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Nikhil Bhusan Dey

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## *From the Desk of Editor -*

Welcome to the 14<sup>th</sup> issue of our departmental annual research journal BANIJYA in 2021. The first issue of this journal was published in 2008 and thereafter it has been published regularly on annual basis. To acquire best benefits out of the diversified fields of contemporary issues in business studies, we support more empirical research and practice-based articles, and vital review articles. This will help us in scoring high in performance measures and moving up in journal ranking lists.

Though our journal is improving continuously over the years, we cannot really ignore the importance certified to the ranking exercises. It is time for us to look at the journal as truly competitive and continue to work hard to help the journal in climbing up the ranking ladder. We should find better papers that discuss new ideas and research directions, original articles that can produce deep interest in the readership of the journal and content that the researchers do not desire to overlook. It requires a lot of endeavor and dedication of the Editor to do this appraisal.

My heartiest thanks goes to all the faculty members of the Department for their constant support and encouragement. I thank the entire editorial advisory board and reviewers for all their support. Together we would work towards making the journal a truly influential publication.

Last but not the least, I sincerely convey my thanks to Nicety Graphics for extending co-operation and support during the publication and printing task of the journal.

**Dr. Parag Shil**  
*Chief Editor*

## **Effect of Demonetisation on Indian Stock Market Indices: An Analytical Study**

**Kalyan Das\* & Nikhil BhusanDey\*\***

### **Abstract**

The stock market indices provide a historical perspective of stock market performance, giving investors more insight in assessing the risk-return trade-offs of their investment decisions. Moreover, these indices also provide a quick yardstick with which investors can compare the performance of their individual portfolios. When stock market indices are highly volatile, it is assumed that there is a high risk and investors avoid investing their hard-earned money in stock market. This volatility of stock indices measures the frequency with which changes in the value of the indices take place over a period of time. The movement of stock indices is highly sensitive to the changes in economic fundamentals and to the changes in expectations about future prospects. The stock market speculation, the trading and settlement system, the government budget, government announcements, inflation, interest rates, announcement of corporate results, the extent of integration of the domestic market with international markets, the regulatory framework governing the stock market, rumours, day trading, and derivatives trading directly or indirectly influence the volatility in stock indices. In this paper, an attempt has been made to study the impact of sudden government announcement made on November 8, 2016 to demonetise high value currency notes of denomination of Rs. 500 and Rs. 1000 on stock market volatility with special emphasis on BSE (Bombay Stock Exchange) Sectoral Indices. BSE sectoral indices data were analysed for the period April, 2016 to June, 2017 which were sourced from official website of BSE and it has been found that all the BSE sectoral indices has demonstrated maximum volatility in the month of November, 2016 throughout the study period.

**Keywords:** Demonetisation, Stock Market, Sensex, Nifty50

### **Introduction**

The BJP led Government in India has initiated a number of reforms since they came in power in the year 2014 which were expected to benefit the economy in the medium and long run. Demonetisation is one of such reforms which is the act of seizing legal tender of currency notes in circulation by the monetary authority of the country (SEBI, 2017). In India, the currency notes have been demonetised on three occasions. The British Government demonetised Indian currency in the year 1946 followed by the Government of India doing the same in the year 1978. And for the third time, this radical measure was adopted by the Government of India on 8th November, 2016 to demonetise currency notes of Rs 500 and Rs1000 in an unscheduled manner. These two currency notes which were demonetised together comprises 86 percent of all the cash in circulation thereby creating nationwide hue and cry situation. These notes were to be deposited in the banks by December 30, while restrictions were placed on cash withdrawals. The objective behind demonetisation was to curb corruption, eliminate black money and also to stop terror funding. Currency notes that were demonetised later replaced with new currency notes of Rs. 500 and Rs. 2000 (Economic Survey 2016-17, Government of India). The demonetisation move is aimed at promoting digital transactions and is expected to lower the inflation and cut down circulation of black money in the economy (BSE, 2017). The Reserve Bank of India Report on “Macroeconomic Impact of Demonetisation - A Preliminary Assessment” stated that the decision of

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demonetisation was guided by the aim of reaping its enormous potential medium-term benefits in the form of reduced corruption, greater digitisation of the economy, increased flow of financial savings and greater formalisation of the economy (RBI, 2017) The demonetisation move has polarized the entire Indian economy between those who are in support of the idea and those who are not. This move has also shown its effect on the Indian equity markets. But the impact of demonetization on various sectors would be different and depending on the demand and supply conditions (Chauhan and Kaushik, 2017). Investors have withdrawn their hard-earned money from the stock markets; while some did it due to lack of funds, there are others who are expecting a further fall and hence are looking for an opportunity to buy shares at a lower level (<https://www.motilaloswal.com>). There are economic theories which suggest clear-cut relationship between money supply and stock price movements and accordingly investors reacted to this recent attempt of demonetisation by the Indian government (Narain and Rani, 2017). Equity markets around the world has always been remained highly volatile and reacts very quickly to any decisions taken by any country which is having the influence to impact global trade. Moreover, geo-political tensions also affect the stock markets returns and results into market volatility (<https://economictimes.indiatimes.com>). The victory of controversial US presidential candidate Donald Trump on 8 November led to panic among investors. The initial jitters, however, gave way to a strong market rally. The same day, the Indian Prime Minister announced demonetisation of old Rs 500 and Rs 1,000 notes. This event too has led to heightened market volatility.

### Objectives of the Study

1. To compare the volatility of Indian stock market indices with select world indices.
2. To compare the effect of demonetisation on volatility of BSE and NSE broader indices.
3. To compare the effect of demonetisation on volatility of BSE sectoral indices.

### Research Methodology

This section has been divided into following sub-sections:

**Sample:** Sample used in the study consists of different stock market indices. Below table shows the list of indices that were used in the study along with their selection criteria.

**Table 1: List of Indices used in the Study**

Sl. No.	World Indices (Selection Criteria: Purposive)	Sl. No.	BSE Sectoral Indices (Selection Criteria: All)
		1	S&P BSE Basic Materials
		2	S&P BSE Consumer Discretionary Goods & Services
1	Dow Jones Industrial Average Index (USA)	3	S&P BSE Energy
2	NASDAQ Composite Index (USA)	4	S&P BSE Fast Moving Consumer Goods
3	Hang Seng Index (Hong Kong)	5	S&P BSE Finance
4	Nikkei 225 Index (Japan)	6	S&P BSE Healthcare
5	Shanghai Se Composite Index (China)	7	S&P BSE Industrials
6	Swiss Market Index (Switzerland)	8	S&P BSE Information Technology
		9	S&P BSE Telecom
		10	S&P BSE Utilities
		11	S&P BSE AUTO
		12	S&P BSE BANKEX
		13	S&P BSE CAPITAL GOODS
1	S&P BSE Sensex	14	S&P BSE CONSUMER DURABLES
2	S&P BSE 200	15	S&P BSE METAL
3	S&P BSE 500	16	S&P BSE OIL & GAS
4	Nifty 50	17	S&P BSE POWER
5	Nifty 200	18	S&P BSE REALTY
6	Nifty 500	19	S&P BSE TECK



**Tools of Data Analysis:** In order to compare the volatility of stock market indices, the following tools were used in the study:

**Historical Returns**

For a number of statistical reasons, it is preferable not to work directly with the price series, so that raw price series are usually converted into series of returns. Additionally, returns have the added benefit that they are unit-free (Brooks, 2008). There are two methods used to calculate returns from a series of prices, and these involve the formation of simple returns, and continuously compounded returns. In this study, continuously compounded returns have been used and these are achieved as follows:

$$r_1 = 100\% \times \ln \left( \frac{p_1}{p_{t-1}} \right)$$

Where  $r_1$  denotes the continuously compounded return at time  $t$ ,  $p_1$  denotes the asset price at time  $t$ , and  $\ln$  denotes the natural logarithm.

**Historical Volatility**

The simplest model for volatility is the historical estimate. Historical volatility simply involves calculating the Standard Deviation (or Variance) of returns in the usual way over some historical periods, and this then becomes the volatility forecast for all future periods. In this study, the volatility of the different indices is calculated by using the following formula:

$$\sigma = \sqrt{\left\{ \frac{\sum_{i=1}^n (r_i - \bar{r})^2}{n - 1} \right\}}$$

Where  $\sigma$  (sigma) denotes the Standard Deviation of returns,  $r_i$  is the return from the stock in period  $i$  ( $i = 1, 2, 3, \dots, n$ ),  $\bar{r}$  is the arithmetic mean of series of returns, and  $n$  is the number of periods.

The data for the present study has been collected from the website of Bombay Stock Exchange, National Stock Exchange and from <https://in.finance.yahoo.com/> during the month of November, 2017. Data of all the indices used in the study ranges from April, 2016 to June, 2017 that were downloaded from the respective websites. Daily closing prices of all the indices were considered. Microsoft Excel has been used to calculate the Continuously Compounded Returns and Standard Deviation.

**Results and Discussions**

This section provides all the tables used for analysis along with interpretations.

**Table 2: Comparison of Volatility of Sensex & Nifty with select World Indexes (From April 2016 to June 2017)**

Name of the Indexes	2016									2017						Avg Avg
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Dow Jones Indus. Average	0.59	0.73	1.13	0.46	0.38	0.90	0.39	0.62	0.47	0.40	0.32	0.37	0.55	0.48	0.36	0.54
Swiss Market Index	0.85	0.88	1.57	0.71	0.65	0.70	0.66	0.87	0.62	0.64	0.44	0.42	0.61	0.58	0.01	0.68
Sensex	1.02	0.96	0.83	0.63	0.68	0.81	0.69	1.08	0.79	0.57	0.38	0.59	0.55	0.59	0.35	0.70
NASDAQ Composite Index	0.79	0.88	1.42	0.57	0.45	1.00	0.58	0.85	0.60	0.48	0.35	0.53	0.52	0.69	0.89	0.71
Nifty	1.05	0.91	0.80	0.60	0.70	0.85	0.68	1.20	0.84	0.63	0.39	0.58	0.51	0.59	0.35	0.71
Shanghai Se Composite Index	1.01	1.27	1.05	0.88	0.72	0.72	0.57	0.60	0.77	0.44	0.51	0.53	0.56	0.58	0.50	0.71
Hang Seng Index	1.14	1.03	1.33	0.93	0.63	1.16	0.84	0.96	0.78	0.67	0.61	0.74	0.70	0.52	0.66	0.85
Nikkei 225 Index	2.02	0.88	2.39	1.45	1.20	1.00	0.57	2.17	0.66	1.01	0.85	0.84	0.78	0.72	0.60	1.14

Source: Author's Calculations

The above table shows the comparison of volatility of Sensex and Nifty with select world indices viz., Dow Jones Industrial Average (DJI), Swiss Market Index, NASDAQ Composite Index, Shanghai Se Composite Index, Hang Seng Index and Nikkei 225 Index. From the table, it is observed that the average volatility during the study period of April, 2016 to June, 2017 is lowest for USA's DJI, whereas it is highest for Japan's Nikkei. It is further observed that the volatility of all the indices during the 15 months period under consideration have moved in similar way except Japan's Nikkei which have shown maximum volatility throughout the study period.

**Table 3: Comparison of Volatility of Indian Stock Indexes (From April 2016 to June 2017)**

Name of the Indexes	2016									2017						Avg
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Sensex	1.02	0.96	0.83	0.63	0.68	0.81	0.69	1.08	0.79	0.57	0.38	0.59	0.55	0.59	0.35	0.70
Nifty 50	1.05	0.91	0.80	0.60	0.70	0.85	0.68	1.20	0.84	0.63	0.39	0.58	0.51	0.59	0.35	0.71
BSE 200	0.94	0.85	0.73	0.57	0.68	0.95	0.68	1.32	0.85	0.64	0.45	0.59	0.48	0.69	0.37	0.72
Nifty 200	0.96	0.86	0.75	0.59	0.70	0.96	0.69	1.34	0.87	0.66	0.44	0.60	0.48	0.69	0.38	0.73
BSE 500	0.91	0.82	0.72	0.56	0.68	0.97	0.67	1.37	0.85	0.63	0.46	0.58	0.48	0.73	0.39	0.72
Nifty 500	0.93	0.82	0.73	0.57	0.69	0.97	0.67	1.38	0.87	0.65	0.45	0.59	0.48	0.72	0.40	0.73

Source: Author's Calculations

The above table shows the comparison of month wise volatility of Indian broader market indices during the study period. From the table, it is observed that the average volatility of all the indices ranges from 0.70 to 0.73 which signifies that the volatility of all the Indian broader market indices have moved in similar fashion. It is further evident from the table that during the month of November, 2016, the Nifty 500 has remained highly volatile with average daily volatility of 1.38 followed by BSE 500 with average daily volatility of 1.37. The BSE Sensex has demonstrated the lowest volatility during the month of November, 2016 with average daily volatility of 1.08 only.

**Table 4: Comparison of Volatility of BSE Sectoral Indexes (From April 2016 to June 2017)**

Name of the Indexes	2016									2017						Avg
	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
Capital Goods	1.14	2.19	1.27	0.81	0.97	1.23	0.85	1.12	0.79	0.80	0.63	0.87	0.75	1.34	0.69	1.03
Energy	0.89	0.94	0.83	0.84	1.00	0.81	0.98	1.15	0.89	0.99	1.27	0.99	0.76	0.94	0.68	0.93
Oil & Gas	0.89	1.07	0.74	0.94	1.12	0.99	1.13	1.31	1.00	1.15	0.86	0.87	0.61	0.98	0.69	0.96
FMCG	0.99	1.00	0.83	0.67	0.85	0.92	0.60	1.37	1.07	0.72	0.50	0.83	0.94	1.19	0.77	0.88
Power	1.24	0.87	0.94	0.93	0.92	1.45	0.75	1.42	0.81	1.11	0.71	0.86	0.70	1.06	0.58	0.96
Tech	1.33	0.91	0.96	1.14	0.78	0.64	0.72	1.42	0.79	1.04	0.97	0.64	0.84	0.75	0.75	0.91
Utilities	1.17	0.79	0.86	0.84	0.78	1.37	0.79	1.43	0.80	1.12	0.68	0.81	0.69	0.93	0.54	0.91
Finance	1.11	1.05	0.90	0.84	0.83	1.19	0.97	1.56	0.91	0.92	0.54	0.77	0.54	0.85	0.54	0.90
IT	1.30	0.98	1.02	1.43	0.91	0.82	0.78	1.59	0.84	1.16	1.09	0.76	0.91	0.87	0.94	1.03
BANKEX	1.38	1.16	1.07	0.94	0.91	1.29	1.04	1.62	0.95	1.01	0.62	0.78	0.61	0.98	0.57	1.00
Industrials	1.17	1.34	1.20	0.75	0.94	1.42	0.99	1.69	0.92	0.85	0.98	0.74	0.70	1.07	0.67	1.03
Health	0.62	0.87	0.66	0.84	0.74	1.13	0.75	1.71	1.03	0.65	1.11	0.72	0.62	1.26	0.74	0.90
Telecom	1.92	1.25	1.42	1.36	1.04	1.22	1.02	1.76	1.02	1.64	1.37	1.21	1.10	1.48	0.66	1.30
Consumer Durables	1.05	0.71	0.89	0.93	0.83	1.27	0.91	1.86	1.16	1.09	1.26	0.87	0.84	1.02	1.59	1.09
CD G & S	1.06	0.71	0.61	0.67	0.90	1.16	0.73	1.93	0.96	0.66	0.55	0.60	0.55	0.88	0.55	0.83
Auto	1.54	1.09	1.01	0.82	1.19	1.36	0.90	2.04	1.14	0.85	1.01	0.70	0.67	0.91	0.60	1.06
Basic Materials	1.27	0.89	0.87	0.62	1.02	1.56	0.82	2.26	1.25	1.02	0.79	0.78	0.94	1.20	0.65	1.06
Metal	1.69	1.31	1.19	1.11	1.20	1.62	1.13	2.37	1.49	1.59	0.95	1.19	1.20	1.58	1.04	1.38
Realty	1.60	1.31	1.62	1.29	1.10	2.46	1.13	3.34	1.32	0.97	1.28	1.40	2.79	1.94	1.15	1.65

Source: Author's Calculations



The above Table 4 shows the comparison of month wise average daily volatility of all the sectoral indices maintained and monitored by Bombay Stock Exchange. All the sectors were ranked based on their volatility figure for the month of November, 2016. From this table, it is observed that during the month of demonetisation, the sector Capital Goods has shown lowest volatility with average daily volatility of 1.12 followed by Energy with average daily volatility of 1.15. On the other hand, Realty sector has demonstrated the maximum volatility in the month of November, 2016 with average daily volatility of 3.34 which is highest amongst all the sectors. Moreover, the sectors which are more dependent on cash like Consumer Durables (1.86), Consumer Discretionary Goods and Services (1.93) and Auto (2.04) have also experienced high degree of volatility in the month of November, 2016. Moreover, it is further observed that the Realty sector has remained highly volatile during the study period of April, 2016 to June, 2017 with an average volatility of 1.65 which is also highest amongst all the sectors under consideration. Further, if we compare the volatility in the month of November, 2016 with the average volatility throughout the study period, then it is found that all the sectors have demonstrated higher volatility in the month of November, 2016 than their 15 months average volatility which clearly shows that demonetisation has shaken all the sectors in the month of November, 2016.

### **Conclusion**

From the above discussion, we can conclude that demonetisation had impacted all sectors of Indian economy as measured by the stock market volatility. The volatility of all the sectoral indices was high in the month of November, 2016 and amongst them, the cash dependent sectors were hit hard by government's move of demonetisation.

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## Estimating the Determinants of Access to Agricultural Credit Among Farmers in Peren District of Nagaland: A Factor-Specific Approach

JaynalUddin Ahmed<sup>\*</sup>, DitalakMpanme<sup>\*\*</sup>, Abdullah HaiderShamsan<sup>\*\*\*</sup> and Kh. Devananda Singh<sup>\*\*\*\*</sup>

### Abstract

Agricultural finance is considered as a promoter that stimulates other factors of agricultural production and makes underused and unused capacities functional for the increased quantum of production. It signifies the delivery of financial services to farmers for their agricultural production activities. Realizing the necessity of credit requirements for this sector, the paper is an attempt to measure the factors distressing access to agricultural credit in the Peren district of Nagaland. Multi-stage purposive sampling technique was used to select the respondents based on criteria of financial inclusion and loan amount sanctioned. Peren district was selected purposively for the study based on a unique land-holding and two blocks viz, Jalukie and Athibung were selected purposively from the district considering their sphere in paddy production. A pre-tested structured questionnaire was used to collect the data relating to the perception of farmers from 10 villages taking 5 from each selected block. 150 farmers (taking 15 from each village) that had accessed credit in the last one year were randomly selected. The exploratory factor analysis technique was used to retrieve the factors influencing access to agricultural credit on 20 items based on the literature review. The study retrieved 4 factors viz., institutional factor, procedural factor, infrastructural support factor, and farm-specific factor are the major determinants of agricultural finance. The findings of this research revealed that there is a need to reconsider the role of interventions in meeting the financial requirements of the farmers with a vision of self-confidence and sustained agriculture growth.

**Keywords:** Agricultural Credit, Farmers' Perception, Peren District.

### Introduction:

The agricultural credit is considered as a promoter that stimulates other factors of agricultural production and makes underused and unused capacities functional for the increased quantum of production (Ijere, 1998). The credit required for agriculture and its allied sector may be classified into production credit and investment credit. The production credit is the crop loans that are largely used for funding the working capital requirements of farmers, while investment credit is the term loans utilized for asset generation at the farm level, thus accentuating capital formation. Capital formation through investment in agriculture helps in improving the stock of equipment, tools, and productivity of resources employed, which in turn, enables the farmers to use their resources, particularly land and labour, more productively (Evenson *et al*, 1999). The investment in agriculture is normally comprised of public sector and private sector investments depending on the farmers' requirements for augmenting the productivity of natural resources or for undertaking activities that could enhance the income sources of farmers. The studies evidenced that the relation between the term loans disbursed and private sector capital formation in agriculture is highly positive, indicating a close association between them (Dave, 2014; Akdemir, 2012; Tripathi & Prasad, 2009). This confirms that the term loans play a significant role in satisfying the capital needs of the farms which in turn enhances the efficiency of resources. However, the rural farmers

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hesitate to apply for credit to a formal institution due to the high-interest rates of institutions, the bank's distance from homes, unnecessary delay in disbursement of the loan, complicated procedures, non-cooperation of the revenue department and bank, and security used for the loan from the institutional sources (Rashedet *al.* 2016; Deyet *al.* 2022). Hence, a study on determinants of access to agricultural finance is a subject of academic importance, particularly in the Peren district of Nagaland.

### **Review of Previous Studies:**

#### ***Conceptual Underpinning of Agricultural Finance***

Agricultural finance is the delivery of financial services to farmers/farming enterprises for their agriculture production activities (IFAD, 2012). Agricultural finance typically means analysing, exploring, and probing the financial elements of the farm business. It signifies the financial analysis of farmers' borrowing of funds and reserves, the operation of farm lending agencies, associations, and the organization's interest in agriculture loans (Murray & Nelson, 1960). Tandon & Dhondyal (1962) regarded agricultural finance as a subordinate of agricultural economics which negotiates with financial and economic resources that are connected to individual farm divisions. Nishida (2013) in a study on agricultural productivity differences and credit market imperfections, concluded that credit market imperfections are higher in poor and developing countries where agricultural productivity is lower when compared to rich nations with well-developed credit markets. Yano & Lanusosang (2013) articulated that traditional agricultural knowledge is deteriorating at an alarming rate due to the impact of globalization in spite of the fact that new technology and machinery tools have made the work much easier and faster. The indigenous knowledge, rich culture, and traditions practiced in Nagaland for agricultural management have a positive vibration but such practices have neglected the sensitive side of the world like the environment which has been loosening the grip of agricultural sustainability in the region. Narayanan (2015) examined the productivity of agricultural finance in India and revealed that an increase in credit flow in nominal terms leads to an increase in fertilizers consumption, pesticides use, tractor purchases, etc. Hence, input use is highly sensitive to credit flow. Barot & Patel (2015) opined that the scope of agriculture finance was limited to increasing productivity by the introduction of high-yielding seeds, use of chemical fertilizers and pesticides, and availability of institutionalized credit for purchasing the preceding inputs. The study reveals that although the institutional credit to the agriculture sector is increased in quantum, serious efforts are required to provide it to the right kind of people, at right time, in the right places, and in the right quantity which will boost the Indian agriculture sector in the right way. Subramanian & Shivananjappa (2017) identified the problems faced by the farmers in obtaining institutional credit which include the non-availability of the loan in time, the procedure for obtaining the credit was more expensive, inadequate amount of loan sanctioned against the actual requirement, the transport cost and document expenses. The farmers listed out the problems they faced in repaying the credit were crop failure, failure of monsoon, the expectation of waiving off loans by the government, lower yield, an increase in the cost of cultivation, decrease in the market value of the harvested produce etc. Kambali & Niyaz (2021) studied the requirements and policy interventions in the domains of farm financing based on mostly secondary data collected from the Reserve Bank of India and from several annual documents. The study found that most of the treatments relating to policy intervention recommended in the past were not successful for various reasons. However, if such measures had been undertaken at that time, India would have ranked among the top countries in terms of access to finance. Solo & Kikhi (2021) opined that the farming system is the combination of resources in farming, sustaining ecological balance and raising the socio-economic status of the farming community. Jhum cultivation, alder tree-based and zabo system are traditional farming systems that are still dominant in Nagaland along with indigenous techniques and methods used by the farmers to meet the requirements of the population. The paper highlighted that with the integration of livestock, crop production, and fruit cultivation, the creation of employment is adequate and income may be generated.

### ***Studies on Accessibility of Agricultural Finance***

Katchova (2005) analysed the supply of agricultural loans using farm-level data and concluded that many factors such as gross farm income, risk management strategies, the age of the person using the bank loan and risk aversiveness have effects on the use of agricultural loans. Enya&Alimba (2008) investigated the factors affecting the bank loan supply offered to farmers in Nigeria and concluded that positive repayment behaviour in the agricultural sector encourages banks to offer agricultural loans to farmers and affects lending rates positively. Kumar *et al.* (2010) identified the factors responsible for the use of institutional agricultural credit by farming households considering the variables viz., age of the household head, gender of the household, household size, operated land size, social group, educational level, and household type. The study determined that there is an increase in the requirement for credit when there is an increase in age; an increase in education level, the household is headed by males, increase in household size and farm size. Liu & Li (2010) studied the influencing factors of rural household credit and loan demand in Jiangsu province of China using a binary probit model with variables like age of householder, education level, scale of management, labour burden, gross household income, productive expenditure, living expenditure, education expenditure, understanding degree of policies. The study found that the factors like householders' age, years of education, household management scale, expenditure on production, living and educational expenditure have a positive impact on rural credit and demand for loans. Ghosh (2010) found that access to institutional credit has positively significant effect on the level of farm mechanization in West Bengal. Rahman *et al.* (2014) observed a positive relationship between credit and agricultural productivity. The credit qualifies the farmers to purchase high-yield variety seeds, fertilizers, and pesticides, and agricultural yield increases because of adequate and timely inputs. The timely provision of the appropriate amount of loan may augment agricultural productivity. Akudugu (2012) estimated the determinants of credit demand by farmers in Ghana by constructing a logit regression model exposed that the age of farmers, literacy, type of crop grown, savings, farm size, gender, political affiliations, membership of social groups, and distance from residences of farmers to the rural banks were the significant determinants of credit demand by farmers.

Zhang *et al.* (2015) studied the factors influencing entrepreneurial farmers' formal financial credit demand and credit constraints in Sichuan and Chongqing in China. The study found that household population, degree of understanding of loan conditions and procedures, and hiring of labour for farming have a positive relationship while per capita household income, the distance between the location of farm household and financial institution has a negative relationship with the demand for credit. Umanath *et al.* (2018) analysed the impact of major determinants of participating in the formal credit market and the amount of credit borrowed at the household level in rural India. Heckman sample selection model was employed to analyse the functional relationship between the amount of credit availed and household-level characters. The study demonstrated that the larger farm size, Kissan credit card, and bank account holding were the major factors determining the accessibility of the amount of formal agricultural credit. Ramashia (2019) examined the socioeconomic and loan factors that influence loan repayment of MAFISA-funded farmers in the Umkanyakude district municipality of South Africa by employing a logit model to identify the reasons for loan default. The study found that age, gender, and education were not significant in determining loan repayment. On the other hand, land size, loan cycle, and loan amount were significant in influencing loan repayment. Tchamba (2021) analysed the effect of access to credit on the technical efficiency of farms in rural areas of Cameroon on a sample of 545 farm households, using the data envelopment analysis model and the censored Tobit model. The study found that on average, the level of technical efficiency of farms is 56.78 percent; showing the possibility of substantial efficiency gains. It is also indicated that the farm size, association membership, and fertilizer expenditure negatively affect technical efficiency, while access to credit, age, and education increase technical efficiency. Taremwaet *et al.* (2022) identified the determinants of access to agricultural credit among rice and maize smallholder farmers in Rwanda using a cross-sectional survey design. Data were collected using structured interviews and questionnaires and were analyzed using a binary logistic regression model. The study indicated that both individual and institutional factors determine access to agricultural credit among smallholder maize and rice farmers in

Rwanda, the institutional factors were more important than individual farmer characteristics in determining access to credit.

### **Research Breach**

Though credit is an important basis for farm progress and infrastructural augmentation, only a few studies are available in field-level investigation of factors convincing the claim for investment credit for agriculture in the context of the study area. Consequently, the result of the study may be helpful to the institutions granting agriculture credit, policy-makers, and other officials of the banking and agricultural sector to appreciate the dynamics and barriers prevailing among farmers in availing of the credit. This study will also provide information to the researchers for further studies of this nature.

### **Problem Identification**

Agriculture is the main source of income for 65 percent of the families in India and contributes around 40 percent of the national income. But due to climatic conditions and financial constraints, the farmers are not in a position to outclass their production. The average size of landholding has been continuously decreasing on account of an increasing number of landholders, from an average of 2.28 hectares in 1970-71, it went down to 1.08 hectares in 2015-16 (GoI, 2015-16). Roughly, two-third of these holdings are marginal (<1 ha) with an average size of 0.39 ha only (Agricultural Census, 2014). Bringing new technologies and practices to such a large number of smallholders scattered over the topography of the country and integrating them with the modern input and output markets is a huge challenge for Indian agriculture (Babu & Joshi, 2019). These small holdings by the large majority of the farmers are neither viable nor sustainable for a country with billion-plus individuals to feed. Besides these, continuous decline in the average size of land holdings coupled with the fragmentation of landholdings, lack of off-farm occupations, and inheritance laws of an equal division of property among heirs led to the division of land into small blocks. Yet, these small and marginal farmers have a poor economic base which consequently has an adverse effect on the growth of the agriculture sector (Singh & Gupta, 2020). In order to resuscitate this situation, the accessibility of finance plays a decisive role. Agricultural credit is one of the vital prerequisites of farmers which facilitates them to meet the investment as well as working capital requirements (Fulwinder, 2016). Despite a large network of financial institutions, a large portion of the rural population is continuously neglected by the formal banking sector in India (Dey *et al.*, 2022). Studies evidenced that the long gestation period, lack of trained technical staff to identify the potential activity in this field, poor eligibility, and security problems are some of the reasons behind insufficient credit flow to the agriculture sector (Umanathet *al.*, 2018; Kumar *et al.* 2017). It is, therefore, an empirical identification of factors affecting access to agricultural finance from the farmers' perspectives has been considered as the research problem.

### **Significance of the Study**

The agriculture and allied sector have emerged as the most robust sector of the Indian economy during the post covid-19 pandemic, with positive growth rates and increasing production. As per estimates, the sector employs over 50 percent of the workforce and contributed to around 20 percent of the country's gross value added in 2020-21 (GOI, 2021). Therefore, the need for agriculture finance in this present time is more than earlier. From the very beginning, the prime source of agricultural credit in India was moneylenders. After independence, the Government adopted the institutional credit approach through various agencies like co-operatives, commercial banks, regional rural banks, etc. to provide adequate credit to farmers, at a cheaper rate of interest (Kohansalet *al.* 2008). Moreover, with the growing modernisation of agriculture during the post-green revolution period, the requirement for agricultural credit has increased further in recent years. Farmers take this assistance particularly to accomplish their production needs and buy various kinds of farming instruments (Satish, 2006). Moreover, the farmers need to meet the requirements of agricultural marketing, post-harvesting storage, and transport of produce, supply of power, need for good quality seeds, procurement of fertilizers, diseases, and issues like low rainfall, meeting the risks like damage due to pests, etc (Yadav, 2017). Hence, in the context of the immense credit need of the farmers, it is essential to confirm the availability of agricultural finance and the related factors which influence its accessibility.

## Objectives and Scope of the Research

### *Objectives of the study*

Based on the literature view and identified problem, the objective of the paper has been set as to examine the factors distressing the access to agricultural finance in the Peren district of Nagaland, particularly from the farmers' standpoint.

### *Research Methodology*

Multi-stage purposive sampling technique was used to select the respondents based on criteria of financial inclusion and loan amount sanctioned. Peren district of Nagaland was selected purposively for the study based on a unique land-holding pattern i.e., almost 90 percent of the area is privately owned (GoN, 2021). Two blocks viz, Jalukie and Athibung were purposively selected from the district under study considering their domain in paddy production. A pre-tested structured questionnaire was used to collect the data relating to the perception of farmers from 10 villages taking 5 from each selected block. A total of 150 households (taking 15 from each village) that had accessed credit in the last one year were randomly selected. To reach the sample respondents, the researchers visited the villages and reached the farmers by visiting their farms. The farmers were approached and asked to participate in the survey. They were also asked whether they used agricultural bank loans, and if the response was affirmative, then the researchers read the questions in the survey and the farmers responded to them accordingly. Table 1 shows the sample distribution of the study.

**Table 1: Sample Distribution**

Blocks Selected	Village Considered	Number of Farmers Selected
1. Jalukie Block	1. Jalukie Village	15
	2. Mhaikam	15
	3. Sanziurram	15
	4. Jalujie B	15
	5. Rangkaidai	15
2. Athibung Block	1. Buisampikam	15
	2. Old Buisumpui	15
	3. New Buisumpui	15
	4. Buisampuiram	15
	5. Buisampuilua	15
Total		150

Respondents (farmers) rated the extent to which they support 20 items (criteria) for access to agricultural credit by a five-point Likert-type scale, ranging from '1= strongly disagree' to '5 = strongly agree'. The demographic variables included in the survey were age, size of the family, gender, education levels of farmers, and the reasons for using the agricultural loan. Besides, descriptive statistics, the exploratory factor analysis technique was used to retrieve the factors influencing access to agricultural finance on 20 selected variables based on the literature review.

### *Peren District: A Brief Sketch*

Peren was declared a full-fledged Revenue District on 24 January 2004, with a geographical area of 1799 sq. km and a population of 94,954 persons with a density of population of 41 per sq. km (Census of India, 2011). There are 7 administrative headquarters, 4 rural development blocks, 86 villages, and 21 settlements (GoN, 2021). The district is known as '*The Green District of Nagaland*' with the highest concentration of flora and fauna of all districts in Nagaland, lies in the extreme south-west of Nagaland, is 100 km from Kohima, the capital of Nagaland and 95 km from Dimapur the commercial hub and gateway of Nagaland (GoN, 2020). Peren district is



the home of the Zeliang and Kuki tribes and the languages spoken are the Zemi, Liangmai, Kuki, Rongmei, and Nagamese along with English. The district is bounded by Dimapur in the north, Kohima in the east, Manipur in the south, and Assam in the west. The topography of the district is classified into three regions viz., Barail Ranges (hill sector); Jalukie Valley (plain sector); Intangki Forest (reserved forest). The land is fertile for agro-based production and the people of the district are mainly agrarian (80 percent) by occupation, paddy is the livelihood of the populace and Jalukie Valley is known as the Rice Bowl of Nagaland. Besides paddy, of late the people have taken up crops like pineapple, yam, beans, ginger, Banana, and other horticulture products, which supplement the crops. Recently farmers have taken up cash crops cultivation like rubber, tea, turmeric, medicinal plants, orchard, etc to enhance their income (Kehiet *al.* 2017) Fascinatingly, Peren is the only district where local people dominate and control commercial and business activities in towns and villages. The famous ‘Mid-Night Market at Jalukie Town’ where the commercial activities virtually begin from Mid-Night is an outlet for the agriculture and horticulture products of the farmers (GoN, 2021). The organic crops and vegetables which are grown in large areas and produced in large quantities are yet to be channelized for outside markets due to the lack of facilities like transport and cold storage coupled with financial hitches that are hampering and discouraging the poor marginal farmers for more productions in spite of the huge potentiality in the district (Solo &Kikhi, 2021).

**Analysis and Results**

**Demographic Characteristics of Sample Farmers**

The demographic information provides data regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population for generalization purposes. Understanding the demographic profile of the farmers in a study of the factors affecting access to finance is important for generalising the findings. Table 2 presents the demographic profile of the sample respondents.

**Table 2: Demographic Profile of Farmers**

Demographic Features	Category	No. of Respondents (150)	Percentage (%)
Farmers Age	Below 30 years	65	43.33
	30 - 40 years	40	26.67
	40 - 50 years	25	16.67
	50 years and above	20	13.33
Gender	Male	80	53.33
	Female	70	46.67
Education	Nil	50	33.33
	Primary	40	26.67
	Secondary	35	23.33
	Graduate	25	16.67
Family Size	Less than 4 persons	45	30.00
	5 - 8 person	90	60.00
	9 and above	15	10.00
Total		150	100.00

Source: Self-calculation by the researchers

The demographic presence of the respondents i.e., farmers indicates that out of the total number of 150 farmers, 43,33 percent fall below the age category of 30 years, 26.57 percent belong to 30-40 years, 16.67 percent come between 40-50 years, whereas only 13.33 percent comes under 50 years and above. It is found that 53.33 percent are male and 46.67 percent are female. Out of the total respondents, the majority of them i.e., 33 percent are illiterate, 26.67 percent of the respondents are primary level of education, 23.33 percent are secondary level and only 16.67 percent are having graduation. With respect to the size of the family, 30 percent of respondents are having less than 4 persons, 60 percent are having 5-8 persons in the family and 10 percent of them having 9

persons and above. The analysis of this demographic profile indicates a proper representation of respondents has been pinched from various clusters to draw appropriate research conclusions.

### Exploratory Factor Analysis

The study has identified and confirmed the factors that affect access to agricultural finance and the principles of component factor analysis were administered. The exploratory factor analysis comprehensively suggests an experimental device for understanding the causal psychometric properties of an unidentified scale (Yong & Pearce, 2013). The stepwise construct of exploratory factor analysis was determined in detail and presented as follows:

#### Reliability Analysis

It is decisive to initiate whether the scales included in the questionnaire are consistent or not. In order to determine data consistency, a data reliability test was conducted based on the performance score of the items with Cronbach's alpha coefficient to verify the data integrity. Normally, Cronbach's alpha coefficient value of a scale should be 0.7 or higher (Pallant, 2010). The analysis results are presented in Table 3.

**Table 3: Reliability of items**

Cronbach's alpha value	Number of items
0.854	20

The Cronbach's alpha coefficient of the 20 items is more than 0.7 which confirms an acceptable and satisfactory range of the reliability scales, indicating the items that make up the scale are consistent and appropriately measure the underlying variables.

#### KMO and Bartlett's Tests

Kaiser-Meyer-Olkin (KMO) test is used to determine the sampling adequacy of data that are to be used for factor analysis. KMO values closer to 1.0 are considered ideal while values less than 0.5 are unacceptable (Tabachnick & Fidell, 2001). Bartlett's Test of Sphericity verifies for checking the factorability of data. Essentially, it checks to perceive if there is a certain redundancy between the variables that we can summarize with a few number of factors. It is essential to achieve a significant p-value (less than 0.05) for Bartlett's Test of Sphericity (Snedecor & Cochran, 1983). The results of KMO and Bartlett's Test may be had from table 4.

**Table 4: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.837
Bartlett's Test of Sphericity	Approx. Chi-Square	10309.432
	Sig.	0.000

The value of KMO is found 0.837 and the significance probability level of Bartlett's test is  $p = 0.000$  fell within the acceptable range determining that component analysis would be suitable for these variables.

#### Principal Component Analysis

Table 5 displayed the outcomes of the principal component analysis to determine the extraction factors without any restraints of cross-loadings and thus to provide the flexibility of addition/deletion/alterations scale of 20 items. The communalities determine the degree to which the variance between the variables was clarified by the extracted factors. The result of the analysis was suitable for carrying out further analysis since the value of the communalities is shown within the range.

**Table 5: Communalities**

Variables	Initial	Extraction
Absence of proper securities	1	0.550
Complicated procedures of loans	1	0.593
Credit used for consumption purposes	1	0.552
Difficulties of assistance in agriculture	1	0.616
Economic pauses in agriculture	1	0.450
Illiteracy of the farmers	1	0.841
Large family size of the farmers	1	0.749
Growing overdue discourages the farmers	1	0.750
High-interest rate on the loan	1	0.792
Improper utilization of loans	1	0.643
Lack of coordination between credit agencies	1	0.507
Lack of crop insurance	1	0.450
Low savings for the farmers	1	0.599
Pesticides and fertilizer inadequacy	1	0.557
Predominance of private agencies	1	0.601
Least repayment period	1	0.450
Risks associated with agriculture	1	0.811
The small size of the farm	1	0.640
Storage of infrastructure despair farmers	1	0.752
Diseases and damages due to pest	1	0.792

Extraction Method: Principal Component Analysis

Table 6 indicates the eigenvalue of the variables that precisely reflect the number of extracted factors whose sum must be equal to the number of major variables exposed to factor analysis. The eigenvalue also recapitulates the amount of variation in the main variables accounted for by major components. The number of factors with eigenvalues of more than 1.00 should be considered in the analysis (Kaiser, 1958). The analysis shows that there are altogether 20 variables, out of which, 4 variables whose eigenvalue is found more than 1, indicating that 4 factors' variables are comparative and summarise the variation of the major components. Considering the result of the analysis, it is found that extracted sums of squared loadings of the first factor accounts value is 24.660 with an eigenvalue of 4.932 which means that the first component summarised the variation of the major original variables, the second factor accounts for 16.285 consisting of 3.257 eigenvalue, the third factor accounts for 14.660 with 2.923 eigenvalues and the fourth factor accounts for 9.770 with 1.954 eigenvalue. The remaining components whose eigenvalue is found to be less than 1.000, the factorial component is not significant to the mean, meaning that the factorial component does not significantly summarise the variation of the original variable, and hence, these factors are left out of this study.

**Table 6: Total Variance Explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.932	24.660	24.666	4.932	24.660	30.219
2	3.257	16.285	40.945	3.257	16.285	40.945
3	2.923	14.660	55.605	2.923	14.660	55.605
4	1.954	9.770	65.375	1.954	9.770	65.375
5	0.908	4.540	69.915			
6	0.810	4.050	73.965			
7	0.802	4.010	77.975			
8	0.750	3.750	81.725			
9	0.612	3.060	84.785			
10	0.601	3.001	87.786			
11	0.555	2.774	90.560			
12	0.545	2.720	93.280			
13	0.435	2.175	95.455			
14	0.391	1.950	97.405			
15	0.379	1.191	98.596			
16	0.227	0.995	99.591			
17	0.197	0.305	99.896			
18	0.154	0.060	99.956			
19	0.076	0.020	99.976			
20	0.051	0.004	100.00			

*Extraction Method: Principal Component Analysis*

### **Component Matrix**

The component matrix analysis was performed to identify the influencing factors involved in accessing agricultural finance and the results were presented in table-6. It is found that there are 4 factors altogether, out of which the first factors compress seven variables namely credit used for consumption purposes, illiteracy of the farmers, large family size of the farmer, high-interest rate on the loan, lack of coordination between credit agencies, lack of crop insurance and predominance of private agencies. Based on these variables, this factor is suitably named as *Institutional factor*. The second group consists of 6 variables such as improper utilization of loans, complicated procedures of loans, difficulties of assistance in agriculture, absence of proper securities, growing overdue discourages the farmers and low savings for the farmers. Therefore, these variables can be considered the *procedural factor*. The third component is coined with three variables viz., repayment period, economic pauses in agriculture and risks associated with agriculture which can be named the *Infrastructure Support factor*. The final component that emerged from the analysis comprised of the variables ie., the small size of the farm, storage of infrastructure despair farmers, diseases and damages due to pest and pesticides and fertilizer inadequacy and suitably can be named as *farm-specific factor*.

**Table 7: Component Matrix**

Variables	Component			
	1	2	3	4
Credit used for consumption purposes	0.552			
Illiteracy of the farmers	0.841			
Large family size of the farmers	0.749			
High-interest rate on the loan	0.792			
Lack of coordination between credit agencies	0.507			
Lack of crop insurance	0.450			
Predominance of private agencies	0.601			
Improper utilization of loans		0.643		
Complicated procedures of loans		0.593		
Difficulties of assistance in agriculture		0.616		
Absence of proper securities		0.550		
Growing overdue discourages the farmers		0.750		
Low savings for the farmers		0.599		
Least repayment period			0.450	
Economic pauses in agriculture			0.450	
Risks associated with agriculture			0.811	
The small size of the farm				0.640
Shortage of infrastructure despair farmers				0.752
Diseases and damages due to pest				0.792
Pesticides and fertilizer inadequacy				0.557

*Extraction Method: Principal Component Analysis*

*Identification of the Factors*

Table 7 retrieved all the components are substantially loaded into 4 factors, whose eigenvalues are found to be more than 1 and the value of Cronbach’s alpha for all factors is about 0.800 which is in the suitable range. These factors are suitably renamed as institutional, procedural, infrastructure support and farm-specific factors.

**Table 8: Factors Retrieved from the PCA**

Sl. No.	Factors	Eigen Values	Variance	Reliability (Cronbach's Alpha)
1	Institutional Factor	4.932	24.660	0.817
2	Procedural Factor	3.257	16.285	0.842
3	Infrastructure Support Factor	2.923	14.660	0.803
4	Farm Specific Factor	1.954	9.770	0.832

**Extracted from Principal component analysis**

The identified factors in each of the components are so related to each other that the factors which fall under the institutional category are considered to be more important than the 2<sup>nd</sup> component (procedural factor) which is again considered to be more important than the 3<sup>rd</sup> component (infrastructure support factor) and the final component (farm-specific factor). Therefore, it may be observed from the analysis of farmers’ opinions regarding access to finance based on their experience revealed that the factors under the institutional category followed by procedural factor, supportive factor to be given due importance which may lead to the farmers for effective access and utilization of finance for agricultural activities.

**Conclusion and Recommendations**

The need of the day is to redefine the role of interventions in fulfilling the financial requirements of the farmers with a vision of self-confidence and sustained agriculture growth. An efficient and operational financing scheme



may be developed which will assist to reduce farmers' constraints level arising from poor socio-economic shortages. There is an immense need to accent more effort and attention on institutional factors for access to finance the farmers. The period between the loan application request and actual approval should be reduced by simplifying the loan sanctioning policy. It is essential to achieve the objectives of microfinance because if the loan is approved on a delayed basis after the lapse of farming, then it will be diverted to some other personal consumption purposes. There must be a proper flow of finance according to farmers' requirements. The effective coordination between credit agencies and farmers desires to be strengthened. A major hindrance of high-interest rates may be reduced to a possible extent to attract more farmers for credit facilities. Due care needs to be given to crop insurance to build the confidence of farmers so that the farmers can work and access credit without any hesitation of crop failure due to monsoon. The farmers are required to be account holders to access finance which will eventually encourage the farmers for building saving habits and will enable them to access more financial services in the future. Specific measures may be employed to motivate the farmers e.g., award appreciation certificates, present prizes, payment of fair profit margin on their saving deposits, organizing show role-play or cooperative day to elaborate the importance of saving with financial institutions rather than doing at home. The procedural simplification may attract the farmers to avail credit facilities and proper utilization of loan amount sanctioned be ensured. The institutional support factor to be taken care of so that the farmer gets access to finance. The liberal repayment period based on the economic status of the small farmers needs to be injected so that the farmers enjoy the full benefit of credit facilities. In this respect, farmers shall feel that the institutional support system is entirely in favour of them and there are no risks associated with the agricultural occupation. The results of factor analysis also indicate that farm-specific factors also discourage in accessing agricultural finance by the farmers. In this respect, farmers should be supported to increase their ownership of land size so that they can plant more crops and increase their sales. This will ultimately enable them to improve their repayment rate.

#### Scope for Future Research

The selected farmers of the Peren district of Nagaland have been considered to identify the perception of the factors affecting access to agricultural finance. Comparative studies may be undertaken considering farmers of different districts to gain further insights into the subject. The perceptions of credit delivery institutions may also be studied to develop a definite empirical validation on the subject.

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## Perceptions of People Towards Insurance Companies in Bangladesh: A Case Study on Dhaka City

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**Abstract:** Insurance is one of the crucial sectors in a country like Bangladesh. Though an old sector, the insurance sector has not flourished to a great extent. This study has been attempted to throw light on the observation of the people of Bangladesh on Insurance, the shift in customer perceptions toward insurance companies and various causes for the non-popularity of insurance sector in Bangladesh. The scope of the study involves the responses of the people who were surveyed by a questionnaire. About 72 responses were considered to assess the perception of people of the country towards insurance companies in Bangladesh. This study shows the possible reasons why insurance companies are still at their embryonic stage and has not been elevated to the remarkable extent. The study observed that most people in Bangladesh do not have a favorable opinion on the insurance sector. Life insurance businesses in Bangladesh depends to a great extent on their field personnel to disseminate information about available products and satisfy customer queries. It was seen that the field force staff provides the policy holders with false information in most of the cases. Besides, inadequate promotion, insufficient govt. intervention, unserviceable compensation management, sluggish settlement procedure etc. are also responsible for the unpopular insurance sector of the country. Finally, the study has provided a plethora of recommendations which are expected to help in rejuvenating the popularity of this sector among the masses in particular and invigorating the economy of the nation in general.

**Key Words:** Insurance, Customers' Perception, Compensation Management, Settlement Procedure.

### Introduction

The insurance sector is one of the vital sectors in the overall development of a country and its economy. This sector plays an instrumental role in minimization of risk faced by businessmen and ordinary people. This is the sector that encourages us to think ahead of the risk and uncertainty. Internationalization of insurance has made this sector more competitive (Siddiqui et al., 2010). Now people are more aware of their needs and their expectation regarding extended service quality go up due to technological upgradation around the world. Customers are enabled to make a quick comparison and thus their expectations are evolving day-by-day making it complicated to the insurance service providers to fulfil the customers' changing needs. Though people urge for extended service quality, in most of the cases, service providers fail in this regard (Sherden, 1987). Generally, all life insurance companies offer more or less homogeneous products to their customers and so the companies can only get competitive advantage in the market through superior service quality. Therefore, the service providers should be driven by customers' expectations rather than focusing more on their products. Insurance is a service that consists of a written legal contract (the insurance document) and a group of related services. Services are actions taken and/or advantages bestowed by one person on another, and they are always immaterial and never give rise to a transfer of legal title. Due to its complexity and the major legal characteristics of its future contingent service, insurance is not like any other service. Insurers will need to develop real means to demonstrate the value of their offerings. Gangil and Vishnoi (2020) has suggested that loyalty, transparency, reliability, proficiency and service convenience play vital role in forming a constructive perception in minds of the insured. There are 5 factors by which service quality can be determined namely Reliability, Assurance, Tangibles, Empathy and Responsiveness which are part of RATER Model (Parasuraman

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et al., 1988). Parasuraman et al., (1988) also devised a 22-point instrument called SERVQUAL to assess the service quality. Services including service design, policy and contract drafting, sales and marketing, underwriting, rating, reinsurance, and claims settlement are just few of the many that Bangladeshi insurance firms provide. This sector, though flourished in other countries of the world, is not much popular in Bangladesh in comparison to other sectors like banking sector, financial institutions sector, etc. As a role-playing sector, insurance companies should have been focused in different media coverage. Again, this sector should have been considered as one of the sectors that the ordinary people feel that they are needed for the development of Bangladesh. Hence, there is an emergent need for analyzing the underlying reasons for such unpopularity. Thus, this study is intended to assess the awareness level of the people regarding the insurance sector of their country and investigate the reasons for adverse perceptions of the people. The study will also highlight the factors inhibiting the insurance sector of the country.

The remaining portion of the study has been arranged in five consecutive sections which encapsulates review of Literature, Objectives of the study, Methodology of the study, results and discussions and finally conclusion and suggestions respectively.

### **Literature Review**

Several emerging economies have seen rapid expansion in their life insurance industries during the last two decades. While there has been a lot of interest in life insurance consumption studies since the 1960s, most studies have concentrated on cross-country studies or well-established markets in advanced economies. As a result of cross-national variances in life insurance consumption, it has been stated in the literature that the factors influencing life insurance demand are complicated and differ from one country to the other. According to Kotler (2010), a person's attitude determines how they feel and what they are likely to do in response to specific stimuli. The term "attitude" refers to a person's preconceived notions about something, which they have internalized over time and which then influence their actions. The primary purpose of life insurance, as stated by Hofstede (1995), is to safeguard against financial loss resulting from the loss of human life. In addition to death, it protects against the loss of income due to disability, critical illness, or retirement. Attitude and perspective of life insurance policyholders have been studied extensively, and a number of factors have been deemed crucial. Although price, value for money, and household income were not recognized as barriers to insurance consumption by Leek et al. (2000), Honkanen et al. (2006), and Olsen (2004), the former found that high price had a negative impact on attitude toward consumption. Ewing et al. (2004) studied the association between risk awareness and the ability to pay for safety and security in a low-probability, high-importance occurrence. Omar (2007) found that consumers believed that buying life insurance would ensure their dependents would continue to enjoy the same standard of living in the event of their death, that they would be able to maintain their current standard of living in the event of a disability, that they would receive a lump sum payment in the event of a critical illness, and that they would be compensated for any property damage or loss they might incur. Reddy (2005) found that while most respondents were satisfied with the policies provided by private corporations, when compared to those provided by public companies, relatively few policies were preferable. Kumar and Kannan (2005) evaluated the impact of the private sector's expansion into the insurance industry and the LIC's (Life Insurance Corporation) position in the market. The study also have identified potential threats to the companies and proposed potential countermeasures to safeguard the firm's future. Sayalu and Sardar (2005) argue that the success of an insurance firm hinges on the quality of its products and the satisfaction of its customers. In Bansal's (2005) view, the positive impact private enterprises have on the market has continued for some time. The industry has tremendous potential for growth thanks to private investment. According to Raju and Gurupandi (2009), policyholders' mentality and socioeconomic status have a major impact. Lengti (2009) mentioned about the insurance investors have the opportunity to choose from insurance authority for all other parts of insurance such as insurance ombudsman and insurance counsel to take their issues further. Ramanathan's (2014) research has led to the development of a credible and substantial instrument for measuring the quality of service perceived by customers, their level of awareness of the life insurance sector, and their



level of satisfaction with it. Service quality needs to be measured utilizing a six-dimensional hierarchical structure consisting of assurance, competence, individualized financial planning, corporate image, tangibles and technological dimensions. Consumers' perspectives on insurance services in India are strongly influenced by socioeconomic status, as stated by Gautam and Kumar (2012). According to Sogunro and Abiola (2014), policyholders are not happy with life insurance policies because of the features and benefits that come with them. Life insurance attitudes in rural India were studied by Reddy and Jahangir (2015), found that demographic and economic factors had a major impact on how people feel about insurance. (Hwang & Gao, 2003) studies demonstrated some significant variables that have motivated people in China to acquire insurance products over the last decade are directly tied to a rise in income, a growth in education levels, and a modification to the social structure (such as family structure and urbanization). (Yusuf et al., 2009) evidence leads to the reasonable conclusion that demographic characteristics have a significant impact in varied degrees in Nigerian attitudes towards insurance services such as age, marital status, educational status, occupation, and household income, in particular, all have various degrees of influence on views regarding insurance. (Karl & Wells, 2016) discover that means response rates to inquiries about the insurance business and insurance-related occupations improve after the seminar's information. These distinctions are also determined to be statistically significant. The study also indicated that effective method for improving the insurance industry's reputation is to facilitate a setting in which participants can receive comprehensive details regarding different aspects of the industry, including its merits, prospective career opportunities, and job satisfaction. To the extend degree that increasing perception of the insurance sector aids in overcoming some of the primary obstacles associated with the talent gap, as findings present one empirically tested paradigm that may be useful in bridging the talent gap in the insurance market. Siddiqi & Tangem (2018) investigate the impacts of work environment, remuneration, and motivation on employee performance in the setting of the Bangladeshi insurance business. The study was obtaining structured questionnaire designed using a Likert 5 scale and applied to 150 respondents who work in various roles at insurance businesses in Bangladesh. The study employed structural equation modelling have been applied to test the hypothesis. According to the findings of the study, all of the elements have a substantial impact on employee performance. This study also considerably helps human resource recruiters in various financial firms, particularly insurance companies, because it clearly indicates how beneficial contributions can be gained from employees employing appropriate strategies.

### Objectives of the Study

- To gauge the perception/awareness level of the people of Bangladesh regarding insurance.
- To pinpoint the causes for non-popularity of insurance products in Bangladesh.
- To suggest remedial measures in order to create popularity of insurance with a view to invigorate the sector for economic well-being of the nation.

### Research Methodology

Since it is a qualitative study, inferences are drawn from the results of the surveys given to participants. The questionnaire plays a significant role in the data collection process. Using questionnaires is acceptable since they are suitable for the demography being surveyed and will produce the desired findings. Prior to conducting the interview, the interviewer can verify the respondent's qualifications. It includes a list of all the questions the researcher wants to ask each respondent and space or a way to record their answers. The questionnaires utilized are of varying forms and formats based on the specific research being conducted. There are three sections to the questionnaire used in this study. The first section focuses on fundamentals such as clients' contact details. The second aspect has to do with how satisfied or in agreement they are. Lastly, the third part is related to free-writing for the customers where they can write any other factors that were not covered by the questionnaire. The questionnaire requires the respondents to rate items based on the following 5-point response format that is related to general perceptions towards insurance companies:



- 1= Very unhappy/Strongly disagree
- 2 = Somewhat happy/Disagree
- 3 = Neither happy nor unhappy/Neutral
- 4 = Somewhat happy/Agree
- 5 = Very happy/Strongly agree

The purpose of the research was to gain an understanding of how people in Dhaka, Bangladesh, now feel about insurance. The study's descriptive methodology is utilized to observe insurance providers and glean what data can be utilized. In this investigation, we have employed both primary and secondary sources. Primary data were gathered over the course of two months. In order to collect data from a representative sample, we sent out questionnaires. One hundred questionnaires were sent out to participants in this survey to gauge public opinion on life insurance. Both insurance policyholders and those who do not have insurance policies received questionnaires. It should be noted that one hundred sets of questionnaires were sent out to the respondents. The response rate for these sets was 72%, because only 72 were returned to the researcher. Consequently, the 72 responses were served as the basis for the analysis and discussion that follow. Primarily, we use a questionnaire to conduct in-depth interviews with respondents in the field to gather primary data for the study. Additionally, the survey includes several open questions that were designed to elicit suggestions from both current and future users. Secondary sources such as scholarly articles, textbooks, websites, dissertations, and working papers from domestic and foreign researchers were consulted to ensure the validity of the study's findings. The information gathered from the respondents was analyzed using a number of statistical techniques. All of the statistical work for this study was done in SPSS. Descriptive statistics, including frequency distribution, means, standard deviations, and percentage values for interval-scaled independent and dependent variables, were applied to the survey responses and data for analysis. All demographic information and categorization characteristics were analyzed using frequency distributions. The profile of the respondents was analyzed through the use of computation frequencies.

**Demographic Profile of the Respondents:**

In this section, the researchers examined the demographics of the respondents in detail. Transforming raw data into a form that would provide information to characterize a group of factors in a situation is at the heart of descriptive statistics. This is accomplished by sorting and otherwise manipulating the collected raw data. In this section, descriptive statistics are used to calculate the mean, as well as to provide frequency distributions and percentage breakdowns. It is clear from Table 1 that the survey has reached a wide cross-section of the population, including those with only a basic understanding of insurance and its many applications.

**Table 1: Respondents' Profile**

Demographic features	Categories	Number	Percentage
<b>Passenger type</b>	Business person	19	26%
	Service holder	26	36%
	Student	12	17%
	Other	15	21%
<b>Gender</b>	Male	48	66%
	Female	24	34%
<b>Marital status</b>	Married	35	48%
	Unmarried	30	43%
	Divorced	7	09%
	Other	0	00%
<b>Education level</b>	Primary or below	0	00%
	High school	12	17%
	College	17	23%
	University or more	43	60%

<b>Age</b>	Below 18	5	07%
	18-30	30	43%
	30-40	17	23%
	Above 40	20	27%

Source: Prepared by the authors

## Results and Discussions

The tables shown in the appendix 1 demonstrate that most of the respondents were very unhappy or strongly disagreed with the awareness activities undertaken by insurance companies. Their services are sometimes inappropriate in terms of the need of the people looking for it. However, sometimes inappropriate services are offered and/or rendered. The tables also show that most of the respondents were neither happy nor unhappy or neutral with the right way of publicity of insurance companies. Only a few companies are seen to promote their policies. Most of the companies are not in the commercial promotions. Promotion activities are not adequate to attract the new holders. Besides, most of the respondents were very unhappy or strongly disagree with all possible areas covered or to be covered by the insurance firms. According to the perception of people new coverage areas should be included in response to the current scenario. It can be seen that most of the respondents were somewhat unhappy or disagreed with following of rules and regulations by the insurance companies within the specific industry. There is shortage of specific and strict rules by the government. Moreover, government involvement is very poor. In addition, most of the respondents were somewhat unhappy or disagreed with amount of insurance premium charged by the insurance companies. Sometimes, there are some irregularities and biasness in the calculation of premium, most of the time the calculation is proved to be inaccurate.

The tables further explain that most of the respondents were very unhappy or disagreed with gender discrimination. It has also been found that Insurance companies remain enthusiastic during the opening time of the policy but they become reluctant when the time of claim settlement come. In many times they don't respond quickly when crisis arises. Again, most of the respondents were neither unhappy nor happy or neutral with the availability of insurance facilities. This sector can flourish more with greater directions and more specific criteria. Besides, most of the respondents were both very happy and somewhat unhappy or disagreed with performance of insurance companies. Most of the insurance companies seem to lag behind other financial companies like banks and non-bank financial institutions. In addition, most of the respondents were unhappy or disagreed regarding evaluation of compensation. Most of the companies don't act as per contract. Even in case of life or health insurance companies take long time to process the compensation. The above tables also show that most of the respondents were unhappy or disagreed with precautions taken by the insurance companies. They don't take enough endeavors to make the policies of insurance companies more available to the present and prospective holders.

### Overall Perceptions:

This part discusses the respondents' overall perceptions towards the insurance companies in Bangladesh. The findings are presented in the following table.

**Table 2: Descriptive statistics of overall perceptions**

Variables	N	Min.	Max.	Mean	Std. Dev.
Awareness of insurance services	72	1.00	5.00	2.75	1.50
Right way of publicity	72	1.00	5.00	2.99	1.39
All possible areas to be covered	72	1.00	5.00	2.89	1.45
Following proper rules and regulation	72	1.00	5.00	3.04	1.48
Justifiable amount of insurance premium	72	1.00	5.00	3.06	1.35
Settlement of claim	72	1.00	5.00	2.94	1.40

Availability of insurance facilities	72	1.00	5.00	2.79	1.34
Performance of insurance companies	72	1.00	5.00	3.00	1.44
Evaluation of compensation	72	1.00	5.00	2.99	1.37
Adequate precaution	72	1.00	5.00	2.81	1.43

Source: Authors' Calculations based on collected data

Table 2 shows the overall perceptions of the customer towards the insurance companies. Almost all the variables or factors have achieved poor or moderate scores. The perception level ranges from 2.75 to 3.06 out of 5.00, which is far below “happiness or agreement”. This means that customers are not at all happy with the insurance companies. The above table can be graphically presented as follows.

### Conclusion and Suggestions

The present study aimed at determining the perception of people of Dhaka city of Bangladesh regarding the life insurance of the country. The insurance industry works with a type of safety net that safeguards a person's financial well-being and that of his family in times of crisis or risk. Aside from providing peace of mind, life insurance also serves as a savings incentive for families and friends. The peace of mind provided by the comprehensive insurance policies also allows us to plan ahead. The study concludes that most people in Bangladesh do not have a favorable opinion regarding the insurance sector as a result of the above brief and broad debate and analysis of people's attitude towards the insurance companies. Multiple factors contribute to this conclusion. Life insurance businesses in Bangladesh rely heavily on their field personnel to disseminate information about available products and answer customer questions. The vast majority of the time, the field force staff gives the policy holder false information. The insurance companies are not showing their interest in advertising or promoting their offerings to the people which is responsible for lack of awareness. Many a times, the insurance agents also shows reluctance during the settlement procedure. The unresponsiveness of the insurance companies and agents during the period of emergency or crisis of the policy holders also demotivates the people. The compensation management of the insurance companies are also not inefficient. That is why, it may be concluded that the insurance industry is not as thriving as it is in other developing nations, and only a fraction of the population takes use of its offerings. Thus, the study suggests that the government of Bangladesh should come up with some stringent rules and regulations which would be able to tackle the inefficiencies of the insurance companies. The sector should also appear before the people with new and attractive offerings that commensurate with the current need and quickly changing scenario. Insurance premium has to be determined pondering the socio-economic status of the people. The settlement procedure must be prompt enough so that it can address the emergencies of the policyholders instantaneously. Finally, the compensation management has to be strengthened so as to make evaluation and processing activities efficiently and effectively. It is expected that the people of Bangladesh will be much happier if the country's insurance firms improve their services in line with the suggestions provided by this study.

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## Appendix 1: Statistics about Different Factors

### 1. Awareness of insurance services:

Category	Assigned Value	Frequency	Percent	Cumulative Percent	
Very unhappy/Strongly disagree	1	21	29%	29%	
Somewhat unhappy/Disagree	2	15	21%	50%	
Neither happy nor unhappy/Neutral	3	10	14%	64%	
Somewhat happy/Agree	4	13	18%	82%	
Very happy/Strongly agree	5	13	18%	100%	
Total		72	100%		
Variable	N	Min.	Max.	Mean	Std. Dev.
Awareness of insurance services	72	1.00	5.00	2.75	1.50

**2. Right way of publicity:**

Category	Assigned Value	Frequency	Percent	Cumulative Percent	
Very unhappy/Strongly disagree	1	14	19%	19%	
Somewhat unhappy/Disagree	2	14	19%	38%	
Neither happy nor unhappy/Neutral	3	16	23%	61%	
Somewhat happy/Agree	4	15	21%	82%	
Very happy/Strongly agree	5	13	18%	100%	
Total		72	100%		
Variable	N	Min.	Max.	Mean	Std. Dev.
Right way of publicity	72	1.00	5.00	2.98	1.39

**3. All possible areas to be covered:**

Category	Assigned Value	Frequency	Percent	Cumulative Percent	
Very unhappy/Strongly disagree	1	19	26%	26%	
Somewhat unhappy/Disagree	2	10	14%	40%	
Neither happy nor unhappy/Neutral	3	15	21%	61%	
Somewhat happy/Agree	4	16	22%	83%	
Very happy/Strongly agree	5	12	17%	100%	
Total		72	100%		
Variable	N	Min.	Max.	Mean	Std. Dev.
All possible areas to be covered	72	1.00	5.00	2.88	1.45

**4. Following proper rules and regulation:**

Category	Assigned Value	Frequency	Percent	Cumulative Percent	
Very unhappy/Strongly disagree	1	16	21%	22%	
Somewhat unhappy/Disagree	2	11	15%	37%	
Neither happy nor unhappy/Neutral	3	16	22%	59%	
Somewhat happy/Agree	4	12	17%	76%	
Very happy/Strongly agree	5	17	24%	100%	
Total		72	100%		
Variable	N	Min.	Max.	Mean	Std. Dev.
Following proper rules and regulation	72	1.00	5.00	3.04	1.48

**5. Justifiable amount of insurance premium:**

Category	Assigned Value	Frequency	Percent	Cumulative Percent	
Very unhappy/Strongly disagree	1	13	18%	18%	
Somewhat unhappy/Disagree	2	12	17%	35%	
Neither happy nor unhappy/Neutral	3	17	24%	59%	
Somewhat happy/Agree	4	18	25%	83%	
Very happy/Strongly agree	5	12	17%	100%	
Total		224	100%		
Variable	N	Min.	Max.	Mean	Std. Dev.
Justifiable amount of insurance premium	72	1.00	5.00	3.06	1.35



**6. Settlement of claim:**

Category	Assigned Value	Frequency	Percent	Cumulative Percent	
Very unhappy/Strongly disagree	1	15	18%	18%	
Somewhat unhappy/Disagree	2	13	30%	58%	
Neither happy nor unhappy/Neutral	3	19	26%	74%	
Somewhat happy/Agree	4	11	15%	89%	
Very happy/Strongly agree	5	14	19%	100%	
Total		72	100%		
Variable	N	Min.	Max.	Mean	Std. Dev.
Settlement of claim	72	1.00	5.00	2.94	1.40

**7. Availability of insurance facilities:**

Category	Assigned Value	Frequency	Percent	Cumulative Percent	
Very unhappy/Strongly disagree	1	16	22%	22%	
Somewhat unhappy/Disagree	2	14	19%	41%	
Neither happy nor unhappy/Neutral	3	22	31%	72%	
Somewhat happy/Agree	4	9	13%	15%	
Very happy/Strongly agree	5	11	15%	100%	
Total		72	100%		
Variable	N	Min.	Max.	Mean	Std. Dev.
Availability of insurance facilities	72	1.00	5.00	2.78	1.34

**8. Performance of insurance companies:**

Category	Assigned Value	Frequency	Percent	Cumulative Percent	
Very unhappy/Strongly disagree	1	14	19%	19%	
Somewhat unhappy/Disagree	2	16	22%	41%	
Neither happy nor unhappy/Neutral	3	14	19%	60%	
Somewhat happy/Agree	4	12	17%	72%	
Very happy/Strongly agree	5	16	22%	100%	
Total		72	100%		
Variable	N	Min.	Max.	Mean	Std. Dev.
Performance of insurance companies	72	1.00	5.00	3.00	1.44

**9. Evaluation of compensation:**

Category	Assigned Value	Frequency	Percent	Cumulative Percent	
Very unhappy/Strongly disagree	1	14	19%	19%	
Somewhat unhappy/Disagree	2	13	18%	37%	
Neither happy nor unhappy/Neutral	3	17	24%	31%	
Somewhat happy/Agree	4	16	24%	83%	
Very happy/Strongly agree	5	12	17%	100%	
Total		72	100%		
Variable	N	Min.	Max.	Mean	Std. Dev.
No overtaking tendency	72	1.00	5.00	2.98	1.37



**10. Adequate precaution:**

Category	Assigned Value	Frequency	Percent	Cumulative Percent
Very unhappy/Strongly disagree	1	18	25%	25%
Somewhat unhappy/Disagree	2	15	19%	44%
Neither happy nor unhappy/Neutral	3	14	21%	65%
Somewhat happy/Agree	4	13	18%	83%
Very happy/Strongly agree	5	12	17%	100%
Total		72	100%	

Variable	N	Min.	Max.	Mean	Std. Dev.
Adequate precaution	72	1.00	5.00	2.81	1.43

## Resource Mobilization and Local Governance: Experiences from Rural Assam

Debotosh Chakraborty\* & Sarada Jyoti Singha\*\*

### Abstract

Governance is a debated concept and subject to a variety of interpretations. In a broad sense, governance refers to the cultural and institutional environment in which citizens and stakeholders interact among themselves and participate in public affairs. It is true that the concept governance is a comprehensive one covering corporate governance, international governance, national governance and local governance (includes both urban and rural governance). In India, the concept of rural governance is found in the form of Panchayati Raj, which has been institutionalised for last three decades. It is important to note that the panchayats which hold the key position in the rural governance are required to be self-sufficient so that it can cater to the needs of the people. Thus, the present study made an attempt to explore the extent of self-sufficiency of the rural bodies particularly the GaonPanchayats. The data for the study was collected from Cachar and Dibrugarh district of Assam. The study observed that the position of tax collection at the rural bodies is very depressing. In spite of the detailed provision in the Panchayat Act of Assam there are, in fact, no efforts on the part of the elected representatives or the State Governments to initiate steps to collect taxes. It is also seen that there is a clear disparity between the revenue collected and expenditure and this is why the amount of revenue collected has persistently failed to keep pace with the escalation of expenditure on various aspects pertaining to the GPs. The need of the hour is the pro-active role of the State Government as well as the elected representatives to make it the system of self-governance in true sense.

**Key words:** Governance, Panchayat, Rural, Resource Mobilization, Self-sufficiency

Governance is a debated concept and subject to a variety of interpretations. In a broad sense, governance refers to the cultural and institutional environment in which citizens and stakeholders interact among themselves and participate in public affairs. Scholars like Goodwin stated that the concept of governance is broader than government (the latter being concerned with the formal institutions and structures of the state), paying attention to the multiple ways in which governmental and non-governmental organizations interact, and to the ways in which political power and authority are distributed throughout society (Bilella, 2013). Another Scholar Gerry Stocker viewed that governance is ultimately concerned with creating the conditions for ordered rule and collective action. The outputs of governance are not different from those of government. It is a matter of a difference in processes (Rao, 2014). There are also a variety of meanings attached to the concept of governance. Osborne and Gaebler, Dryzek, Fung and Wright are of the view that governance is often conceptualized as being more democratic than centralized forms of government as it provides increased opportunities for citizens to participate in decision-making processes (Cheshire, Higgins, & Geoffrey, 2013)

It is true that the concept governance is a comprehensive one covering corporate governance, international governance, national governance and local governance. Local governance can further be categorised into urban local governance and rural local governance, which falls under the gamut of decentralised governance. It is said

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that decentralised governance is an effective media and instrument for meeting people's demands and needs, and also a process which allows people's involvement in administration and development programmes. This aspect of rural governance in India is found in the form of Panchayati Raj, which has been institutionalised for last three decades. Naturally, a question arises regarding the performances of the units of rural governance, whose very purpose is to cater to the needs of the rural people. It is important to note that the panchayats particularly the Gaon Panchayats (GPs) which hold the key position in the rural governance are required to be self-sufficient. Mere dependence upon the external bodies for financial support will not only slow down the pace of development but also hampers the effort of making the bodies self-sufficient. It is, therefore, pertinent to understand the financial position of the GPs and steps initiated for resource mobilisation. Hence, the present study aims to explore the extent of self-sufficiency of the rural bodies (Gaon Panchayats) as without revenue generation rural bodies would remain dependent only on exogenous fund.

### **Report of the Committees on revenue generation**

To make the Panchayat self-sufficient bodies there were many efforts initiated by the Government in the post-independence period. One such effort was the constitution of Local Finance Enquiry Committee (1950) in order to assess the financial resources of the Panchayats. The Committee made an extensive study and found that resources of the Panchayats were inadequate to meet the requirement of the locality and this is due to the apathetic attitude of the elected representatives to make use of their financial powers to the maximum extent. Similar assessment was also put forwarded by the Team for the Study of Community Projects and National Extension Service in 1957. Subsequently, a Study Group on Budgeting and Accounting Procedure of PRIs was constituted under the Chairmanship of M. R. Krishnayya (1963), which suggested for the improvement of budgeting and accounting procedure of PRIs. Again, the Government of India formed another Committee known as Santhanam Committee to review the financial position of the local bodies as well as to study the status of the financial relations between the different levels of PRIs. The Committee recommended for levy special tax based upon the land revenue and house tax etc. by the Panchayats, constitution of the Panchayati Raj Finance Corporation and District Election Commissions. The Committee urged for the development of resources for the local bodies, which would entirely within their power to exploit and develop (Gsoh, 2010). Another important step towards assessment of financial position of Panchayats was constitution of Asoka Mehta Committee in 1978. The Committee recommended that the PRIs should have compulsory powers of taxation to mobilize their own financial resources and also urged for regular social audit by a district level agency. Later, G.V.K. Rao Committee (1985) recommended for a Finance Study Committee in each district in order to study the means for making the budgets for Panchayats. The most significant recommendations came from L.M. Singhvi Committee (1980), which urged for the constitution of State Finance Commission (SFC) to secure the financial strength of the Panchayats. Though a number of Committees were constituted to improve the financial position of the PRIs in the post-independent period but it is seen that there was no significant progress achieved in terms of mobilization of resources by the PRIs.

However, it was with the passing of Seventy-third (73<sup>rd</sup>) Constitution Amendment Act that PRIs has actually received financial autonomy. The Act provided for the constitution of SFC (Article 243-I and 243-Y) at the state level in order to assess the financial position of both rural and urban local bodies and also suggest measures for strengthening the finances of the local government. Accordingly, the Commission is required to develop principles of sharing between the state and the local bodies (both rural and urban) of the "net proceeds of taxes, duties, tolls and fees levied by the state and the determination of taxes, duties, tolls, and fees which may be assigned to or appropriated by the local bodies" (Biju, 2008). It is also directed to finalise the norms to provide grants-in-aid to local bodies from the Consolidated Fund of the State. Simultaneously, Articles 280(bb) and (c) empowered the National Finance Commission to recommend measures "needed to augment the Consolidated Fund of the State to supplement the resources of the Panchayats and Municipalities in the State on the basis of the recommendations made by the State Finance Commission" (Fifth Assam State Finance Commission, 2014).

Nonetheless, it deserves mention here that though the SFC has raised hope for large-scale transfer of resources at the lowest tier, but in actual practice it is minimal due to the appalling financial position of most of the states. It is, therefore, important to understand the real situation of the rural bodies as regard to financial strength and resource mobilization and, thus, an empirical study was conducted in Cachar and Dibrugarh districts of Assam.

### Methodology

In order to conduct the study data were collected from both primary and secondary sources. For obtaining primary data GaonPanchayats under Cachar district and Dibrugarh district of Assam were selected on the basis of simple random sampling technique. A total of 93 GPs (60 GPs from Cachar and 33 GPs district from Dibrugarh district) were selected for the study. Later, from each selected GP three elected representatives were randomly selected to understand the financial intricacies associated with the rural governance. From all the selected GPs, the Presidents were also selected for interaction. Thus, a total of 279 respondents were selected for interview. Besides, GP Secretaries and other local leaders were also consulted with a view to understand the financial position of the lowest unit. An interview schedule was administered for interaction with the respondents. In the course of the study, books, journals, internet sources were also consulted for understanding the financial aspects of the rural governance.

### Data analyses and findings

As per the Assam Panchayat Act (APA), 1994, the GPs have various ways of generating revenues, which include (i) tax and non-tax sources allocated to them; (ii) assigned taxes and duties transfer from the state; (iii) grants-in-aid from the Central and State government; and (iv) discretionary grant from the Central government to execute various schemes pertaining to poverty alleviation. However, for internal mobilization of revenues the most important part is taxation, and, therefore, the APA, 1994 has clearly laid down the power of the GPs in terms of taxation. Section 25 of the APA (1994) empowers every GP to levy tax on- (a) house and structure; (b) trades and callings; c) sanitary arrangement; d) water; e) light etc. Keeping the provisions of the Act in view the respondents were interacted and their opinions were presented and analyzed below.

**Table 1: Total percentage showing the opinion of the respondents about tax collection by the GPs**

Yes	26 (9.3%)
No	221 (79.2%)
Don't Know	32 (11.5%)
Total	279 (100%)

Source: Field Survey

The above table shows that the position of tax collection is very dismal. In response to the question of collection of taxes by the GPs, 79.2 percent of the respondents reported that GPs are not engaged in tax collection. In course of the survey it is found that tax/fee collection by the GPs is related to a few items like houses and structures; starting of any new business/shops; and issuing various certificates. It deserves mention here that license/registration fee for any item is not mandatory, and thus people approach to GP whenever they required its certification for any official purposes.

**Table 2: Total percentage showing the opinion of the respondents about the problems face by the GPs in tax/fee collection**

People refuse to pay	22 (7.9%)
No authority to compel people to pay tax	139 (49.8%)
No steps so far taken regarding tax collection	102 (36.6%)
Don't Know	16 (5.7%)
Total	279 (100%)

Source: Field Survey

It appears from the above table that the main problem of collection of taxes/fees relates to the fact that there is no means to compel people to pay tax/fee. This is followed by the fact that government did not take any major steps for tax/fee collection, and also it is reported that people refuse to pay tax/fee to the GPs. It is also observed that there is a clear disparity between the revenue collected and expenditure and this is why the amount of revenue collected has persistently failed to keep pace with the escalation of expenditure on various aspects pertaining to the GPs.

**Table 3: Financial strength of the GPs**

Yes	7 (2.5%)
No	268 (96.1%)
Don't Know	4 (1.4%)
Total	279 (100%)

Source: Field Survey

The above table depicts that the financial strength of the GPs is not sound enough to meet the local needs. A total of 96.1 percent of the respondents stated that their GPs are not able to meet the local needs due to the paucity of fund. The GPs are solely depended on exogenous fund. Due to lack of internal fund mobilization through tax/fee etc., the GPs are struggling hard to initiate any project. Moreover, during interaction it is found that the elected representatives do not bother about making Panchayats a self-sufficient unit. Their main thrust is on the selection of beneficiaries for various government schemes as well as getting fund from the government for development of the locality.

Realising such difficulty of the GPs across the states of India the Fourteenth Finance Commission recommended two types of grants for local self-government. The first type of grant is called Basic grant, which is to provide unconditional assistance to Gram Panchayats (also Municipalities) for delivering the basic functions assigned to them under their respective statutes. This grant is expected to improve the status of basic civic services including water supply, sanitation including seepage management, sewerage and solid waste management, storm water drainage, maintenance of community assets, maintenance of roads, footpaths and street-lighting, and burial and cremation grounds. The Commission recommended for direct allocation of basic grant to GPs without any share for other levels as they are primarily responsible for providing basic services. The Commission states "We recommend that the grants should go to gram panchayats, which are directly responsible for the delivery of basic services, without any share for other levels. We expect that the State Governments will take care of the needs of the other levels. The earmarked basic grants for gram panchayats will be distributed among them, using the formula prescribed by the respective SFCs for the distribution of resources" (Government of Assam, 2015).



The second type of grant initiated by the Commission was Performance grant. As per the Report the performance grant will be provided to the GP if it “submits audited annual accounts that relate to a year not earlier than two years preceding the year in which it seeks to claim the performance grant. It will also have to show an increase in the own revenues of the local body over the preceding year, as reflected in the audited accounts” (Fourteenth Finance Commission Report , 2014). As per the recommendations of the Commission the Basic grant and the Performance grant of Assam is presented in the following table.

**Table 4: Grants to Rural Local Bodies under the Fourteenth Commission in Assam**

Grant	2015-16	2016-17	2017-18	2018-19	2019-20	Total
Basic Grant (Rs. crore)	584.80	809.76	935.60	1082.32	1462.45	4874.92
Performance Grant (Rs. crore)	---	106.22	120.20	136.50	178.74	<b>541.66</b>

Source: *Compiled from the Report of the Fourteenth Finance Commission (2014)*

It is expected that the above recommendations as well as grants will definitely bring significant changes in the working of rural local bodies in the states. It will also promote accountability and transparency of the Panchayats. However, to make the Panchayats a true mechanism of service delivery in a state like Assam there is a need to timely constitute the SFCs to follow up the recommendations of the Finance Commission. In this regard the Government of Assam made a significant step. It had constituted the Fifth Assam State Finance Commission on March 5, 2013. The most striking feature of this Commission was that for the first time it had been made coterminous with the 14<sup>th</sup> Central Finance Commission and thus Assam occupies a premier position in this regard. In its Report the Commission observed that the PRIs did not use its statutory powers of revenue generation appropriately and for such position the PRIs alone are not responsible, rather the apathetic attitude of the higher tier of the government is equally responsible. The Commission noted that even after two decades of the initiation of the 73<sup>rd</sup> Amendment Constitution Amendment Act the PRIs are neither properly staffed nor given adequate accommodation. The Commission further observed that in Assam “most of the GPs are running without the crucial post of tax collector. There are instances of GP Secretary being put on dual charge to look after more than one GP. In regard to legal framework, though the Assam Panchayat Act was enacted in 1994 the enabling rule i.e., the Assam Panchayat (Financial) Rules was framed in 2002 precisely after 8 years of the principal Act. More importantly, the required bye-laws are yet to be put in place. Section 41 of the said Rules stipulates the maximum amount of tax, rates and fees that the PRIs can levy. It further states that the GP shall within 3 months from the date of constitution frame bye-laws and submit the same to the concerned ZP. On receipt of the bye-laws submitted by all the GPs under it the ZP shall consolidate the same keeping conformity for the whole district and submit the same to government” (Report of the Fifth State Finance Commission, 2016-20). However, in the absence of such bye laws the rural bodies are collecting internal revenues more or less on an adhoc basis. In the context of the recommendations of the Finance Commission it has become important for the Panchayats to regularize their accounts and to submit the accounts timely at the appropriate level. Keeping this in view a set of questions was asked to the respondents to understand the performance of the GPs in the submission of the accounts, which are presented below in a tabular form.

In course of interaction with the GP Secretaries it is found that GPs are not well equipped to maintain accounts through specified software, and for that matter they approach the ZP Office from where actually data gets entered in the software. While doing so they are to manage the concerned official at ZP and this is a regular problem for the GPs. Though the government has provided computer in many GPs but there is shortage of trained manpower and this results into the delay in submission of accounts.

It is the responsibility of the GP Secretary to submit the accounts in due time using the accounting software (*PRIASoft*) made by the Government. However, it is a fact that many of the GP Secretaries are overburdened and they are to shoulder the responsibilities of more than one GP and thus problem creeps in. The problem of non-submission of accounts is traced across the states in India and it is reflected in the report of the Fourteenth Finance Commission. The Commission states: “We observe that it has been more than twenty years that municipalities and panchayats were sought to be empowered, through a Constitutional amendment, to act as institutions of local self-governance and also to provide certain basic services to citizens. It is inconceivable, and certainly not desirable, that local bodies seek an ever increasing share of public moneys and yet continue to keep themselves beyond the ambit of accountability and responsibility for the public money placed with them” (Fourteenth Finance Commission Report , 2014). The facts furnished in the above table reveals that the State Government is required to increase manpower to equip the GPs to meet the recommendations of the Commission.

**Table 5: Monthly Salary received by the elected members of GP**

Yes	7 (2.5%)
No	272 (97.5%)
Total	279 (100%)

Source: Field Survey

The above table shows that the elected members of Panchayats are deprived of their remuneration. The Government of Assam before the Panchayat election of 2013 made a public announcement that all the elected members of all the three tiers would get remuneration and this made a huge enthusiasm among the youths to join at the rural self-bodies. However, the tall promises were not fulfilled. It can be seen from the above table that 97.5 percent of the respondents from Assam stated that they did not receive remuneration as declared by the Government. It is also reported by the respondents that initially they received salary for about two months but later no attempt is made by the Government to provide them remuneration. It deserves mention here that the Assam Panchayat (Administrative) Rules, 2002 prescribed the rates of remuneration of the President, Vice-President and Members of the GP, AP and ZP. In case of GP it is Rs.1000/- for President, Rs.600/- for Vice-President and Rs.300/- for Members per month. For AP it was Rs.1500/- for President, Rs.1000/- for Vice-President and Rs.500/- for Members per month. The prescribed rate for ZP is fixed as Rs.2000/- for President, Rs.1500/- for Vice-President and Rs.700/- for Members per month respectively. Subsequently, the rates of remuneration have been revised to Rs.5000/-, Rs.3000/- and Rs.1500/- for the President, Vice-President and Members of GP respectively; in case of AP it is Rs.7500/-, Rs.5000/- and Rs.2500/- and for ZP Rs.10000/-, Rs.7500/- and Rs.3500/- respectively for the President, Vice-President and Members (Fifth Assam State Finance Commission, 2014). Though detailed provisions are laid down but no effort was initiated by the Government to provide salaries to the elected representatives and this created a kind of frustration among the representatives.

### Concluding Remarks

Thus, from the aforesaid analysis it is observed that the position of resource mobilization in rural Assam is very depressing. In spite of the detailed provision lay down in the Panchayat Acts of Assam regarding collection of tax and non-tax revenue there is in fact no efforts on the part of the elected representatives or the State Governments to initiate steps on such collection. The same is reported by the Fourteenth Finance Commission, which states that the PRIs did not use its statutory powers of revenue generation appropriately and for such position the PRIs alone are not responsible, rather the apathetic attitude of the higher tier of the government is equally responsible. It is seen that GPs are solely depend on exogenous fund and, thus, it is due to lack of internal fund mobilization that the GPs are struggling hard to initiate any project. Another problem relating to resource mobilization is that there is no means to compel people to pay taxes/fees etc. to the rural bodies. It is

also seen that there is a clear disparity between the revenue collected and expenditure and this is why the amount of revenue collected has persistently failed to keep pace with the escalation of expenditure on various aspects pertaining to the GPs.

As per the Fifth Assam State Finance Commission Report it is found that the Activity Mapping documents covers only 22 subjects and the Activity Mapping relating to the seven (7) subjects, viz., rural housing; non-conventional energy sources; technical training and vocational education; libraries, cultural activities, markets and fairs; and maintenance of community assets is yet to be completed. It is reported by the Commission that devolution of functions to PRIs so far completed by the Government of Assam is partial. Besides non coverage of all the 29 subjects, Government's orders are issued only for 7, leaving out the other subjects. The subjects for which orders for devolution to PRIs include: (i) agriculture including agricultural execution; (ii) land improvement and soil conservation;(iii) animal husbandry, dairying and poultry; (iv) adult and non formal education; (v) education including primary and secondary up to class X or XII; (vi) khadi, village and cottage industries; vii) rural electrification including distribution of electricity. The devolution of functionaries to PRIs at all level is yet to start. The Activity Mapping drawn up by the Government of Assam indicates the number of officials to be devolved to each tier of PRIs with designation. These officials are to be placed on deputation from the concerned Departments in respect of the functions devolved. It is also observed that the Line Departments are yet to take steps in this regards. The Report also stated that the action taken by the Line Department as regard to devolution of fund to PRIs is far from expectation. Presently the funds approved by Central and State Finance Commissions are made available to PRIs. Steps are needed in order to make GPs financially stable and self-sufficient. To do so the first step is to provide certain basic services to the people and also strengthen its tax collection system. For that the Government should recruit more tax collectors and train them about the provisions of the Panchayat Acts. The Government must make it compulsory for the people living in the GP to deposit fees for starting any new business and obtain trade license from the GPs.

A kind of incentive grant needed to be introduced by the Government for encouraging GPs to initiate steps for resource mobilisation. To be more precise it is suggested to introduce 'Best GP Award' at the district and state level and those GPs who achieve the awards, incentive grant can be provided to them. Such initiative will develop a kind of healthy competition among the GPs. It deserves mention here that the Fourteenth Finance Commission also introduced the concept of 'Performance Grant' for the GPs and it is expected that such step will further improve the work culture of the GPs. It is now imperative for the GPs to timely audit and submits the accounts else there will be more paucity of fund as Performance Grant will not be received by the GPs. Thus, the State Government should extend its support to achieve the same. It is also required that the State Government should timely constitute the State Finance Commissions and implement its recommendations.

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## Analytical Review of FMCG Sector in Indian Market: Past, Present and Prospects

Pranesh Debnath\* & Chinmoy Roy\*\*

### Abstract

The goal of this research is to describe the history, current growth, and future prospects of India's Fast Moving Consumer Goods (FMCG) industry. This study discusses the state of India's FMCG sector and its contribution to global market demand. The FMCG sector is India's fourth-largest, according to the study, with the household and personal care sectors responsible for half of total FMCG sales. The growth of the FMCG sector in India has been attributed to changes in lifestyle, ease of access, rising per capita income, and increased awareness. The urban sector accounts for approximately 55% of the total FMCG sector revenue, with the rural segment accounting for the remaining 45%. In the fourth quarter of 2019-20, the FMCG industry in rural India restored to a growth rate of 10.6 percent. The study also noted that, with the help and support of several government economic policies, the Indian FMCG sector can reach new heights due to a large customer base in the market, which provides a significant share of global consumption.

**Key Words:** FMCG Sector, Consumer Goods, Personal Care, Foreign Direct Investment, Indian Economy.

### Introduction

During the last fifty years, the Indian FMCG industry has begun to take shape. From 1950 to 1980, the FMCG industry grew at a slow pace. Previously, the FMCG industry was unappealing to investors due to low purchasing power and the government's preference for the small-scale sector. However, the growth storey of the FMCG sector continued after the Indian economy was deregulated in the early 1990s (Patil, 2016). Now, the FMCG sector is a significant contributor to the GDP and the fourth largest sector in the Indian market. This sector generates significant income and employment opportunities in the economy, employing approximately 3 million people and accounting for approximately 5% of total employment in the country. The FMCG sector's products are generally distinguished by a higher daily turnover of consumer packaged goods produced, distributed, marketed, and consumed (Jaray, 2005; Lancaster and Withey, 2013). According to the study, items costing INR 10 or less account for more than half of FMCG businesses' total revenues (Mallik, 2011). People's daily needs are met by the sector, which includes everything from inelastic demand for essential food items like salt, sugar, and edible oil to home and personal care products like soap, shampoo, and detergent. Furthermore, the sector manufactures value-added products with discretionary demand, such as ice cream, hair oil, and body moisturising. This category includes food and dairy products, packaged food products, household products, beverages, and other items. The sector represents the presence of major multinational corporations, competition between organised and unorganised players, a well-established distribution network, and low operational costs. Growth in the country's FMCG sector is being fuelled by improved demand and supply scenarios.

Major demand-side drivers include the Indian consumer's growing affluence and appetite for consumption, a growing youth population, an increase in per capita income, and an increase in brand consciousness. Foreign players, on the other hand, found it easier to enter the market due to easier imports of materials and technology. The major supply-side drivers for the sector are new product development, rapid real estate infrastructure development, and improved supply chain efficiency. The FMCG sector, which primarily includes food and beverages, personal care, and household care, has grown in both rural and urban areas. Rural consumption

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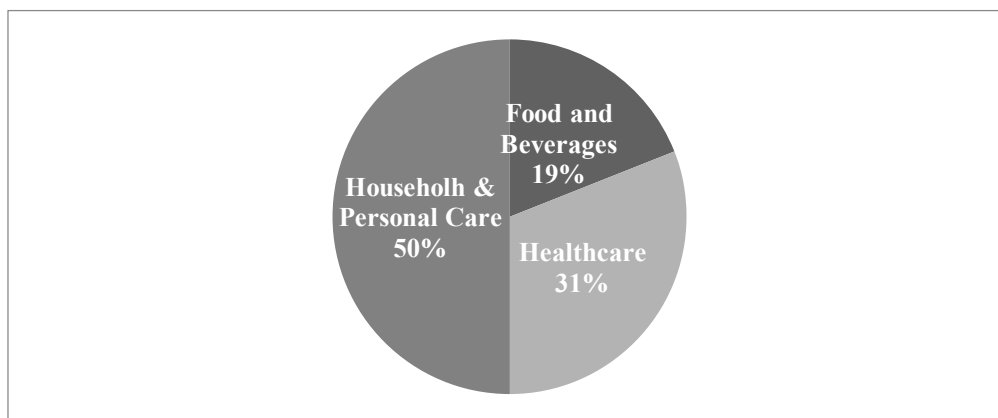
growth has outpaced urban consumption growth in recent years, with increases in monthly per capita expenditure in rural markets outpacing those in urban markets. The increase in rural consumption is expected to drive the FMCG market even further. Furthermore, several government initiatives, including the implementation of the Goods and Services Tax (GST), the Food Security Bill (FSB), and Foreign Direct Investment (FDI) in the retail sector, are expected to have a significant positive impact on the country's FMCG sector in the years ahead.

### Literature Review:

The FMCG sector in India can be divided into rural and urban market demographics based on demand profiles. The urban segment (which now accounts for approximately 55% of total income generated by the FMCG sector in India) is the most significant contributor to the sector's overall revenue. However, in recent years, the FMCG market in rural India has grown faster than that in urban India. According to recent government consumption estimates, the semi-urban and rural segments are growing, with FMCG products accounting for half of all rural spending. According to an Invest India survey, this sector had a market size of USD 29.4 billion in 2017 and grew faster in rural areas than in urban areas.

According to Figure 1, the Indian FMCG industry is dominated by three product segments, the largest of which is household and personal care, which accounts for more than half of the total FMCG market. This category includes oral care, hair care, skincare, cosmetics/deodorants, perfumes, feminine hygiene and paper products, fabric wash, household cleaners, and so on. The healthcare industry is the second-largest segment of the FMCG market, accounting for more than 30% of total sales. In addition, the Food and Beverage sector accounts for 19% of the FMCG industry.

**Figure 1: Major FMCG Products Segments in India**



*Source: Authors' compilation from the various published report.*

### Urban and Rural Segmentation in FMCG Sector:

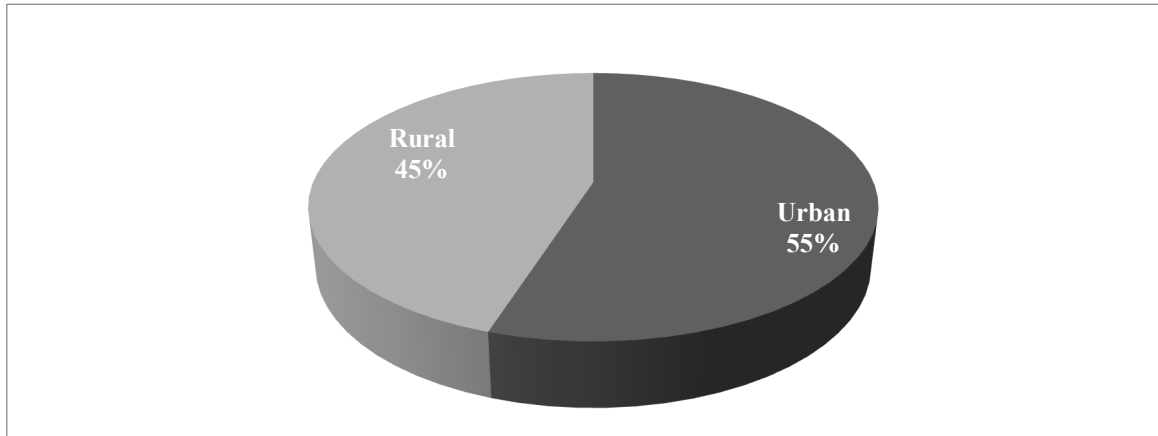
The FMCG sector in India is split into rural and urban India demographics. Currently, the urban market accounts for 55 percent of the FMCG market's consumer revenue. This industry has a market value of USD 29.4 billion in 2017. The semi-urban and rural segments account for roughly 45 percent of the FMCG sector's overall revenues in India. The urban segment contributes the most to the FMCG sector's overall income. The rural market is growing rapidly, accounting for 45 percent of the FMCG sector's overall revenues in India. Fifty percent of all rural spending is spent on fast-moving consumer goods (FMCG). Rural India's FMCG market has developed at a higher rate than urban India in recent years. With approximately 12% of the world's population residing in India's villages, the rural FMCG industry accounts for a significant portion of global consumption, making the Indian market appealing to investors from all over the world. According to another report, Dabur



India is one of the top FMCG companies in India, with packaged consumer products sales accounting for nearly 45 percent of its domestic revenue.

In the urban areas, home and personal care, which includes skin care, household care, and feminine hygiene, will continue to grow at an attractive rate. Within the food segment, processed foods, bread, and dairy are expected to be long-term growth categories in both rural and urban areas. These developments will continue to shape the profile of the FMCG industry.

**Figure 2: FMCG Market Segments in Rural and Urban Areas**



*Source: Authors' compilation from the various published report.*

**Significance of the Study:**

Previous research has found that the FMCG sector contributes significantly to India's GDP growth (Patil, 2016). Currently, the industry employs over 3 million people and is India's fourth-largest industry. The FMCG industry has expanded in recent years as a result of rising disposable income, a growing youth population, and increased consumer brand awareness. India is quickly becoming one of the most appealing markets for multinational FMCG companies due to the easy availability of imported raw materials and low labour costs. The urban segment, which accounts for nearly two-thirds of total revenue, is the most important contributor to the growth of India's FMCG sector.

However, the share of semi-urban and rural segments in the country's FMCG sector is expected to rise by the end of 2020. Furthermore, the organized retail sector, new product launches by Indian and foreign companies, and rising demand for branded items, in conjunction with beneficial government measures such as FDI, GST, FSB, and others, are influencing the country's FMCG market favourably. According to previous research, the FMCG industry is centered on everyday people, and businesses sell themselves by presenting a market offer (Ramaswamy and Namakumari, 2013). Furthermore, with 1.3 billion people and the world's second-largest population, India is one of the world's major emerging markets. It has a strong middle-class foundation of 300 million people and is one of the most influential economies in the world in terms of purchasing power.

The FMCG industry is a low-margin business where success is primarily determined by the quantity of products supplied, and demand is consistent throughout the year. According to Emami's annual report, India's population is growing at a rate of 1.1 percent per year and is expected to overtake China as the world's most populous country by 2024. Around 36% of the Indian population is under the age of 20, and 70% is under the age of 40. As a result, India is likely to have the world's largest workforce by 2027, with a billion people aged 15 to 64.

India's affluence is rising as well, with per capita income rising from INR 114958 in Fiscal Year (FY) 2017-18 to INR 126699 in Fiscal Year (FY) 2018-19. The high population coupled with higher wealth levels has been one of the primary structural variables contributing to the expansion of the FMCG sector. Rural households

account for more than 70% of all households in India. As incomes rise in both rural and urban areas, the market potential is expected to grow further. With rising population and income levels, non-discretionary consumer demand for food, healthcare, household, and personal care products is expected to grow steadily in the coming years. According to several government data, the ordinary Indian spends roughly 40% of his income on groceries and 8% on personal care goods. Another aspect that makes India one of the greatest FMCG markets is the significant contribution of FMCG in total individual spending and the large population base. Even on a global scale, India's overall consumer expenditure on food, at USD 120 billion, ranks second only to China among emerging markets.

As a result, research on the FMCG sector is critical in the Indian market for a variety of reasons from the standpoint of investors. To begin with, the government has permitted 100% FDI in food processing and single-brand retail, as well as 51% in multi-brand retail.

This will boost consumer spending and drive new product launches by increasing FMCG brand employment, supply chain visibility, and high visibility in organised retail markets. Second, given the rural market's low penetration, an increase in disposable income and lifestyle changes provide opportunities for growth. Third, because FMCG products are in high demand throughout the year, investors are drawn to this industry. As a result, the sector received USD 16.28 billion in FDI from the month of April, 2000 to March, 2020. Fourth, the union government's Production-Linked Incentive (PLI) scheme promotes exports while increasing foreign exchange revenues in the exchequer. Furthermore, India's share of global consumption is expected to more than double by 2020, reaching 5.8 percent. Furthermore, India's villages house 12% of the world's population. As a result, international investors are becoming more interested in India's rural FMCG market.

#### **Objectives of the study:**

The primary objective of the present study is to analyze the growth pattern and prospects of the FMCG sector in India. More specifically, considering the economic importance of the FMCG sector given the highest number of consumers in the Indian market, the present study attempted-

- ✓ To analyze the status and growth pattern of the FMCG sector in India.
- ✓ To discuss the opportunities and challenges in the FMCG sector in India.
- ✓ To summarise the government policies for the FMCG sector in India.

#### **Data and Methodology:**

This study is a theoretical analysis based on secondary data collected and compiled from different reports, magazines and websites published by government agencies and autonomous research bodies etc. The researcher has extensively reviewed government reports and statistics on the FMCG sector for the last couple of years to represent the information in a concrete and comprehensive shape to the reader audience to make better and more informed decisions. The study also reviewed different government policies and initiatives that have been taken up in recent years to promote and protect the FMCG sector and achieve the fullest advantage of the country's economic development. The study also summarised the opportunities and challenges of the FMCG sector in the Indian economy based on different published reports.

#### **Analytical Discussion:**

According to an FMCG industry overview, revenues in the FMCG sector reached USD 52750 million in FY 2017-18 and are expected to hit USD 103700 million in 2020. Because India's consumption is growing at an extraordinary rate, the FMCG business is a vital area for investors from all over the world. Rising income levels and urbanization, for example, have lately driven huge and diversified investments in the FMCG sector. Top FMCG firms are growing capacity to satisfy increased local demand, while domestic brands are moving into

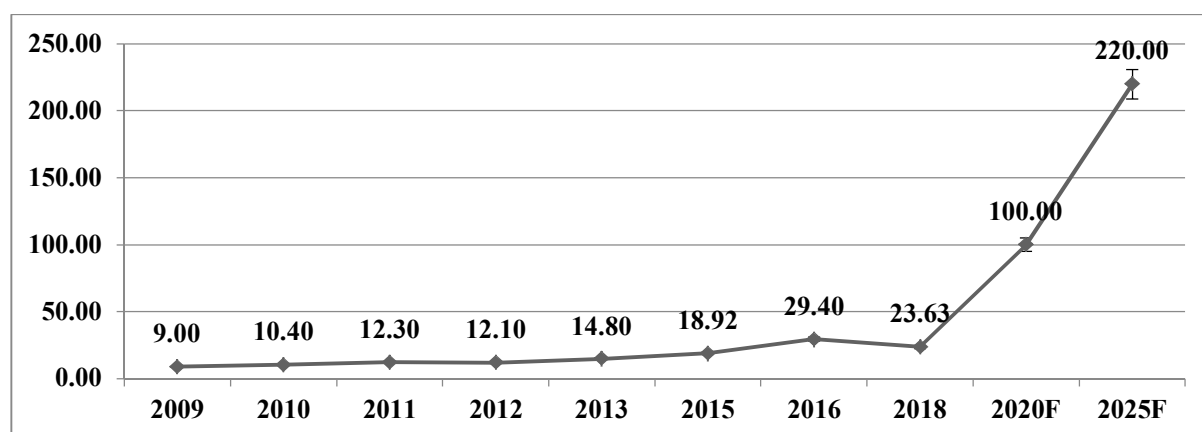
overseas markets. Recognizing these shifts in the FMCG industry's profile, the Indian government has adopted a number of initiatives to promote and protect the sector, including (but not limited to) the following:

- ❖ On November 11, 2020, the Union Cabinet approved the PLI programme across 10 main industries (including electronics and white goods) to boost India's manufacturing capacity, exports, and promote the 'Atmanirbhar Bharat' (self-reliance India) goal. Changes in the packaged food sector will boost farmer prices while decreasing waste. To give assistance under the PLI strategy, unique product lines with great growth potential and the ability to create medium to large-scale jobs have been established.
- ❖ The Indian government has allowed 100 percent foreign direct investment in cash and carry and single-brand retail, as well as 51 percent in multi-brand retail. This would result in higher consumer spending and more product launches by increasing employment, supply chain visibility, and high exposure for FMCG companies in organized retail marketplaces.
- ❖ The government has passed a new Consumer Protection Bill (CPB), highlighting the establishment of a comprehensive process to ensure that consumers receive justice in a simple, quick, accessible, inexpensive, and timely manner.
- ❖ The implementation of GST transforms logistics in the FMCG sector into a contemporary and efficient model, as all major corporations restructure their operations to incorporate more extensive logistics and warehousing. Furthermore, the GST favours the FMCG business since many FMCG items, such as soap, toothpaste, and hair oil, are now taxed at 18% rather than the prior rate of 23-24 percent. Food and hygiene product GST rates have also been reduced to 0-5 percent and 12-18 percent, respectively.

**Growth of Rural FMCG Market in India:**

From the report, it is found that from April, 2000 to September, 2020, the sector recorded significant growth of FDI inflows of USD 17.8 billion. It was projected that by 2020, India's rural per capita disposable income is expected to rise by 4.4 percent. In rural India, there is a definite upward trend in the share of non-food expenditure as income levels rise. By 2025, the FMCG sector in non-urban India is anticipated to exceed USD 220 billion. As a result, FMCG's rural segment revenue is expected to increase to 15-16 percent in FY 2018-19, up from an estimated 10 percent in FY 2017-18.

**Figure 3: Growth Pattern of Rural FMCG Market (2009-2025F) (USD Billion)**

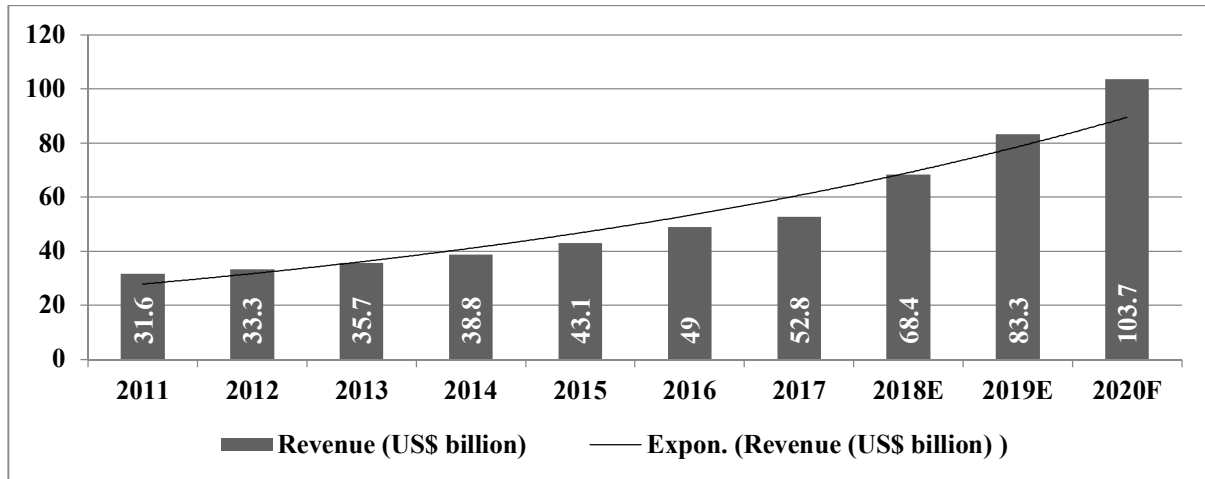


Source: Authors' compilation from different government and professional report

Taking note of the stated fact, Figure 3 portrays that the market size of the rural FMCG sector has registered significant growth during the last couple of years and it is expected to reach USD 220 billion by 2025 from only 9 billion in 2009.

Figure 4 depicts the FMCG sector's consistent growth over the last decade. Figure 4 shows that the FMCG sector's revenue increased to USD 52.8 billion in 2017 from a much lower figure in 2011. Figure 4 also shows that the revenue figure is expected to reach USD 103.7 billion by 2020.

Figure 4: Trends in FMCG Sector Revenues over the years (USD billion)

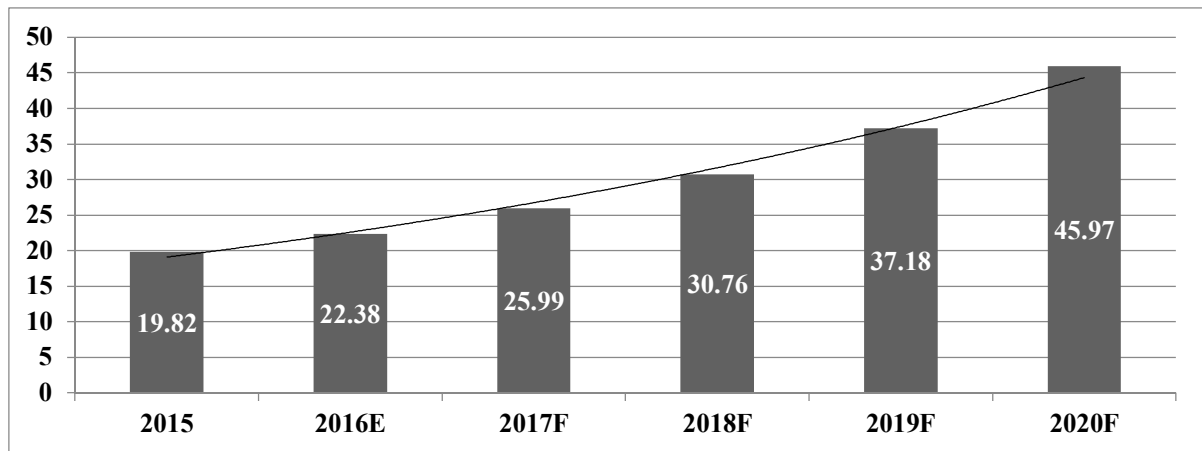


Source: Authors' compilation from different government and professional report

#### Food and Beverages Sector Growth:

In India's FMCG market, the food and beverage industry held the greatest proportion. The food and beverage sector has benefited from the shifting preferences of upward middle-class families from urban areas, which has fuelled expansion in recent years. India, behind China, is the world's second-largest food producer, and it has the potential to become the most important player in the food and agricultural sectors. Food processing is one of India's leading industries, coming in fifth place in terms of productivity, consumer, exporting, and expected growth. Figure 5 shows that the food and beverage industry has shown steady exponential expansion in recent years. Figure 5 illustrates that the food and beverage industry is anticipated to rise to USD 45.97 billion by 2020.

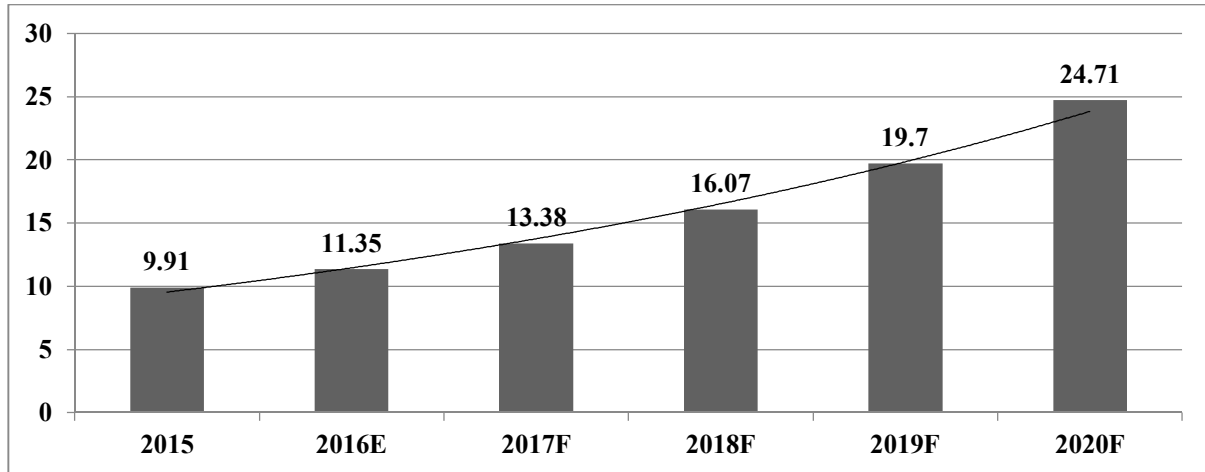
Figure 5: Indian Food and Beverage Market Size from 2015-2020 (USD Billion).



Source: Authors' compilation from the various published report.

Aside from food and beverage items, the personal care sector plays a considerable role in India's FMCG sector. The growth pattern of the personal care industry is presented in Figure 6. Figure 6 shows that the personal care industry registered impressive growth during the last five years, and it was expected to reach 24.71 billion by 2020.

**Figure 6: Indian Personal Care Market Size from 2015-2020F (USD Billion).**

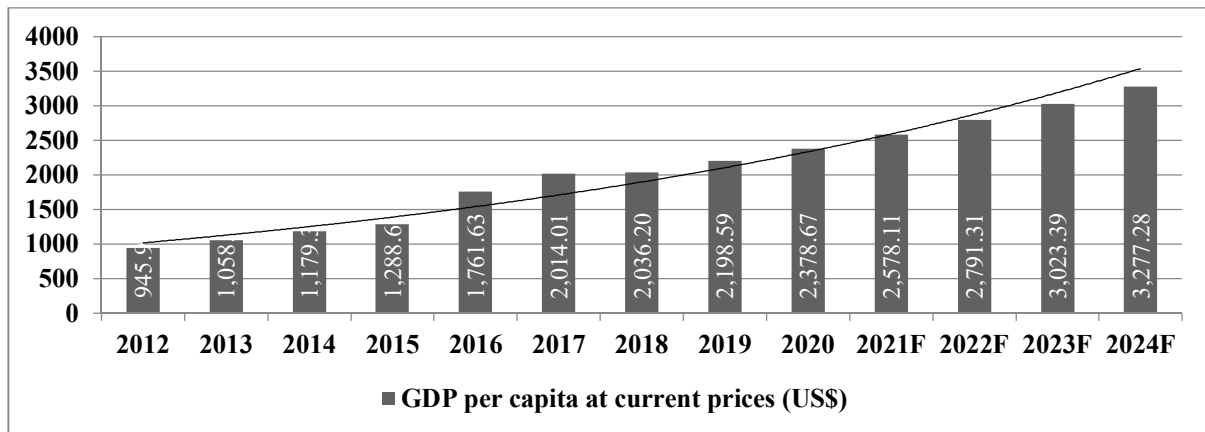


Source: Authors' compilation from the various published report..

Figure 7 presented the growth pattern of per capita GDP in the Indian economy from 2012 to 2024F.

The growing proportion of the organised retail sector in India's FMCG market has been a key driver. The retail sector in India is increasing largely as a result of economic growth, changing demographic features, increased disposable incomes, and altering customer tastes and preferences. The retail industry contributes for more than 20 percent of India's GDP and around 8 percent of total job possibilities. Despite having a modest percentage of organised commerce in contrast to other nations, India has one of the world's fastest-growing retail markets.

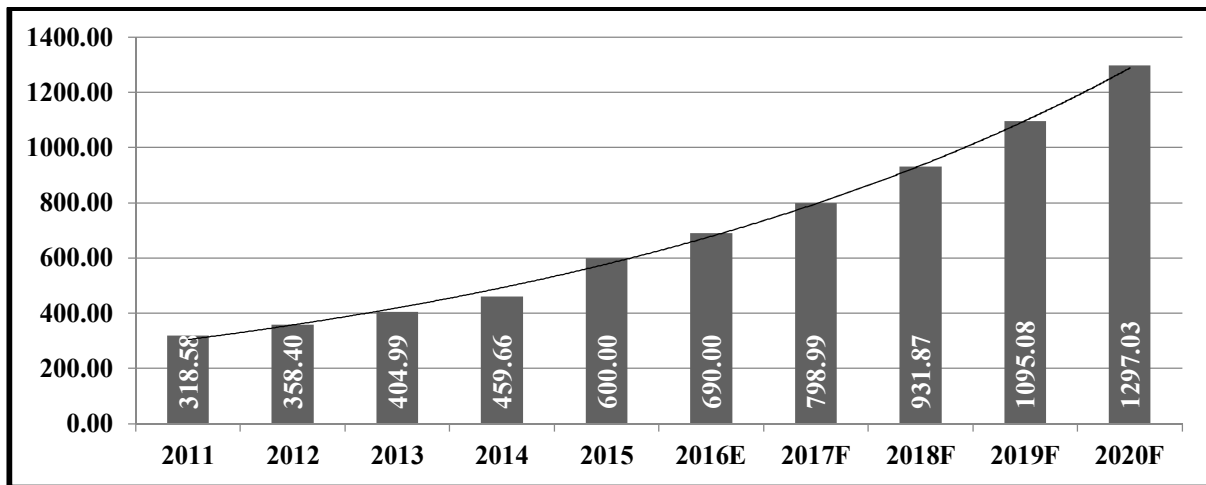
**Figure 7: GDP per capita at current prices (USD) during 2012 to 2024F**



Source: IMF, World Bank

From 2011 to 2020, Figure 8 depicted the retail market size's exponential growth trend. (Figures from 2016 are approximations.) Figure 8 shows that the retail market is expected to grow by roughly 300 percent between 2011 and 2020.

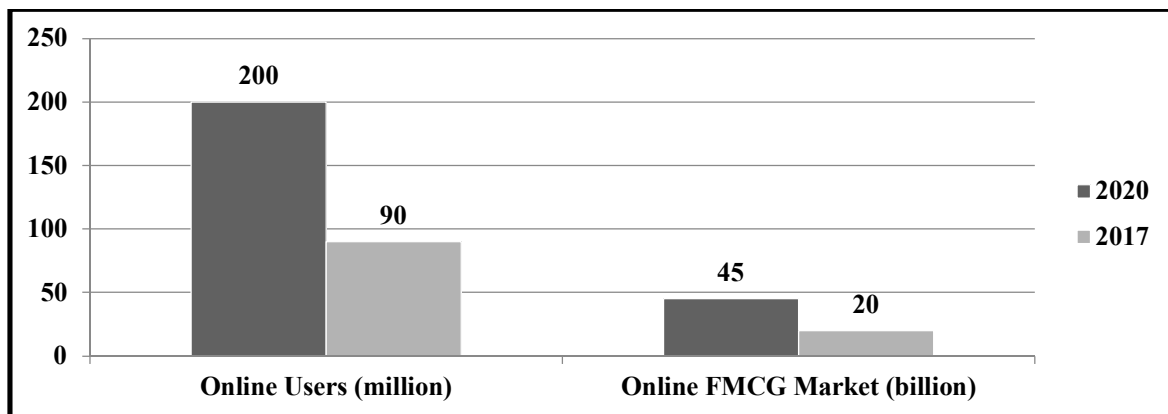
**Figure 8: Retail Market Size from 2011-2020F (USD Billion)**



Source: Authors' compilation from the various published report.

The country's expanding youth population, particularly in the urban areas, is another key element boosting demand for catering services in India. India has a huge number of young customers who make up the majority of the workforce and have little time to prepare their daily food. The internet has played a significant role in enabling a more cost-effective and simple manner of increasing a company's reach. By 2020, it is expected that 40 percent of all FMCG consumption in India would be done online. Furthermore, India is expected to gain USD 15 billion each year from the adoption of GST.

**Figure 9: Online FMCG Market Size and Users**



Source: Authors' compilation from the various published report.

The expansion of internet connectivity in rural and urban areas, combined with the government's digital initiative to use digital platforms for financial transactions, has resulted in a significant increase in online transactions in the Indian market. As a result, the online FMCG market is expected to reach USD 45 billion by 2020, with more than 40% of FMCG products sold online. For luxury items, nearly 72 percent of Indian consumers prefer to shop locally online.

**Future Prospects FMCG Sector in India:**

FMCG products have now become an inseparable element of modern society. This sector is recession-proof and has provided significant productive employment in India, making it one of the country's most important economic foundations (Patil, 2016). As a result, demand for branded items has surged in rural India, with the rural FMCG market predicted to grow to USD 220 billion by 2025, up from USD 23.6 billion in FY 2018. On



the other hand, as the unorganized market's proportion of the FMCG sector shrinks, the organized sector's growth is likely to accelerate, aided by increasing brand awareness and modern retail expansion.

- ❖ Rural FMCG consumption has surpassed urban demand, with monthly per capita spending in rural markets increasing at a faster rate than in urban markets. Furthermore, prominent FMCG firms have a robust distribution network in rural India and benefit from technological advancements like the internet and improved transport facilities.
- ❖ Consumers in India are extremely flexible to new and creative items. As Indian consumers become more exposed to global products, their appetite for innovative products has grown, prompting key market companies to raise their R&D spending.
- ❖ Middle and upper-middle-class urban consumers have switched their shopping habits from necessary to quality brands as their disposable incomes have increased. As a result, luxury brands are manufacturing smaller packages of premium products. As a result, companies have begun to expand their luxury product offering.
- ❖ In rural and semi-rural India, most household and personal care items still have a limited market penetration. This presents market participants with a huge potential to tap into these markets by delivering low-cost, small-packaging products.
- ❖ Because of India's emergence as a dynamic regional economy, domestic and global FMCG corporations may leverage India as a vital sourcing base for cost-competitive products to supply foreign markets. A lot of FMCG companies, whose sales from overseas markets have been increasing, regard this as a strategy.
- ❖ GST would remove several indirect tax regimes, resulting in decreased input costs and increased profitability. However, taxation at all points in the supply chain is likely to necessitate profit margin modifications, particularly for distributors and retailers.

#### **FMCG Market Challenges:**

- ✓ Multiple micro-markets have diverse needs across geographies, resulting in category preferences that differ from state to state and district to district. This makes it difficult for players to strike a balance between market demands and inefficiencies in customization.
- ✓ Due to a lack of transportation and storage facilities, as well as rising raw material and energy costs, the Indian FMCG market has faced significant challenges. Furthermore, food items have a much shorter shelf life and require quick distribution channels, regular shelf replenishment, and a wide range of warehouse and logistics requirements. Furthermore, long distances between two nearby markets in India's large states have a disastrous effect on the viability of distribution channels serving the solitary markets.
- ✓ The lack of cold storage infrastructure in the Indian market scenario has severely hindered the growth of the FMCG sector.

#### **FMCG and Government Policy Support:**

- ❖ Goods and Service Tax (GST): GST replaced the multiple taxes applied on the FMCG industry with a single, simplified taxation structure that includes an input tax credit option, preventing cascading effects. In India, the FMCG sector pays approximately \$6 billion in direct and indirect taxes. Previous research indicated that shifting from the current indirect tax system to the GST regime would have a positive impact on product prices (Debnath, 2017). The implementation of GST is expected to reduce

warehousing costs for FMCG industries by 25-30%. The number of warehouses will be reduced from 45-50 to 25-30, and warehouse size will become more prominent. (IBEF 2020 Report).

- ❖ Excise Duty: Non-alcoholic drinks and lemonade would have their excise tax slashed by 35%, decreasing the retail selling price. The excise levy on numerous tobacco products will be hiked, resulting in a 10-15% rise in retail tobacco costs.
- ❖ Relaxation of License Requirements: With the exception of alcoholic drinks, sugar cane, hydrogenated and animal fats, and items restricted to exclusive production in the small-scale sector, almost all food and agro-processing companies do not require an industrial licensing.
- ❖ FDI in Organized Retail: In 2016, the government allowed 100 percent FDI in the online selling of food commodities, which is likely to strengthen the country's online food sector in the coming years. It also permitted 100 percent foreign direct investment in food and single-brand retail.
- ❖ The Indian government gave a total tax exemption on income up to INR 5 lakh to raise discretionary income in the hands of common residents and encourage consumer spending in the FMCG industry.
- ❖ SETU Policy: The government established the Self Employment and Talent Utilization (SETU) scheme to encourage young entrepreneurs by providing USD 163.73 million funds.

#### Conclusions:

The FMCG is defined as packaged items that are consumed or sold on a regular basis. Thus, FMCG product pricing is low, and the sector's profitability is based on product sales volume. The four primary categories that comprise the Indian FMCG market are personal care, household care, food and beverages, and others. The findings suggest that, apart from income and rapid urbanisation, many other factors are driving India's fast-growing FMCG industry. The changing consumption patterns of the country's new-age group population have resulted in a paradigm shift in the market's customer needs for FMCG products.

The modern Indian consumer is distinguished by a high level of awareness, a solid interest in health and nutrition, and a higher level of disposable income. According to an outline of the FMCG industry, India's demographic characteristics have a significant impact on the sector's growth. The Indian FMCG industry has grown rapidly as a result of rising income levels, changing consumer lifestyles, increased internet usage, and a thriving e-commerce market. Furthermore, the country's FMCG market is expected to benefit from the organised retail sector, product launches by Indian and foreign companies, rising demand for brand products, and favourable government policies such as FDI, the GST Bill, and the Food Security Bill. The modern Indian consumer is distinguished by a high level of awareness, a solid interest in health and nutrition, and a higher level of disposable income. According to an outline of the FMCG industry, India's demographic characteristics have a significant impact on the sector's growth. The Indian FMCG industry has grown rapidly as a result of rising income levels, changing consumer lifestyles, increased internet usage, and a thriving e-commerce market. Furthermore, the country's FMCG market is expected to benefit from the organised retail sector, product launches by Indian and foreign companies, rising demand for brand products, and favourable government policies such as FDI, the GST Bill, and the Food Security Bill.

Furthermore, rural consumption has increased as a result of rising income and aspiration. As a result, demand for branded goods has increased in rural India. The rise of the E-Commerce sector, which has helped reinforce significant sectors of India's unregulated retail sector, has been fuelled by the increased use of smartphones and more affordable internet access. By 2030, the E-Commerce sector will contribute approximately 11 percent of total sales revenue, making it a significant accelerator in the development of the FMCG sector in rural India.

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## Crop Diversification in Assam: An Analysis

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### Abstract

Crop diversification is the result of the process of structural changes in developing countries. In modern times, crop diversification is considered a way to agricultural development. With rising per – capita income, the consumption pattern of the people changes towards high–value crops like fruits and vegetables rather than that of traditional cereals and pulses. Thus, crop diversification in agriculture is considered a pro-poor strategy. However, it is important to understand the nature and pattern of crop diversification over time. The present paper tries to analyze the level of crop diversification at the district level as well as at the state level in Assam. We seek to examine the trend of crop diversification and also the factors affecting crop diversification in Assam. The study is entirely based on secondary data. The Simpson Diversification Index has been used to measure the extent of crop diversification. The district level analysis is based on a set of data on 23 districts of Assam for two different time points 2007 – 2008 and 2012 – 13. To analyze the influence of various determinants of crop diversification at district level, we use Tobit regression for these two selected years separately. The result of the Tobit regression shows that for the year 2007-08, cropping intensity, fertilizer consumption, and irrigation intensity are statistically significant at 1%, 5%, and 10% levels of significance respectively. Moreover, for the year 2012 – 13, the Tobit regression result shows that cropping intensity and institutional rural credit have a significant impact on crop diversification at 1% and 10% levels of significance respectively. The state level analysis is based on time – series data from 2007-08 to 2018-19. To determine the factors affecting crop diversification at the state level, we use Vector Autoregression (VAR) model. The result of Vector Autoregression shows that cropping intensity and irrigation intensity are statistically significant at 1% level of significance during the same time period.

**Keywords:** Determinants, Simpson’s Diversification Index, Tobit regression, Vector autoregression

### Introduction

Diversification in agriculture may be defined as producing increased numbers of agriculture commodities. Diversification becomes necessary because with the process of development in developing countries, growing mere cereals cannot support the economic development however, the food security of the people has to be ensured. Diversification in agriculture becomes necessary to increase income level in agriculture, reduce risks of crop failure, employment generation, poverty alleviation, environment conservation and to earn foreign exchange. In recent times, diversification towards hi-tech, innovative enterprises in the primary sector such as horticulture and towards secondary sector such as food processing industry and rural non-farm sector has been gaining importance (Satyasai and Viswanathan, 1997). Assam, a North-Eastern State of India, having suitable soil quality, rainfall and temperature not only for those traditional crops like cereals and pulses but also for high value horticultural crops like various fruits and vegetables such as banana, pineapple, papaya, oranges, Assam lemon, guava, litchi, jackfruit, coconut, areca nut, mango, cashew nut, potato, onion, sweet potato, Rabi vegetables black paper, chili, turmeric, garlic, coriander black paper etc. However, agricultural sector in Assam being traditional, faces many constraints such as poor financial condition and natural hazards like flood and erosion and hence livelihood of the farmers is being threatened. On the other side, due to increase in per-capita income of people, reduces the demand for traditional crops and there is rising demand for high value crops. Thus, the need of the situation is to commercialize and diversify the agricultural sector to increase farmer’s

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income so that the condition of small farming families improves. When it is the matter of diversification of agriculture, horticultural sector may play an important role because of the wide variability of climate and soil in the state which are favorable in growing various high-value horticultural crops. Over the years horticulture has emerged as an indispensable part of agriculture, offering wide range of choices to the farmers for crop diversification. Within the agricultural enterprise, diversification may be defined as a process with three stages. The first stage is considered as the cropping level which involves a shift away from monoculture. At the second stage, the farms have more than one enterprise and produce many crops that they could potentially sell at different times of the year. The final stage is understood as mixed farming where there is a shift of resources from one crop (or livestock) to a larger mix of crops (or livestock) or mix of crop and livestock (Ogundari, 2013). According to Johnston *et al.* (1995), crop diversification has three dimensional benefits which the author described as economic, social, and agronomic. The economic benefits include: seasonal stabilization of farm income to meet other basic needs of life like education of the children; coverage of their subsistence need, most especially meeting family food security; and a reduction of risk of the overall farm returns by selecting a mixture of activities whose net returns have a low or negative correlation while lessening price fluctuations. Social benefit includes seasonal employment for farm workers while the agronomic benefits include: conserving precious soil and water resources, reduced diseases, weed and insect build up, reduced erosion, increased soil fertility, and increased yields. The diversification of agriculture towards high value horticulture crops including fruits and off-season vegetables, compatible with the comparative advantage of the region, is suggested as a viable solution to stabilize and raise farm income, increase employment opportunities, and conserve and enhance the natural resources, particularly land and water (Vyas, 1996).

According to Sargent, (1973) horticulture may be defined as that part of agriculture which is concerned with the production of relatively high-value crops, not including those of bulk carbohydrate production or the extraction of chemical or of animal production. Horticulture is the branch of plant agriculture dealing with garden crops, generally fruits, vegetables and ornamental plants. Horticultural crops are diverse in nature. These crops are grown in varied agro-climatic conditions, subtropical and arid zones. As compared to field crops, horticultural crops will give more returns per unit area. These crops are very important as their nutritional status is high and these crops are more suitable for small and marginal farmers. Moreover, to them horticultural plants improve the environment by reducing pollution, conserves soil and water and develop the socio-economic status of the farmers. Moreover, it plays a significant role in women endowment by providing employment opportunities (Reddy, 2019). Horticulture production had increased during 1990s. The effectiveness of horticulture in raising agricultural production, value addition, farm income and employment has been recognized long ago. Increasing the facilities for processing, marketing and storage, development of rain fed and irrigated horticulture was included as one of the important objectives of present day's agricultural policies (Ansari, 2018).

Brithalet *et al.* (2012), supports the notion that diversification of Indian agriculture towards high-value crops is a pro-smallholder strategy. Horticulture is being prioritized because even with limited landholdings and for farmers with high labour endowment, horticulture could be a worthwhile choice. Diversification is a dynamic process with crop choice and land allocation evolving over time. It is estimated that horticultural crops can able to generate seven times more income per unit of land as compare to cereals and two to seven-time labour is required as compared to cereals. Diversification is responsible for developing innovative supply chain that creates income and employment opportunities in primary production. Moreover, in a study conducted by Joshi *et al.* (1983), reveals that agricultural production portfolio is gradually diversifying in favour of high-value commodities. The consumption pattern is also changing in favour of high-value crops not only in urban areas but also for rural areas. However, it is important to understand the nature and pattern of crop diversification over time.

Assam as a whole a moderately diversified state (Deka and Khan, 2017). According to Gogoi and Saikia (2020), institutional factors like farm size have positive impact on crop diversification in Assam whereas credit is found

to have been negatively affecting agricultural diversification. According to a study conducted by Mandal and Maity (2021), adoption of crop diversification makes the farmers more efficient in cultivation by helping them reduce weather-induced damages to crops and yield better returns from farming in the state but too much diversification reduces the efficiency of farmers. However, it is important to understand the state of crop diversification in recent time. Thus, the present study focuses on analyzing nature and pattern of crop diversification at state level and at district level to understand whether there is any significant change that takes place in level of crop diversification in the state over time.

### Objective of the Study

The objective of this paper is to analyze the level of crop diversification at the district level as well as at the state level in Assam. We seek to examine the trend of crop diversification and also the factors affecting crop diversification in Assam.

### Data

The study is entirely based on secondary data. The data for this study are obtained from Statistical Hand Book of Assam and Area, Production, Price and Value of Some Horticulture Crops in Assam from 2003-04 to 2012-13 (The Report prepared under 13th Finance Commission Grant). The district level analysis is based on a set of data on 23 districts of Assam for two time points 2007 – 2008 and 2012 – 13. Due to lack of data availability and to maintain a proper sequence of the data, four districts namely Chirang, Baksa, Kamrup Metropolitan and Udalguri are aggregated with the original districts from where these districts have been carved out.

### Methodology

The Simpson's Diversification Index (SDI) has been used to measure the extent of crop diversification (for both the district level and the state level analysis) which is obtained by using following formula-

$$SDI = 1 - \sum_{i=1}^n P_i^2$$

Where,  $P_i = \frac{A_i}{\sum A_i}$  and  $A_i$  is the area (in hectare) under  $i^{th}$  crop production.

The value of SDI falls between 0 and 1. The value of index is 0 then, there is complete specialization and as the value approaches to 1, indicates higher level of diversification. At the district level analysis, we use descriptive statistics to compare the changes in level of diversification between the two selected time points 2007-08 and 2012-13. Since, we have taken SDI as dependent variable whose value ranges between 0 and 1, we run Tobit regression for these two selected years separately to analyze the influence of various determinants of crop diversification. The Tobit model is specified as

$$\begin{aligned} y_i &= y_i^* = \alpha + \beta x_i + u_i, \text{ if } 0 < y^* < 1 \\ &= 0, \quad \text{if } y^* \leq 0 \\ &= 1, \quad \text{if } y^* \geq 1 \\ u_i &\sim IN(0, \sigma^2) \end{aligned}$$

Where,  $y$  is the dependent variable and  $y^*$  is the observed value of the dependent variable.  $x$  denotes independent variable,  $\alpha$  is constant,  $\beta$  is the coefficient measuring marginal effect of change in  $x$ ,  $u$  is the stochastic error term and  $i$  refers to  $i$  – th district. In this model, we use the value of Simpson Diversification Index (SDI) as the dependent variable and independent variables are cropping intensity (CI), irrigation intensity (II), road intensity (RI), institutional rural credit (ICr), fertilizer consumption (FERT) and urbanization (URB).



For the state level analysis, multivariate time series data (from 2007-08 to 201819) have been used thus, Vector Autoregression (VAR) model is applied. The VAR model with  $k$  endogenous variables and  $p$  lags in matrix notation is specified as

$$y_t = V + A_1y_{t-1} + \dots + A_p y_{t-p} + \varepsilon_t$$

Where,  $y_t$  and its lagged and  $\varepsilon_t$  are  $k \times 1$  vectors.  $A_1, \dots, A_p$  are  $k \times k$  matrices. . In this model, we use the value of Simpson Diversification Index (SDI) as the dependent variable and independent variables are farm income (FI), cropping intensity (CI), irrigation intensity (II), road intensity (RI), institutional rural credit (ICr), fertilizer consumption (FERT) and urbanization (URB). But due to multicollinearity problem we have dropped three variables viz. road intensity, institutional rural credit and urbanization.

**Table 1. Description of the variables**

Variable	description
Simpson Diversification Index (SDI)	We use the value of Simpson Diversification Index as the dependent variable whose value lies between 0 and 1.
Farm income (FI)	We use Gross State Domestic Product (in Rs.) from agriculture as proxy of farm income.
Cropping intensity (CI)	It is measured as $\frac{\text{Gross Cropped Area}}{\text{Net Sown area}} * 100$
Irrigation intensity (II)	Measured as percentage share of irrigated area to gross cropped area.
Road intensity (RI)	Measured by length of roads in km to per hectare gross cropped area.
Institutional rural credit (ICr)	Measured by bank credit in rupees per hectare of gross cropped area provided by Regional Rural Bank.
Fertilizer consumption (FERT)	Measured by consumption of fertilizer in kg per hectare of gross cropped area.
Urbanization (URB)	Measured as the percentage of urban population to total population.

**Result and discussion**

To have an insight into the change in level of crop diversification across districts, we have chosen two different time points viz. 2007-08 and 2012-13. The following table 2 shows the Simpson’s Diversification Index (SDI) for the districts.

**Table 2. District-wise Simpson's Crop Diversification Index for the year 2007-08 and 2012-13**

Rank	Districts	2007-08	Rank	Districts	2012-13
1	Bongaigaon	0.81	1	DimaHasao	0.85
2	DimaHasao	0.81	2	Bongaigaon	0.76
3	Dhubri	0.80	3	Dhubri	0.75
4	Darang	0.78	4	Kokrajhar	0.74
5	Barpeta	0.76	5	Kamrup	0.73
6	Kokrajhar	0.74	6	Goalpara	0.72
7	Goalpara	0.73	7	Darang	0.71
8	Kamrup	0.72	8	Barpeta	0.71

9	Morigaon	0.68	9	Morigaon	0.70
10	Lakhimpur	0.67	10	Lakhimpur	0.66
11	Nagaon	0.65	11	Sonitpur	0.61
12	Sonitpur	0.64	12	Nagaon	0.61
13	Dhemaji	0.55	13	Nalbari	0.60
14	Nalbari	0.54	14	Dhemaji	0.58
15	Tinsukia	0.53	15	Tinsukia	0.53
16	Cachar	0.52	16	Jorhat	0.52
17	Hailakandi	0.49	17	Hailakandi	0.46
18	KarbiAnglong	0.45	18	Cachar	0.45
19	Golaghat	0.43	19	KarbiAnglong	0.44
20	Jorhat	0.42	20	Karimganj	0.36
21	Karimganj	0.39	21	Golaghat	0.36
22	Dibrugarh	0.20	22	Dibrugarh	0.23
23	Sibsagar	0.18	23	Sibsagar	0.19
Assam	-	0.65	-	-	0.66
Coefficient of Variation	-	0.313	-	-	0.307

Source: Area, Production, Price and Value of some Horticulture Crops in Assam from 2003-04 to 2012-13 (Report of 13th Finance Commission Grant and Director of Horticulture, Assam).

In order to understand whether diversification is increasing or not, we measure coefficient of variation (CV) in SDI across districts for these two selected time points, which shows level of diversification across districts remains almost same from 2007-08 to 2012-13. It has been found that coefficient of variation of SDI in 2007-08 is 0.313 and that of 2012-13 is 0.307 which indicate that the level of diversification has not changed much for these two time points. Moreover, we have computed Pearson correlation coefficient and Spearman rank correlation coefficient and also have tested paired t-test to understand whether the level of diversification has significantly changed or not. The result of paired t-test is shown in table 3. The p-value is 0.1228 which indicates that there is no significant difference in mean of the two sets of data i.e., the difference between means of SDI in 200708 and 2012-13 are insignificant. Thus, the level of diversification and the rank of districts remain almost same.

**Table 3. Result of correlation coefficient and paired t-test**

Pair	Mean	SD	t-value	p-value
SDI 2007-08 and SDI 2012-13	0.0107	0.0066	1.6048	0.1228
Pearson Correlation Coefficient = 0.99				
Spearman Rank Correlation Coefficient = 1				

Source: Computed from secondary data

**Table 4. Descriptive statistics**

Variable	Description	Mean		SD		Min		Max	
		2007-08	2012-13	2007-08	2012-13	2007-08	2012-13	2007-08	2012-13
SDI	Simpson's Diversification Index	0.59	0.58	0.18	0.18	0.18	0.19	0.81	0.85
CI	Cropping Intensity	149	148	33	26	104	110	225	197
II	Irrigation Intensity	13	14	8	10	3	3	33	37
RI	Road Intensity	0.010	0.012	0.007	0.006	0.005	0.005	0.035	0.035
ICr	Institutional Rural Credit	3422	7926	1730	3715	896	2580	8451	19983
FERT	Fertilizer Consumption	5	5	4	3	0	1	16	12
URB	Urbanization	12	13	8	9	4	5	38	43

Source: Computed from secondary data

From table 4 it is observed that except institutional rural credit, there is no such changes in the variable from 2007-08 to 2012-13. Further to analyze the impact of cropping intensity, irrigation intensity, road intensity, institutional rural credit, fertilizer consumption and urbanization on crop diversification, we run Tobit regression separately for two time points viz. 2007-08 and 2012-13 and compare the result for these two time points. The results of the Tobit regression for 2007-08 and 2012-13 are shown in table 5 and table 6 respectively.

**Table 5. Result of Tobit regression for the year 2007-08**

Variable	Coefficient	SE	z – value	p – value
Cropping Intensity (CI)***	0.003	0.001	3.2	0.001
Irrigation Intensity (II)*	0.008	0.004	1.85	0.065
Road Intensity (RI)	4.887	5.179	0.94	0.345
Institutional Rural Credit (ICr)	-4.93E-06	0.000	-0.24	0.812
Fertilizer Consumption (FERT)**	0.023	0.009	2.55	0.011
Urbanization (URB)	0.001	0.004	0.24	0.813
Constant	-0.178	0.222	-0.8	0.424
Wald chi2(6) = 17.05				
Log likelihood = 13.192				
Prob> chi2 = 0.009				

Source: Computed from secondary data

\*\*\*, \*\* and\* Significant at 1%, 5% and 10% level, respectively.

**Table 6. Result of Tobit regression for the year 2012-13**

Variable	Coefficient	SE	z – value	p – value
Cropping Intensity (CI)***	0.004	0.001	3.79	0.000
Irrigation Intensity (II)	0.002	0.003	0.53	0.597
Road Intensity (RI)	2.554	5.885	0.43	0.664
Institutional Rural Credit (ICr)*	-0.000	8.89E-06	-1.91	0.056
Fertilizer Consumption (FERT)	0.018	0.011	1.57	0.117
Urbanization (URB)	0.007	0.004	1.59	0.113
Constant	-0.137	0.187	-0.73	0.464
Wald chi2(6) = 25.94				
Log likelihood = 16.386				
Prob> chi2 = 0.0002				

Source: Computed from secondary data

\*\*\*, \*\* and\* Significant at 1%, 5% and 10% level, respectively.

It is observed that in year 2007-08, cropping intensity, fertilizer consumption and irrigation intensity are statistically significant at 1%, 5% and 10% level of significance respectively and have positive impact on crop diversification. All other factors are found insignificant. Moreover, for the year 2012 – 13, it is found that cropping intensity and institutional rural credit have significant impact in crop diversification at 1% and 10% level of significance respectively but institutional rural credit has negative impact on crop diversification. Thus, it is said that cropping intensity has consistently significantly positive impact on crop diversification in case of Assam during 2007-08 and 2012-13.

**Table 7. Percentage share of cropping area to Gross Cropped Area in Assam**

Crops	2007-08	2012-13	2018-19
Banana	2.82	1.93	1.00
Pineapple	0.82	0.61	0.33
Orange	0.39	0.33	0.29
Papaya	0.46	0.59	0.14
Assam Lemon	0.64	0.20	0.27
Guava	0.28	0.53	0.09
Litchi	0.31	0.21	0.11
Jackfruit	1.39	0.88	0.43
Mango	0.29	0.20	0.09
Other fruits	0.23	0.16	0.09
Potato	4.83	3.74	2.02
Sweet potato	0.44	0.36	0.10
Tapeoca	0.17	0.17	0.07
Chillies	1.03	0.77	0.39
Turmeric	0.80	0.61	0.31
Onion	0.43	0.32	0.16
Ginger	1.00	0.67	0.35
Garlic	1.55	1.06	0.58
Coriander	0.52	0.37	0.20

Black Pepper	0.18	0.14	0.07
Other Spices	0.16	0.19	0.10
Kharif. vegetables	5.03	3.14	1.71
Rabi. vegetables	10.27	7.07	3.91
Rice	160.19	93.17	47.35
Cereals	163.52	95.49	48.42
Pulses	9.07	5.32	2.93
Oil Seeds	20.58	12.21	6.43

Source: Computed from secondary data

From table 7, it is observed that percentage share of area to Gross Cropped Area for traditional crops viz. rice, cereals and pulses have declined to great extent but percentage share of area to Gross Cropped Area for high – value crops like fruits and vegetables also have fallen in the state.

At state level analysis, we have taken multivariate time series data from 2007-08 to 2018-19. We use Vector autoregression (VAR) model in order to determine the factors affecting crop diversification in assam. Augmented Dicky – Fuller test has been applied to test the non – stationarity in the model and differencing technique has been used to make the series stationary. We use Akaike Information Criterion (AIC) to determine the optimal lag. Further, to diagnose the model we use Durbin – Watson statistic to test autocorrelation and Granger causality Wald test to check the variation in dependent variable. The result of vector autoregression shows that cropping intensity and irrigation intensity are statistically significant at 1% level of significance and have negative impact on crop diversification. All other factors are found to be insignificant. The result of vector autoregression is shown in table 8.

**Table 8. Result of Vector Autoregression**

Variable	Coefficient	SE	z - value	p - Value
Farm Income (FI)	-9.04e-14	5.70e-14	-1.59	0.113
Cropping Intensity (CI)***	-.00146	.001	-3.85	0.000
Irrigation Intensity (II)***	-.011	.004	-2.90	0.004
Fertilizer Consumption (FERT)	.000	.000	1.02	0.308
Durbin – Watson d-statistic = 2.012				
Granger causality Wald tests (Prob> chi2) = 0.000				

Source: Computed from secondary data.

\*\*\*, \*\* and\* Significant at 1%, 5% and 10% level, respectively.

Durbin – Watson d-statistic is 2.012 which indicates that there is no serial autocorrelation in the model and Granger causality Wald test indicates that the model is useful in forecasting.

### Conclusion

To conclude it can be said that in terms of crop diversification the top two districts in Assam are Bongaigaon and Dima Hasao whereas, the bottom two districts are Dibrugarh and Sibsagar. Further, the ranks of districts in case of crop diversification index also have not changed much from 2007-08 to 2012-13. The descriptive statistics also depict that except institutional rural credit, the characteristics of all other factors such as cropping intensity, irrigation intensity, road intensity, fertilizer consumption and urbanization remain almost same over these two time points. The Tobit regression analysis shows that in 2007-08 cropping intensity, fertilizer consumption and irrigation intensity have significant positive impact on crop diversification in Assam at 1%, 5% and 10% level of significance. In 2012-13, cropping intensity and institutional rural credit are found significant at 1% and 10% level of significance respectively. Further, it is institutional rural credit has negative

impact on crop diversification. However, all other factors are found insignificant i.e., they cannot make any significant impact on crop diversification. Thus, it is said that cropping intensity has consistently significantly positive impact on crop diversification in case of Assam during 2007-08 and 2012-13. However, the state level analysis contradicts to district level analysis. Although, at district level analysis, cropping intensity and irrigation intensity have significantly positive impact on crop diversification at their respective level of significance but at state level analysis, it is found that both the factors have negative impact on crop diversification in Assam. The percentage share of area to Gross Cropped Area for traditional crops viz. rice, cereals and pulses have declined to great extent but the percentage share of area to Gross Cropped Area for high – value crops like fruits and vegetables also have fallen in the state. It thus emerges from above analysis that crop concentration have reduced over time but it certainly does not indicate that farmers in the state are moving towards crop diversification to large extent. The reason behind this could be poor condition of agricultural infrastructure and technology. Therefore, to induce the adoption of diversification towards high – value crops, continuous efforts on the part of the government is necessary. The spread of greater awareness among farmers about the rising demand for high – value horticultural crops specially fruits and vegetables in the domestic market as well as in the global market is required. Moreover, improvement of transportation, marketing network and related agricultural infrastructure along with adoption of modern technology in agriculture is pre – condition to reap the benefits from crop diversification in the state.

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## Facebook Addiction among Post Millennials: An Empirical Study

Pratik Deb Roy\* & Kingshuk Adhikari\*\*

### Abstract

Face book is one of the most commonly used social media with the help of which people generally communicate with their peers, colleagues, friends, family and all other near and dear ones on daily basis. It becomes an integral part of the human life especially among the post millennials. It is already accepted that face book is alluring the post millennials in their daily life and they hardly ignore the fascinating nature of face book. Even the government uses facebook to intimate various schemes and developmental activities to the users of facebook. The government also tries to relate itself with the citizens of the country through social media. The main purpose of the study is to assess the status of social media addiction among the college students and to compare the degree of social media addiction of college students. A field survey is conducted on ninety (90) college students of three different colleges of Silchar town of Assam by developing a questionnaire using five (05) point Likert type scaling technique. Statistical tools, such as, percentage, mean, standard deviation etc. are used to analyze the data. The study reveals that majority of the students under consideration is either highly or moderately addicted towards facebook.

**Keywords:** Social Media, Addiction, Facebook, Students

### Introduction

In the current decade, there has been a rapid rise in the use of social media by the people of different countries irrespective of age and gender. In India, a spectacular change has been noticed in the use of internet particularly after the launching of Reliance Jio which is considered as one of the major service providers in the telecom market of India. It cannot be denied that the time for use of social media has been extended by majority of the users because of substantial decrease in the tariff charged by various service providers in the telecom market of India after the entry of Reliance Jio into the market. Out of different types of social media, face book is considered as one of the most popular social media because of its diverse features which cater to the needs and tastes of people of different genders and age groups residing either in urban or in rural areas of the country. Even different political parties of India also use facebook to relate themselves with the common people and to provide necessary information for the citizens of the country. The ever increasing rise in the use of social media and continuous increase in the number of facebook accounts over the years has transformed the life of a group of people especially the post millennials in such a way that they hardly think of living without using facebook. The situation has become so critical over the passage of time that some of the facebook users irrespective of their occupation and gender suddenly found themselves addicted towards social media in general and facebook in particular. A section of the facebook users even after understanding the adverse impact of their social media addiction could not ignore the magnetic attraction of social media. The attraction is much more among the post

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millennials and as such the present study makes a humble attempt to assess the status of social media addiction of students pursuing college education and for this purpose facebook users are considered in the present study.

### Review of Literature

Mahmood, S. Farooq, U (2018) revealed that extroversion has played a significant role in determining facebook addiction among the students. The study also found that there was an inverse relationship between facebook addiction and academic performance among the students. Ahmed, H. Das, B (2018) revealed that self-control, parental behavior and academic performance had an inverse relationship with facebook addiction. The study also found out that social connection and social isolation had a positive relation with facebook addiction. Vashishtha, S. et.al. (2017) found an adverse effect on students' academic performance due to addiction towards facebook. The study also revealed that the study habit of the students decreases due to excessive facebook addiction. Tufail, M. Et.al. (2015) found that female students consume more time to use facebook in comparison to male students. The study also revealed that there was a negative relationship between academic performance and facebook addiction among the female students and there was a positive relationship between academic performance and facebook addiction among the male students. Veronica, S. Samuel, U (2011) revealed that the youth were highly addicted to social media. They also found that there was a significant effect of social media among the adolescents. Menayes, J. (2015) found that there was a positive relationship between time spent on social media and social media addition. The study also revealed that the university students were very much fond of using social media and they were highly addicted to social media. The study further revealed that there was a negative relationship between social media addiction and academic performance of the students. Khan, N. Ahmed, S (2018) revealed a very high incidence of facebook addiction among students. The study also found that facebook addiction had a significant effect on students' academic performance.

### Objectives of the Study

1. To assess the status of facebook addiction among the students of colleges located at Silchar town of Assam.
2. To compare the degree of facebook addiction of college students of Silchar town of Assam across the select variables.

### Data and Methodology

The study is descriptive in nature and is based on primary data. The field survey is conducted on students pursuing college education in three different colleges of Silchar town of Assam. Out of different colleges located in Silchar town, only three colleges, namely, Gurucharan College, Ramanuj Gupta Junior College and Aryan Junior College have been selected for contacting the students for the purpose of the present study. A sample of 90 students has been taken into consideration for the purpose of the study. A questionnaire is constructed using five (05) point Likert type scaling technique after consulting relevant literature on the subject authored by previous researchers. Social media addiction scale developed by Cengiz Sahin (2018) has also been considered while framing the questionnaire for the present study. Frequency, percentage, mean and SD have been used for analysis of data obtained through field survey.

### Scope of the Study

1. The present study is conducted on students of three colleges located at Silchar town of Assam.
2. The degree of addiction is measured on the basis of perception of the college students under study.

### Limitations of the Study

1. The study is conducted on college students at Silchar town only. So, in order make any sort of generalization of the findings of the study, a cautious approach is to be adopted.
2. The study is based on perception of students and hence the limitations relating to such type of study cannot be totally ignored.

**Results and Discussion**

**Table1: Distribution of Respondents according to Status of Facebook Addiction**

Status of Addiction	Number	Percentage
Low	14	15.56
Moderate	48	53.33
High	28	31.11
Total	90	100.00

Source: Field Survey

Table 1 reveals that out of 90 students covered in the study, 31.11% of the students are highly addicted to facebook while 15.56% of the respondents are slightly addicted to facebook. There are 53.33% of respondents whose level of addiction towards facebook is moderate. It appears that majority of the students under consideration have been addicted towards facebook either at a high degree or at a moderate degree which is not a positive sign and there is every possibility that in future a good number of students, if not all, is likely to experience facebook addiction disorder or may face other possible consequences as pointed out by researchers of different countries of the globe.

**Table 2: Gender wise Distribution of Respondents According to Status of Face book Addiction**

Status of Addiction	Male		Female	
	Number	Percentage	Number	Percentage
Low	10	26.31	9	17.31
Moderate	17	44.74	30	57.69
High	11	28.95	13	25.00
Total	38	100.00	52	100.00

Source: Field Survey

Table 2 reveals most of the students (44.74%) are moderately addicted towards facebook and a good percentage of students (28.95%) are highly addicted towards facebook. There is another 26.31% of the male students who are addicted towards facebook at a low degree. On the other hand, out of 52 female students, most of the students (57.69%) are moderately addicted towards facebook and a good percentage of students (25.00%) are highly addicted towards facebook. There is another 17.31% of the female students who are addicted towards facebook at a low degree.

**Table 3 Service Provider wise Distribution of Respondents According to Status of Facebook Addiction**

Status of Addiction	Jio		Airtel		Vodafone	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	10	25.64	6	15.38	3	23.08
Moderate	22	56.41	20	52.63	5	38.46
High	7	17.95	12	31.58	5	38.46
Total	39	100.00	38	100.00	13	100.00

Source: Field Survey

Table 3 reveals that out of 39 Jio users, most of the students (56.41%) are moderately addicted towards facebook and a good percentage of students (25.64%) are slightly addicted towards facebook. There is another 17.95% of the Jio users who are addicted towards facebook at a high degree. Out of 38 Airtel users, most of the students (52.63%) are moderately addicted towards facebook and a good percentage of students (31.58%) are highly addicted towards facebook. There is another 15.38% of the Airtel users who are addicted towards facebook at a low degree. On the other hand Out of 13 Vodafone users, most of the students (38.46%) are moderately addicted towards facebook and a good percentage of students (38.46%) are highly addicted towards facebook. There are another 23.08% of the Airtel users who are addicted towards facebook at a low degree.

**Table 4: Experience of Usage wise Distribution of Respondents According to Status of Facebook Addiction**

Status of Addiction	Up to Three years		Above Three Years	
	Number	Percentage	Number	Percentage
Low	6	12.24	13	31.71
Moderate	28	57.14	19	46.34
High	15	30.61	9	21.95
Total	49	100.00	41	100.00

Source: Field Survey

Table 4 reveals that out of 49 students using facebook 'upto three years', 30.61% of which are highly addicted to facebook while, 12.24% of the total respondents are slightly addicted to facebook and 57.14% of the total respondents are moderately addicted to facebook. On the other hand, out of 41 students using facebook for 'Above three years', 21.95% of the total respondents are highly addicted while, 31.71% of the total respondents are slightly addicted and 46.34% of the total respondents are moderately addicted to facebook.

**Table 5: Institution wise Distribution of Respondents According to Status of Facebook Addiction**

Status of Addiction	Gurucharan College		Aryan Junior College		Ramanuj Gupta Junior College	
	Number	Percentage	Number	Percentage	Number	Percentage
Low	5	16.67	10	27.03	4	17.39
Moderate	11	36.67	22	59.46	14	60.87
High	14	46.66	5	13.51	5	21.74
Total	30	100.00	37	100.00	23	100.00

Source: Field Survey

Table 5 reveals that out of 30 students studying at Gurucharan College, 46.66% of the total respondents are highly addicted to facebook while, 16.67% of the total respondents are slightly addicted to facebook and 36.67% off the total respondents are moderately addicted to facebook. Out of 37 students studying at Aryan Junior College, 13.51% of the total respondents are highly addicted to facebook while, 27.03% of the total respondents are slightly addicted to facebook and 59.46% of the total respondents are moderately addicted to facebook. Out of 23 students studying at Ramanuj Gupta Junior College, 21.74% of the total respondents are highly addicted to facebook, while, 17.39% of the total respondents are slightly addicted towards facebook and 60.87% of the total respondents are moderately addicted towards facebook.

**Table 6: Gender wise Addiction of Students towards Facebook**

Gender	N	Mean	SD
Male	52	3.13	0.713
Female	38	3.11	0.824

Source: Field Survey

Table 6 reveals that male students are more addicted towards facebook than female students because the mean of addiction towards facebook of male students is much higher in comparison to female students. Further, the values of SD makes it clear that the responses given by the male students are more consistent in comparison to female students.

**Table 7: Service Provider wise Addiction of Students towards Facebook**

Service provider	N	Mean	SD
Jio	39	2.99	0.795
Airtel	38	3.26	0.721
Vodafone	13	3.15	0732

Source: Field Survey

Table 7 reveals that students using Airtel are more addicted towards facebook than the students using the internet service of Jio and Vodafone since, the mean score of facebook addiction of students using Airtel is higher than students using the other two internet service. The value of standard deviation about the responses of students using Airtel with respect to facebook addiction is the lowest among the responses of students using three different service providers under study which implies the responses of Airtel users are most consistent.

**Table 8: Experience of Usage wise Addiction of Students towards Facebook**

Experience of using facebook (in years)	N	Mean	SD
Upto three year	49	3.22	0.730
Above three years	41	3.01	0.781

Source: Field Survey

Table 8 reveals that the students using facebook for up to three years are more addicted towards facebook than the students who are using it for more than three years since, the mean score of facebook addiction of the students using for up to three years is higher than that of the students using facebook for Above three Years. Further, the values of SD make it clear that the responses of college students who are using facebook upto three years are more consistent in comparison to the college students using facebook for more than three years.

**Table 9: Institution wise Addiction of Students towards Facebook**

Name of the college	N	Mean	SD
Aryan Junior College	37	2.87	0.733
Ramanuj Gupta Junior College	23	3.20	0.699
Gurucharan College	30	3.38	0.753

Source: Field Survey

Table 9 reveals that students of Gurucharan College are more addicted towards facebook than the students of Aryan Junior college and Ramanuj Gupta Junior College since, the mean score of facebook addiction of students of Gurucharan College is the highest among the students of three colleges of Silchar town of Assam. The value



of standard deviation about the responses of students of Ramanuj Gupta Junior College with respect to facebook addiction is the lowest among the responses of students of three colleges under study which implies the responses of Ramanuj Gupta Junior College is most consistent

### Conclusion

It may be concluded that majority of the college students are either highly or moderately addicted towards facebook which is not a positive sign for the society. The level of addiction is marginally more among the male students as compared to their female counterparts. The degree of addiction towards facebook is the highest among the Airtel users, followed by Vodafone users and Jio users. Further, the degree of addiction towards facebook is the maximum among the students of Gurucharan College, followed by the students Ramanuj Gupta Junior College and the students of Aryan Junior College. It may not be out of context to apprehend that the ever increasing addiction towards facebook among the college students will not only have adverse impact on students in near future but also may emerge as a social problem, if not addressed in time.

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## Expansion of Digital Financial Inclusion through Pradhan Mantri Jan Dhan Yojana

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### Abstract

The study has been undertaken to highlight the progress of digital financial inclusion through JAM (Jan Dhan-Aadhaar-Mobile) trinity mission among the beneficiaries since the inception of direct benefit transfer. The study is conceptual based and information undertaken for the fulfillment of the study is relied on secondary sources. The findings of the study reveal that the initiation of JAM trinity mission towards achieving digital financial inclusion has helped the Indian populace to procure direct subsidies provided by the Government of India for various commodities and services.

**Key words:** PMJDY, Beneficiaries, Direct Benefit Transfer, Financial Inclusion.

### Introduction

The Honorable Prime Minister of India, Narendra Modi, announced a new financial inclusion scheme 'Pradhan Mantri Jan Dhan Yojana' (PMJDY) on 15<sup>th</sup> August, 2014. Jan Dhan Yojana signifies 'People's Wealth Scheme' (Poorna and Saravanan, 2015). The scheme aims to transform the economy from class banking to mass banking and to increase the quality of living of the deprived section of people (Nimbrayan, Tripathi & Tanwar, 2018). The Pradhan Mantri Jan Dhan Yojana is one among the financial inclusion scheme that intends to provide direct benefit transfer such as life insurance coverage, accidental insurance coverage, pension and gas subsidies to the eligible beneficiaries under it. The Prime Minister has also introduced the JAM trinity on February 28, 2015 to integrate these three powerful pieces of identification in service of digital financial inclusion especially for direct transfer of benefits to the beneficiaries. The motive behind launching the JAM trinity under PMJDY scheme was to ameliorate the benefit delivery system in the nation. The payments to and from the government has been made fully digitized through Jan Dhan, Direct Benefit Transfer (DBT) and RuPay cards (Samant, Singh & Dwivedi, 2017).

PMJDY scheme is based on 6 basic pillars and 3 phases. Six basic pillars include:

1. Providing banking services to every individuals.
2. To furnish every households the basic banking accounts including facility of overdraft and RuPay debit cards.
3. To organize financial literacy programme for the account holders.
4. To create credit guarantee fund.
5. To provide micro-insurance.
6. To make provision for the pension schemes, like, Swavalamban.

(Source: Agarwal, et.al, (2016) & Adapted from <http://www.pmjdy.gov.in>)

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The duration of three phases with various objectives sought to be achieved within a stipulated time period mentioned as follows:

- First Phase: **15th August 2014 to 14th August 2015**
- Second phase: **15th August 2015 to 14th August 2018**
- Third phase: **14th August 2018 and beyond**

**Table 1: Number of PMJDY accounts opened (Phase-I) as on 31/01/2015(All figures in million)**

Type of Bank	Rural	Urban	Number of accounts	Number of RuPay debit cards issued	Balance in accounts (in Rs.)
Public Sector Banks	53.30	45.15	98.45	91.23	81.75
Regional Rural Banks	18.49	3.30	21.79	14.97	15.99
Private Sector Banks	3.23	2.01	5.24	4.59	7.26
Grand Total	75.02	50.46	125.47	110.79	105.00

(Source: Adapted from <https://www.pmjdy.gov.in/statewise-statistics>)

Table 1 reveals the number of PMJDY accounts opened and amount deposited in Public Sector Banks is maximum and the above indicated figures emphasizes the successfulness of the scheme and thereby fulfills the slogan of 'My account brings me good fortune'.

**Table 2: Pradhan Mantri Jan Dhan Yojana beneficiaries as on 01/09/2021 (All figures in millions)**

Bank Name/ Type	Number of Beneficiaries at rural/semi urban centre bank branches	Number of beneficiaries at Urban metro centre bank branches	No. of Total beneficiaries	No. of RuPay Debit Card issued	Deposits in Accounts (in Rs.)
Public Sector Banks	212.9	128.4	341.3	268.5	11248701.70
Regional Rural Banks	68.6	9.7	78.3	33.7	2805826.12
Private Sector Banks	6.9	5.7	12.7	11.1	432482.70
Grand Total	288.4	143.9	432.3	313.3	14487010.52

(Source: Adapted from <https://www.pmjdy.gov.in/statewise-statistics>)

Table 2 highlights the number of total beneficiaries and total deposits in accounts portraying the outstanding performance of the scheme as on 01<sup>st</sup> September 2021. The total deposits in the accounts stood up to millions.

There are few benefits under the scheme such as:

- **Insurance Benefits:**
  - Account holders get an accidental insurance coverage of Rs. 0.2 million
  - Life insurance covers Rs. 30,000 payable on the death of the beneficiary (conditions applicable).
- **Loan Benefits:**
  - Account holders can take advantage of overdraft facility upto Rs. 10,000 after six months of fully operation of the account. This facility is provided against one account per household.
- **Mobile Banking Facility:**
  - Account holders can easily carry out the transactions through mobile banking facility.
  - Can easily check out the balances and transfer funds across India.
  - Easy provision of pension and other insurance products.

The other benefits follow:

- The account holders are entitled for interest on their deposits
- No minimum balance required to be maintained in the account
- Direct Benefit Transfer for various Government Schemes to the beneficiaries.

(Source: Adapted from <https://cleartax.in/s/pradhan-mantri-jan-dhan-yojana-pmjdy>)

### **Direct Benefit Transfer (DBT) under PMJDY: An Overview**

Direct benefit transfer is a digital financial inclusion scheme launched by the Government of India on 1<sup>st</sup> January 2013 to alter the mechanism of transferring the subsidies. It was launched with the aim to bring transparency and restrict all sorts of corruption from distribution of funds provided by the Central Government of India. Under this program, 311 Schemes are currently functioning. A Central Plan Scheme Monitoring System (CPSMS) was executed by the office of controller general of accounts to monitor all types of transfers of benefits or subsidies carried out by the government for the deprived citizens of India. CPSM are useful for the preparation of beneficiaries list, signing them digitally and pay out the payments using the Aadhaar Payment Bridge of NPCI in the bank accounts of the beneficiaries. Aadhaar is not mandatory under the scheme, however, aadhaar provides a unique identity resulting to target the intended beneficiaries, and thus the beneficiaries are encouraged to have aadhaar. PMJDY has also created a digital payment connection between the Indian government and its citizens, creating a pipeline for the delivery of direct benefit transfers to the excluded households with India's formal financing system.

DBT includes various schemes under PMJDY. Some of them are:

- Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) (or) Life insurance scheme
- Pradhan Mantri Suraksha Bima Yojana (PMSBY) (or) Accidental insurance scheme
- Atal Pension Yojana (APY)
- Pradhan Mantri Mudra Yojana (PMMY)
- Pratyaksh Hanstantrit Labh (PAHAL) (or) LPG subsidy
- JAM trinity act as DBT enablers under PMJDY scheme and intends to achieve electronic transfer of benefits, minimize the levels involved in benefits flow, reduce delay in payments, accurately target the beneficiaries, and remove pilferage and duplicity. DBT include cash or in kind benefits transfer to the individuals. Cash transfer to individual beneficiaries includes the scheme such as PAHAL, MGNREGA, and NSAP etc. It may be transferred directly to beneficiaries through State Treasury Account or through any constituting agency as appointed/ center/ state governments to beneficiaries. The In-Kind Transfer from government includes the shops initiated under Public Distribution System (PDS), Food Corporation of India (FCI) for acquirement, development, storage and delivery of food grains to the beneficiaries. Other transfers are made to the several facilitators of government schemes such as community workers, NGOs, in the form of honorarium, incentives for their services, wages etc. to the beneficiaries.

### **Situation Prevailed Pre-DBT**

- CENTRE → STATE → DISTRICT → BLOCK → GRAMPANCHAYAT → VILLAGERS

### **Situation Prevailed Post-DBT**

- CENTRE → BENEFICIARIES

## Requirements for DBT

The process for DBT includes-

1. Beneficiaries' identification and digitization of database.
2. Opening of bank accounts
3. Enrollment of Aadhaar
4. Aadhaar seeding in beneficiaries database and bank accounts
5. Last mile connectivity/delivery of services

(Source: Adapted from [www.dbtbharat.gov.in](http://www.dbtbharat.gov.in))

## Literature Review

Kaur and Singh (2015) highlighted the crucial areas and recommended methodologies to provide maximum financial inclusion for the deprived and unbanked areas. The requirement to improve the financial inclusion in India is required by considering setting up of biometric ATMs in backward areas, improving technological facility in rural areas, simplifying the documentation process, better staffing policies and providing doorstep banking facility, and removing of usage fee on ATMs for other banks ATM users. Joy (2018) critically evaluated the direct benefit transfer scheme. During its introduction, 5.68 crore beneficiaries were found without aadhaar services and the digit rose to 8.36 crore in the year 2017. Only 29.01 percent of the fund transfer are found to be made through aadhaar seeded bank accounts in the year 2017, thereby showing the poor performance of the system and will keep on continuing till the aadhaar is provided to all and linked to their bank accounts. Chetia (2018) discussed about the introduction of JAM trinity and its role in the formal financial system. It has played a positive role in easily opening up of bank accounts and transfer of the government provided subsidies in each of the beneficiaries' accounts. The internet penetration and development of IT services has been a successful financial strategy especially for the women in rural areas. Samant et.al(2017) highlighted the problems encountered while implementing the PMJDY scheme along with JAM in the first phase of its introduction. Besides all the challenges faced, the duo has been successful to boost the economy towards a new direction and remove destitution. The mission brought a new light for the financially excluded people. Goel (2020) studied the Delhi residents satisfaction level towards the extent of financial inclusion along with the JAM mission. People are well verged with the facilities provided but rarely use the mobile banking services, passbook etc. JAM trinity is successful and brought positive changes for the society. The households are overwhelmed for the facilities provided under the mission.

## Purpose of Present Study

The objective of the study is to highlight the progress of digital financial inclusion through JAM trinity mission among the beneficiaries.

## Methodology

The study is conceptual in nature based on secondary data and information. In order to fulfill the objective of the study, various websites, journals, annual reports published by PMJDY, Department of financial services, Government of India; Direct benefit transfer mission, Government of India are followed.

## Findings of the Study

### Current Scenario of DBT in India:

- Cumulative total direct benefit transfer as on 4<sup>th</sup> September, 2021 amounted to Rs. 18,211,140 millions.
- For the financial year 2020-21, DBT amounted to Rs. 5,525,270 millions.
- For the financial year 2021-22, DBT amounted as on 4<sup>th</sup> September, 2021 amounted to Rs. 1,833,620 millions.

(Source: Direct Benefit Transfer Mission, Government of India)

DBT schemes are categorized as under:

- Pratyaksh Hanstantrit Labh (PAHAL) former DBTL, LPG subsidy
- Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGS)
- National Social Assistance Programme (NSAP) (includes Old Age Pension, Widow Pension & Disability Pension)
- Scholarship Scheme (various scholarship & fellowship schemes)
- Pradhan Mantri Awas Yojana Gramin ( PMAYG)
- Public Distribution System (PDS)
- Fertilizers
- Others (includes all remaining schemes)

**Table 3: Allocation of DBT funds across various schemes (All figures in millions) as on 4<sup>th</sup> September, 2021**

YEAR →	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
SCHEMES ↓									
PAHAL	53949	93844.10	214210	158765.40	248396.20	404118.10	261715.10	150549	22641.10
MGNREGS	-----	200101	258617.60	373119.20	337513.20	461818	460460.80	672182.90	519372.20
NSAP	9062	60493.80	83646.60	54099.90	96846.60	83511.20	81144.80	72305.60	27792.20
SCHOLARSHIP SCHEME	-----	-----	51190.50	128596	116605.20	108135.90	70108.50	91212.90	27504.60
PMAYG	-----	-----	-----	-----	652375	453960	438834.50	482511.50	298975.70
PDS	-----	-----	-----	-----	101993.10	575532.10	818881.90	1670991.40	1433991.40
FERTILIZER	-----	-----	-----	-----	-----	392306.50	463574.40	836609	956448
OTHERS	10666	34822.60	11759.60	32313.60	354979.70	818581.50	1221591.20	1548910.20	1058538.20

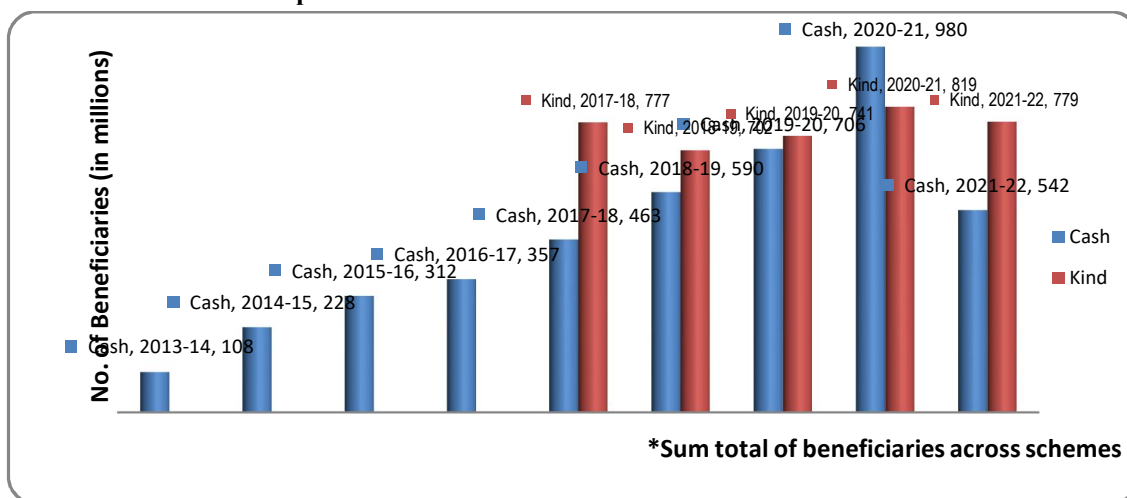
(Source: Direct Benefit Transfer Mission, Government of India)

[NOTE: The above amounts of PAHAL SCHEMES& OTHERS (In cash + In Kind)

Amounts of MGNREGS, NSAP, SCHOLARSHIP SCHEME & PMAYG are In Cash only

Amounts of PDS& FERTILIZER are In Kind only]

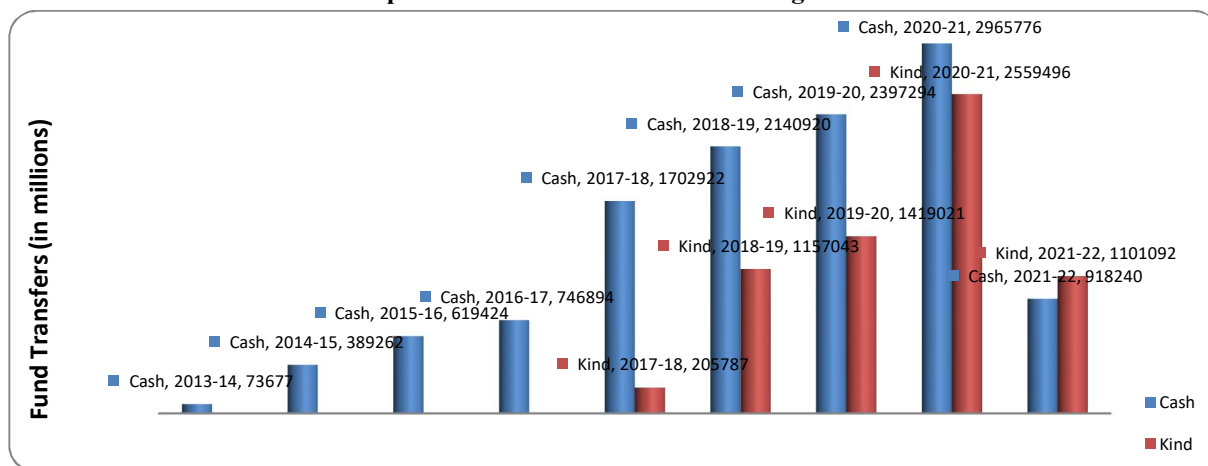
**Graph 1: Year wise Direct Benefit Transfer beneficiaries**



(Source: Direct Benefit Transfer Mission, Government of India)

Graph 1 highlights the number of DBT beneficiaries across the schemes starting from its launch year. In the financial year 2013-14 the DBT beneficiaries stood up at 108 million and gradually increasing over the subsequent years. The DBT beneficiaries receiving benefits in kind started from the financial year 2017-18 and have been continued for the forthcoming years.

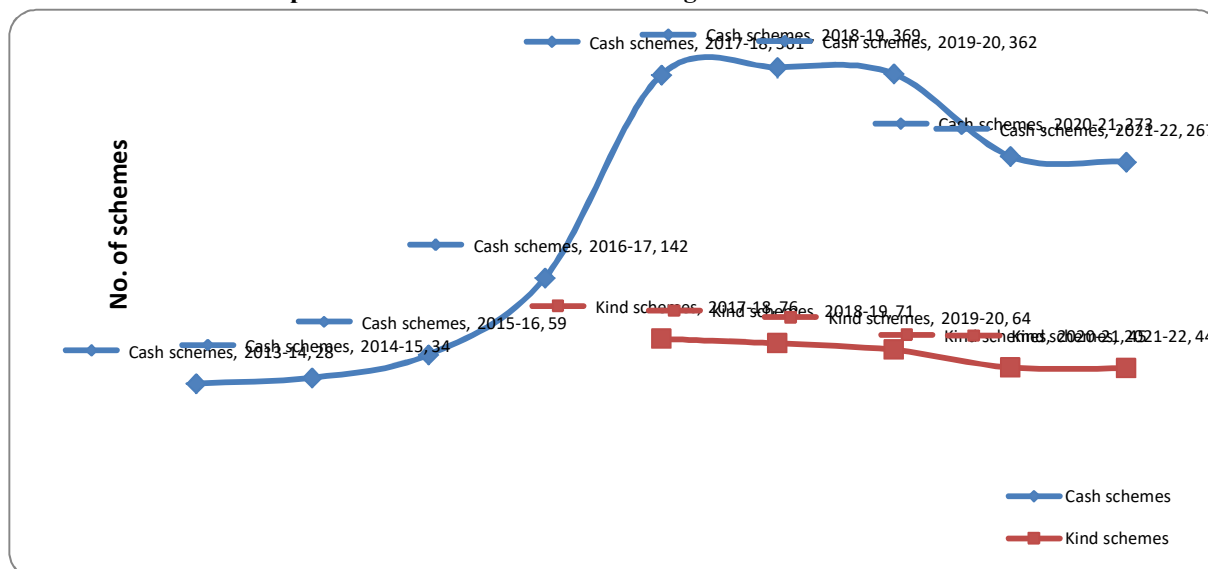
**Graph 2: Year wise fund transfer through DBT**



(Source: Direct Benefit Transfer Mission, Government of India)

Graph 2 highlights the fund transferred during the financial year 2013-14 is Rs. 736,770 million and subsequently seen rising for the subsequent years. The beneficiaries received the DBT fund ‘In kind’ starting from the financial year 2017-18.

**Graph 3: Year wise fund transferred against number of schemes**



(Source: Direct Benefit Transfer Mission, Government of India)

Graph 3 reveals that after launching up of DBT Mission, 28 Cash Schemes were provided to the beneficiaries. Thereafter, providing ‘In Kind’ Schemes were started from the financial year 2017-18 and 76 numbers of ‘In Kind’ Schemes as well as 361 numbers of ‘Cash Schemes’ were granted.

**Table 4: Performance Rankings of States/UTs**



Sl. No.	State/UT	Score	Overall State Rank
1	Haryana	88.8	1
2	Uttar Pradesh	85.2	2
3	Tripura	80.2	3
4	Gujarat	77.8	4
5	Uttarakhand	74.3	5
6	Jharkhand	73.1	6
7	Goa	69.4	7
8	Jammu and Kashmir (Including Ladakh)	68.3	8
9	Bihar	67.6	9
10	Madhya Pradesh	66.9	10
11	Puducherry	65.3	11
12	Odisha	63.3	12
13	Mizoram	62	13
14	Himachal Pradesh	60.7	14
15	Punjab	59.9	15
16	Tamil Nadu	59.3	16
17	Delhi	58.5	17
18	Rajasthan	57.5	18
19	Andhra Pradesh	54.9	19
20	Manipur	54.8	20
21	Kerala	53.8	21
22	Chhattisgarh	52.9	22
23	Nagaland	51.1	23
24	Nagaland	50.5	24
25	Sikkim	49.1	25
26	Karnataka	48.4	26
27	Maharashtra	46.6	27
28	Meghalaya	45.3	28
29	Andaman and Nicobar Islands	44.3	29
30	Dadra and Nagar Haveli	43.7	30
31	Arunachal Pradesh	39.9	31
32	Daman and Diu	38.9	32
33	Lakshadweep	38.1	33
34	Telangana	29.6	34
35	Assam	26.4	35
36	West Bengal	13.2	36

(Source: Direct Benefit Transfer Mission, Government of India)

State Score Range: 0-20  20-40  40-60  60-80  80-100 



As per table 4, the state 'Haryana' is in the 1<sup>st</sup> position in case of overall performance rankings of States/ Union Territories of DBT and West Bengal performance is the least. The overall score calculated for Haryana and West Bengal is 88.8 and 13.2 respectively.

### Conclusion

The Government of India spends nearly 4.2 percent of the GDP on subsidies for providing various commodities and services. Direct Benefit Transfers (DBT) has lessened the wide theft levels related to subsidy expenditure. JAM trinity has helped in reducing leakages by cutting out the middlemen and putting more into the hands of the beneficiaries. JAM is nothing but Just Achieving Maximum use for every penny spent, fostering our poor and maximizing penetration of technology among the masses. The mission of JAM has helped the Government in cutting unused funds, thereby improving the business transactions with the Government.

The Jan Dhan Yojana has helped the people of India to understand their importance towards the growth and expansion of our economy thereby the number of beneficiaries has increased under DBT with the passage of time. The scheme has familiarized the backward areas populace with the approach of financial savings, which in turn has also decreased gold imports into the nation further leading to the improvement in the current account and a boost to GDP output.

It can be concluded that digital financial services are an important tool for the implementation of achieving the goals, and promote hope towards the economic growth. India's leadership inspires other governments to make use of the power of digital payments as a strategy for achieving the sustainable development goals. The digital payment system has converted India into cash-lite economy.

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### **Websites**

<https://cleartax.in/s/pradhan-mantri-jan-dhan-yojana-pmjdya>

[www.dbtbharat.gov.in](http://www.dbtbharat.gov.in)

<https://www.livemint.com/Specials/d4pZ9spLnUtMu55D59GI8I/Why-should-rich-benefit-from-subsidies.html>

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