

# Analysis of Distribution of RBI Assets Using SAS

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**Abstract-** The project analyzes the data which will be collected by the RESERVE BANK OF INDIA for the last 8 years (2008-2016) among selected states in India depicting the distribution of assets. The states for which we consider are Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab and Rajasthan. Further, the sectors on which the analysis is carried out are Agriculture, Education, Housing and Social Infrastructure.

## I. INTRODUCTION

The Reserve Bank of India - the central Bank of India entrusted with the multidimensional role. It performs essential pecuniary functions from issue of currency note to maintenance of monetary stability in the country. Since its commencement the Reserve Bank of India had played an important role in the economic development and monetary stability in the country. The principle of the project is to carry analysis on the dataset issued by RBI since the past 8 years (2008-2016) among selected states in India depicting the distribution of assets. The states for which we consider are Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab and Rajasthan. Further, the sectors on which the examination would be done are Agriculture, Education, Housing and Social Infrastructure. We will use SAS for analyzing our data and through Tableau we will envisage our data. SAS (Statistical Analysis System) is a software suite which can mine, alter, manage and retrieve data from a mixture of sources and perform statistical analysis on it. SAS provides a graphical point-and-click user interface for non-technical users and more advanced options through the SAS speech. In order to use Statistical Analysis System, data should be in a spreadsheet table format or SAS set-up. SAS programs have a DATA step, which retrieves and manipulates data, usually creating a SAS data set, and a PROC step, which analyzes the data [1]. Tableau allows for on the spot insight by transforming data into visually appealing, interactive visualizations called dashboards.

## II. SECTORS ON WHICH RBI INVESTED MONEY

### Agriculture:

RBI invests a considerably large amount of money in agricultural sector as compared to others in the above

mentioned states. Punjab, for example, have a major contribution in the overall agricultural production of the country [2]. Due to their ever increasing demands, these states are in regular needs of capital and new technologies which will make their farming more effective. Hence, RBI provides money to these states so that they can cope with the demands.

### Education:

RBI has invested a huge sum of money in the education sector especially for Rajasthan and Punjab. According to the 2011 ballot, Rajasthan has the 33rd worst literacy rate across India. Across all categories, Rajasthan stands below the national averages. Overall the literacy rate for India is 74.04 per cent but for Rajasthan it is 66 percent [3]. As the literacy rates of these states is still very low the government is investing a large sum of money in order to increase the educational status of these states.

### Housing and Social Infrastructure:

As India is a developing country, there are major constructional activities going all around the country. Delhi and Punjab are the states which have seen a huge increase in constructional activities over the years. Delhi, being the capital city has attracted all sorts of real estate constructions like housing, commercial offices etc. [4]

## III. METHODOLOGY

The data set on which the analysis is carried out is taken from the official site of the reserve bank of India. First, we export this data in SAS and analyse this data by extracting the data of the above mentioned states, that is, Chandigarh, Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Punjab and Rajasthan for some particular sectors, that is, Agriculture, education, housing and social infrastructure. After we have extracted our data, we perform a visual comparison by exporting this data to Tableau. Tableau helps us to visualize our data and compare it by means of bar graphs, pie chart and many more.

IV. CASE STUDY

Fig. 1 Data Set Source: RBI

The SAS System

Obs	State	AggAcc	AggOut	EduAcc	EduOut
1	Chandigarh	49556	42412	6086	1977
2	Delhi	146834	161518	38308	11711
3	Haryana	796714	250069	36842	8443
4	Himachal Pradesh	267223	36794	13839	2801
5	Jammu & Kashmir	135150	19407	10475	2067
6	Punjab	1060041	363191	32776	9032
7	Rajasthan	1975694	309890	54449	11366

Obs	HouAcc	HouOut	SIAcc	SIOut	new
1	23272	20442	114	4164	91968
2	141906	113695	869	27123	308352
3	98789	56755	3051	25483	1046783
4	32111	11480	219	493	304017
5	125280	17147	491	1865	154557
6	137489	61106	3956	31841	1423232
7	197768	81597	918	8693	2285584

Table 1: Extracted data from SAS for year 2008

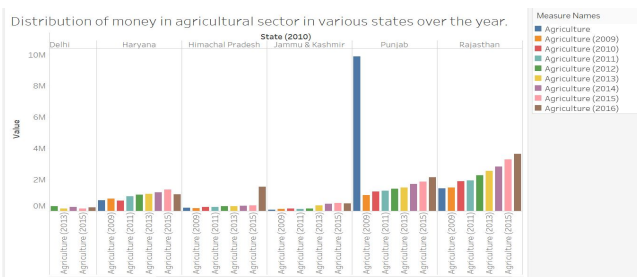


Fig. 2 : Money distribution for Agricultural sector

The above figure shows the money distribution for agricultural sector over the years. As we can see the amount is generally increasing gradually for all the states except for

Punjab which has seen an exceptionally high rise in year 2008[5].

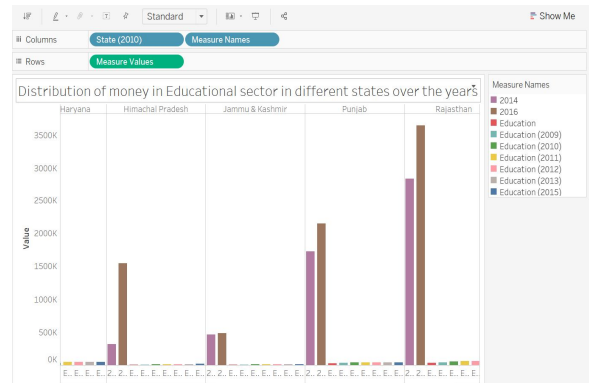


Fig. 3 : Money distribution for Education sector

The above figure shows the money distribution for educational sector in different states over the years. As we can see the amount distributed gradually increased in the year 2014 and 2016 for all the states.

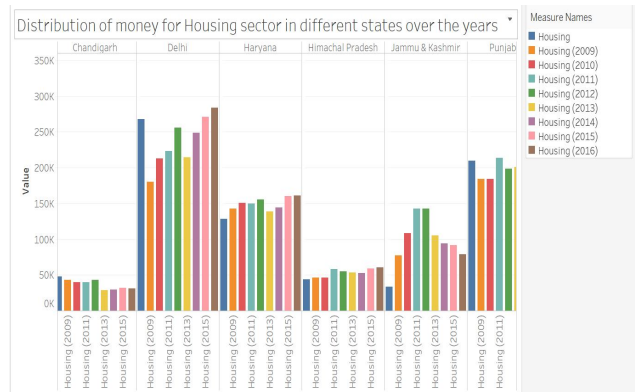


Fig. 4 : Money distribution for Housing sector

The above figure shows the money distribution for housing sector in various states over the years. As we can see the amount invested for this sector is more for Delhi and Punjab as compared to other states.

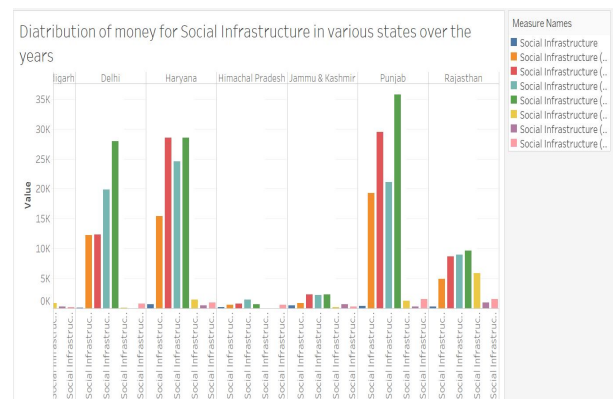


Fig. 5 : Money distribution for Social Infrastructure

The above figure shows the money distribution for social infrastructure over the years. The graph depicts that the amount given to Jammu and Kashmir and Himachal Pradesh was quite less than the other states and the maximum money went to Punjab.

## V. CONCLUSION

We can conclude that after the analysis is done after taking various comparison factors and considering them more emphasis should be laid on certain sectors such as Education in states such as Haryana, Rajasthan leading to low literacy rate. Moreover, we conclude that the distribution by the RBI is more for the Agriculture sector as compared to other sectors during the duration of years taken(2008-2016) in all the states. One of the pictorial data shows us that there was a distribution of approximately 10 million in the field of agriculture in the state of Punjab in the year 2008 which was reduced to less than 2 million the very next year. Furthermore, the distribution of asset for the Education sector was approximately equal to null in the state of Rajasthan until the year 2014. On the other hand, there is a fluctuation seen in the Social Infrastructure field in the state of Rajasthan and there is no major distribution for this in the states such as Himachal Pradesh and Jammu & Kashmir.

In this project we have extracted the data using the tool SAS, analysed it and represented it pictorially using the tool Tableau. Further, we will be extending the work for more sectors and states of the southern, eastern and western zone.

## REFERENCES

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