building a secure, seamless payments infrastructure is a pre requisite to transition into a cashless economy.

**Financial Inclusion:** For a cashless economy to take off the primary precondition that should exist is that, there should be universal financial inclusion. Every individual must have access to banking

facilities and should hold a bank account with debit/credit card and online banking facilities.

**Digital and Financial Literacy:** Ensuring financial and digital inclusion alone is not sufficient to transition to a cashless economy. The citizens should also be made aware of the financial and digital instruments available and how to transact using them.

**Cyber Security:** Digital infrastructure is highly vulnerable to cyber-attacks, cyber frauds, phishing and identity theft. Off late cyber-attacks have become more sophisticated and organised and poses a clear and present danger. Hence establishing secure and resilient payment interfaces is a pre-requisite for going cashless. This includes enhanced defences against attacks, data protection, addressing privacy concerns, robust surveillance to pre-empt attacks and institutionalised cyber security architecture.

**Changing habits and attitude:** Indian economy functions primarily on cash due to lack of penetration of e-payment modes, digital illiteracy of e-payment and cashless transaction methods and thirdly habit of handling cash as a convenience. In this scenario, the ideal thing to do is to make people adopt e-payments in an incremental fashion and spread awareness to initiate behavioural change in habits and attitude.

**Urban – Rural Divide:** While urban centres mostly enjoy high speed internet connectivity, semi urban and rural areas are deprived of a stable net connection. Therefore, even though India has more than 200 million smartphones, it is still some time away for rural India to seamlessly transact through mobile phones. Even with regard to presence of ATM's, PoS terminals and bank branches there exists a significant urban-rural divide and bridging this gap is a must to enable a cashless economy.

## **DISCUSSIONS AND CONCLUSION**

It is becoming increasingly apparent that addressing financial exclusion will require a holistic approach on the part of the banks in creating awareness about financial products, education, and advice on money management, debt counselling, savings and affordable credit. The banks would have to evolve specific strategies to expand the outreach of their services in order to promote financial inclusion. One of the ways in which this can be achieved through forging linkages

with microfinance institutions, NGO's and local communities. Banks should give wide publicity to the facility of no frills account. Technology can be a very valuable tool in providing access to banking products in remote areas. ATMs cash dispensing machines can be modified suitably to make them user friendly for people who are illiterate, less educated or do not know English. Thus banks need to redesign their business strategies to incorporate specific plans to promote financial inclusion of low income group treating it both a business opportunity as well as a corporate social responsibility. While studies on financial inclusion have tackled the issue from variety of viewpoints, with the exception of conceptual studies, the focus is seemingly on finding out the relationship between financial inclusion with awareness, digital technology and constraints to access. Moreover, at the present global scenario, technology is found to be a determining factor in the ultimate performance of financial inclusion policy, regardless of the context or the participants of the study with relevant to this topic. Financial inclusion is the only hope for financial development, which will lead to growth of economy. It was well documented in the above literature that supports this study to the great extent. An apparent increase in addressing the population of financial exclusion requires a holistic approach for the banks to put forth the level of awareness on financial system, appropriate financial advice and affordable system of credit to kindle the whole importance of formal financial system management for which banks needs to enact strategies for reach in a cost-effective manner and it should also be less time consuming process. The best existing tool is Automated Teller Machine operated everywhere in the nation. Banks should give wide publicity to the facility of no frills account. Technology can be a very valuable tool in providing access to banking products in remote areas. But ATMs still are not considered user friendly by the people who are illiterate and non user of technology. Emerging financial inclusion as a commercial profitable business exists in the hands of the banks, possible through feasible tailored plan. By invest in building the required financial and digital infrastructure; nationwide financial and digital literacy campaign accompanied by a medium-term strategy to improve access to, and awareness of, electronic payments. Targeted financial education programmes can improve financial skills and credit management, and increase account ownership.

### SCOPE FOR FURTHER RESEARCH

This article reviewed diversified contexts and literature on financial inclusion in Indian perspective, which can be further extended to practical survey by selecting a district or a state, comparison studies and national field survey.

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# 12

## **Macroeconomic and Microeconomic Factors Affecting The NPA's in The Indian Banking System : An Empirical Analysis**

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PRAVATA KUMAR JENA

### **ABSTRACT**

This study attempts to analyze the current problem that Indian banking system is facing i.e. Non-Performing Assets (NPAs). Growing trend of non-performing assets, an indication of improper management of banking system, can hamper the economic growth of a developing country like India. A major problem of discussion for Indian economy today is inefficient handling of bank assets. It tries to examine empirically both the macroeconomic and microeconomic (bank-specific) factors responsible for the rising NPA levels in the Indian banking sector. Fixed effect model for the panel data set is used for empirical analysis. The results indicate that exchange rate, gross advances, bank size, lending interest rate have significant influence on bank NPA. This can be taken as a guide for modifying regulations, which will help for reduction of NPA as well as economic development of India.

***Key Words:** Non-Performing Assets, Banking System, Bank Assets, Macroeconomic and Microeconomic Variable*

### **INTRODUCTION**

The banking sector plays an important role in the economic development of a country. It forms the core of the financial sector of

an economy. The core business of banking is to collect deposits from the public and lend it to individuals and organizations. Accepting deposits from the public do not involve any risk factor for the banks. But, lending involves the risk to a greater extent as the borrower might not be able to repay the loan within the stipulated time. A banker needs to be very cautious while lending, because the amount is not being given from his own capital. A major portion of the money lent is obtained from the deposits received from the public. These deposits are generally repayable on demand. Therefore, while lending money, a banker should be very careful. Previously, the banks were not concerned about the quality of assets. All of their efforts were invested on expanding their branches and further generating more employees, and providing loans to the priority sectors. As a result, the quality of assets of the banks started deteriorating day-by-day, becoming a major issue for the banks. The economy of a country is adversely affected by any issue related to the banking sector. Indian banking sector has been facing various major issues regarding the rising level of Non-Performing Assets (NPAs).

Non-Performing Asset is an important factor in examining the financial performance of a bank. The growth of NPAs directly affects the liquidity and profitability of a bank. It is a great threat to the quality of an asset and survival of the entire banking sector. The problem of NPAs is not only affecting the bank but also the entire economy. Now-a-days, banks are not judged only on the basis of the number of branches and the volume of deposits but also on the standard of assets they have in their balance sheet. NPAs negatively affect the profitability, liquidity, and solvency of the banks. Higher NPA ratio trembles the confidence of investors, depositors, lenders and many more. The NPA size of banking sector is comparatively higher in case of public sector banks. In order to maintain profitability and efficiency of banks, the NPA must be controlled and reduced to the maximum possible extent. Now the banks have become very careful in granting loans because of rising NPA. According to a recent report by Credit Analysis & Research (CARE) rating, India has been ranked 5<sup>th</sup> in the list of countries with highest NPA and is on the top position among BRICS nations (Brazil, Russia, India, China and South Africa) with 9.9% ratio.

The performance of any bank's loan depends upon the progress of the operating economy, its own management practices, and earning capacity of the financing firm. Apart from macroeconomic variables, bank's internal management decisions such as, targeting Return on Assets (ROA), maintenance of Capital Adequacy Ratio (CAR) and the amount of provisions also affect progress of bank's business. There are several studies that have analyzed the relationship between the Non-performing assets with the bank specific and the macroeconomic variables. The increase in non performing assets leads to credit default, hence, worsening the credit risk ratios for the banks (Samad, 2012). Extensive research has been done to explain the NPAs of Indian banks. But, in the present time, further analysis for different group of banks can serve a greater purpose in this direction.

### **Meaning of Non-performing assets (NPA)**

Non-performing assets (NPA) is an asset which does not generate any income for the bank. The assets of the banks are given as loans to the customers. If the customer fails to repay their principal as well as interest of the loan, then it can be referred to as 'Bad Loan' or 'Non-performing asset'. As per the current norm, if the loan remains overdue for a period of more than 90 days, it is called as Non-performing asset and overdue is a situation when the loan is not paid on the due date fixed by the bank. With effect from 31st March, 2005, a Non-performing asset (NPA) will be a loan or an advance where-

- Interest and/or installments of principal remain overdue for a period of more than 90 days in respect of a Term Loan;
- The account remains 'out of order' for a period of more than 90 days, in respect of an Overdraft/Cash Credit;
- The bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted;
- An advance granted for agricultural purpose remains overdue for a period not exceeding two and a half year; and
- Any amount to be received remains overdue for a period of more than 90 days in respect of other accounts.

### **Types of Bank Assets**

Assets of the Banks are classified into four categories. They are Standard Assets, Sub-standard Assets, Doubtful Assets, and Loss Assets.

#### **Standard Assets**

The assets which do not carry more than normal risk attached to the banking business are called standard assets. These assets are also known as Performing assets.

#### **Sub-standard asset**

The assets which remain as an NPA for a period of less than or equal to 12 months are called as sub-standard assets.

#### **Doubtful Asset**

The assets which remain as an NPA for a period exceeding 18 months are called doubtful assets.. These assets are so weak, that their liquidation is highly doubtful..

#### **Loss Assets**

The assets which remain as an NPA for a period more than 36 months are called Loss Assets.

### **Causes of NPA**

**1. Bad Lending Practices:** When a thorough background research on the financial health, repaying capacity and intent to repay of the borrowers has not been done prior to the sanction of loan, it leads to bad lending practices.

**2. Competition:** Unsecured loans come as a result of unhealthy competition amongst the banks.

**3. Poor credit appraisal system:** The poor credit policy of banks is another major factor in increasing the NPAs. When a proper verification of the repaying capacity of the borrower is neglected and the loan is granted, NPAs increase.

**4. Crisis:** Another factor that adds on to the NPAs is when the revenues and profits is obtained lower than the average rate.

**5. Overhang Components:** Loans affected by environmental factors like agricultural loans when not repaid due to the slow harvest or lack of natural resources like water or sunlight, the outcome is NPA..

### **Modi government's '4R' strategy to resolve NPA crisis**

According to the Government data, in the financial year of 2018-19, bad loans of the public sector banks have declined by Rs. 89,189 crore and resulting in Rs. 8.06 lakh crore. As per Finance Minister Nirmala Sitharaman, the above decline was a result of the Government's 4Rs strategy of Recognition, Resolution, Recapitalization and Reforms.

According to the data provided by the Reserve Bank of India, GNPA's of PSBs has increased from Rs 2.79 lakh crore in financial year 2014-15 to Rs 8.95 lakh crore in financial year 2017-18. The observation was done on the basis of the Recognition of stressed assets as a bad loan by the central bank.

The provisional data on global operations reflects that during the financial year of 2018-19, the GNPA's of Scheduled Commercial Banks (SCBs) was Rs 9.49 lakh crore.

In order to clean up the balance sheets of the banks, an initiative had been taken by RBI in the year of 2015 which was known as Asset Quality Review (AQR).

“As per RBI inputs, the primary reasons for the spurt in stressed assets have been observed to be aggressive lending practices, willful default, corruption in some cases, and economic slowdown.” said Nirmala Sitharaman.

In the financial year of 2007-08, the gross advances of the state-owned banks was Rs 18.19 lakh crore which was increased to Rs 52.16 lakh crore in the financial year of 2013-14.

As per the Finance Minister, the various initiatives that were taken by the Government have yielded results in recovering Rs 3.59 lakh crore in public sector banks over the last four financial years. This includes a record recovery of Rs 1.23 lakh crore during 2018-19.

Prime Minister Narendra Modi-led NDA government has taken all the necessary steps under its 4Rs strategy to distil the banking system, said Sitharaman. She further added that the comprehensive steps of recognizing NPAs transparently, resolving and recovering value from stressed accounts, recapitalizing PSBs and reforms in banks and financial ecosystem is responsible to ensure a reliable source.

### **Steps taken to reduce NPA**

The Insolvency and Bankruptcy Code (IBC), Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act, Debt Recovery Tribunals, Lok Adalats, Compromise Settlement, Credit Information Bureau are the necessary steps taken to accelerate and enable resolution of NPAs of PSBs.

#### **1. SARFAESI ACT, 2002**

This Act empowers banks to deal with NPAs, without involving the court, through the following substitutes:

- Asset Reconstruction
- Enforcement of Security
- Securitization

Any outstanding amount of more than ₹ 1 lakh can be dealt under SARFAESI. However, an amount that is less than 20% of principal and the interest amount is not considered under the Act. The Act also allows banks to:

- Release a notice to the borrower (and their guarantor) asking to release the amount within 60 days from the receipt of the notice.
- Release notice to anyone who acquires the borrower's secured assets to produce the same to the bank.
- Advise any of the borrower's debtors to pay off the loan due with the bank.

In case of failure from the borrower's end with respect to the issue of notice, the bank may:

- Take possession of the secured assets of the borrower
- Sell or lease the security
- Manage the borrower's security or appoint someone to manage the same.

**2. Debt Recovery Tribunals:** In the year of 1993, the Indian Parliament came with the Act that allows financial institutions to facilitate the recovery of dues of <sup>1</sup> 10 lakhs and above. As compared to regular courts DRTs handle larger number of cases by cutting down delays in the initial proceedings.

**3. Lok Adalats:** As per the guidelines issued by Reserve Bank of India in the year of 2001, Small loans of <sup>1</sup> 5 lakhs or less can be recovered through the Lok Adalats.

**4. Compromise Settlement:** NPAs upto Rs. 10 crores can be recovered following a simplified non-discretionary mechanism with the help of this scheme.

**5. Credit Information Bureau:** Records of individual defaulters are maintained by the credit information bureau. In order to make effective lending decisions the bureau shares the records with the respective banks. Agency such as CIBIL provides the data on the financial health of the borrower to the bank.

The high levels of NPAs have devastating consequences on the bank's profitability. Most of the banks are facing losses. The risk of bank failure is also involved here implying, a risk for the entire economy. Therefore it is necessary to study the factors responsible for high levels of NPAs in the Indian Banking Sector (Swamy, 2012). Determinants of NPAs in India, has received inadequate attention of the researchers. While other countries like Tunisia and Ghana have paid much attention to the same. With this background, the paper tries to examine the empirical relation of nonperforming assets with the bank-specific and macroeconomic factors for different categories of commercial banks i.e. public sector banks, private sector banks, and foreign banks operating in India.

For the study, the bank specific factors are taken separately for each bank, whereas the macroeconomic factors are common to all the banks. The macroeconomic factors like Gross domestic product (GDP), Rate of Inflation, exchange rates, GNI per capita and bank specific factors like Gross advances, Size of banks, operating profitability of banks, Lending interest rates and number of bank branches are taken into consideration for studying the relationship with NPA.

## **LITERATURE REVIEW**

Memdani Laila(2017) found that factors like per-capita income and inflation are significantly affecting Non performing loans in Public sector Bank while factors like size and total loans to total loans are significant at 10% level in Private Banks. She concluded that the determinants of NPL in the Banking sector vary across ownership structure of Banks.

T.K.Jayaraman, Keshmeer Makun and Ajeshni Sharma (2018) adopted the Autoregressive Distributed Lag procedure and found that the macroeconomic and Bank specific factors influenced NPA, economic growth have an indirect relationship with NPA, rise in real GDP would boost incomes and improve ability to repay debt, gross advances and NPA are directly associated, inflation adversely affect incomes and reduce the ability to pay debt.

Ahlem Selma Messai and Fathi Jouini(2013) they took 85 banks of Italy, Greece, and Spain they stated that GDP growth and return on assets of credit institutions have a negative impact on NPL. The unemployment rate and the interest rate affect impaired loans positively.

Jordan Kjosevski, Mihal Petkovski and Elena Naumovsk (2019) found that there is a negative impact on NPL by bank specific determinants, profitability and credit growth and there is a positive impact on capital adequacy ratio. The macroeconomic determinant has a negative relationship with economic growth and NPL except Inflation.

Bhaarathi .and M.Thilagavathi(2018) stated that macro economic factors vary according to ownership structure like in public sector bank interest rate has significant impact on NPL where as there is a negative sign on private bank by per-capita income and inflation rate.

Ms. Champa Ramkrishna Parab and Dr. M.R. Patil took 40 indian banks and analyze bank specific and macroeconomic factor found that the determinant have influences the credit risk in public and private banks in India.

Biswajit Patra and Puja Padhi(2016) analyzed that different bank act differently due to different factors like public sector banks are follows government rules so their target for lending towards weaker section, farmers, education etc . Private Banks main objective is profit maximization so there is no target for lending towards weaker section. The bank specific factors also influence the NNPA.

Bofondi and Ropele(2011) analyze macroeconomic determinants and credit portfolio of the banking system in Italy.they found that rates of growth of the real gross domestic product and prices have an inverse impact on NPL where as the rate of unemployment and the nominal interest rate have a positive impact.

Otasevic(2013) took 33 banks in the republic of Serbia and found that the macroeconomic determinants have an impact on NPL and the bank-specific determinants is insignificant. Inflation affects the rise in NPL to households and enterprises and interest rate affects only the NPL.

Tesfa Getachew (2016) analyzed the determinants of sixteen Ethiopian private commercial Banks and found that GDP growth and annual inflation rate have positive impact on NPL. In private commercial banks has negative relationship with CAR and ROE

Satyanarayan (2016) states that NPA arrived the execution of banks. It reflects that there are substantial quantities of NPA influence the productivity and total assets of banks. The necessary steps should be taken to recover the NPA.

Goyel and Piyush(2017) analyze the NPA of eight banks in India and also analyze the annual reports of these banks to see the circumstance of NPA in the Nation. They found the volume of NPA is high in public sector banks.

#### **OBJECTIVES OF THE STUDY:**

- To analyze the impact of macroeconomic variables on non-performing assets of Indian banks.
- To analyze the impact of bank specific variables on non-performing assets of Indian banks.

#### **RESEARCH METHODOLOGY:**

**Data Collection:** The data is collected from the secondary

sources. RBI website and World Bank data set is used to collect macroeconomic and bank specific data.

**Sample Selection:** Data is collected from RBI website for public, private and foreign banks for the period of 13 years (2005 to 2017).

**Tools and Techniques:** Fixed effect model is selected after conducting hausman test for panel dataset.

**Table 1: Variables used in the study**

Sl No.	Variables Name	Measurement
	<b>Dependent Variable</b>	
1	Gross NPA	Total non-performing assets of banks in billion
	<b>Independent Variables (Macroeconomic)</b>	
2	GDP growth	Annual GDP growth in relation to previous year
3	Exchange rates	Average of monthly exchange rate. Rupees relative to U.S dollar.
4	Inflation rates	Overall price change in the economy.
5	GNI per capita	GNI
	<b>Independent Variables (Microeconomic)</b>	
6	Gross advances	Total loan advanced by banks in billion.
7	Size of banks	Ln (total assets)
8	Operating profitability of banks	Ration of operating profit to total sales
9	Lending interest rates	Rate for financing short, medium –term financing needs of borrowers.
10	Branches	No. of commercial banks branches

(SOURCE: Self Compiled)

#### Regression Model:

$$GNPA = \alpha + \beta_1 GDP + \beta_2 EXG + \beta_3 INF + \beta_4 GNI + \beta_5 GADV + \beta_6 SIZE + \beta_7 OP + \beta_8 INT + \beta_9 BRANCH$$

#### RESULTS AND FINDINGS

Regression results indicate that only one macroeconomic variable has significant positive impact on NPA. Exchange rate has a positive significant impact on NPA at 5% significance level. If

borrowers are engaged in business, where import is a part of getting raw material, increase in exchange rate enhances the cost of doing business. If they are not able to generate revenue to that extent, it becomes difficult for them to repay the loan amount. Gross advances have a negative significant impact on bank NPA, indicating the success of diversity strategy in loan management. When advances increase by 1 billion, NPA reduces by 33 billion. The result of the study expresses that large banks in India are not successful in handling lending function as size of banks has a positive significant impact on NPA at 1% level. Lending interest rate has a positive significant impact at 10% level. When lending rate increases, borrowers will have to repay more which leads to increase in NPA.

**Table 2: REGRESSION ANALYSIS**

	<b>Coefficient</b>	<b>P-value</b>
GDP growth	88.411	0.151
Exchange rates	161.388	0.016**
Inflation rates	98.523	0.474
GNI per capita	-0.38	0.73
Gross advances	-0.335	0.000***
Size of banks	0.003	0.000***
Operating profitability of banks	-144.93	0.423
Lending interest rates	194.708	0.093*
Branches	-480.64	0.370

(SOURCE: Self Compiled)

Note: \*\*\*, \*\* and \* indicate significance at 1%, 5% and 10% levels respectively.

### **CONCLUSION:**

Rising trend of Non-performing assets is a major problem for Indian banks in the current scenario. This not only affects the banking sector but also hampers entire economic growth of the nation. This is important to analyze the factors causing this and to take necessary policy action to curb the problem in the long run. This paper is an attempt to understand the macroeconomic and bank specific determinants of NPA. Strengthening of rupee, diversity and expansion in lending policy, proper management of assets, and fixation of reasonable lending rates are some of the solutions for mitigating NPA

problem. Policy makers can take this as a guide and make necessary policy changes for solving this problem.

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# 13

## Financial Inclusion and Payments Bank

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### Abstract

Making financial services available to all sections of society is an important objective of both the RBI and Government of India. To achieve this policy of financial inclusion, the RBI/Government of India has adopted a number of strategies. One such strategy has been the creation of Payments Banks. The basic function of a Payments Bank is to make payments on behalf of its customers. However, the payments banks have not been able to take off and make profits on a consistent basis.

**Keywords:** Financial Inclusion, Financial Exclusion, Payments Bank, Financial Literacy, Nested Payments Bank, Independent Payments Bank.

### Introduction

Providing financial services at an affordable cost to the unbanked and under banked classes of the society, particularly in the rural areas, has been one of the central features of the banking policy of the Government of India for more than a decade. To achieve this objective of financial inclusion, the Government of India in conjunction with the Reserve Bank of India (RBI) has adopted a number of strategies. One such strategy was the creation of Payments Banks (PBs) in 2015. The initial parts of this chapter briefly look at the concept of Financial Inclusion, while the latter parts of this chapter briefly describe the growth of Payments banks in India.

### **Definition of Financial Inclusion**

From a theoretical point of view, financial inclusion refers to the proportion of individuals and firms that use a variety of financial services like payments account, savings account, loans, insurance, pension and securities market (World Bank, 2014). Greater the proportion of individuals/firms that use financial services, greater is the financial inclusion.

However, the definition of financial inclusion adopted by the Indian policy makers is slightly different. According to them, financial inclusion is the ‘process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups like weaker sections and low income groups at an affordable costs’ (Rangarajan Committee, 2008). They have also defined financial inclusion as the ‘convenient access to a basket of basic formal financial products and services that include savings, remittances, credit, government supported insurance and pension products to small and marginal farmers and low income households at reasonable costs with adequate protection, progressively supplemented by social cash transfers, besides increasing the access of small and marginal enterprises to formal finance with a greater reliance on technology to cut costs and improve service delivery’ (Deepak Mohanthy Committee Report, 2015)

An in-depth analysis of above two definitions would show that the basic difference between the two is the usage of the word ‘use’ and ‘access’. The Indian definition employs the word ‘access’, while the theoretical definition adopted globally employs the word ‘use’. Some persons may have ‘access’ to financial services yet they may voluntarily choose not to ‘use’ them. The reason for not using the available financial services could be that they may prefer to deal in cash or it could be related to the cultural, social or religious reasons. However, there is another category of persons who do not have any kind of access to financial services. The reason for non-access may be due to insufficient income or for other reasons like discrimination, lack of information etc. (World Bank, 2014) (Beck, Demirgüç-Kunt , & Hono, 2009).

### **Level of Financial Exclusion in India**

At the beginning of this century, large segments of the Indian population were excluded from access to various financial services. 51.4% of all farmer households in the country did not have access to credit, either from institutional or non-institutional sources. Further, 73% of all farmer households in the country did not have access to any form of formal credit. Among the non-cultivator households nearly 80% did not have access to any form of credit (NSSO, 2006)

There are at least eight causes for the high level of financial exclusion in India. They are: (1) Lack of surplus income (2) The financial services offered are not suitable to customer's requirement (3) Lack of requisite documents (4) Lack of awareness about the financial products. (5) Lack of trust in the financial system. (6) High transaction cost. (7) Remoteness of the service provider. (8) Poor quality of services rendered (RBI, 2020).

### **Objectives of Financial Inclusion in the Indian Context**

The high level of financial exclusion prevailing in India at the beginning of the 21<sup>st</sup> century prompted the government to promote a policy of financial inclusion. Providing access to financial services, particularly to the vulnerable sections of Indian society is essential for promoting economic growth, poverty reduction, social cohesion and employment generation (Rangarajan Committee, 2008).

The following are the six major benefits of the policy of financial inclusion followed by Government of India/RBI (Sethy, 2016) (Purohit & Mishra, 2017).

1. Financial inclusion helps achieving equitable distribution of income and reducing income saving gap.
2. Financial inclusion provides the unbanked population access to financial services, which in turn helps to mobilize savings. The said savings can be used for investment/economic growth.
3. Financial inclusion provides a larger section of the population access to financial service which in turn provides a large market for the financial system.
4. Financial inclusion helps in the achievement of many social objectives like poverty alleviation.

5. Financial inclusion will result in a larger section of population having access to banking and financial services, resulting in creation of sustainable livelihood particularly for the weaker sections.
6. Financial inclusion through banking will enable the government to pass the subsidies and other benefits to these people without pilferage.

### **Strategies adopted by the Government/RBI to achieve financial inclusion**

The government of India acting in conjunction with the Reserve Bank of India have in the past 15 years developed a number of strategies for achieving financial inclusion (RBI, 2020).

**1. Providing universal access to financial services:** - The Pradhan Mantri Jan Dhan Yojana (PMJDY), started in 2014, aimed at providing access to banking and other financial services to every household in India. By the beginning of 2019, more than 34 crore bank account were opened under this scheme and more than Rs. 89,000 crores of money were deposited in the said account. Similar insurance and pension schemes have been launched. The target set by the National Strategy for Financial Inclusion (2019-2024) is to provide every village, access to a formal service provider within a reasonable distance of 5 km radius.

**2. Targeting the Micro, Small and Medium Enterprises (MSME):** - There are 6.33 crore MSME's in India providing employment to more than 11 crore people. The MSMEs contribute 31% of the Gross Domestic Product (GDP). Consequently, a number of strategies have been adopted for making available credit to this sector. One such strategy is the creation of the Certified Credit Counsellors (CCC) scheme. This scheme envisages the creation of a structured mechanism to assist the entrepreneurs in preparing financial plans and projects in a professional manner.

**3. Targeting the agricultural sector:** - The Indian agricultural sector which provides livelihood to more than half of India's population account for 15% of the GDP. Providing affordable credit to this large section of the Indian population is crucial for achieving financial

inclusion. A number of schemes like the Kisan Credit Cards have been launched for the said purpose.

**4. Regulatory changes:** - In order to facilitate financial inclusion, a large number of regulatory measures have been adopted by RBI/ government. Most of these changes are in the banking sector. The most significant regulatory measure taken in this regard has been the issuance of differentiated banking licenses and setting up of new types of banks like the Small Finance Banks (SFBs) and Payments Banks (PBs). Permitting the banks to increase the number of Automated Teller Machines (ATMs) substantially is also part of the strategy. The banks have also been permitted to engage fixed point Business Correspondent outlets (BC's). Similar regulatory changes have also been introduced in the insurance and pension sector.

**5. Financial Literacy:** - The RBI/government has adopted a large number of measures to promote financial literacy among the people. This includes the creation of Financial Literacy Centres (FLCs) in every block in the country to spread financial literacy.

**6. Strengthen the mechanism of consumer grievance redressal:** - The RBI/government have laid special emphasis for protecting the rights of customers. The emphasis is on creating a robust grievance redressal mechanism, particularly the internal grievance redressal mechanism of the financial service provider. Protecting the privacy of the customer while storing and sharing customer data is also given importance.

**7. Use of technology:** - The central RBI/government is extensively encouraging the financial service providers to use information technology for the purpose of providing financial service to the people at an affordable cost.

### **Concept of Payments Bank**

A Payments Bank (PB) is a specialised bank that accepts deposits from its customers for which it may or may not provide interest. It also makes payments on behalf of its customers. However, it does not provide loans/credit to its customers. (Mor, 2013). The expected customers of the Payments Banks are migrant labourers, small businesses, low income households, etc. (Thenuan, Raval, & Damle,

2016). The Payments Banks make payments of electricity bill, water bill, insurance premium, etc on behalf of its customers. The Payments Banks make payments on behalf of its customers by using a technology driven platform.

### **Classification of Payments Banks**

Based on the nature of the transactions permitted by the RBI, the Payments Banks can be classified into two types (1) Nested Payments Banks and (2) Independent Payments Banks

**1. Nested Payments Banks:** These Payments Banks will not directly participate in the payment system. They will be able to participate in the payment system/payment network through a partner commercial bank called sponsor bank. All the money deposited by a customer with the nested Payments Bank will be held in an escrow account maintained by the Payments Bank with the sponsor bank. Every time the customer utilizes the money for making some payment, the Nested Payments Bank takes out the money from the escrow account and makes payment on behalf of the customer (Taneja & Bhasin, 2016). The examples of Nested Payments Banks are Airtel Money, Oxigen, etc.

**2. Independent Payments Banks:** These Payments Banks are permitted by RBI to directly participate in the payment system. For obtaining such permission, the Payments Bank will have to comply with some of the capital rules (though relaxed) fixed for commercial banks like CRR, SLR, etc. The examples of Independent Payments Banks are Paytm Payments Bank, Indian Post Payments Bank, etc.

### **Operating features of Payments Banks (Independent Payments Banks).**

The two guidelines/circulars issued by RBI in 2014 and 2016 lays down the operational parameters of Payments Banks in India. Some of the most important features of these operational parameters are highlighted below:

1. The PBs can accept demand deposits from its customers (RBI, 2014). This can be either current or savings deposit. The aggregate limit of the deposit per customer is Rupees. one lakh.

However, amounts in excess of Rupees one lakh of any customer can be held in the account of that customer in any commercial bank with which the PBs has arrangement for that purpose (RBI, 2016)

2. The PBs can issue ATM/Debit cards but cannot issue credit cards (RBI, 2014).
3. The PBs need not issue passbooks for the deposit accounts. The account information can be provided to the customer through user friendly electronic modes like SMS, Internet Banking etc. The customer can however, demand statement of account in paper form for which the PBs may levy a fee (RBI, 2016).
4. PBs are liable to provide electronic confirmation of each account transaction to the customer, through SMS/email (RBI, 2016).
5. The PBs, must ensure that all its customers comply with KYC requirements. The PBs while opening an account can however rely on electronic authentication/confirmation of the terms and conditions of opening an account instead of obtaining wet signature. (RBI, 2016).
6. The PBs cannot undertake lending activities (RBI, 2014). It cannot lend money to any person including its directors. However, PBs can lend money to its own employees out of the PBs own fund (RBI, 2016).
7. An amount equal to at least the total Demand Deposit Balance (DDB) of a PB including the earnest money deposit of Business Correspondents (BCs) should be deposited in (1) SLR eligible government security/treasury bills with maturity up to one year or (2) demand/time deposits of any commercial banks. However, if any amount is deposited with RBI, then that much of amount need not be deposited as stated above. At least 75% of the said amount must be deposited in SLRs and only up to 25% of the said amount can be deposited with commercial banks. The amount to be so deposited must be calculated on a daily basis based on DDB amount as on three working days prior to the day on which the calculation is carried out (RBI, 2016).

8. The PBs are permitted to involve themselves in the distribution of non-risk sharing simple financial products like mutual fund units, insurance products, etc. (RBI, 2014).
9. The PBs have to base all their operations on technology and should be fully networked (RBI, 2014).
10. The minimum paid up equity capital for Payments Bank is fixed at Rs. 100 crores (RBI, 2014)
11. The outside liabilities of the PBs should not exceed 33.33 times its net worth (paid up capital + reserves). This means that the PBs should have a leverage ratio of not less than 3% (RBI, 2014).
12. Payments Banks are permitted to act as Business Correspondents (BCs) of other banks (RBI, 2014)
13. Payments Banks can also engage Business Correspondents (BCs). Even group companies and business partners of PBs can be engaged as BCs. However, BCs cannot undertake offline activities and hence can undertake transactions only if there is internet connectivity (RBI, 2016).
14. The PBs are permitted to open physical access points. 25 percent of their access points must be in rural areas. For the first five years of operation, the PBs must obtain prior permission of RBI for starting access points (RBI, 2016).
15. An employee of the PB should be available at a fixed location at the district level to attend to customer grievance and also to supervise agents. The fixed location may also be used as a physical access point for carrying out banking business of PBs (RBI, 2016).
16. PBs cannot participate in 'when issued' and 'short sale' transactions (RBI, 2016).
17. The PBs are covered by the Banking Ombudsman (BO) scheme (RBI, 2016).
18. The PBs are also required to put in place an effective three tier consumer dispute resolution mechanism with pre-determined roles for the functionaries at the access point, district centre and head office. There must also be a system in place for continuous monitoring of the consumer dispute redressal mechanism. The

existence of the consumer dispute redressal mechanism should be communicated to the consumers (RBI, 2016).

### **Benefits of Payments Bank**

Following are some of the advantages of Payments Banks: -

1. PBs are fully digital in its operation. This will significantly bring down the cost per transaction. Once costs are reduced, small value transactions become feasible. This will help the low-income household and small businesses to participate in the banking process.
2. PBs facilitate the payments of electricity bill, water bill, insurance premium utility bills digitally. This is of great benefit to the customer, who would have otherwise required to stand in long queues to pay those bills.
3. The operations of PBs are fully digital. This helps to overcome the physical infrastructure problems in the rural and remote areas of India (Purohit & Mishra, 2017).
4. PBs can play the role of Business Correspondents (BCs) of other commercial banks and therefore facilitate the penetration of banking services into the rural and other unbanked areas of the country.
5. The human manpower required for the functioning of a Payments Bank is meagre when compared to a commercial bank. This helps keep the operational costs low and hence low value transactions become economically viable.

### **Current status of Payments Banks in India.**

In 2015, RBI gave an 'in principal' approval to eleven entities for starting PBs (RBI, 2015). However, final license was issued to only seven entities as the others surrendered their initial licences (ET Bureau, 2015). Among the seven entities, Aditya Birla Payments which commenced its operation in February 2018 discontinued services in July 2019 (BFSI: Economic Times, 2019).

Currently six Payments Banks are functioning in India, namely (1) Airtel Payments Bank (2) Paytm Payments Bank, (3) India Post Payments Bank, (4) Fino Payments Bank, (5) Jio Payments Bank, (6)

NSDL Payments Bank. Among these only the first four are fully operational (Deccan Herald, 2019). Out of the four, only Paytm Payments Bank is making profit. Its balance sheet showed a profit of Rs. 19 crores for the financial year 2018-19 (Business Today, 2019).

The reason for Payments Banks not making profit has been attributed to the strict regulations imposed on them by RBI. The deposit portfolio of a Payments Bank is very restricted. It can only take deposits up to rupees one lakh from each customer. It cannot lend money deposited with it. It can only deposit them in government securities and demand deposits of commercial banks (BusinessLine, 2019). The interest earned from such deposits is a very meagre amount. The other major source of income for PBs is the commission it earns from making payment on behalf of its customers. This is also very small. The earning of PBs is not sufficient to meet even its operational costs (Financial Express, 2019). Realising these difficulties faced by the PBs, the RBI has now decided to permit the PBs to convert themselves into Small Finance Banks (SFBs) after they complete five years of operation (RBI, 2019).

### **Conclusion**

Financial Inclusion is very essential not just for promoting saving habits among the vulnerable groups in the society but also for the overall development of the economy. The RBI/government have taken a series of measures to promote financial inclusion. The creation of Payments Banks is one such measure.

PBs have been conceptualized by RBI for performing two functions namely; (1) achieving financial inclusion, (2) encouraging digital banking. However, the strict restrictions imposed on these banks by RBI has resulted in them becoming an aggregator/disintermediation vehicle for depositors to invest in government securities (SBI, 2019). But the larger picture emerging from the policy of RBI gives hope. Digital transactions which stood at 0.1 million a month in October 2016 has reached 1.3 billion in January 2020 (Indian Express, 2020). This shows that Payments Banks, which is fully technology driven and make e-payments on behalf of its customers will have a big role to play in the future.

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# 14

## **Non Banking Financial Company (NBFC) Sector in India – Trends, Regulatory Issues and Way Forward**

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**DR. PUNEET KAUR**

### **INTRODUCTION**

A Non Banking Financial Company (NBFC) is a company registered under the Companies Act, 1956 of India. Non-banking financial companies (NBFCs) are financial institutions that offer various banking services but do not have a banking license. Generally, these institutions are not allowed to take traditional demand deposits—readily available funds, such as those in checking or savings accounts—from the public. This limitation keeps them outside the scope of conventional oversight from federal and state financial regulators. NBFCs play a critical role in the Indian financial system. NBFCs can offer banking services such as loans and credit facilities, currency exchange, retirement planning, money markets, underwriting, and merger activities. A NBFC supplement banks by providing the infrastructure to allocate surplus resources to individuals and companies with deficits. It also produces competition in the financial services industry. NBFC's keep their services flexible to meet the needs of specific client. NBFCs may specialise in one particular sector and develop an information advantage. It enhances competition through unbundling targeting and specialising.

The working and operations of NBFCs are regulated by the Reserve Bank of India (RBI) within the framework of the Reserve

Bank of India Act, 1934 (Chapter III-B) and the directions issued by it. On November 9, 2017, Reserve Bank of India (RBI) issued a notification outlining norms for outsourcing of functions/services by Non-Bank Financial Institution (NBFCs). As per the new norms, NBFCs cannot outsource core management functions like internal audit, management of investment portfolio, strategic and compliance functions for know your customer (KYC) norms and sanction of loans. Staff of service providers should have access to customer information only up to an extent which is required to perform the outsourced function. Boards of NBFCs should approve a code of conduct for direct sales and recovery agents. For debt collection, NBFCs and their outsourced agents should not resort to intimidation or harassment of any kind. All NBFCs' have been directed to set up grievance redressal machinery, which will also deal with the issues relating to services provided by the outsourced agency.

#### **ROLES OF NON BANKING FINANCIAL COMPANY**

As recognised by RBI the specific roles of a NBFC are as follows:

1. Development of sectors like transport and infrastructure.
2. Substantial employment generation.
3. Help and increase wealth creation.
4. Broad based economic development.
5. To finance economically weaker sections.
6. Huge contribution to state exchequer.
7. Irreplaceable supplement to bank credit in rural segments, major thrust on semi-urban, rural areas and first time users.

NBFCs are spread all across the country with more than 13000 + players registered with the RBI. Approximately 570 NBFCs are authorised to accept public deposits. Assets worth Rs. 15000 crores are financed annually. Asset financing includes providing finance for commercial vehicles, passenger laws, multi-utility vehicles, construction equipment, and consumer durables.

#### **ROLE OF NBFC IN ECONOMIC DEVELOPMENT**

NBFCs aid in economic development of country in the following ways:

- Mobilisation of resources by converting savings into investments.
- Capital formation which aids to increase capital stock of company.
- NBFCs provide long term credit and specialised credit.
- Aid in employment generation.
- Help in development of financial markets.
- Helps in attracting foreign grants.
- Helps in breaking the vicious cycle of poverty by serving as government's instrument.

#### **TYPES OF NBFCs IN INDIA**

##### **(A) ON THE BASIS OF THEIR ACTIVITY:**

**1. Asset Finance Company:** According to RBI, any **non-banking company** can act as an asset finance company, on condition; that the income arising from the aggregate physical assets supporting the economic activity should not be less than 60% of its total assets and total income. Asset finance company can either be deposit-taking or non-deposit taking. All deposit-taking NBFC's have to register themselves with RBI as per given RBI regulation.

**2. Investment Company:** In layman term, Investment Company is a company whose main business is managing and holding securities for investment. These companies invest funds on behalf of their clients who, in return are expected to share the profits and losses. These companies exist only to invest.

**3. Loan Company:** Loan companies under NBFC provide loans and advances for working capital finance. A financial company would only be considered Loan Company if their 50%of total assets are in lending and 50%of total income arises from the assets which are lent. The known loan company registered as NBFC is LIC Finance Limited.

**4. Infrastructure Finance Company:** Infrastructure finance companies provide infrastructure loans for the development of transport, water & sanitation, energy, communication, social and commercial infrastructure. The companies need to follow the following stipulations to be considered as infrastructure finance company they

need to deploy at least minimum of 75% of total assets in infrastructure loans, and the net worth of the company must be Rs. 300 crore. The minimum credit rating of the company should be at 'A' or equivalent of **CRISIL, FITCH, ICRA, CARE**, or an equivalent rating by any other crediting rating agencies. A certificate must support the request for registering a (non-banking companies) NBFC's as infrastructure finance company from their auditors confirming the asset pattern of the company of the latest financial year. The famous infrastructure finance company is IndiaBulls Housing Finance.

**5. Core Investment Company:** Core investment companies are the non-banking financial company doing the business of acquisition of securities and shares, and they hold 90% of its asset in the form of bonds, equity shares, and preference shares. These companies need to invest not less than **60 per cent** in the equity shares of group companies.

**6. Micro Finance Company:** There are many microfinance companies in India, which play some crucial role in the development of India. Microfinance companies are those financial institutions that offer small-scale financial services in the form of credit and savings, to the poor in rural, semi-urban areas. Micro financial services are meant to help them in economic activities, increasing savings and supporting self-empowerment. Microfinance company is a non-deposit taking firm regulated by reserve bank of India act, 1934. These companies are entitled to provide loans up to Rs.50, 000 to individual coming under low-income group living in rural or semi-urban areas. A company to be registered NBFC's-MFC, they should have minimum net capital of Rs.5 crore after incorporation as a private limited company having equity share capital.

**7. Housing Finance Company:** Housing finance companies have mention housing finance as the main clause in its main memorandum of association. NBFC's have complemented commercial bank in providing mid-term capital loans to individual or firms; their flexibility and less stringent regulation provide them competing for an edge over commercial banks.

## **(B) ON THE BASIS OF DEPOSITS THEY HOLD**

**1. The Deposit Accepting NBFC's:** Deposit accepting firm is required to register themselves with RBI as per the regulations laid down in the RBI act, 1934. NBFC's before incorporation need to register themselves under companies act, 2013 and also attain a certificate of registration from RBI and if the company accepts deposit from the public, they need to follow particular additional regulation prescribed by RBI. A certain type of deposit accepting NBFC's are:

- (a) Loan Companies.
- (b) Investment Companies
- (c) Asset Finance Companies

**2. Non-Deposit Accepting NBFC's:** Non-deposit accepting NBFC does also need to register themselves. It is a misconception that NBFC's not accepting public deposit need not register themselves, RBI will any NBFC operating without registration as per there recent guidelines. The only difference between NBFC's accepting deposit and NBFC's not accepting deposit is that the prior has to follow certain extra guideline after registering themselves.

## **TOP 10 BEST NON BANKING FINANCIAL COMPANIES IN INDIA**

In the year 2019, top companies are being rated which deals with various kinds of financial services, these are:

1. HDFC
2. Power Finance Corporation
3. Reliance Capital
4. Infrastructure Development Finance Company
5. Rural Electrification Corporation
6. Shree Global
7. Shriram Transport Finance
8. Bajaj Holdings
9. M&M Financials
10. Muthoot Finance

### **TRENDS OF NBFCs**

Non-banking financial companies have undergone significant transformation over the past few years. Liberalisation of the legal regime, increasing digitisation and rising financial inclusion have given a boost to innovation, growth and investment in the financial sector.

### **Regulatory changes**

The government is considering a proposal from the Reserve Bank of India (RBI) seeking more powers to improve its regulatory and supervisory mechanism for non-banking financial companies (NBFCs). Recent defaults by a section of NBFCs have created turbulence in the financial markets, including debt market, leading to fears that potential solvency risks at certain companies can be contagious. The RBI has conventionally adopted light-touch regulatory approach towards NBFCs, to enable them to reach the masses through innovative financial products and service delivery mechanisms. The central bank has taken various measures to help NBFCs tide over the recent crisis, including raising the single-borrower exposure limit for NBFCs that do not finance infrastructure to 15 per cent from 10 per cent, relaxation in minimum holding period norm to encourage securitisation of loans assets and asking NBFCs with assets of more than Rs 5,000 crore to appoint a chief risk officer. Amid payment delays and defaults in the housing finance companies and NBFCs, the RBI in its Financial Stability Report warned that the failure of any NBFC or HFC will act as “a solvency shock” to its lenders and solvency losses caused by these shocks can “further spread by contagion”. NBFCs depend largely on public funds such as bank borrowings, debentures and commercial papers, which account for 70 per cent of the total liabilities of the sector.

NBFCs were the largest net borrowers of funds from the financial system, with gross payables of around Rs 844,600 crore and gross receivables of around Rs 723,000 crore as on end-March 2019. The consolidated balance sheet size of the NBFC sector grew by 20.6 per cent to Rs 28.8 lakh crore in FY19, as against an increase of 17.9 per cent to Rs 24.5 lakh crore in 2017-18. Gross NPAs of the NBFC sector as a percentage of total advances rose from 5.8 per cent in 2017-18 to 6.6 per cent in 2018-19.

### **Operational Innovation and Growth**

NBFCs have become significant in India's Banking, Financial Services and Insurance (BFSI) sector. Today, BFSI's mention looks incomplete without talking about NBFCs' critical role in its growth. Innovations are the lifeblood of Non-Banking Financial Companies (NBFCs), the relatively new entrant making waves. It is creating disruptions across the financial landscape of the country. Leveraging numerous IT-backed industry firsts, NBFCs have been able to script many success stories in the Indian BFSI sector in a relatively short span of time. These 13,000 plus players (the figure registered with the Reserve Bank of India) hold immense potential in terms of innovation and growth. Because of their several unique strengths; these are today considered the future growth drivers of the BFSI sector.

Considering India is home to the largest unbanked or under-banked population across the world makes it one of the most lucrative and sought-after destinations for NBFCs players. For instance, consider the role of NBFCs in the financial inclusion of sectors such as Micro, Small and Medium Enterprises (MSMEs) that represent a segment which is still underserved financially. As per official estimates, the total unmet demand in the Micro, Small and Medium Enterprises (MSMEs) is close to Rs 2.9 trillion – and to cater to this yet-to-be-tapped opportunity NBFCs are utilising many cutting-edge technologies. While doing so, they have invested heavily in new technologies that allow them to offer many tailored products. Citing the ability of NBFC players in embracing a lot of new technologies such as cloud computing, Prem Narayan, Deputy Director General, UIDAI, Government of India, says, “ Non-Banking Financial Companies (NBFCs) form an integral part of Indian financial system. These play a critical role in reaching out to the unbanked sections of Indian society, especially the Micro Small and Medium Enterprises (MSMEs) segment.”

### **Varied Investment Strategies**

NBFCs have come a long way from an era of concentrated regional operations, low credibility and poor risk management practices to highly sophisticated operations, pan-India presence and

most importantly an alternate choice of financial intermediation. NBFCs' growth had been constrained due to lack of adequate capital. Going forward, we believe capital infusion and leverage thereupon would catapult NBFCs' growth in size and scale. A number of NBFCs have been issuing non-convertible debentures (NCDs) in order to increase their balance sheet liquidity. Also to address this purpose, especially in the infrastructure financing space, a new category of NBFCs was formed called Infrastructure financing companies (IFCs). A common feature in all the advanced economies is their financial systems are well developed to deliver a wide range of financial services and sophisticated products at competitive price that are demanded by the sophisticated clientele. This was possible because of institutions such as NBFIs that were found to be more aggressive and innovative. More importantly, it resulted in improving the efficiency by inciting competition between NBFIs and banking system and ultimately stated to have contributed to macroeconomic stability and sustained economic growth.

### **Structural Linkages between Banks and NBFCs**

Banks and NBFCs operating in the country are owned and established by entities in the private sector (both domestic and foreign), and the public sector. Some of the NBFCs are subsidiaries/ associates/ joint ventures of banks – including foreign banks, which may or may not have a physical operational presence in the country. There has been increasing interest in the recent past in setting up NBFCs in general and by banks, in particular. Investment by a bank in a financial services company should not exceed 10 per cent of the bank's paid-up share capital and reserves and the investments in all such companies, financial institutions, stock and other exchanges put together should not exceed 20 per cent of the bank's paid-up share capital and reserves. Banks in India are required to obtain the prior approval of the concerned regulatory department of the Reserve Bank before being granted Certificate of Registration for establishing an NBFC and for making a strategic investment in an NBFC in India. However, foreign entities, including the head offices of foreign banks having branches in India may, under the automatic route for FDI, commence the

business of NBFI after obtaining a Certificate of Registration from the Reserve Bank.

### **Sector to look out for**

The government policy of demonetisation acted as a deterrent for the unorganised sector and led to compulsive financial inclusion. The regulatory changes aimed towards promoting foreign investment also provided a boost to the financial sector. This sector has evolved significantly in the past few years and the growth of financial inclusion is expected to be driven further with higher penetration into parts of the economy where public-sector banks are unable to penetrate.

### **REGULATORY ISSUES**

NBFCs can undertake activities that are not permitted to be undertaken by banks or which the banks are permitted to undertake in a restricted manner, for example, financing of acquisitions and mergers, capital market activities, etc. The differences in the level of regulation of the banks and NBFCs, which are undertaking some similar activities, gives rise to considerable scope for regulatory arbitrage. Hence, routing of transactions through NBFCs would tantamount to undermining banking regulation. This is partially addressed in the case of NBFCs that are a part of banking group on account of prudential norms applicable for banking groups.

NBFCs - D may access public funds, either directly or indirectly through public deposits, CPs, debentures, inter-corporate deposits and bank finance and NBFCs – ND may access public funds through all of the above modes except through public deposits. The application of marginal regulation to NBFCs – ND that are large and systemically important and also have access to public funds can be a potential source of systemic risk through contagion even though these entities are not members of the payment and settlement systems.

At present, there are no prudential norms or guidelines on the intra-group transactions and exposures (ITEs) between the NBFCs and their parent entities. From the perspective of consolidated supervision of a banking group/ financial conglomerate, it is necessary to have some norms / limits on the ITEs to ensure that the activities of

the banking group / financial conglomerate are undertaken in a prudent manner so that they would not be a threat to financial stability. Internationally, some regulators prescribe a ceiling on the level of transactions that a bank can have with its affiliates. These limits may operate either at a single entity level and / or at an aggregate level.

In terms of the provisions of the Banking Regulation Act, a bank is not allowed to set up a banking subsidiary. This eliminates the scope for more than one entity within a group competing for public deposits. However, this aspect is not well addressed under the existing framework where a bank operating in India may set up an NBFC – D as a subsidiary or where they have / acquire substantial holding in such an entity i.e., say more than 10 per cent.

Foreign direct investment in NBFCs is permitted under the automatic route in 19 specified activities subject to compliance with the minimum capitalization norms. Once an NBFC is established with the requisite capital under FEMA, subsequent diversification either through the existing company or through downstream NBFCs is undertaken without any further authorisation. This could give scope for undertaking those activities which do not qualify for FDI through the automatic route.

### **UNDERLYING PRINCIPLES FOR A REVISED FRAMEWORK**

Thus the regulatory gaps in the area of bank and NBFC operations contribute to creating the possibility of regulatory arbitrage and hence giving rise to an uneven playing field and potential systemic risk. In this backdrop, the related issues have been examined and as recommended by the Group, a review of the existing framework of prudential regulations for bank and NBFC operations was undertaken. The broad principles underlying the review are as under:

- i) Entities offering financial services should normally be within the ambit of financial regulations. However, all NBFCs – ND were largely excluded from the scope of financial regulation in view of the state of development of the financial sector at that time and as a matter of prioritisation of regulatory focus. In the light of the recent developments in the financial sector and its growth, as a first step, all systemically relevant entities offering

financial services ought to be brought under a suitable regulatory framework to contain systemic risk. The definition of what is considered systemically relevant will be as determined from time to time.

- ii) The IMF publication, “Financial Sector Assessment - A Handbook” mentions that, “Similar risks and functions should be supervised similarly to minimize scope for regulatory arbitrage” and that, “Bank-like financial institutions should be supervised like banks.” Similarly, the ‘Report of the Committee on Fuller Capital Account Convertibility’ has also identified that “modifications to regulation to discourage or eliminate scope for regulatory arbitrage, focusing on activity-centric regulation rather than institution-centric regulation will be needed” to enhance the strengthening of the banking system. Hence, the focus will be to reduce or eliminate the scope for regulatory arbitrage by ensuring that regulations are activity specific – irrespective of the medium through which the activity is undertaken.
- iii) The ownership of NBFCs, which are subjected to a relatively less stringent regulatory and prudential framework, should be subjected to certain norms which will encourage improved governance so that regulatory arbitrage or circumvention of bank regulations are not resorted to. Further, the ownership pattern should be such that more than one entity in a Group does not compete for public deposits. Additionally, the principle of ‘holding out’ will operate in a situation where an NBFC is within a bank group. Hence, the eventual fall out of the holding out principle will have to be factored-in while banks decide on the extent to which they would like to be involved in an NBFC.
- iv) Consequent upon certain adverse events in the banking sector in the early 1990s, banks are not permitted to offer discretionary portfolio management scheme (PMS). As a corollary, the NBFCs sponsored by banks (viz. NBFCs which are subsidiaries of banks or where banks have a management control) are also not permitted to offer discretionary PMS. Whereas, other NBFCs

are allowed to offer this product. Hence, ownership structure of the NBFC should not be determining factor to decide on the products that NBFCs may offer.

- v) Foreign entities can undertake certain permitted activities in India under the automatic route for FDI. However, it might not be appropriate to allow a foreign entity to set up a presence through the automatic route and later expand into activities which are not permitted under the automatic route, without going through a further authorisation process.
- vi) The over arching principle is that banks should not use an NBFC as a delivery vehicle for seeking regulatory arbitrage opportunities or to circumvent bank regulation(s) and that the activities of NBFCs do not undermine banking regulations. In case it is observed that any bank has not complied with the spirit of these guidelines, such non compliance should be viewed very strictly by the Reserve Bank.

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# 15

## **Digital Finance – Role in Financial Inclusion and Inclusive Growth**

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**DR. MANU K.S.**

### **Abstract**

Financial Inclusion has always been a top priority for the Government and policymakers. Financial inclusion is defined as the availability of equal opportunities to all the segments of the society to access financial services. It ensures that the rural and unbanked segments of the population are able to access these services at a reasonable cost. Technological innovation has made a huge transformation in the way financial services are delivered. Digital finance is one such powerful means of reaching the masses without the requirement of physical bank branches. Digital finance provides quick, reliable and convenient banking services through internet or mobile phones and aims to ensure universal access to financial services. As a result of improved penetration of financial services, the unbanked segments of the society get access to manage their cash flows better, increase their savings and investments, thereby giving a boost to an economy's Gross Domestic Product (GDP). By providing equal opportunities to all, digital finance plays a significant role in a countries' inclusive growth process. Keeping in view the importance of digital finance in financial inclusion and inclusive growth, this paper is an attempt to understand the concept of digital finance and its role in financial inclusion and inclusive growth. This paper also

analyzes the progress made by India in terms of financial inclusion, journey of India's financial inclusion, innovations made in digital finance in the past few years, benefits and challenges of using digital finance. The paper also offers useful suggestions to the Government and policymakers as to how the benefits of digital finance can be leveraged in order to fulfil the Government's objective of inclusive growth for the country.

**Keywords:** Financial inclusion, Digital Finance, Inclusive Growth, GDP

### **Introduction**

The pace of technological advancement and innovation is reshaping the business environment and their operating models. In this current tough competitive scenario, the only mantra to survive and succeed is 'early adoption to new technology'. Technology-driven innovation has not left even the financial sector behind. It has changed the way services were offered earlier. There has been an extensive development of the Indian financial system, out of which banking sector is considered as the most important one. Banks are the lifeline of an economy and are central to its growth. They now have a much larger role to play than in the past. Instead of offering 'conventional banking' system, banks now-a-days have started offering 'convenient banking' facilities to its customers. This has even helped them meet changing customer expectations. Universal access to financial services has been made possible due to technological advancements. Due to technological intervention, electronic banking services in rural India has helped in reaching the unbanked and excluded sections of the society. One of the factors which hindered the development of Indian economy is accessibility of financial services to all the segments of the society. People living in rural areas and those engaged in small businesses are not able to take part in the formal financial system; they rather depend upon cash and their personal networks for all their transactions. As a consequence of this, a significant sum of wealth is stocked up outside the formal financial system and prevents people from involving in those economic activities that could translate their lives.

As per World Bank report of 2017, India has the second largest unbanked population. Digital finance can offer a practical solution to this problem by reaching the untapped segments of the society. Digital channels not only offer utmost convenience to customers but also cost effective means of delivering services to the customers as compared to brick-and-mortar branches; thereby opening avenues for accessing financial services in far-flung areas. Thus, digital finance offers an exceptional growth opportunity to induct the unbanked Indians into the formal financial system. It offers 24\*7 availability of banking services throughout the year. India's efforts in increasing financial inclusion are evident from the fact that, between the year 2014 to 2017, the proportion of Indian population with an account with a financial institution increased from 52.8% to 79.8% (Source: USAID report). The efforts towards technological innovation have significantly helped in deepening the extent of financial inclusion in both public as well as private sector banks. As per the Reserve Bank of India, "Financial inclusion is the process of ensuring access to appropriate financial products and services needed by vulnerable groups such as weaker sections and low income groups at an affordable cost in a fair and transparent manner by mainstream institutional players."

Financial inclusion has always been a priority for the Government and policymakers as it not only ensures that there are equal opportunities available for all the citizens of the country but also makes sure that the financial services reach the lower income and weaker sections of the society at low cost. By bringing the poor and weaker sections of the society, they are inducted into the formal financial system and can access financial products and services and have their own deposits, savings and credit facilities. It helps in mobilizing savings through effective investment thereby promoting economic growth and development of an economy. Thus, the basic aim of financial inclusion is to ensure the availability of financial services at an affordable cost for all, specifically for the unbanked and underserved segments of the society. Globally, financial inclusion is considered as a vital indicator of development and efficiency of

any economy. It helps in bringing about financial stability among lower income groups who did not have access to formal financial products and services.

The Central Bank of the country, RBI played a pivotal role in increasing the level of penetration of formal banking services to the unserved and underserved sections of the society for achieving the objective of inclusive economic growth. As defined by the World Bank, inclusive growth refers to both “the pace and pattern of growth which are considered interlinked and therefore in need to be addressed together.” Pace and pattern both are considered as equally important for achieving high sustainable growth, rapid and sustained poverty reduction, creating employment opportunities and bridging income inequalities. The basic theme of India’s 11<sup>th</sup> Five year Plan (2007-12) was ‘Inclusive Growth’ A substantial amount of resources had been directed during this period towards promoting rural infrastructure, equality of education and health services. Inclusive growth focuses on sustained economic growth and aims on productive employment.

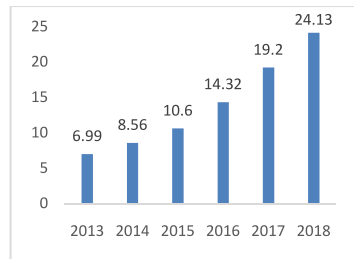
The use of technology has made it possible to increase the outreach and deepen the extent of availability of banking services at a reasonable cost. The objective of making financial services available via digital platforms is to contribute to the objective of financial inclusion in developing economies. (United Nations, 2016) The level of penetration of financial inclusion and its effect on the economic growth is analysed by the increase in the number of bank branches, usage of plastic money such as credit and debit cards, bank deposits, ATM penetration, footfall per branch. (Joseph and Varghese, 2014; Ravikumar 2013). The below table presents progress report of Financial Inclusion in India.

**Table 1: Financial Inclusion Plan: A Progress Report**

Particulars	March'2010	March'2018	March'2019
Banking Outlets in villages	67,694	5,69,547	5,97,155
Basic Savings Bank Deposit Accounts (Total amount in billion)	55	1,121	1,410
<b>Kisan Credit Card (KCC) Scheme</b> –facilitating providing of bank credit to farmers for their cultivation needs (total amount in billion)	1,240	6,096	6,680
<b>General credit cards</b> (total amount in billion)	35	1,498	1,745
Pradhan Mantri Jan Dhan Yojna ( <i>source: Ministry of finance, Government of India</i> ) Total number of accounts opened	---	348723478	381833453
Pradhan Mantri Jan Dhan Yojna ( <i>source: Ministry of finance, Government of India</i> ) Number of Rupay debit card	---	272601501	291746655

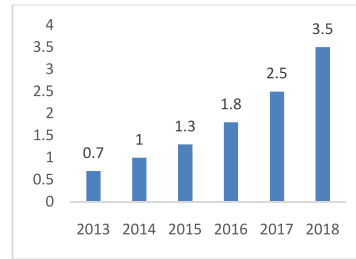
*Source: RBI Website*

Table 1 clearly shows the efforts put in by RBI are quite evident from the fact that since the year 2010, there has been an increase in bank branches, savings accounts, Kisan credit cards, other general credit cards and number of accounts opened and debit cards issued under Pradhan Mantri Jan DhanYojna considerably. Figure 1 and 2 extracted from RBI website also clearly shows an exponential growth in Indian digital payments from the year 2013 to 2018, indicating the persistent efforts made by the Government in this area.



**Figure 1**

Figure 1 shows Indian digital payments volume of transactions (mn)



**Figure 2**

Figure 2 shows Indian digital payments value of transactions (USD tn)

Source: RBI.

### India’s Financial Inclusion Journey

India’s digital finance inclusion story has been realized due to multiple things happening in parallel. Government’s vision and efforts towards bringing large number of under privileged citizens’ into formal banking system has been equally supported by innovative start-up culture of India’s private sector. Let’s focus on Indian government’s initiatives first. It all started around 11 years ago in 2009 with launching of a gigantic exercise of providing biometric identity to all the citizens - Aadhaar programme. Unique Identification Authority of India (UIDAI) is an agency of the Government of India in charge for implementing this programme. With more than 125 crore Aadhaar cards issued since 2009, this forms the single most important feature of India’s digital finance inclusion journey. The e-KYC in place of - manual KYC process was another step towards this direction which

reduced transaction costs for service providers as well as greater access to bank A major role towards strengthening the financial inclusion journey was another initiative taken by the Government towards building digital financial infrastructure, the Pradhan Mantri Jan Dhan Yojna (PMJDY), a scheme for citizens of India for opening a bank account with no hassles and no requirement of a minimum bank balance. As per Government data, 37.3 million bank accounts have been opened under this scheme that accounts for nearly 80% population. This also means that 20% of the population is still undersaved and unbanked. Another benefit of this scheme was reducing the gender gap in account access between men and women from 20% in 2014 (63% for men and 43% for women) to 6% in 2017 (83% men and 77% women). (Source: USAID Report'2019). PMJDY initiative undoubtedly helped in increasing the number of bank accounts for low income households but a challenge observed after the scheme was dormant accounts with hardly any deposit transactions months after account opening.

Thus, digital finance has become the most powerful tool for financial inclusion. Financial services delivered via internet and mobile and digital finance payments are helping to transform the lives of common man, business houses across the developing world, thereby boosting India's GDP and making the dream of financial inclusion a reality. Research proves countries with deeper financial inclusion tend to have a stronger economic growth, higher GDP and lower income inequality.

### **Innovations in Digital Finance during the last five years**

Technology led process optimization is enabling cost efficiencies with innovations in both front-end and back-end operational processes. In India, digital payments' transaction value is estimated to grow at a compound annual growth rate of 20.2% from USD 64.8 billion in 2019 to USD 135.2 billion in 2023 (Source: PwC Report, 2019). Financial innovation means creating new financial products and services not only for a seamless customer experience but also in optimizing product and process design. New financial products include microfinance, peer to peer lending, crowd funding, merchant cash

finance and pay later finance. The key technologies that are used in the financial sector are block chain, Artificial Intelligence, machine learning, cloud computing and Internet of things. Financial service industry is cited as the most advanced industry in terms of block chain technology adoption i.e. 46% followed by energy, healthcare, entertainment and so on. Globally, China is the market leader in terms of fintech adoption (69%) followed by India (52%). The rate of adoption of banks towards digitization and innovative technologies is accelerating. Various innovative ways of doing digital payments have evolved in the recent times which have changed the way banking services used to be earlier. The use of physical cash and cheques has drastically gone down in the recent years, especially after demonetization.

**a) Mobile wallets:** Mobile wallets are a convenient and easy way of making payments via mobile devices. The mobile wallet app can be installed on a smartphone from playstore and the transactions are done using Near-field communication (NFC). The most commonly used mobile wallets are Paytm, ICICI pockets, State bank buddy, phonepe.

**b) Immediate Payment Service (IMPS):** Immediate Payment Services are another inter-bank electronic fund transfer using mobile phones and is available throughout the year including holidays. IMPS can be used for funds transfer services and merchant payments and is managed by National Payments Corporation of India.

**c) Unified Payment Interface (UPI):** This system was launched in the year 2018 and is regulated by the Reserve Bank of India. It is a real time inter-bank payment system which facilitates transfer of funds from one bank account to the other. UPI offers more ease and convenience as compared to IMPS; customers are relieved of the burden of filling in lengthy payee details and there is no waiting period for making a fund transfer.

**d) Aadhar enabled Payment Services (AePS):** To further encourage cashless economy after demonetization, the Government facilitated Aadhar enabled Payment Service which allows the customers to use their Aadhar card number with fingerprint

authorization and one-time password and facilitates transactions including balance enquiry, cash withdrawal and deposits.

**e) Electronic Clearing Service (ECS):** ECS is an electronic and paperless mode of fund transfer to a large number of beneficiaries by a single debit to the customer's account and is used for making payments like interest, dividend etc. and also for paying utility bills.

**f) Micro ATMs:** Micro ATMs are nothing but a card swipe machine through which banking transactions are done at PoS terminals. The benefit of these machines is that it is quite handy/portable and facilitates cash deposit, withdrawals and fund transfer facility. These micro ATMs are developed mainly to support financial inclusion in rural areas. Thus these machines help to disburse cash in locations where bank branches cannot reach.

**g) Unstructured Supplementary Service Data (USSD):** Various banks in India are giving USSD facility to its users without a smartphone to use mobile banking dialing \*99# code with an objective to allow financial inclusion of underbanked sections of the society.

These digital payments enable business houses to keep an electronic track of their transactions, cash flows, sales and expenses and thereby monitoring/improving their profitability becomes easier for them.

Another important area where technological innovations have penetrated in the financial service sector is the 'Digital lending.' Digital lending may be defined as the use of online technology to directly match lenders with borrowers in order to provide speedy and faster loan services. Loans are offered and disbursed through digital channels and the lenders use digitized data to make informed credit decisions. The most common digital lending platform is the peer-to-peer (P2P) lending or crowd lending, that offers services online with lower overhead costs than traditional banks. The basic information and e-KYC is done through Aadhar and the customer information provided by him. The creditworthiness of the borrower is automatically calculated via algorithms which are computed based on social media behaviour, online discussions and so on and ultimately based on the report, instant disbursement of loan is done. Faircent is India's first

RBI registered NBFC P2P lending platform which provides a virtual marketplace where borrowers and lenders interact directly. It provides an opportunity to the borrowers to get their requirements funded at feasible rates and lenders to get a viable return on their investment. Similarly, Capital Float provides a digital online platform that funds working capital requirements of SMEs without any collateral and hassle free documentation. Thus, these platforms make it possible to avail hassle free loans even in the absence of a traditional credit record of a consumer.

### **Benefits of Digital Finance**

The Consultative Group to Assist the Poor (CGAP) defines digital finance as, “digital access to the use of formal financial services by the unbanked, excluded and underserved population.” Digital finance not only offers benefits to the citizens of the country but also to the financial institutions. It helps bankers to save their costs by reducing manual intervention, reduction in transaction costs, paperwork and thus requirement to maintain less bank branches. With deeper financial inclusion, people who were previously having no access to formal financial services will be able to have bank deposits, save their earnings, establish their businesses, access credit facilities, which would ultimately contribute to reduction in poverty and thereby promote economic development. Moreover, digital financial services offer secure, convenient, hassle free and cost effective banking services to rural poor households. The importance of financial inclusion in boosting an economy’s GDP has been widely discussed in literature (Ozili, 2018; Durai et al, 2019, Ravikumar et al, 2019). Mc Kinsey report in September’2016 stated that digital finance would enhance the GDP of emerging/developing economies by 3.7 trillion dollar by the year 2025. Financial inclusion and economic growth move hand-in-hand. As per Raghuram Rajan, the previous RBI Governor, “Financial inclusion broadens the resource base of the financial system by developing a culture of savings among large segment of rural population and plays its own role in the process of economic development. It facilitates efficient allocation of productive resources.”

Not only this, digital finance has long-term positive effects on banks' performance. From regulatory and Government perspective, adoption of digital financial inclusion has significantly reduced the circulation of bad currency. Overall, it can be said that digital finance promotes the welfare of the individuals, ease of use, faster financial decisions, convenient access to a variety of financial products and services, reduced transaction costs and manual intervention for financial institutions.

### **Effect of Digital Finance on Financial Inclusion and Inclusive Growth**

Digital finance helps in promoting financial inclusion and inclusive growth not only at the micro level but at the macro level too. Fintech service firms are completely transforming the way in which financial transactions are conducted among service providers and consumers on a daily basis. An example is calculation of credit scores of a customer who intends to borrow loan from a bank; traditionally, it was done manually by financial institutions whereas with machine learning algorithms and data analytics, this work is done within no time, thereby leading to a faster disbursement of loans and thereby greater access to credit facilities. If digital platforms are user friendly, individuals would be able to take greater advantage of digital financial services thereby leading to more deeper financial inclusion. Enhanced financial inclusion will lead to fulfilment of working capital requirements of rural farmers, reduce their indebtedness, lead to innovation and entrepreneurship as well as promote equitable growth in urban as well as rural areas. As quoted by K. Ellis, Lemma & Rud, 2010, "Greater financial inclusion provides poor households with opportunities to build savings, make investments and access credit." The availability of banking and financial services to the rural households will enable inclusive growth.

### **Indicators to measure Financial Inclusion**

There are several indicators to measure the extent of financial inclusion, out of which the most significant ones developed by RBI are: (Chattopadhyay, 2011)

- a) Penetration (number of adults having a bank account), b) availability of bank branches (number of bank branches per 1000 population) and c) usage (measured as outstanding credit and deposits).

These three measures help in a comprehensive understanding of the extent of financial inclusion in a country. An increase in the number of accounts, bank branches and high credit deposits ratio indicates deeper financial inclusion. The progress made against these measures also help in comparing the levels of financial inclusion across different years and different states.

### **Challenges for adoption of digital finance**

The infrastructural and technological challenges posed by digital finance cannot be neglected. In order to leverage the benefits of digital finance in financial inclusion, the associated risks with them must also be addressed with precision. Reasons like lack of trust, security, problems with internet, network coverage, low literacy levels, knowledge and understanding of using technology can pose a challenge in the inclusive financial growth of a country. Small scale businesses hesitate to accept payments in digital form due to high bank fees and establishment costs. Thus, these fee-based platforms would benefit high and middle income individuals more than the rural, poor and low-income individuals. In some rural areas, people do not have supportive infrastructural facilities, reliable electricity connection, availability of smartphones, education, confidence in holding physical cash are few other reasons why digital finance penetration in rural areas becomes challenging.

### **Suggestions for leveraging the benefits of digital finance**

The Indian policy makers are putting in consistent efforts to build a more financially inclusive system as it acts as a key facilitator/backbone to boost the growth of an economy. To build a strong digital finance ecosystem, Government and financial institutions have a crucial role to play. The Government must ensure and promise safety of customer details and transactions and put a proper regulatory system in place. Financial institutions must ensure that the apps must be simple

and user friendly which should focus on a satisfied customer experience. They must look at financial inclusion as a business opportunity as well as social responsibility. Self-help groups and microfinance institutions have an equal role to play like banks in improving the extent of financial inclusion. Another initiative by the RBI in January' 2006 for enhancing banking outreach was the engagement of Bank Correspondents (BC) who can help rural population open their bank account and avail banking services at an affordable cost. The existing BC model has to be strengthened by involving more locally settled people like school teachers, ex-service employees, postmasters for providing savings and remittance services. (Chattopadhyay, 2011). By accomplishing the objective of financial inclusion, it will be easier to creating economic opportunities for the poor, promote entrepreneurial innovations, improve the standard of living not only at the individual level but at the national level.

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# 16

## **Digital Empowerment and Transformation in Higher Education**

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SANTESHWAR KUMAR MISHRA

### **Abstract**

Education is as old as existence of human imprints on this earth. Learning starts in the womb of the mother. Bhagwad Gita “Nothing is more purifying on earth than wisdom” ablaze the importance of education in Indian history since then. As a student, classes were monotonous in the olden days. It was just ‘copy down the content’ instruction from the teachers with very less interaction between the teachers and students in class. But now we have moved from knowledge age to information and then to communication age. Fortunately now it is not so, now teaching and learning has become an enjoyable activity. Today’s era is an era of technology. Technology can be the knowledge of techniques, processes, and the like, or it can be embedded in machines which can be operated without detailed knowledge of their workings. We can sense technology everywhere in education: classroom, playground, library, laboratory etc.; meaning, all over the educational climate. Digital revolution known as Third Industrial revolution, is switching from mechanical and analogue electronic technology to digital electronics which aroused around the late 1950’s to the late 1970’s with the adoption and escalation of digital computers and digital record keeping that continues to the present day. There is no doubt that technology based education can enhance students’ cognitive performance and achievement if proper

educational approach is adopted. Computer- based education has a great potential in delivering teaching learning material. But there remains limited evidence to show that technology and online learning are improving learning outcomes for most students at higher education level. The Digital India drive is a dream project of the Indian Government which was launched on 1<sup>st</sup> July, 2015 by Prime Minister Mr. Narendra Modi to remodel India into a knowledgeable economy and digitally empowered society, along with good governance for citizens with an objective of providing participative, transparent and responsive government. Digital life is analysis as well as the study related to reconsideration of human-computer interactive experience. Digital India imagines, universal digital literacy and approachability for all digital resources for citizens by ensuring that the resources and services are accessible in regional languages and providing digital scaffold to participatory governance ensuring convenience, like making all government certificates and documents available on the Cloud with portability. While proceeding on the path of attainment of the goal of Digital India our educational system is encountering various challenges. The objective of this paper is to know the impact, challenges of digital India and suggestions for improvement in the quality of higher education due to its implementation.

### **Introduction**

Education is as old as existence of human imprints on this earth. Learning starts in the womb of the mother. Bhagwad Gita “Nothing is more purifying on earth than wisdom” ablaze the importance of education in Indian history since then. As a student, classes were monotonous in the olden days. It was just ‘copy down the content’ instruction from the teachers with very less interaction between the teachers and students in class. But now we have moved from knowledge age to information and then to communication age. Fortunately now it is not so, now teaching and learning has become an enjoyable activity. Today’s era is an era of technology. Technology can be the knowledge of techniques, processes, and the like, or it can be embedded in machines which can be operated without detailed knowledge of their workings. We can sense technology everywhere

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documents available on the Cloud with portability. While proceeding on the path of attainment of the goal of Digital India our educational system is encountering various challenges. The size and adversities of our country offer challenges and opportunities in tandem. There are many roadblocks in the way of its successful implementation like illiteracy, poor infrastructure, cyber crime, mindset of people, proper policy making, lack of co-ordination, low internet speed etc. The objective of this paper is to know the impact, challenges of digital India and suggestions for improvement in the quality of higher education due to its implementation.

### **REVIEW OF RELATED LITERATURE**

Review of Literature provides the information of research work already done by the researchers relating to the topic of study. The work related to the study may support or conflict with present results. A number of research papers and articles provide a detailed insight about the role of digital India and the implications of this project in India. The findings from the literature are presented below:

Jain [1] in his study concluded that some projects are under various stages of implementation which may require some transformational process to achieve desired objectives. Sharma [2] made a study and described that in this project every civilian has a bright prospect to transform the lives in many ways that were hard to envision just a couple of year's ago. It was concluded that more prospects will open for the youth that will boost the nation's economy. Quibria and Tschang [3] in their study states that Governance is well recognized as an area where IT can have a positive impact. There are two broad classes of uses of IT for improved government functioning. First, back - office procedures can be made more efficient, so that internal record- keeping, flows of information, and tracking of decisions and performance can be improved. Second, when some basic information is stored in digital form, it provides the opportunity for easier access to that information by citizens. The simplest examples are e-mailing requests or complaints, checking regulations on a web page , or printing out forms from the web so that a trip to pick up the forms from a physical office can be avoided. More complicated

possibilities are checking actual records, such as land ownership or transactions. Still more complicated are cases where information is submitted electronically by the citizen, for government action or response. The use of IT can increase transparency and accountability, simply by requiring information, such as basic complaints, to be logged completely and systematically. Kapur and Ramamurti [4] in their study argue for even broader impacts, extending to industries such as biotech, chemicals, media and entertainment, and construction all require knowledge services that go beyond the basic definition of IT-enabled services, and have all benefited from the change in management approach wrought first within the IT sector.

### **DIGITAL INDIA AND HIGHER EDUCATION**

The vision of Digital India programme aims at inclusive growth in all sectors including education. Higher education is an optional final stage of formal learning that takes place after secondary education. Impact of Digital India on Higher education can be tremendous as Digital India brings-

- Innovative methods for enhancing teaching learning process
- Innovations in improving the administration of institutions.
- Measures for promoting Research.
- Major efforts at involving with the community for improving livelihoods.
- Imparting Digital Education

### **INNOVATIVE METHODS FOR ENHANCING TEACHING LEARNING PROCESS**

Knowledge coupled with creativity and innovation is the most powerful currency that Universities create and contribute to society and the humankind and define higher education's purpose, as we address problems that have no borders in an increasingly flat world. In India, the numbers attending universities doubled in the 1990s, and the demand continues to surge. India's rich demographic dividend may soon be a disaster if the need of at least 800 new institutions of higher education is not met by 2020 in order to raise the age participation rate from 12.4% to 30%.

To be a Door Opener for the students in a rapidly globalizing world, it is important to follow the emerging Technological Trends that are shaping the future educational landscape.

1. **Big Data** - Big Data, combined with predictive analytics, has great potential to personalize learning and bring students up to speed in exactly the areas where they're falling behind.
2. **Extreme BYOD** - The driving force behind the movement of bring your own device (BYOD) is that actually "everybody wants their own individualized workspace." As educators we need to support students on their BYOD possessions, also helping them make distinctions between their real lives and their digital lives.
3. **Transmedia** - Transmedia storytelling is underutilized in education, as the greatest portal into the multi-universe we have. If used properly, transmedia would give educators and students the opportunity to tell stories in a variety of ways and span the gap between critical thinking and creative thinking, forming a new and exciting "critical thinking."

### **INNOVATIONS IN IMPROVING THE ADMINISTRATION OF INSTITUTIONS**

**Autonomy:** The purpose of education is not just making a student literate but to ensure and adds values, rationale thinking, knowledge and self sufficiency.

**Technology Adoption:** Evidently enough latest interactive teaching is changing the role of education with the introduction of multimedia, and an innovative effort of an institution helps in its academic excellence. Thus decentralized proper planning and execution of these innovative and best practices will not only add to the skills, knowledge and personality development of the faculty but also of the students and make them employable.

**Academic flexibility:** Academic flexibility is necessary for improvements in course content, updating and practice based teaching and learning coupled with good infrastructure and bandwidth access along with unfettered international collaborations, level playing field for public and private universities and institutions as also equity in funding will be required to drive growth in the long term.

## **MEASURES FOR PROMOTING RESEARCH**

Let us examine Research as individual interest and manifestation of innovation and values, assumptions and perceptions instilled as researchers even though subtle, but mostly apparent with the impact factor based assessments, yet in both cases the effects are far reaching. The principles for promoting research and freedom will primarily focus on students as learners, respect and adjust for diversity, provide context-specific information and support, facilitate meaningful internationalization, dialogue and engagement, adaptable, flexible and responsive approach to experimentation and evidence in a globalised world.

To ensure accessibility to international research and for accountability, to capture core ideas from the published research, be specific enough to guide researchers in their practice, flexibility to accommodate the variety of different learning and teaching contexts within which teachers and learners work, for example: offshore, onshore, online, in large and small groups.

## **MAJOR EFFORTS AT INVOLVING WITH THE COMMUNITY FOR IMPROVING LIVELIHOODS**

Strategic Planning for comprehensive community and societal involvement is much more than adopting new technology. Also at Universities we have to urgently think about the issues, problems and community solutions as also larger global ecosystem, adopting best practices, forecasting the emergence and impact of new technologies, and quickly adapting to the rapid changes. The critical efforts necessary are:

1. Assessing and measurement on specific livelihood benchmarks across all key areas, should include research and information fluency, communication and collaboration, critical thinking and problem solving, and creativity and innovation as the way forward to a future ready education.
2. Our education needs to evolve, so as to prepare to the needs of our future workforce, and the skills needed to drive this continue to change through integration with national priorities such as Skills India, Digital India, Swach Bharat, Start Up India and Smart Cities initiatives.

3. Professional development plan for community future. After integrating national priorities such as the Skill India initiative we have to get the leadership infrastructure in place as teaching and learning outcomes should map the end goal of student-led learning.
4. Ensure equitable access for the community to technology and information. Ensuring and providing students with equal access to information will not only shrink the digital divide but also support personalized learning and meeting community demands.
5. Evaluation and measurement of student progress in future-ready skills. Evaluation and assessing of students' progress in mastering future-ready skills is a key component of building a successful future-ready livelihood initiative.

### **IMPARTING DIGITAL EDUCATION: EMERGING PARADIGMS IN HIGHER EDUCATION**

Studies on digitization and internationalization of higher education are of prime interest to policy makers, educationists, and leaders. Studies based specifically on the internationalization in the HE sector have been performed in numerous regions of the world: Alamri (2011) in Saudi Arabia, Liu and Dai (2012) and Chen and Huang (2013) and Mitra (2010) in India, which shows the importance given by researchers and reflects the respective nation's keenness to digitize and internationalize.

### **CHALLENGES**

More than two year has been passed since Digital India mission has been announced but it is facing multiple challenges in successful implementation. High level of digital illiteracy is the biggest challenge in the success of digital India programme. Low digital literacy is key hindrance in adaptation of technologies. According to ASSOCHAM-Deloitte report on Digital India, November, 2016, around 950 million Indians are still not on internet. Making Digital India scheme known and creating awareness among common masses about its benefits is also a great challenge. It is a mammoth task to have connectivity with each and every village, town and city. Connecting 250000 Gram

Panchayats through National Optical Fibre is not an easy task. The biggest challenge is ensuring that each panchayat point of broad band is fixed up and functional. It is found that 67% of NOFN points are non functional even at the pilot stage. A key component under this vision is high speed of internet as a core utility to facilitate online delivery of various services. India has low internet speed. According to third quarter 2016, Akamai report on internet speed, India is at the 105th position in the world in average internet speed. This rank is the lowest in entire Asia Pacific region. According to ASSOCHOM-Deloitte report, the issue pertaining to taxation and regulatory guidelines have proved to road block in realizing the vision of Digital India. Some of the common policy hurdles include lack of clarity in FDI policies have impacted the growth of ecommerce. The biggest challenge faced by Digital India programme is slow and delayed infrastructure development. India's digital infrastructure is comprehensively inadequate to tackle growing increase in digital transactions. India needs over 80 lakh hotspots as against the availability of about 31000 hotspot at present to reach global level, according to ASSOCHOM-Deloitte report. The private participation in government projects in India is poor because of long and complex regulatory processes. Many request proposals issued by government are not picked up by competent private sector organizations since they are not commercially viable. Currently over 55000 villages remain deprived of mobile connectivity because providing mobile connectivity in such locations is not commercially viable for service providers, ASSOCHAM-Deloitte report pointed out. There is a wide digital divide between urban and rural India. Till now funds have not been deployed effectively to meet the cost of infrastructure creation in rural areas. India has 1600 languages and dialects. Non availability of digital services in local languages is a great barrier in digital literacy. Fear of cyber crime and breach of privacy has been deterrent in adoption of digital technologies. Most of the technology including cyber security tools is imported. We do not have requisite skills to inspect these for hidden malware's. We have no top level experts for these high end jobs at present. According to NASSCOM, India needs 1 million trained cyber security professionals by 2025. The current estimated number is 62000.

## **SUGGESTIONS**

Digital India campaign can't be successful on its own. Policy changes are needed to make digital India a reality. Digital literacy is first step in empowering citizens. People should know how to secure their online data. To make this programme successful, a massive awareness programme has to be conducted. There is pressing need to educate and inform the citizens, especially in rural and remote areas, about the benefits of internet services to increase the growth of internet usage. Digital divide needs to be addressed. Manufacturing content is not government's strength. This mission needs content and service partnerships with telecom companies and other firms. PPP models must be explored for sustainable development of digital infrastructure. Private sector should be encouraged for development of last mile infrastructure in rural and remote areas. To encourage private sector, there must be favourable taxation policies, quicker clearance of projects. The success of digital India project depends upon maximum connectivity with minimum cyber security risks. For this we need a strong anti cyber crime team which maintains the database and protects it round the clock. To improve skill in cyber security, we need to introduce cyber security course at graduate level and encourage international certification bodies to introduce various skill based cyber security courses. There is need for effective participation of various departments and demanding commitment and efforts. Various policies in different areas should support this goal. For successful implementation, there must be amendments in various legislations that have for long hindered the growth of technology in India.

## **CONCLUSION**

The higher education landscape will change more than ever in the next ten years than it has in the previous one hundred. Internet revolution and Technology has challenged traditional assumptions about learning, not only the proliferation of MOOCs and vocational training programs but also Virtual Reality and BYOD has led to new choices for aspiring students.

Digital Education is now a global phenomenon, with vast numbers of students seeking to go for it and these shifts all points to

one truth: rapid globalization and enormous flood of knowledge across the world and an increasing number of choices about what, how, and where. The vision of digital India is grand. It is a huge step towards building a truly empowered nation. If successful, it transforms citizen access to multimedia information, content and services. However the goal is still far away since most of the nine pillars of digital India mission are facing serious challenges in implementation. It is imperative that focused persistent attention must be given to each and every pillar so that this programme does not end up in failure. In fact we all should be mentally prepared for the change and be ready to face the challenges in implementing this policy, only then it would be possible to make this vision a reality.

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# 17

## **Economic Development of India and the Roles of Mass Media**

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SUBIR SINHA

### **Abstract:**

India a developing nation focusing on economic development from the very beginning of its independence. India gets its economic benefit from various sectors among them agriculture, industries and service sectors plays a significant role. Agriculture is one of the vital sources of economy from the early days which contributes a major percentage in the nation's GDP. Industrial sector and service sector also serve as a major contributor in the growth of nation's GDP. However mass media play a supportive role in all these sectors. Mass media act as a promotional tool for these sectors. It provides valuable information to the user and consumers which attract them from various section of the society. They help in the survival of these sectors. Mass media expanded the economical market globally. It is a tool of progress which are used by our society for the development and betterment of our society.

### **Key words:**

Mass media, Economy, GDP, LPG, Agriculture, Industries, Service, Advertising

### **Introduction:**

Mass media and economical development are the two essential factors of the twenty first century. Mass media and economical

development are closely related to each other. The century has become the witness of the rise of mass media across the globe. Mass media are the media which disseminates information, and data among the masses within a very short span of time. Mass media may be refers as a diverse array of media technologies that reach a large audience via mass communication. Mass media is recognised as a global factor. It has brought the entire globe under a common shed and accelerated the process of globalisation. It has entered almost in every sector and proved its strength and calibre. Today mass media is not only a subject of entertainment, but also it provides valuable information and various important data. It has proved its success in various fields and economical developments are also in its main focus. Mass media is also responsible for economic development. Economic development is vital for every developing nation. Economic development provides financial security, peace and stability along with proper infrastructure and communication system. Economical development can be achieved when the Gross Domestic Product (GDP) is higher. The GDP of a nation depend mainly on agriculture, macro and micro level industries, service sector, Advertisement, income from fixed capital etc. If these sectors get succeed to survive and gain profit, GDP will become higher. Mass media plays a supportive role in the development of these sectors. Mass media help to gain the popularity and goodwill which attract the consumers from various section of the society. In the era of globalization the impact of various media not only encircled within information and entertainment but also it has started to put effect directly on the economic, cultural and social system of India.

Mass media expanded the economical market globally. In India, agriculture sector were in prime focus for the national economic developments from the very early days. Mass media serving the agricultural sector on the one hand by giving a lot of information to the farmers related to farming whereas on the other hand it creating a demand for the agriculture globally. The importance of agricultural sector for economic development is well recognised. The India government after 1991 has adopted the policy of LPG (Liberalisation, Privatisation and Globalisation) to enhance national economic development and with the rise of Foreign Direct Investment (FDI),

India has started to focus on its economy from a capitalist and republican point of view. Through these policies and economical reforms India has started to focus on Industrial development for the benefit of national economy. The multinational companies no longer remaining within a single boundaries and India is asking for more and more investment, for a stronger economical base. Foreign companies such as Nestle, Coca Cola, Pepsi, Samsung, Philips started to launch their products and service and subsequently started to advertise their products and services in various media. Foreign companies as well as Indian media both started to depend on each other. The mass media is promoting several companies' corporate image and identity as well as the products on behalf of huge monetary gain. This phenomenon is acting as a reciprocal process which supporting both the Indian economy as well as the Industries. Nestle India in one of his press conference disseminate the information of their high investment plan where they unveiled its capital expenditure would be of Rs 600 crore in 2009 and their Chairman and Managing Director , Mr.Martial Rolland opined "The investment would go in new research and development, advertising and capacity building" – source (Business Line 27.Sept.2008). These investment supporting in the growth of national economy.

### **Mass Media and Agriculture:**

Agriculture and Economy are the backbone of human civilization. The terms 'Agriculture' and 'Economic Development' are closely related to each other. Always it has been proved that Agriculture is vital for both developing and developed countries. Agricultural sector always served a key role in the process of economic growth. It is diaphanous that increased agricultural output and productivity tend to contribute substantially to an overall economic development of a nation. It is highly necessary to give a prime focus on the agricultural sector for the economical development of the nation. Agriculture process is not only helping in economic development but also in crop cultivation and its flow in the markets. <sup>1</sup>Agriculture and allied sectors like forestry, logging and fishing accounted for 17% of the GDP. The sector employed 49% of its total workforce in

2014. Agriculture accounted for 23% of GDP, and employed 59% of the country's total workforce in 2016. The states of Uttar Pradesh, Punjab, Haryana, West Bengal, Madhya Pradesh, Andhra Pradesh, Telangana, Bihar, Gujarat and Maharashtra are key contributors to Indian agriculture. These states are producing maximum amount of crops for India and supporting to produce a major GDP.

However in the development of agricultural sector, mass media and rural communication system is playing a vital role. Mass media on the one hand giving a lot of information to the farmers related to farming and creating a demand for the agriculture globally whereas rural Communication is a multi dimensional and an interdisciplinary approach with a multiple target related to social, economic and agricultural development of the rural sectors. It is giving rural India a new dimension. It is gradually changing the farming pattern and life style of rural India; farmers are getting well informed about various farming pattern, seeds, fertilizers, chemicals, pesticides, weather forecast etc from various call centres. Government are also broadcasted various advertising related to various policies, fertilizers, pesticides etc. <sup>2</sup>Kishan Call Centre system of The Department of Agriculture and Cooperation under Ministry of Agriculture is one of the renowned rural projects of recent days. The system is functioning from January 2004 with the help of Telecommunication Consultants India Ltd (TCIL), under this scheme farmer can call from any part of India to a toll free number for necessary information about farming and agriculture. <sup>3</sup>'Kerala Kishan' is another project where various data about agriculture and farming were disseminated among the farmers by a central processing unit with the help of internet, telephone landline and mobile telephony<sup>4</sup>. These project and technological system are ultimately helping the farmers and rural people to promote their economy. The rise of global agricultural development has change the need pattern of information among the farmers. They are searching for information related to modern agronomy and intensive farming. The information has changed the agricultural pattern and pushing the farmers toward greater benefits which ultimately help to raise the GDP of the nation.

**Mass Media and Industries:**

Industrial development is necessary for modernisation of society and for the development of national economy. Industry is viewed as a leading sector for national economic development. We can have economies of scale by applying advanced technology and division of labour and scientific management. So production and employment will increase rapidly. This will bring economic growth and capital formation. Industrial development helps in the rapid growth of national and per capita income. Mass media is also serving a significant role in various industries. Mass media performs various functions and help in the expansion and easy work flow of the business. The importance of mass media is never ignored by the modern business industries. They are giving full attention on information culturing through various media. They are desperately disseminating various messages among the consumers and to the society at large. The lack of information sharing may cause a severe negative effect on business. Advertisement through mass media plays a key role in this Promotional process. Advertisement is a form of information or data about a product, goods or service disseminated with the help of mass media by some agency on behalf of some company or industries for promotional use.

Several industries are using various tools and media for the dissemination of information, data and message. Their main motive is to inform the consumers and the public who are associated with the industries along with the society at large. They propagate their centralised information and data through various forms of mass media such as newspaper, magazine, radio, television, electronic mail, social media etc. Along with these they also use notice, corporate film, leaflet, brochure, house journal, press conference and press release for the dissemination of information. The use of social media and internet for the purpose of information dissemination making them a global vendor, through social media they reached global markets and exposing their service and goods in front of the global consumers. Mass media is serving a vital role in the expansion of the business, to maintain a cordial and healthy relation with the employee and the public who are associated with it. Information and data culturing are helping the

corporate companies from numerous ways and providing a support for the expansion of the business.

**Mass Media and Service:**

Service sector are also supporting in the progress of national economy. It is one of the largest contributors in India's GDP. <sup>4</sup>The services sector provides employment to around 27% of the workforce. Among the major service sectors - banking and financial service, Insurance, aviation and Information technology plays a significant role. The financial services industry contributed \$809 billion (37% of GDP) and employed 14.17 million people (3% of the workforce) in 2016, and the banking sector contributed \$407 billion (19% of GDP) and employed 5.5 million people (1% of the workforce) in 2016. In Insurance sector India became the tenth-largest insurance market in the world in 2013, rising from 15th in 2011. At a total market size of US\$66.4 billion in 2013, it remains small compared to world's major economies, and the Indian insurance market accounted for just 2% of the world's insurance business in 2017. India's life and non-life insurance industry collected <sup>1</sup> 6.10 lakh crore (US\$86 billion) in total gross insurance premiums in 2018. Life insurance accounts for 75.41% of the insurance market and the rest is general insurance. In case of civil aviation sector, India is the fourth-largest civil aviation market in the world recording air traffic of 158 million passengers in 2017. The market is estimated to have 800 aircraft by 2020, which would account for 4.3% of global volumes, and is expected to record annual passenger traffic of 520 million by 2037. Information technology and Business process outsourcing are another important service sector. It is also considered as the fastest growing sectors, having a cumulative growth rate of revenue 33.6% between fiscal years 1997-98 and 2002-03, and contributing to 25% of the country's total exports in 2007-08. The information technology (IT) industry in India consists of two major components: IT Service and Business process outsourcing (BPO). The sector has increased its contribution to India's GDP from 1.2% in 1998 to 7.5% in 2012. According to NASSCOM, the sector aggregated revenues of US\$147 billion in 2015, where export revenue stood at US\$99 billion and domestic at US\$48 billion,

growing by over 13%. <sup>5</sup>India has become a major exporter of IT services, Business Process Outsourcing (BPO) services, and software services with \$154 billion revenue in FY 2017. Now a day IT industry is becoming to be the largest private-sector employer in India.

Mass media like newspapers, radio, and television performing a significant role in dissemination of information of these servicing sectors. They use various advertising, press release, and press conference for dissemination of their various messages. Through mass media they issue various notice, job vacancy advertisement, tender, public service advertisement. Mass media while acting as a promotional tool promotes these servicing sector.

#### **Mass media and Advertising:**

Advertising Industries is also acting as a major contributor in the development of national economy. Advertisement is a form of information or data about a product, goods or service disseminated with the help of mass media by some agency on behalf of some company or industries for promotional use. It is a part of marketing communication. Advertising is actually a creative work of art through which an advertiser advertises his goods, product or service. It is a technique through which an advertiser displays his product, goods or service in front of the consumers. It is the most modern form of displaying technique. It is the process through which an advertiser or a business industry tries to deliver information about their manufactured goods and service in a persuasive way to attract consumer's attention which ultimately persuade them to buy the product or service. Advertising are helping to attract not only the consumers but also the stockists, dealers, middle man and retailer which helping in quick turn over in the market. Every stockists, dealers and retailer generally hold the stocks and Advertising helping by putting these entire ranges of products to come under the focus of consumers, which quickens the pace of sales and ultimately help in quick turnover. It directly helps in gaining the profit. It is acting as a selling force and providing the advertiser with profit and various other benefits. Quick turnover not only give benefit to the advertiser but also it play a significant role in national economic development. <sup>6</sup>The Indian advertising industry has developed from being a small-scaled

business to a full-fledged industry. The Indian advertising industry has turned to be the second fastest growing advertising market in Asia after China. It is estimated that by 2018, the share of advertising spend in India's Gross Domestic Product (GDP) will be around 0.45 per cent. The Indian government has provided a wide support to the advertising and marketing industry. In the recent days advertising expenditure is increasing in the financial sector, driven by Reserve Bank of India (RBI) policies which is developing a more favourable business environment. Print media contributes a wealthy portion to the total advertising revenue, near about 41.2 per cent, whereas Television also contributes a cabalistic value it is near about 38.2 per cent, and digital section contributes near about 11 per cent of the total revenue. Outdoor media, Radio and Cinema contributes a value of near about 10 per cent. India's digital advertisement market is expected to grow at a compound annual growth rate (CAGR) of 33.5 per cent to cross the Rs 25,500 crore (US\$ 3.8 billion) mark by 2020.

In marketing, advertising shows a wide dimension. Advertiser and advertising agencies are choosing new ways for advertising. Companies like Coka Cola, Pepsi, Vodafone, Oppo sponsoring various games, giving advertisement on field and putting level on the T Shirt of the players. Several telecommunication companies such as Vodafone, Idea, and Reliance Jio setting up temporary stall on the road side along with flex and banner. The case study of Oppo has beautifully revealed how advertising and promotional activities help in marketing.<sup>7</sup>The Chinese smart phone company Oppo has signed a four years contract with ICC to become official global partner for mobile category. It has invested around 100 crore in offline and online promotion during 2016 ICC T20 champion trophy. In India Oppo has a slower beginning in 2014 but now India has became its prime market. With the beginning of 2016 Oppo focus on marketing and promotion of its brand in India through advertising. They entered Bollywood and make Hrithik Roshan and Sonam Kapoor as its South Asian region brand ambassadors. The branding system of OPPO through advertising increased the sale volume of the product

**Conclusion:**

Economic development is usually the process of progress to

improve our standard of living through the creation of jobs, the support of innovation and new ideas, the creation of higher wealth, and the creation of an overall better quality of life. Economical development is necessary for the national progress. In India, economical development is mainly depending on three sectors – agriculture, industries and service. They help to raise the GDP and flourish the nation with strong economy. Along with these three sectors there are several other minor factors which are also responsible for the development of national economy. Mass media are also playing a supportive role in the development of national economy. They mainly propagating various data and information related to these sectors. Mass media are also performing various promotional activities which helping in the survival of these sectors. The advertising through mass media acting as a promotional message on the one hand while on the other it attract the consumers from various section of our society. Along with these advertising are generating a huge source of revenue that also helping in the development of national economy. However it is clear that mass media playing a supportive role in the development of national economy. It is not only serving as a medium of entertainment and relaxation but also a medium of modernisation and development. It is a tool of progress which are used by our society for the development and betterment of our society.

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# 18

## **Sustainable Agriculture : A Prerequisite for Food Security**

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ASISAN MINZ

REMA DAS

### **ABSTRACT**

This paper attempts to provide a theoretical framework referring to the clarification of the food security and sustainable agriculture concepts. According to FAO, (The State of Food Security and Nutrition in the World, 2018) report, the prevalence of undernourishment in India declined from 22.2% in 2004-06 to 14.5% between 2016 and 2018. India ranked 76<sup>th</sup> in 113 countries assessed by The Global Food Security Index (GFSI) in the year 2018, based on four parameters—affordability, availability and quality and safety. As per the Global Hunger Index, 2018, India was ranked 103<sup>rd</sup> out of 119 qualifying countries. Food security is mainly based on sustainable agricultural production system, and the optimum use of natural resources has play a key role in ensuring a quality production along maintaining soil health for long term. Now a days the degradation of soil is one of the most important challenges in ensuring food security for a long time. To cope up with this challenge farmers have to adopt sustainable agricultural approaches toward achieving food security for raising population and to the future generation. Sustainable agricultural practices such as natural resource management, crop residue management, conservation tillage, integrated nutrient management, integrated pest management etc. can be followed for the enhancement of productivity and supply of quality food on regular basis.

**Key words:** Food security, food supply, natural resources, nutritious, sustainable agriculture.

### **Introduction**

Sustainable agriculture and food security focuses on the availability of food now and in the future: a major concern of scientific and commercial communities' world-wide. The prominence of this subject is driven by an increasing global population, pressure on non-renewable or scarce resources and a need to increase food production whilst minimising the impact on the environment.

The Green Revolution in India which took place in the 1960's was responsible for increasing agricultural productivity and overall food production in the country through application of high yielding varieties (HYVs), high analysis chemical fertilizers and chemical insecticides and pesticides along with huge application of ground water in indiscriminate ways. As a result, India had a surplus stock of grain production in cereals. In the following decades, as the economy continued to grow, the country experienced a significant decline in poverty levels. Despite this remarkable feat, the rate of malnutrition in India remains stubbornly high. Today, the world's human population has increased four times in the last century alone. This population boom, in part a result of improved agricultural and industrial techniques, places continued pressure on food production in order to feed the growing numbers of population. Intensified food production over the years has taken a toll on the health of agricultural soils (FAO, 2011) as well as their quality (Verhulst *et al.*, 2010).

Today, agriculture faces a triple challenge. Food security, sustainability and profitability are the main challenges of present day agriculture in India. These are due to nutrient deficiencies in soil along with several soil and crop related constraints and improper agronomic practices. Nutrient deficiencies in soils are the major issue regarding the less food productivity as well as deteriorating soil health, ultimately resulting food insecurity. The production of safe and nutritious food will need to increase to meet the growing demand and ensure food security for all. Furthermore, it has a major role to play in ensuring the sustainability of natural resources and in combating climate change.

According to the latest UN report, (FAO) The State of Food Security and Nutrition in the World 2019, more than 821 million people suffered from hunger worldwide in the year 2018. According to FAO, (The State of Food Security and Nutrition in the World, 2018) report, the prevalence of **undernourishment** in India **declined** from 22.2% in 2004-06 to 14.5% between 2016 and 2018. India ranked 76<sup>th</sup> in 113 countries assessed by The Global Food Security Index (GFSI) in the year 2018, based on four parameters—affordability, availability and quality and safety. As per the Global Hunger Index, 2018, India was ranked 103<sup>rd</sup> out of 119 qualifying countries.

In India the food security concerns can be traced back to the experience of the Bengal Famine in 1943 during British colonial rule, during which about 2 million to 3 million people perished due to starvation.

When the uncertain or limited or inadequate availability of nutritionally, safe and acceptable foods are acquired by the increasing human population is known as **Food insecurity**. Food security indicates the supply of food which is timely accessible, reliable, nutritious and in adequate amount for the total increasing population on a long term basis by the system.

### **Definition and meaning of food security**

Food security, as defined by the United Nations' Committee on World Food Security (FAO), means that when all people, at all times, have physical, social and economic access to sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life. Therefore, food security has four components viz., food availability, stability of food supply, access to food and food utilization. All of these are interlinked and run parallel to each other, means food security is the combination of the following four elements:

**(i) Food availability:** the availability of food must be ensuring in sufficient quantities, reliable and on a continuous basis. It must be consider the production and stock in an area/ zone/ region or nation and the capacity to bring food from elsewhere during the unavoidable situation, through trade or aid on priority basis.

**(ii) Food supply:** the supply of food to the increasing population must be ensuring on regular basis to get stability for a long time.

**(iii) Food access:** the local people must be able to acquire regularly adequate quantities of food which is locally produced for daily consumption purpose or home production, purchase, borrowing or food aid.

**(iv) Food utilization:** the consumable food must have high nutritional values and on consumption creates some physical, chemical and biological impact on people. It includes the methods of storage, cooking and hygiene practices (such as, utilization of water, household resources and sanitations, etc.).

#### **Why Need Food Security for a Nation?**

- For developing the agricultural sector and their allied sectors.
- To meet the demand for food of the growing population.
- To regulate and control food prices.
- To asses economic growth of the nation.
- To generate employment which leading to poverty alleviation.
- For trade opportunities.
- To get stability on food production for increased global security.
- To get nutritious diets for improved health and healthcare.

#### **Challenges to Achieved Food Security**

There are several key issues which aggravates the problem of food insecurity for a nation are addressed as:

**(i) Overpopulation:** Overpopulation is directly linked to competition for food and can lead to malnutrition amongst children, especially in rural areas where access to food is limited. Increasing numbers of people often drive up demand for food, which typically results in additional use of arable land and water. Food production depends on croplands and water supply, which are under strain as human populations increase. Pressure on limited land resources driven in part by population growth requires expansion of cropland. This often involves destruction of vital forest resources or overexploitation of arable land which promotes towards exploitations of natural resources.

**(ii) Climate Change:** Global climate change has observable effects on the environment and agriculture. Climate change cause changes in precipitation patterns, temperatures will continue to rise, more droughts and heat waves etc, which alters the Indian agricultural system. Climate change not only impacts agricultural sectors (crop production) but also affect the allied sectors of industries which is mainly based on agriculture for raw materials, along with different components of integrated farming systems such as livestock, forestry, fisheries and aquaculture, and can cause social and economic consequences as low income generation, lower standard of living, trade disruption and creates several health issues.

**(iii) Lack of access to resources in remote areas:** This is mainly due to lack of infrastructure facilities, access to information, technologies and services leads to less improvement in agricultural productivity owing to adequate resources and markets needed to obtain agricultural stability in rural areas. In these remote difficult terrains the practice of subsistence farming is also not on scientific mode and has led to significant economic backwardness.

**(iv) Migration:** Due to shrinkage of land, natural and climatic hazards, unemployment, etc. people are migrating from rural-to-urban areas. As an aftermath, unplanned growth of slums zone has resulted in a number of slum settlements which lack in the basic needs such as health and hygiene facilities, insufficient housing and increased food insecurity.

**(v) Poverty, lack of education and gender inequality:** The major cause to food insecurity is poverty, as it limits the amount of adequate food supply to the human being. Lack of adequate knowledge amongst mothers regarding nutrition, breast-feeding and parenting is another area of concern to achieve food security (Harishankar *et al.*, 2004). In our nation gender inequality places the first position in creating discrimination among girls child and boys, the female child at a disadvantage compared to males and causes them to suffer more because they are last to eat and considered less important (A. Mukherjee, 2010). Also, there is neglect in form of lack of preventive care (specifically immunization) and delays in seeking health care for diseases (R. P. Pande, 2003).

**(vi) Faulty food distribution system:** Faulty and inadequate distribution of food as ration through public distribution mechanisms (i.e. Public Distribution System) is also a reason for increasing food insecurity in the country. Now a day those people who are the actual or right candidates for availing the subsidy are excluded on the basis of non-ownership of below poverty line (BPL) status, because the criterion for identifying as a BPL household is arbitrary.

**(vii) Corruption and unmonitored nutrition programmes:** there are several programmes with value added food grains along improved nutrition are formulated and planned in the country but these are not properly implemented at time. Although these programmes are implemented the middle man or brokers are diverting these grains to open market to get higher price with good margin and in-spite of these they supply poor quality grains at ration shops for selling promotes to the issue of food insecurity.

### **Recent Government Initiatives**

**(i) National Food Security Mission (NFSM):** The National Food Security Mission (NFSM) scheme is sponsored by central Government and is launched in 2007. The main aims of this scheme is to increase the production of rice, wheat, pulses, coarse grain cereals and commercial crops, through partial expansion of cultivable areas and productivity enhancement.

The NFSM scheme is also works toward restoring soil fertility and productivity at the individual farm level and enhancing farm level economy.

**(ii) Rashtriya Krishi Vikas Yojana (RKVY):** The Rashtriya Krishi Vikas Yojana (RKVY) was initiated in 2007, and allowed concerning states Government to choose their own agricultural and allied sectors to develop under district/state agriculture plan.

In year 2014-15 this scheme is converted into a centrally sponsored scheme with 100% central assistance and has been renamed as **Rashtriya Krishi Vikas Yojana- Remunerative Approaches for Agriculture and Allied Sector Rejuvenation (RKVY-RAFTAAR)** for three years i.e. from 2017-18 to 2019-20. The main aims of this scheme is to making farming a remunerative economic

activity through strengthening the farmer's effort, risk mitigation and promoting agri-business entrepreneurship.

**(iii) Pradhan Mantri FasalBima Yojana (PMFBY):**

The Pradhan Mantri FasalBima Yojana is also known as Prime Minister's Crop Insurance Scheme, which was launched by Prime Minister of India Narendra Modi on 13 February 2016. It envisages a uniform premium of only 2 per cent to be paid by farmers for Kharif crops, and 1.5 per cent for Rabi crops. The premium for annual commercial and horticultural crops will be 5 per cent.

**(iv) Food and Agricultural Organization (FAO):** The Food and Agriculture Organization (FAO) is an agency of the United Nations (UN), established in 1945. The FAO contributes to international efforts to defeat hunger, food insecurity, and malnutrition and improve local economies by helping its member countries modernize and improve agriculture, forestry, fisheries practices and their allied sectors.

**(v)** The government of India has also taken several significant steps to combat under- and malnutrition, through

**(a) Mid-day meals (MDM):** On August 15, 1995, National Programme of Nutritional Support to Primary Education (NP-NSPE) was launched as a centrally sponsored scheme and in the year 2001, the Supreme Court of India ordered all the state governments and union territories to implement MDM scheme and provide cooked meals to school children studying in Classes I-VIII of Government and Government-aided schools.

The objectives of the mid-day meal scheme are: (i) Improving the nutritional status of children. (ii) Encouraging children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities.

**(b) Anganwadi Centre:** Anganwadi is a government-sponsored child-care and mother-care development programmes in India at the village level. They were started by the Indian government in 1975 as part of the Integrated Child Development Services program to combat child hunger and malnutrition.

The main aims of anganwadi scheme are, (i) to improve the nutritional and health status of children below the age of six years. (ii) to lay the foundation for the proper psychological, physical and social development of the child. (iii) to provide rations to pregnant and lactating mothers as balanced diets. (iv) to reduce the incidence of mortality, morbidity, malnutrition and school dropouts.

The base of food security is represented by a reliable and sustainable agricultural production, and the rational use of resources plays an essential role in obtaining this production. Indian economy and food security is largely dependent on food grain production. Hence agricultural development supports to make several Indian planning and policies to feed continuous growing population of India.

#### **Definition and Concept of Sustainable agriculture**

Sustainable Agriculture is a type of agriculture that focuses on the optimal use of locally available natural and human resources (such as soil, water, vegetation, local plants and animals, and human labour, knowledge and skill) for producing long-term crops and livestock with minimal effects on the environment and which is economically feasible, ecologically sound, culturally adapted and socially justified.

Sustainable agriculture is the use of farming systems and practices which maintain or enhances;

- (i) maintaining economic stability of farms and helping farmers by improve their techniques and quality of life.
- (ii) enhance the economic viability of agricultural production.
- (iii) maintain the natural resource bases.
- (iv) maintain ecosystems which are influenced by agricultural activities.

Sustainable agriculture can provide high food, feed, or energy crop yields without destroying the environment or undermining current productivity. This type of agriculture tries to find a good balance between the need for food production and the preservation of the ecological system within the environment. Sustainable agriculture requires the whole knowledge to understand the complex interactions between crops, pests, and pest predators to avoid the need for costly

technological fixes like pesticides and fertilizers. Farmers who take a sustainable approach substitute knowledge for pesticides and fertilizers. They use crop rotations and other adjustments of the agricultural system to solve problems. Such as, soil enrichment produces healthy plants that resist disease, cover crops retard erosion and control weeds, and natural predators help control pests. The result is that farmers are able to minimize their use of pesticides and fertilizers, thereby saving money and protecting the environment.

### **Goals of sustainable agriculture**

The main goal of sustainable agriculture is to meet the food and textile for present growing populations need without compromising the ability of natural resources for to meet the requirement of future generations. At present every individuals are involved in the food system as —growers, food processors, distributors, retailers, consumers, and waste managers, beside these they can also play a major role in ensuring a sustainable agricultural system for next generation.

Here the all involved individuals have a specific role in the development of sustainable agriculture and to secure food security. Growers may adopts several methods and scientific techniques, how to grow more food in low cost of expenditure, by maintaining soil health for long term sustainability, minimize water use, and less pollution levels on the farm level. Consumers and retailers are focusing for “values-based” foods that are grown by different growers, and that must be are consumable, nutritious and environment friendly, or that strengthen the local economy.

### **Objectives of Sustainable Agriculture**

There are some basic objectives of a sustainable agriculture, such as

- i. Make best use of naturally available farm resources.
- ii. Minimize the use of non-renewable resources.
- iii. Protect and enhance the environment and natural resources for long time.

- iv. Enhance the economic viability of a farm.
- v. Provide sufficient financial reward to the farmer for long time by continuous production.
- vi. Produce high-quality and safe food.

### **Principles of sustainable agriculture**

The key principles for sustainability are to:

- (i) to assure profitability by maximizing and recycling on-farm resources in production systems.
- (ii) that maintain or improve the productivity of land and water resources.
- (iii) that farming systems are sufficiently flexible to manage risks associated with the vagaries of climate and markets.
- (iv) protecting the environment, by minimize the use of those non-renewable inputs that cause harm to the environment or to the health of farmers and consumers.

To gain more food for a growing population and alleviating poverty now-a-days farmers are applying several chemical inputs in indiscriminate way, which results in:

- Depleting natural resources,
- Negative impacts on climate,
- Raising cost of inputs,
- Less production of grains,
- Degradation of soil fertility,
- Depletion in soil organic matter,
- Soil erosion etc.

For mitigating above mentioned problems farmers should adopt sustainable agricultural approaches toward achieving food security for raising population and to the future generation.

### **Sustainable Agricultural practices to achieve Food Security**

In this present context, expansion of the cultivable areas and increasing yields per unit area per year or enhancing productivity are the two measures to increase global food production among these later one is the justified way for achieving food security for a long term.

**(A) Expansion of Farm Size:** to ensure food security emphasis should be given mainly on rationale distribution of cultivable land, improving the size of the farms and providing security to the cultivators apart from providing the farmers with improved technology for cultivation and improved inputs like irrigation facilities, availability of better quality seeds, fertilizers and credits at lower cost.

**(B) Enhancing Productivity:** The agricultural productivity can be improved by Natural Resource Conservation Service, is the continued capacity of soil to function as a vital living ecosystem that sustains plants, animals, and humans. There are various types of resource conservation techniques and practices that can be used to improve the soil fertility and optimum use of natural resources within an agro-ecosystem to increase the food productivity. Approaches that leads to enhancement of food production are as follows:

**(i) Soil Nutrient Management:** the soil nutrient management is the practice of managing the application of commercially available fertilizers, manures, soil amendments, and other organic by-products to agricultural farm land as a source of plant nutrients. At present a common approach was adopting for nutrient management on a farm is known as the “Four Rs” (4 Rs):

- (a) Right amount – it indicates the proper rate of application,
- (b) Right source – it represents the types of proper application,
- (c) Right placement – means using the appropriate method for application,
- (d) Right timing – represents the correct time of application means as per their optimum requirement, during their different growth periods or lifecycle of the system.

With the help of “Four Rs” (4 Rs), growers can minimize the amount of additions of nutrients, losses and wastage of nutrients to the environment along with less application through maximize the nutrients use efficiencies or nutrients taken up by a crop. The appropriate and careful consideration of soil nutrient management through “Four Rs” (4 Rs), is a critical component of sustainable agriculture to growers which provides economic benefits, along with reducing the negative impacts on natural resources (soil health) and

resulting soil will support us to gain better crop production for a long time and provide environmental safety.

**(ii) Residue Retention:** the intensive natural resources mining, can cause continuous degradation of natural resources (soil, water, vegetation) under conventional agricultural practices will not ensure farm productivity and food security in the coming years for the future generation. Integrated soil fertility management is a new approach to raising productivity levels while maintaining natural resources (crop residues/ stubles/ straw). Integrated soil fertility management focuses on restoring soil nutrient pools, reducing nutrient losses, and improving efficiency. The cycle of sustainability must facilitate the return of all farm resources back to the field. This will improve the farmer's income, put in use on-farm resources and ultimately ensure food security in marginal areas by improving soil health, resulting from the use of chemicals in agriculture are minimised along with lowering the purchasing cost on chemical fertilizers. Residue retention not only favourably moderated the soil rhizosphere and produced higher grain yield in long-term perspective, but also made water available for crops during dry periods by permitting downward movement of water across the root boundary.

**(iii) Soil Organic Carbon:** increasing soil organic matter content in soil is an important index to measure for improved soil health quality. The decomposition of locally available natural farm resources can transform into soil organic matter through naturally occurring soil microbes, that can biochemically transform raw residue materials into humus, this humified materials act as a stores house of different nutrients and releases energy and nutrients that, in turn, become available for plant uptake. In addition to nutrients, soil organic matter can improve soil texture, structure, and chemical balance, while providing habitat for a greater diversity of soil flora and fauna. Soil management techniques that are focused on increasing soil organic matter will tend to lead to systems with adequate nutrient supplies and storage capacity. These facts clearly indicates that without hampering soil we can get more food and ultimately can also achieved food security through sustainable agriculture.

**(iv) Growing of Cover Crops:** integrating the inclusion of cover crops along with main crop can increase soil organic matter and nutrient availability without relying on chemical fertilizers. Using of these techniques may be a cost-effective and sustainable method for increasing soil health and managing nutrient uptake by crops and that can minimize the use of high cost bearing chemical fertilizers.

**(v) Integrated Nutrient Management:** sustainable agriculture seeks both to balance the need to fix nitrogen within farm systems as inorganic and organic sources of nutrients and to reduce nutrient losses through erosion control (Crews & Peoples 2004; Moss 2008).

**(vi) Conservation Tillage:** which reduces the amount of tillage, sometime to zero, so that soil can be conserved and available moisture used more efficiently (Holland 2004; Hobbs *et al.* 2008), which reduces the cost on tillage and irrigation upto some extent.

**(vii) Rearing of Livestock:** the integration of livestock into farming systems, such as dairy cattle, pigs and poultry, including using zero-grazing cut and carry systems (Wilkins 2008), can promote towards food security for a long time on steady state.

**(viii) Aquaculture:** in which incorporates fish, shrimps and other aquatic resources into farm systems, such as into irrigated rice fields and fish ponds, and so leads to increases in protein production (Bunting 2007) along with food security.

**(xi) Water Harvesting:** through adoption of crops and techniques with lower water requirements, such as the System of Rice Intensification (SRI) method of rice production, contributes to resilience by enabling equal or better yields to be achieved with less water withdrawal. Water harvesting in dry land areas, which means formerly abandoned and degraded lands can be cultivated, and additional crops can be grown on small patches of irrigated land owing to better rain water retention (Reij 1996), and improving water productivity of crops (Morison *et al.* 2008).

**(x) Integrated Pest Management (IPM):** in sustainable agricultural development, IPM can play a key role in a reduction in crop losses, thereby increasing productivity while minimizing environmental contamination and health hazards. IPM is a knowledge-

intensive, farmer-based approach that encourages natural control of the pest population by anticipating pest problems and preventing the pest from reaching economically damaging levels by growing allelopathic plants, adopting non-chemical alternatives or locally available natural pesticides or biocides, made at home.

### CONCLUSION

Sustainable agricultural development is critically important to improving food security and nutrition. Its roles include: increasing the quantity and diversity of food for growing population; driving economic transformation; and providing the primary source of income for many of the world's poorest people. The base of food security is represented by a reliable and sustainable agricultural production, and the rational use of natural resources plays an essential role in obtaining this production. Food security is most often associated with food self-sufficiency and with the need to produce more food along with maintaining soil health for long term. In this present context, expansion of the cultivable areas and increasing yields per unit area per year or enhancing productivity are the two measures to increase global food production among these later one is the justified way for achieving food security for a long term.

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# 19

## **Demonetization : A Vision for Cashless Economy**

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**MR. UTTAM KUMAR**

### **ABSTRACT**

Demonetization of currency means discontinuity of the particular currency from circulation and replacing it with a new currency. In the current context it is the banning of the 500 and 1000 denomination currency notes as a legal tender. There are multiple reasons why nations demonetize their local units of currency. Some reasons include combating inflation, to combat corruption, and to discourage a cash system. The process of demonetization involves either introducing new notes or coins of the same currency or completely replacing the old currency with new currency. In 2016, the Indian government decided to demonetize the 500- and 1000- rupee notes, the two biggest denomination notes. These notes accounted for 86% of the country's cash supply. The government's goal was to eradicate counterfeit currency, fight tax evasion, eliminate black money and promote a cashless economy. The government's stated objective behind the demonetization policy were to make India corruption free, to curb black money, to control escalating price rise, to stop funds flow to illegal activity and to make people accountable for every rupee they possess and pay income tax return. Finally, it is an attempt to make a cashless society and create a Digital India.

**Keywords:** Demonetization, Digitalization, Jan Dhan Yojana, Cashless Economy

## **INTRODUCTION**

The total currency in circulation as on March 31, 2016 was Rs.16,425 billion of which notes of Rs.1,000 denomination account for 38.6 per cent (Rs. 6,316 billion) and Rs.500 account for 47.8 per cent (Rs. 7,854 billion). The importance of Rs.500 had been increasing over the years, from 4.1 per cent on March 31, 1990 to 47.8 per cent on March 31, 2016. Similarly, the share of Rs.1000 note had increased from 1.7 per cent in 2001 to 38.6 per cent in 2016. The total amount of Rs.500 and Rs.1000 notes amounted to Rs.14,180 billion as compared with India's GDP of Rs.1,35,761 billion in 2015-16 or about 11.5 per cent of GDP, increasing nearly threefold from 2.8 percent in 2001.

The government's stated objective behind the demonetization policy are as follows; first, it is an attempt to make India corruption free. Second it is done to curb black money, third to control escalating price rise, fourth to stop funds flow to illegal activity, fifth to make people accountable for every rupee they possess and pay income tax return. Finally, it is an attempt to make a cashless society and create a Digital India. There is a background to the current decision of demonetization of 500 and 1000 rupee notes. The government has taken few steps in this direction much before its November 8, 2016 announcement.

As a first step the government had urged people to create bank accounts under Jan Dhan Yojana. They were asked to deposit all the money in their Jan Dhan accounts and do their future transaction through banking methods only. The second step that the government initiated was a tax declaration of the income and had given October 30, 2016 deadline for this purpose. Through this method, the government was able to mop up a huge amount of undeclared income. However, there were many who still hoarded the black money, and in order to tackle them; the government announced the demonetization of 500 and 1000 currency notes. The demonetization policy is being seen as a financial reform in the country but this decision is fraught with its own merits and demerits.

### **EFFECT OF DEMONETIZATION**

The announcement of the demonetization of the currency has caused huge inconvenience to the people. They are running to the banks to exchange, deposit or withdraw notes. The sudden announcement has made the situation become chaotic. Tempers are running high among the masses as there is a delay in the circulation of new currency.

It has deeply affected business. Due to the cash crunch, the entire economy has been made to come to a standstill. Many poor daily wage workers are left with no jobs and their daily income has stopped because employers are unable to pay their daily wage.

The government is finding it hard to implement this policy. It has to bear the cost of printing of the new currency notes. It is also finding it difficult to put new currency into circulation. The 2000 rupees note is a burden on the people as no one likes to do transaction with such high value currency. Some critics think it will only help people to use black money more easily in future.

### **PROGRESS AFTER DEMONETIZATION**

Impact on total output of the country can also be gauged by understanding consumption, investment, government expenditure and net exports. As consumption is mainly dependent on income, current and from existing wealth, and income didn't change much with demonetization, consumption expenditure was not likely to change though it might get postponed temporarily. Similarly, investment is mainly a function of interest rates and since demonetization was expected to result in lower interest rates, eventually there should be a boost in investment.

Government expenditure was expected to increase with higher dividends from banks and the RBI. The output in the country is a function of available labor, capital and technology and it generally does not fluctuate widely in short run. Further, with larger amount of liquidity in the system, relative to output, inflationary pressures could increase, leading to currency depreciation and higher exports while discouraging imports. Thus, according to economic logic, theoretically demonetization should not have led to any significant deterioration in

growth in medium to long run, though in very short run there could have been some disruptions.

## **OUTLOOK OF ECONOMIC ACTIVITIES AS A RESULT OF DEMONETIZATION**

### **Components of GDP :**

**1. Consumption(C):** Consumption is primarily function of Income. In short run consumption gets partially postponed but in long run it will recover .Income would not get impacted, fall in conspicuous and discretionary consumption in short run may be possible.

**2. Investment(I):** Investment is a function of interest rate .In short run it will be stable, but in long run investment will increase because interest rate would be lowered, boost investment.

**3 .Government Spending (G):** Government spending is a function of tax . Higher compliance and fear of law will improve tax collection. In short run it will be stable but in long run it is likely to increase.

**4. Net Export (NX):** Net Export is a function of exchange rate. Increase in money supply and resultant increase in inflation, could lead to depreciate currency.Net Export stable in short run ,but could increase in long run.

**5. Inflation:** There is a direct relation between money supply and price. In short is stable but in long run it will increase.

**6. Money Supply:** Money supply is primarily a function of income and interest rate. Money supply will increase in short run as well as in long run , because of higher deposits leading to higher money supply via money multiplier.

However, after demonetization, the number of returns filed as on August 5, 2017 were 24.7 percent higher compared to previous year. Advance tax collections of Personal Income Tax grew by 41.79 percent over the last year. Personal income tax under Self-Assessment Tax grew at 34.25 percent over the last year. Hence, demonetization seems to have worked in making India more tax compliant and giving our fiscal policy more bandwidth.

### **INDICATIONS OF R.B.I DATA**

- Currency in circulation: RBI data indicated that currency in circulation rose to Rs/-19.6 lakh crores as on oct.26,2018, a 9.5% growth from two years ago which was 17.9 lakh crores on nov.4,2016,the week before the note ban came into force.
- The landmark decision leading to the expansion of the tax base and also increased the number of tax filers under GST regime.The increase tax base would result in greater reserve for the state and greater amount available to the fund for the welfare programme.
- Momentum of cash withdrawals:RBI data also mentioned that cash withdrawals in from ATM grew 85% to Rs/ 2.75 lakh cr. In Aug.2018 from Rs/2..54cr. in oct.2016.
- Rapid pace ATM expansion:parallel with the increasing cash withdrawals in the last two years ATM expansion has increased with about 1000 ATMs being added every month.
- However, after demonetisation, the number of returns filed as on August 5, 2017 were 24.7 percent higher compared to previous year. Advance tax collections of Personal Income Tax grew by 41.79 percent over the last year. Personal income tax under Self-Assessment Tax grew at 34.25 percent over the last year. Hence, demonetisation seems to have worked in making India more tax compliant and giving our fiscal policy more bandwidth.

### **DEMONETIZATION TO DIGITALIZATION**

Journey from demonetization to digitalization is very hard hitting but not impossible. Recent demonetization in India on November 8, 2016, created lot of panic in the economy but also paved the way to digitalization. Cash crunch and availability of e-sources of transactions compelled many people to use electronic modes of payment. Credit cards, debit cards/RuPay card, USSD/UPI, Internet banking, mobile wallets like Oxigen, Paytm, Mobiwik, aadhar-enabled payment system, POS, and so on are few popular modes of electronic transaction, which are commonly used by the citizen. Digitalization will embrace higher transparency in monetary terms; low-cost maintenance; more

convenience in use; and help in financial inclusion and weeding out black money and counterfeit money from the economy. But journey to a destination is always full of roadblocks, and similarly the journey of India toward a digital India is also full of hurdles like a huge illiteracy rate; low bandwidth; more unbanked areas; late adoption of technology; lack of full-time electricity; security concerns like hacking, cybercrime, and safety of personal details; and need for high investments. So, to defend the dream of a digital India, we have to develop well-defined strategies to give training to people in using technology like focusing on customer education as well as employee education in technology by conducting workshops, presentations, enforcing strict cyber laws, use of local language, and developing user-friendly websites that leverage technology using the development of simple and smart digital tools, such as the use of a one-time password (OTP). The government has started Vittiya Sakharata Abhiyaan (VISAKA) and outreach campaigns like Digi-Dhan Abhiyan and so on to encourage people to adopt digital tools. Overall demonetization is greasing the wheels of digitalization and transforming India into Digital India.

### **CHALLENGES AHEAD**

India is a very diverse nation in terms of languages and scripts. Also, the country has low level of literacy of about 70 per cent, English literacy is not more than 10 per cent of the population. Given the fact that all electronic devices have English numerals and all communication on digital banking is in English, there is natural barrier to completely digitalize Indian economy during immediate period. India continues to have 30 per cent of its population or nearly 40 crores people under below the poverty line. These people could also be slow in accepting digital economy. Ninety per cent of the Indian population operates in the informal sector. Transport sector including taxis, auto /cycle rickshaws, horse carriages and bullock carts work on cash payment as also most of local markets/shops/dhabas and similar business outlets, especially in rural areas. In addition, low volume of business in rural shops, shopping sheds, rural makeshift kiosks may not justify the cost of installing equipment to read and

safely secure the data on plastic money. Similarly, practical implementation of digitalizing the economy for women, when only about 31 per cent are in work force would need to be considered. The cost of providing equipment in remote parts of the country and ensuring seamless connectivity at affordable cost would be another challenge that would need to be addressed. Therefore, it may be helpful if a long term plan with cost implications and a stipulated time line is prepared to decide on various aspects of building a cashless economy.

The problems for digitalization are much like those for expanding financial inclusion: the last mile access. The problems are mostly supply side issues rather than demand side factors. The costs incurred by the banks have received much attention while the problems of merchants have received scant attention. Random interactions with merchants in urban areas indicates that major obstacle to growth of digital payments is increasing costs for merchants, while in rural areas it is lack of availability of payments infrastructure. Merchants in urban areas complained that the recurring monthly cost of maintaining technology infrastructure is growing rapidly and the increase in business volumes is not sufficient to support ever-increasing costs of maintaining such infrastructure. A major component of recurring costs are telephone bills which have more than trebled. A cause for these rising phone bills is because merchants are often charged an STD rate to city where the banks' servers are located. This is ironic at a time when other categories of telecom subscribers are reaping the benefits of telecom revolution and crashing data costs.

### **THE EXISTING NEW MODES OF PAYMENTS**

Government has introduced different payments modes to bring to increase adopting of digital payments. Apart from cash, Indians had access to following modes of electronic and plastic card payments.

- 1. RTGS/NEFT/IMPS:** These can be used during the banking hours with real time transaction having payment limits up to Rs 10Lakhs. Internet connectivity, account number and IFSC are required with two factor authentication. IMPS can be used 24X7 with Rs 2Lakh limit with instant transfer with other parameters being similar to RTGS/NEFT.

2. In case of credit and debit cards, transactions can be made 24x7 online at ATMs and PoS. Requirements include expiry date, CVV, PIN details and Internet connectivity.
3. **USSD:** In this payment mode, the per transaction limit is Rs 5000 with requirement of MPIN/IFSC/Aadhaar/ Account number. Can be transacted using smart or feature phone. The advantage is that there is no need of internet connectivity and is available 24x7.
4. **E-Wallets:** They can be used 24x7 with instant transactions having a limit of Rs 2000 per month using a Smartphone with internet. One needs to log in and pay.
5. **BHIM:** It is an app for easy and quick payment transactions using UPI launched by National Payment Corporation of India (NPCI), the umbrella organization for all retail payments in the country. One can make direct bank-to-bank payments instantly using mobile number or payment address. UPI interconnects banks and both sender and receiver require a Virtual Payment Address (VPA) identity.
6. **Aadhaar Pay:** It is a model for merchants based on AEPS. By installing the app on the phone and with a scanned fingerprint, merchants can accept payments from all Aadhaar-seeded accounts. No card, mobile phone or PoS machine is required (Taruna,2016).

## THE DIGITAL DRIVE

Sri.Ravi Shankar Prasad, Minister for Law and IT informed on 2<sup>nd</sup> February' 17 that the first requirement of digitalization is to create an infrastructure and announced plans to link about 2.5lakh gram panchayats by an optical fibre network. In order to expand the digitalization, the Indian government has taken up many initiatives .The precursor to demonetization has been the PMJDY (Pradhan Mantri Jan Dhan Yojana) introduced in 2014 , under which 26.68Crore accounts have been opened with 21Crores RuPay debit cards having issued to transact business at stores and to draw cash from ATMs as of 11<sup>th</sup> Jan' 16. (Ramakrishna, 2016)

The Reserve Bank of India's will set up an Acceptance Development Fund (ADF) to incentivise banks to set up terminals in every village with 2000 or more population. Also, around 1.50,000 post offices are spread across the country for transfer of money. The rural development ministry has asked Paytm and Oxigen Wallet to help digitize cash transactions of 26lakh Self Help Groups (SHGs) in the country with 3 Crores members to educate on digital payments (ET, 21.11.16). *Master Card has tied up with Confederation of All India Traders*, which represents 5.77Crore merchants, for accepting payments with QR codes (Singh,2016).

Government organizations, PSUs and other government authorities have been advised to use only digital payment methods such as Internet banking, unified payment interface, cards and Aadhaar-enabled payment systems to make payment to all stakeholders and their employees .To boost cashless transactions, the government has planned to rope in kirana shops with *Meri Dukaan Digital Dukaan* (MDDD) which along with 'Digital India' symbol will be popularised in every shop in India (BL, 7.12.16)

To expedite transformation, the staff from departments under Law and IT, namely, CSCs, National Institute of Electronics & Information Technology (NIELIT) and Software Technology Parks of India (STPI) is being trained to further train shopkeepers and the public. Each village level entrepreneur of the CSC has also been asked to train 10 shopkeepers in the 2.5 lakh gram panchayats, and workshops are being held in 500 districts and 6,500 blocks. NIELIT will train three lakh students and STPI will be train 37lakh IT professionals. Further, in order to promote cashless transactions and to raise awareness among people Doordarshan has started a free-to-DTH channel called 'DigiShala' (BL, 24.12.16).

### **CASH INCENTIVES FOR PROMOTING DIGITAL PAYMENTS**

To promote digital payments, government has launched two schemes on 25.12.16 namely, Lucky Grahak Yojana (LGY) and the Digi-Dhan Vyapari Yojana (DDVY) to be run by NPCI for 100 days which would cost the government Rs 340Crore. Digital transactions ranging from Rs 50 up to Rs 3000 are eligible for the awards and

would cover all consumer to merchant, government to merchant and all Aadhaar enabled transactions between November 8<sup>th</sup> and April 13<sup>th</sup> 2017. Under the LGY, 15000 winners will be awarded Rs 1000 everyday with a weekly draw for seven winners with a maximum award of Rs 100000. Around 7000 weekly awards will be given to merchants under DDVY and maximum award will be of Rs 50,000 each. There will be a Mega award planned for April 14, 2017 with cash prize of 1Crore, 50lakh and 25lakh for consumers and Rs 50lakh, Rs 25lakh and Rs 5lakh for merchant traders (ET, 16.12.16).

Also, in order to encourage digital payments in government offices, the finance ministry has lowered limit for making payments for purchases from suppliers, contractors, grantee and loanee institutions etc. from Rs. 10,000 to Rs. 5,000(ET, 6.12.16)

Incentives were announced for encouraging digital transactions in different ministries. Discounts ranging between 0.5 per cent and 10 per cent were announced for use of various services. The Railways will offer a discount of 0.5 per cent while purchasing seasonal tickets. Further, railway passengers buying online tickets will be given a free accidental insurance cover of Rs.10 lakh. The government is also in talks with telecom operators, including Bharti, Airtel, BSNL and Reliance Jio, to discuss how they can help in promoting digital payments (BL, 10.12.16).

PSU oil marketing companies will offer a discount of 0.75 per cent on petrol and diesel sales if transactions are done digitally. A discount of 10 per cent on the premium amount of general insurance policies and 8 per cent in new life policies of Life Insurance Corporation is also being offered if paid online.

## **SECURITY ASPECTS OF DIGITAL PAYMENTS**

With increased use of technology, the chances of fraud and hacking of personal accounts is a possibility and cannot be overlooked. Incidents like Wiki leaks, hacking of US Democrat Hillary Clinton emails, data breaches at LinkedIn and credit/debit card information of lakhs of people have shaken the confidence of IT experts and consumers alike, revealing that no data base can be considered as

safe. Recently mobile wallet company Paytm also lost about Rs 6lakh through cheating by a few customers with connivance of insiders.

ATMs and PoS terminals can be hacked too. Likewise, RuPay debit cards, linked to PMJDY numbering about 26.68Crores could become vulnerable too. Apart from payment cards, mobile wallets are relatively new and yet over one Lakh people reported frauds last year. As mobile wallet usage increases, so would threats from cyber criminals (BL, 19.12.16)

Government is seized of this reality and hence has taken steps to address the same by starting a separate Digital Payments Division in India Computer Emergency Response Team (CERT-In). Cyber security auditors are also being appointed. A new technology centre Botnet is being established to remove automatically any system having a malware. Further, IT law is being studied thoroughly for reinforcement and stricter regulation due to expansion of digital payments.

## **SUGGESTIONS**

### **1. Financial inclusion is needed for digitalization.**

India being a vast country with a huge economic divide requires population to have access to banking and financial services. With PMJDY and Aadhaar cards, part of the population is covered. Lot needs to be done by the state and central government to achieve this dream. India currently lacks the financial inclusion infrastructure that is a pre-requisite for transitioning to a less cash economy.

### **2. Digitalization is to be implemented systematically as it takes time for people to change their mind-set.**

People do not change their habits over night. Having accustomed to handling cash, new modes of payment will take time for them to adjust. It will be a gradual process starting with more people joining formal banking, followed by acceptance of new modes of transactions that will lead to exponential growth in electronic payments across industry sectors.

### **3. Different payment modes need to be put in place for ease of operation for different category of people.**

The urban- rural duality would throw up many challenges for digitalization. Literacy rates, internet penetration, safety, cultural attitudes require different modes of payments. India is actually two countries, India and Bharat ( rural part) and it is not a market of ‘one-shoe-fits-all’, but needs multi-fold solutions for each segment and sections of society .User friendly modes of payment is the need of the call.

**4. Digitalization would reduce the cost of printing and management.**

In terms of value of currency in circulation as percentage of GDP, India’s ratio is 11.9% as against 2.3% in Sweden, 3.8 % in Brazil, 11.3 % in Russia and 18.7% in Japan. It is also estimated that as more people shift to digital payments, the cash requirement may come down by Rs1,000Crore a year(BL, 8.12.16) bringing down the money management costs.

**5. High cost of PoS and merchant discount rate (MDR).**

Traders and merchants are not interested in installing PoS machines are the cost of the PoS and the charges for transactions they have to bear. Each mobile PoS machine costs Rs 1500-2000 with the terminal charge being Rs 150 per month and the merchant discount rate (MDR) or the share of the bank and other players per transaction is around 1% of the bill if it is above Rs 2,000 and 0.75% if the transaction value is less than Rs 2000. The cost of installation and operation of PoS machines have to be reduced to encourage usage and also allay their fears of falling in tax net.

**6. Removal of constraints for making India a less- cash economy.**

The challenges for digital payment expansion is infrastructure. ATM and PoS machines have to be installed for easy access. New modes of payment should be made user friendly within the boundaries of security systems. Rural and urban poor must be educated on their regular usage .It is to be noted that there are 150 ATMs per million people in India compared to 350 per million in China and 1000 per million in USA.

**CONCLUSION:**

There are two ways of adopting digitalization in banking transaction. In internet banking model there is essentially a need for an internet, and a robust landline connection. In mobile banking, having a smart phone is necessary. To rapidly digitalize India, probably both methods would be required. Therefore, there is a need for a committee to understand the problem, become aware of the challenge, and then prepare a road map which would identify geographical areas where one or both the strategies would be required to achieve success. Therefore, there is also a need to have a road-map on digitalization because there are various factors and challenges that need to be addressed. Some of these challenges, though seemingly mundane, would need concerted effort to address. These are like numerals in English on all electronic devices which very few people understand, given that only 10 per cent of the population is conversant in English. Similarly, the penetration of smart phones is also limited, especially in rural areas. Even if there are smart phones in the rural areas, these are restricted to only one member in the family which implies that banking activities, private in nature, would be restricted.

Digital transactions can be made attractive but successful transactions have to be guaranteed at all times. This implies that better connectivity for seamless transfer of funds is essential for every transaction. With the increase in digitized payment system, the incidence of frauds etc. would go up which require a strong preventive mechanism in place to resolve and help innocent users from losing their money. This will increase even low value transaction through digitized channels leading to mass adoption of technology like Bharat Interface for Money (BHIM), Unified Payments Interface (UPI) etc.

As the government has addressed the issue of smart cities by announcing a list of select 100 cities where technological amenities would be provided in a phased manner, similar strategy could be adopted for digitalization. To begin with, on a pilot basis, the government can identify a few cities which have the potential for complete digitalization. Initially the experiment can be conducted in a phased manner in different but small and homogenous areas within the city. Illustratively, a pilot experiment can be initiated in a campus of an educational institution and once fully digitalized can then be

expanded to areas outside but around the campus. On having gained the experience of how digitalization would work, the government could then extend digitalization to other parts in the select city, and later expand to other cities. Such small pilots will be useful since our research indicates that an overwhelming number of rural residents tend to spend money on purchase of various goods and services within a radius of 5-8 kilometers of residence.

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# 20

## **Luxury Toys & its share in Indian Market Emerging economy and challenges faced**

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**MR. SALMAN SAYYAD FAKHRUDDIN QADRI**

### **Introduction**

With rise in income, psychological individuals increase their purchasing power, in order to fulfil desired and luxury goods and services. This trend with certain section in society which reflects demonstration effect from other variable income groups, which increase demand, of specific types of goods and services.

Same happens in case with luxury toys, gender based advanced toys, which got boosted in last seven years.

Luxury Toys such as Radio control cars, Trucks, Drones, Helicopters, complete mechanical sets with mini motors for mechanism, Electric or chargeable battery supported cars, scooters and bikes which can be driven by children, automated guns, Play House for girls, kitchens set, live size dressing table, shopping centre play kit, interactive toys and more.

These luxury toys are majorly manufactured China, then Taiwan, Korea, Vietnam, which are in produced through cost effective method, with good quality, many times quality was subject to question, but importer have overcome with matter.

### **Understanding – India & Global Toy Market & its potentials-**

The Indian toys market was worth US\$ 1.3 Billion in 2017, registering a CAGR of 15.8% during the year 2010-2017. The market is further projected to cross US\$ 2.9 Billion by 2023, at a CAGR of 13.9% during 2018-2023. [1]

Indian subcontinent, from ancient time, had actively produced toys made like bird, horse, whistle, puppets from clay, stick, rod etc. But recent advancement in technology encourage the manufactures, to produce modern, innovative and learning toys, some are even interactive toys.

Owing the largest youngest population share in world, there is high demand, as to keep away young ones from digital screens or glued to tablets, many people try to get luxury toys or interactive toys for proper and smart growth of children.

The Indian toy industry is approximately from Rs 800 to Rs 1250 billion. Out of which 10 % is organised and 90 % is unorganised.[4]

India is ranked eighth in the world toy industry, and UK is rated 1st position, in toy industry. Statics follows, investors and manufactures estimated Indian toy market to be of 400 million US dollars and forms only 0.5 per cent of global market.

With growth in education and modernisation of school, improving standard of living supported by increase purchasing power, and urbanisation has brought upward reach of consumer, it has surpassed the previous demand of traditional toys and opt for luxury toys.

These demands are met by world largest toy producer country is China, around 80 % per cent of world toys, are produced and exported by China, alone. Nearly ten thousand toy manufacturing factories are behind satisfying the world demand of toys (including luxury toys). Not only this China is even credited for manufacturing branded toys, like Mattel, Hasbro, Lego and MacDonald's happy meal merchandise toys are produced.

Apart from mega toy brands, China have its own domestic brands of toys which dominate markets across globe.

China has maintained quality and unique features in toy industry which had kept it ahead then other manufacturers with added advantage of cheap labour.

### **Indian Toy manufacturers position**

Indian toy manufacturing is fine, but do not produce sophisticated

toys which are in demand. Even Medium, Small Scale and Cottage industries production fails to meet demand, or make reasonable presence in luxury toy industry.

Reason is somewhere, between traditions, culture and region based. Traditionally Indian toys are most made handmade, used threads, wooden or clay-based toys.

Sawantwadi toys, with wooden toys such as string-pulled bullock carts, kitchen utensils, rocking horses and wooden fruits. The rise of these wooden toys has to be thankful initiative by and supported by Bhosale Maratha ruler, 1627, who patronised and its became popular craft.

Channapatna, Karnataka, had been making toys since Tipu Sultan rule, this dying industry of Channapatna has been producing wooden toys and traditional produced toys, as initiative take by Tipu Sultan, during his reign, Tipu received a wooden craft piece as a gift from Persia and he fall in love with it. He is believed to have invited Persian artisans to train his people in the art of wooden toy making [3].

But today, industry is still fixed in time, these toys are still considered to be playing art, culture, and tradition.

Globalisation has changed the course and above-mentioned toys are no-more luxury and profit-making toy industry.

Till, regions like Mumbai, Bangalore, Chennai, Bangalore & Punjab, and remain unorganised scattered industry across the country, which produced close to luxury toys, and this industry had been growing 15 % to 20 % per annum, but need to be constant, as resources and raw material inputs need to be optimum with technological advancement, also possibilities are high for India produce market may grow in next six to seven years, generating employment and making worthy contribution in national income.

### **Critical Evaluation and Conclusion**

It has been discussed earlier the role played by sophisticated Chinese role and domination at globe.

Recent, budget precisely aimed and imported Chinese toys, import tariff is changed from 200 per cent import duty hike, this hike

will certainly promote Micro, Small & Medium Enterprises, but it has to be gradual.

Indian Toy market is dominated at large as country imports 2,500 crores toys annually.

This generates income groups and another parallel retail market which generate income and meet the demands of toys as per present needs and desires.

200% import duty on toys, will bring down the existing demand, to a halt.

In an interview with a local toy store in Mumbai city, the owner & employees expressed concern over the recent duty stating "This will impact margin and also demand, consumer purchase sophisticated toys like electric cars, Radio control sit and drive cars which cost from Rs 10,000/- to Rs 14,000/, also Electric bike models, cost from Rs 4,000/- to 7,000/" [5]

Per employee is salaried at Rs 12,000/- to 16,000/- a month, if this tariff comes into effect, they have to either change the products in which they deal or have to cut down the staff or their salary, directly impacting the income of individuals.

Technically, India is a consumer-oriented market, a major due to which major recession and depression had been at a distance from the Indian economy.

Inflation happens due to turbulences in policies at the macro level, which brought a change in reaction at the micro level.

India's small and medium-sized businesses are struggling to stay afloat as the country's economy grows at its slowest pace in 11 years.

According to the International Monetary Fund, the Indian government's debts amounted to 68.5 percent of gross domestic product (GDP), the most commonly used yardstick of the size of an economy. That is far higher than the average for emerging and developing economies of 55.7 percent of GDP.

Companies like German toy-maker Simba Toys is planning to add another 30-40 stores in the country, by investing Rs 600-crore in the organised toy market in India.

Another break through is with Reliance acquiring 100 % share in Hamleys Global holdings Ltd, (UK origin old brand) and Mattels, Lego coming up with strategic investment plans to capture Indian toy industries, again Micro, Small and Medium Scale industries will be at stake, and branded luxury toys coming with high price tag, which will be out reach from major section of society.

As already small-scale industries producing toys are facing online sales from toys from FirstCry & Flipkart, Amazon and Alibaba.com cannot be ignore, this has impacted the domestic retail market.

To keep economy aloft, monetary circulation is very important, especially in goods and services which consumer demand, analytical studies shows recent tariff on imports from China will cost huge uproar on local sellers. Resulting consumer has to spend more money of goods made in china, in return this will lead to reduction in demand due to high prices, and money circulation will minimize, as there are no options to substitute the market demand. Example, Electric sit & drive car, for children are sophisticate and cost effectively produce by China, in Indian market it

cost somewhere between Rs 10,000/- to Rs 14,000/-. After new taxes it will cost triple the price, and there is no close substitute to China produce product in India.

Mr Abdullah Sharif, Vice- President of United Toys Association of Mumbai said, “Presently, India imports 85% toys in the industry annually, out of which 75% are from China. This step of proposing 200% hike in import duty on toys has hit us like a shock. In last 2 years we have seen the import duty on toys has been increased around 500%. This step will make the toys unaffordable for the customers, decreasing the sales of toys tremendously and adversely affecting the livelihood of millions of people employed in toy industry across India”. [6]

Move to bring in tariff is good to promote domestic industries is major step, on lines of New Economic Policy 1991, but with present economic situation when saving and investment is subject to consumption in demand, macro policies plays and important role.

Indian Toy industry has potential dominating domestic and foreign market but for that initiatives like promoting toys manufacturing, moulding techniques, electrical and electronic convergence and investment in micro, small, medium scale industries is highly needed.

As Multinational and Transnational companies are opportunities to invest in new markets, but with growth and development of micro, small, medium scale industries, there are high possibilities for economy to grow with development. This transition from consumer to manufacturing industries is high needed.

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# 21

## **The World Bank Citizen charter Project's Impact on Economic and Social Aspects in Afghanistan**

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### **Abstract**

The location of Afghanistan is one of the most discussed factors in the last three and four decades, which located in south Asia and central Asia. Since the last four decades, the Afghanistan Economical and social factors suffered from political reasons. During the last four decades the agriculture, industries, Business, Educations, and cultural aspects were destroyed. After the fall of the Taliban, the NSP was created in 2002 to give Afghan villages a democratic local administration with strong female participation, together with access to basic services. The NSP supports the participating villages with up to US\$60,000 community funding for local projects. The development objective for the Citizens' Charter Afghanistan Project is to improve the delivery of core infrastructure and social services to participating communities through strengthened Community Development Councils (CDCs). These services are part of a minimum service standards package that the Government is committed to delivering to the citizens of Afghanistan. Citizens' Charter Afghanistan Project will seek to address key limitations of line agency efforts and NSP to date and respond to financial constraints to national development investments. First, it will bring together under one umbrella program the rural and urban community-level work. Second, consolidating service

delivery under the Citizens' Charter brings many advantages to Afghanistan's development planning. This transition means that there will be an increased emphasis on linking CDCs with local government institutions and ministries following a systems-based rather than project-based approach. To provide improved services, the Citizens' Charter will set a threshold of core infrastructure and services that the government will provide to all accessible communities over the next ten years. The Citizens' Charter will be the first inter-ministerial program where Ministries collaborate on a single program in both rural and urban areas. This project comprises four components. The first component, service standards grants will support two types' of grants to CDCs: (i) rural areas service standards grants, and (ii) urban areas block grants. The second component, institution-building CCAP aims to build strong Afghan institutions from national to local levels, capable of planning and managing their development. This component will support capacity building; technical assistance; and community facilitation services. The third component, monitoring, and knowledge learning include learning activities from the village.

**Keywords:** CDCs, Minimum Service Standards, Migration Response, Poverty Reduction, Livestock and Agriculture, Grain Banks.

**Introduction:**

The Citizens' Charter is a foundation for realizing the government's self-reliance vision. It is a promise of a partnership between the Afghan state and its thousands of communities. The Charter is a government commitment to provide every village and city in Afghanistan with basic services, based on the community's prioritization. Built around the use of united community-level budgeting and financial reporting, under the Charter, communities oversee their own development goals, monitor the quality of service delivery, and report grievances to authorities and civil society. The Charter promotes inclusive development and accountability at all governance levels. It gives a voice to vulnerable groups such as women, returnees, and the poor. And it provides a positive Afghan government presence in areas that have previously only known lawlessness and poverty. The development objective for the Citizens' Charter

Afghanistan Project is to improve the delivery of core infrastructure and social services to participating communities through strengthened Community Development Councils (CDCs). These services are part of a minimum service standards package that the Government is committed to delivering to the citizens of Afghanistan. Citizens' Charter Afghanistan Project will seek to address key limitations of line agency efforts and NSP to date and respond to financial constraints to national development investments. First, it will bring together under one umbrella program the rural and urban community-level work. Second, consolidating service delivery under the Citizens Charter brings many advantages to Afghanistan's development planning. This transition means that there will be an increased emphasis on linking CDCs with local government institutions and ministries following a systems-based rather than project-based approach. To provide improved services, the Citizens' Charter will set a threshold of core infrastructure and services that the government will provide to all accessible communities over the next ten years. The Citizens' Charter will be the first inter-ministerial program where Ministries collaborate on a single program in both rural and urban areas. This project comprises four components. 1) The first component, service standards grants will support two types of grants to CDCs: (i) rural areas service standards grants, and (ii) urban areas block grants. 2) The second component, institution-building CCAP aims to build strong Afghan institutions from national to local levels, capable of planning and managing their development. This component will support capacity building; technical assistance; and community facilitation services. 3) The third component, monitoring and knowledge learning include learning activities from the village.

The Citizens Charter was first introduced in the "Realizing Self Reliance" policy paper. Afghanistan has over 15 years of successful community development experience, most notably from the NSP, but also from other government and non-governmental programs that have built partnerships with communities. These successful partnerships underpin the Citizens' Charter, which will transform individual projects into a sustainable program across Afghanistan.

**Community Development Councils:** Community Development Councils (CDCs) are the heart of the Citizen's Charter. They are tasked with planning, negotiating, and managing development investments. Through NSP, 35,000 CDCs were established across Afghanistan. They implemented nearly \$2 billion of infrastructure projects, with an average return on investment of 35% and almost 30% of their costs and labor being contributed by communities themselves, a reliable sign of their popularity at the grassroots. The Councils is trained in financial management and bookkeeping, and basic principles of transparency, participation, and accountability. Independent evaluations repeatedly showed that no other project could approach NSP's ability to provide cost-effective, large-scale service delivery even in hard-to-reach parts of rural Afghanistan.

Through the Citizens' Charter, CDCs are democratically elected and trained to implement basic development projects. Grants for the projects are transferred directly from the Ministry of Finance to each community bank account. With the oversight of the Ministry of Rural Rehabilitation and Development (MRRD) in rural areas and the Independent Directorate for Local Governance in urban areas, CDCs directly implement the project in their village.

**Minimum Service Standards:** One of the things which makes Citizen's Charter different from its predecessor National Solidarity Program is the Minimum Service Standards. Unlike, NSP through Citizen's Charter the whole community will have a minimum of defined and set standards and will have access to basic services. These services are monitored and reported on by communities through citizens' Scorecards. Services provided through the Charter will include:

**Migration Response:** The Citizens' Charter provides services, jobs, and enable better reintegration in areas of high return. The Citizens' Charter follows a total area development model, which means returnees, IDPs, and the host community will all benefit from the interventions. Funds will be made available to every community to provide basic services for returnees, IDPs and host communities – preventing a competition over resources. The Maintenance and

Construction Cash Grant (MCCG) program within the Charter, will provide seasonal, labour-intensive paying jobs for more than one-third of the households in villages, targeting the poorest households in areas of high return so that they have a cushion to tide them over the lean season.

**Poverty Reduction:** The Citizens' Charter will address the 'drivers of poverty' through multiple strategies to institutionalize collective action to ensure that all village resources (human and economic) are put to use.

To begin with, the Citizens' Charter engages the entire community in an analysis process that highlights the resources distribution in communities, the different social classes (better off, middle, poor and very poor), the seasonality of work and wages to highlight periods of seasonal hunger and coping mechanisms, and income and expenditures of poor households. The findings of this work are reviewed during the community development planning process to ensure that key issues to be addressed, including poverty, are embedded in the communities' plans.

Second, the CCNPP has improved upon the NSP election system, by creating election units in each community through which every pocket (including the marginalized parts of the community) will have elected representatives (one man and one woman).

Third, the 'integrated' sub-committees under each CDC now include committees on Agriculture, Health, Education, Vulnerable Groups, Environment, and Youth. The Health and Education committee is responsible to generate demand for services. The Agriculture and Environment Committees will activate latent economic and human resources. The former is tasked to identify unused and under-utilized land (and how these lands could be optimized and how landless households may access farmland to cultivate crops; whilst the latter is tasked to identify all-natural resources and assess the health of these resources and consider how they might be used sustainably to benefit poor families.

Fourth, Vulnerable Groups Development Sub-Committees in each village are tasked to drive a campaign that reduces seasonal

hunger amongst the most vulnerable groups – very poor households, who experience prolonged food shortages annually. The Citizens' Charter is establishing Village Grain Banks. The idea is to mobilize better off and middle households, businesses, large landlords, and those that have left (for urban areas within Afghanistan and abroad) and are doing well to provide non-perishable food items, clothes, blankets, or funds to ensure that the roughly 10 percent of 'very poor' households are systematically supported during the lean and off seasons to assist them to meet their basic needs. Further, in high Returnee / IDP, the Citizens' Charter will provide matching grants of up to USD 2,000 to CDCs which have successfully established grain banks.

Finally, to support Afghanistan's vulnerable pastoral population, the Citizens' Charter will continue the engagement with pastoral representatives from across the nation to create the appropriate mechanism and strategies to support semi-sedentary and nomadic Kuchi. In a recent workshop, pastoral representatives from 26 Provinces agreed to hold initially monthly and then quarterly meetings and in the first instance they will map their movement corridors which will allow the program to take advantage of the inter-ministerial nature of the program and plan for mobile clinics, education and (privatized) veterinarian key services. Potential interventions include teacher training for Kuchi men and women to ensure that children who travel with their families can attend classes and training for Kuchi para-vets to provide basic livestock services. Sedentary Kuchi will be part of the community development planning and their needs will be addressed through the various committees that are to work to reduce poverty.

**Livestock and Agriculture:** The Community Agriculture and Live Stock Project (CLAP) aims to increase agricultural and livestock productivity, and improve food security, for almost 170,000 rural households in selected districts of Kabul, Parwan, and Logar provinces. The project also aims to reduce gender disparities by increasing the social and economic status of women. CLAP focuses on enhancing productive assets, skills, services, technologies and income opportunities in the targeted households. The target group includes

small-scale farmers and livestock-keepers, including landless households; women and female-headed households; and resettled and nomadic Kuchi people. The project consists of three following components:

**(a) Community Development:** Including productive Infrastructures and Institutional Strengthening: This component aims at strengthening the capacity of local communities by supporting the construction of small-scale infrastructure aimed at enhancing agricultural productivity, as well as the capacity of community organizations and local government agencies to address issues of ownership and sustainability.

**(b) Livestock and Agriculture Development:** This component aims at reducing poverty and enhancing food security. Strong emphasis will be placed on women-headed households and the most vulnerable and marginalized individuals within the rural communities by introducing appropriate livestock and agricultural practices and packages, and, to a limited extent, supporting value-chain development and linkages to markets.

**(c) Project Management:** Policy Support, and Young Professionals Program: This component aims at enhancing Project coordination providing technical support to the project support Team. The project shall also finance the Young Professionals Program as well as the Policy Support Fund and Special Financing Facility.

CLAP is funded by the International Fund for Agriculture Development (IFAD) and implemented by the Ministry of Agriculture, Irrigation and Livestock (MAIL). The Ministry of Agriculture, Irrigation, and Livestock (MAIL) and Ministry of Rural Rehabilitation and Development (MRRD) has signed a Memorandum of Understanding, where MRRD through Citizens' Charter program will provide technical assistance for implementation CLAP's component one.

### **Coverage**

Current coverage under phases one, two and three on the project focuses on the poorest and most underserved districts, covering districts in all 34 provinces of the country, as well as the cities of

Herat, Jalalabad, Kandahar, and Mazar-e-Sharif. Until 2026 all communities across Afghanistan will be covered

**Support for CASA1000:** The Central Asia South Asia Electricity Transmission and Trade Project (CASA-1000) is a transformational project with an impact in two regions. The project offers an opportunity to alleviate poverty in some of the poorest parts of the world, boosting energy security and prosperity in Kyrgyzstan, Tajikistan, Afghanistan, and Pakistan. CASA-1000 will facilitate the first electricity trade between four countries in Central Asia and South Asia, based on long-term commercial contracts for 1,300 megawatts (MW) of electricity transmission between the 4 neighbouring countries. This would be the first step in the development of the Central Asia South Asia Regional Electricity Market (CASAREM).

The design of the CASA 1000 project in Afghanistan includes a Community Support Program (CSP) for individuals and communities located within the 4-km wide and 562 km long corridor who will be affected by the transmission line. CASA Community Support Project will provide grants directly to communities to fund economic infrastructure. Preference will be given to power-sector projects. This is expected to create the conditions for the smooth construction of the CASA1000 transmission line while ensuring the sustainability of CSP sub-projects and maximizing the development outcomes for the rural poor.

**Effects of the Project:**

1) Economical

2) Social

**1) Economical Effects of the project are discussed below**

i. Budget

As we have collected and researched for the citizen charter of Afghanistan which worked under the directorate of IDLG of MRRD of Afghanistan to struggle for the reduction of poverty, unemployment, agriculture, electricity, transport roadways, and drinking water.

The citizen charter is funded by the world bank for the reconstruction and reduction of poverty and to motivate the citizens for the support of the poor people families and their society beside

the world bank the citizens have to be part of the funds required for project, and in the rural areas the citizens support the 10% of the project cost and in the urban 25% cost of the project is supporting by citizens.

#### **Total budget of the project of the citizen charter**

<b>Particular</b>	<b>Amount US \$</b>
Total Project Cost (\$million)	628
Total funds committed	577,606,348
Total grants disbursed to communities	339,188,282

#### **ii. Grain Banks :**

##### **Fighting Seasonal Hunger**

The community grain bank is set up by the village Community Development Council (CDC), with support from the Citizens' Charter, to fight seasonal hunger by assisting the most vulnerable households in the community, including internally displaced persons and returnees. The CDC assesses and identifies the households most in need.

The Citizens' Charter aims to improve the delivery of core infrastructure and social services to participating communities through strengthened CDCs. It is implemented by the Ministry of Rural Rehabilitation and Development (MRRD) in rural areas and the Independent Directorate of Local Governance in the four major cities of Herat, Jalalabad, Kandahar, and Mazar-e-Sharif.

The community grain bank initiative is part of the Citizens' Charter Emergency Regional Displacement Response, which supports collective community action aimed at improving social inclusion and protecting the ultra-poor and vulnerable.

**Table of Grain Banks**

<b>Particulars</b>	<b>Amount</b>
Grain bank established	9,011
Total amount of monetized food and non-foods items mobilized by communities	325,211,826
Grant disbursed (AFN)	117,708,000
HH beneficiaries	43,621

**iii. GDP:** The citizen charter Afghanistan which is supported by the World Bank and the project creates job opportunities for the citizen of Afghanistan and provide basic facilities for agriculture and transport and electricity providing infrastructure services to the society and increase their income and increase the agriculture gains and yield of the citizens.

The CASA-1000 project which is The Central Asia South Asia Electricity Transmission and Trade Project (CASA-1000) is a transformational project with an impact in two regions. The project offers an opportunity to alleviate poverty in some of the poorest parts of the world, boosting energy security and prosperity in Kyrgyzstan, Tajikistan, Afghanistan, and Pakistan. CASA-1000 will facilitate the first electricity trade between four countries in Central Asia and South Asia, based on long-term commercial contracts for 1,300 megawatts (MW) of electricity transmission between the 4 neighbouring countries.

The CASA-1000 Project will be a source of electricity and income for Afghanistan.

From this project, Afghanistan will have 300MKw electricity and 40-45 million dollars per year and it will be a source for the GDP of Afghanistan.

**iv. Employment:** The citizen charter and CASA-1000 projects have created and will create direct and indirect jobs opportunities for the citizen of Afghanistan and the citizen charter have more than 25000 employees and created 5748749 labor days' work for the citizens.

**2. Social Effects of the project are discussed below:** The citizen charter program works together inter-ministerial for providing services to the community. These ministerial programs are under the control of the ministry of rural rehabilitation and development and four other ministries like the ministry of education, ministry of public health, ministry of finance and Independent directorate of local governance.

The citizen charter CDCs reached 12691 communities in 34 provinces of Afghanistan that work for the reconstruction, development, health services, educations facilities and all the mentioned CDCs are creating 7 committees for each CDCs's (

Education, health, youth, procurement, environment, poverty, evaluation).

The citizen charter motivates citizens to work for their society and people voluntarily and struggles against poverty, unemployment, and self-reliance for the upcoming problems of society.

The citizen charter has registered 337344 CDCs members and 50 % of them are female which worked together for the society.

Beside the CDCs, the citizen charter have registered 2104 CCDCs (cluster community development council) which also worked and have created for the development and unity of the society which have shared resource in the area and after that they want to create district cluster to solve social conflict to the society and create relationship between villages to the districts.

Form the mentioned committee the society and communities can share their problems with the government's officials and create a peaceful relationship between people and government.

### **Conclusion**

The Citizens' Charter is a foundation for realizing the government's self-reliance vision. It is a promise of a partnership between the Afghan state and its thousands of communities. The Charter is a government commitment to provide every village and city in Afghanistan with basic services, based on the community's own prioritization. Built around the use of united community-level budgeting and financial reporting, under the Charter, communities oversee their own development goals, monitor the quality of service delivery, and report grievances to authorities and civil society. The Charter promotes inclusive development and accountability at all governance levels.

The project is supported by the World Bank Group for the reduction of poverty and provides basic infrastructure services to the community, and they develop both the urban and rural to access basic facilities in different sectors.

The five ministerial program which takes a direct report from the community and the community involvement in the solutions of

their problems in the community and creates a proactive team for every village in the future. During my research, I understand that the citizen charter project which is implementing in Afghanistan boost and creates a strong bond relationship between Government and nation which decreases the violence in the country and the government will be supporting the community side.

The community is affected positively economically, socially and mentally to support the society and government plans implemented and to be implemented in the future. After a few years, the people of the region will have healthy, educated and full of trust in society. The citizen charter project is creating transparency and choice for the residents of the society and it creates a positive image for the upcoming projects and program the government and NGOs.

As we know most of the populations of Afghanistan is under the poverty line and need such kind of program to supports the war suffer resident of the regions. With the practical data of the citizen charter of Afghanistan, the conflicts between the communities are solved by the members of the CDCs and CCDCs of the communities.

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