

# Indian Banks Reviews

## I. Project Planning & Management

### A. Objective:

Develop an interactive Power BI dashboard that provides a clear overview of customer perceptions across major Indian banks, helping stakeholders understand satisfaction levels, identify service gaps, and enhance overall banking experiences.

### B. Scope:

- Overall Overview:** Display key metrics such as total reviews, average ratings, and customer opinions summary.
- Bank Comparison:** Compare major banks based on performance indicators like service quality and customer satisfaction.
- Service Quality:** Evaluate how well each bank meets customer expectations across different service dimensions.
- Review Insights:** Analyze customer feedback to identify common themes, recurring issues, and positive highlights.
- Trends Over Time:** Monitor how ratings, opinions, and review activity evolve over time to detect performance patterns.

### C. Project Plan:

| Phase                              | Task  | Duration | Milestone                          |
|------------------------------------|---|----------|------------------------------------|
| 1 – Data Selection                 | Select an appropriate dataset to be used for analysis and visualization   | Week 1   | Dataset selected                   |
| 2 – Data Cleaning & Transformation | Clean and preprocess the data by removing duplicates, handling missing values, and creating additional analytical columns | Week 2   | Cleaned and enhanced dataset ready |

| Phase   | Task  | Duration | Milestone                  |
|---|---|----------|----------------------------|
| <b>3 – Data Modeling</b>                        | Develop a star schema by organizing data into fact and dimension tables                                 | Week 3   | Data model structured      |
| <b>4 – Data Analysis &amp; Metrics Creation</b> | Generate analytical measures and identify key insights such as satisfaction levels and service patterns | Week 4   | Key insights identified    |
| <b>5 – Dashboard Development</b>                | Design and build an interactive Power BI dashboard with relevant visuals and KPIs                       | Week 5   | First version of dashboard |
| <b>6 – Review &amp; Refinement</b>              | Validate data accuracy, optimize visuals, and finalize dashboard presentation                           | Week 6   | Final dashboard ready      |
| <b>7 – Presentation &amp; Documentation</b>     | Document the process, summarize findings, and present the final results                                 | Week 7   | Project completed          |

- **Resources:** Power BI, Excel

- **Task Assignment & Roles:**

- **Data Selection:** All team members
- **Data Cleaning & Transformation:** All team members
- **Data Modeling:** All team members
- **Data Analysis & Metrics Creation:** All team members
- **Dashboard Development:** All team members
- **Review & Refinement:** All team members
- **Presentation & Documentation:** All team members

## D. Risk Assessment & Mitigation Plan:

|                              |  |
|------------------------------|--|
| <b>1- Data Inconsistency</b> | Conduct thorough validation and data cleaning to maintain accuracy and reliability.        |
| <b>2- Performance Issues</b> | Implement a well-structured star schema and efficient DAX measures to enhance performance. |

|  |  |
|--|--|
| <b>3- Visualization Overload</b>       | Design clear, focused visuals to emphasize key insights and maintain readability.                |
| <b>4- Misinterpretation of Results</b> | Include descriptive labels, legends, and tooltips to ensure clarity and accurate interpretation. |
| <b>5- Unbalanced Data Distribution</b> | Recognize variations in review counts among banks when analyzing and presenting comparisons.     |

### E. KPIs:

Total Reviews, Average Rating, Average Word Count, Number of Cities, Total Engagement, Influential Reviews, Service Quality Distribution, Top 5 Banks by Rating, Ratings vs. Reviews Trends.

## II. Dataset Overview:

The **Indian Banks Reviews dataset** contains 3,000 customer reviews from major Indian banks.

| Column Name       | Description  |
|-------------------|--|
| <b>Address</b>    | Geographical location provided by the reviewer.    |
| <b>Bank</b>       | Name of the bank being reviewed.                   |
| <b>BankID</b>     | Unique identifier assigned to each bank.           |
| <b>Bank Image</b> | URL link to the bank's logo or visual identity.    |
| <b>City</b>       | Standardized city name extracted from the address. |
| <b>CityID</b>     | Unique identifier assigned to each city.           |

| <b>Column Name</b>             | <b>Description</b>  |
|--------------------------------|---|
| <b>Date</b>                    | Date value from the generated Date dimension table (DimDate) used for linking time-based data.      |
| <b>DateID</b>                  | Unique identifier for each date in the DimDate table (primary key).                                 |
| <b>Influential Review</b>      | Indicates whether a review's <i>Useful Count</i> exceeds the 75th percentile (Yes/No).              |
| <b>Rating</b>                  | Numeric rating given by the reviewer (e.g., 1–5).   |
| <b>Rating Categories</b>       | Classifies reviews as <i>Positive</i> , <i>Neutral</i> , or <i>Negative</i> based on rating values. |
| <b>RatingID</b>                | Unique identifier assigned to each rating record.   |
| <b>Rating Title by User</b>    | Descriptive label or title for the rating (e.g., "Excellent", "Poor").                              |
| <b>Reviewer</b>                | Name or identifier of the person who wrote the review.  |
| <b>ReviewerID</b>              | Unique identifier assigned to each reviewer.  |
| <b>Review</b>                  | Full text of the customer's review describing their experience.                                     |
| <b>ReviewDate</b>              | The actual date when the review was posted (fact table field).                                      |
| <b>ReviewDateID</b>            | Foreign key linking each review to the corresponding date in the <b>DimDate</b> table.              |
| <b>ReviewID</b>                | Unique identifier assigned to each review.  |
| <b>Review Title by User</b>    | Short title summarizing the review content.   |
| <b>Review Title Word Count</b> | Number of words in the review title.  |

| Column Name              | Description   |
|--------------------------|---|
| <b>Review Word Count</b> | Number of words in the full review text.  |
| <b>Service Quality</b>   | Categorizes service as <i>Bad</i> , <i>Good</i> , or <i>Excellent</i> based on rating thresholds. |
| <b>Useful Count</b>      | Number of users who found the review helpful.   |