

INDIAN COMMERCIAL BANKING LANDSCAPE: A VISUAL EXPLORATION

Visually Analysing State-wise, Region-wise, Bank-wise, and Population Group-wise Number of Functioning Offices of Commercial Banks in India (2006 - 2022)

CSE-564 VISUALISATION | FINAL PROJECT | GROUP 91 | ANUJAY GHOSH
STONY BROOK UNIVERSITY, NEW YORK.



ABSTRACT

Commercial banks play a vital role in the Indian economy, and the number of functioning offices of these banks across different states, bank groups, and population groups provide critical insights into the banking industry's performance. This project aims to analyse the dataset titled "State-wise, Region-wise, Bank-wise, and Population Group-wise Number of Functioning Offices of Commercial Banks in India as at end of every Quarter" from 2006 to 2022 to identify patterns, insights and trends into the progress and expansion of the commercial banking industry. The project will use visual analytics techniques to present the findings in an easily understandable and insightful manner.



BACKGROUND

Access to banking services in the mode of bank offices is critical for poverty reduction and economic growth because it enables individuals and businesses to save, borrow, invest, and manage their financial resources more effectively. In context of India, a country that has the largest population on earth. The top 3 commercial sectors based on the workforce it employs in India are:

Agriculture (approx. 50% workforce): Policymakers can identify areas where there is a lack of access to credit and take steps to improve financial inclusion efforts. This can help farmers improve their economic opportunities, increase their agricultural productivity, and lift themselves out of poverty.

Retail (approx. 8% workforce): Access to banking services can help retailers obtain credit to purchase inventory, expand their business, and invest in new technologies.

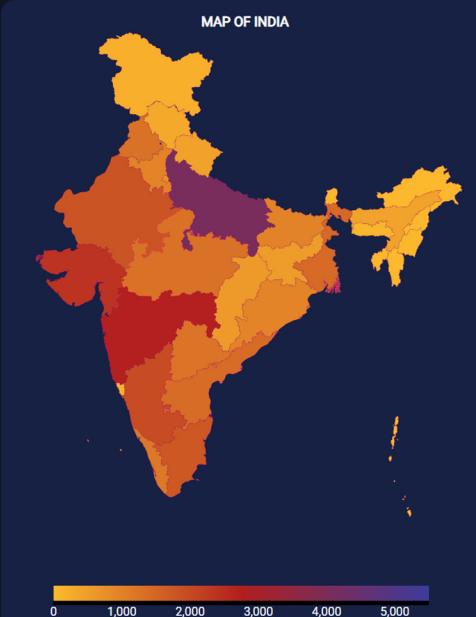
Manufacturing (approx. 7% workforce): Access to banking services can help manufacturers obtain credit to purchase new equipment, invest in research and development, and expand their operations..



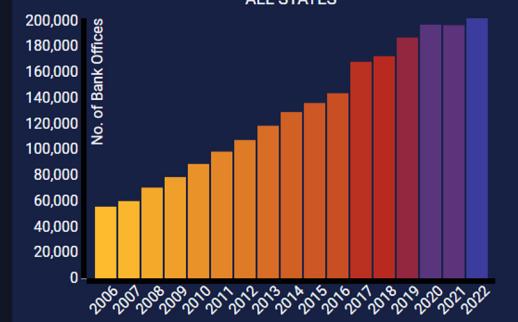
OBSERVATIONS

CHOROPLETH MAP

The choropleth map of India shows the number of bank offices in each state and region. Moving the slider component shows us the trend of increasing count of offices over the years. We can also select one or multiple states to analyse them separately. On clicking any group of states, we can update the other charts using the brushing and linking features.



NUMBER OF BANK OFFICES BY YEAR IN ALL STATES



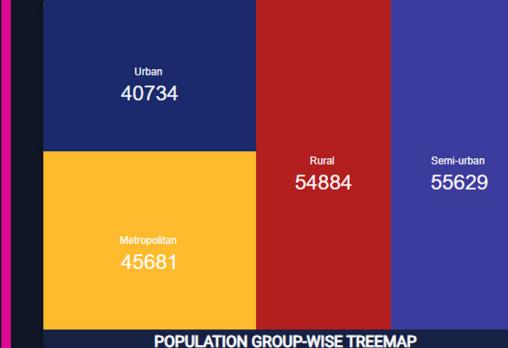
PIE CHART

The pie chart displays the break-up of bank offices with respect to the banks. It's a good indicator to see the market share of the banks over the years. Moving the slider shows us the trend of increasing count of offices. Hovering over the sectors show their name, count and percentage of total market share they hold.



TREEMAP

The treemap shows us the population group wise distribution of bank offices through the years and states/ group of states. Groups like "Rural", "Urban" etc. are displayed with count.



BUBBLE CHART

The bubble chart aggregates the data such that each bubble displays the sum of all states in a particular region. There are a total of 6 regions in India and you can see their relative size and count to get more insight. Clicking on a bubble will brush the selected states on the choropleth map.

REGION-WISE BUBBLE CHART



CONCLUSION

The number of active bank offices in India has increased over the past 15 years, implying a growing economy and rising banking needs. However, the count of offices remained stagnant in 2020 and 2021, indicating external factors at play. The COVID-19 pandemic may have slowed down economic activity, causing a reduction in demand for banking services. Additionally, the growth of e-commerce and digital payment options could have led to the reduced need for traditional banking services. In summary, the upward trend in active bank offices reflects a flourishing economy and heightened banking needs, but the slowdown in growth in recent years can be attributed to COVID-19 and digitalization.