

# Tech Saksham

## Case Study Report

### Data Analytics with Power BI

## Real-Time Analysis of Bank Customers

Government Arts College, Dharmapuri

NM ID	NAME
8E8593EAA459C498D49494A80C202D89	SABARI G

Trainer Name : R UMAMAHESWARI

Master Name : R UMAMAHESWARI

# **ABSTRACT**

There are key technology enablers that support an enterprise's digital transformation efforts, including analytics. Real-time insights and data in motion via analytics helps organizations to gain the business intelligence they need for digital transformation. From a business perspective, the potential benefits it can offer an organization are many - you can use location and contextual data to create better customer experiences; create radically new data-based products for your business; make more informed decisions in complex scenarios; carry out effective monitoring and analysis; detect even the smallest change and trigger immediate action; and extend your solutions to analyze the past, present, and the future.

While these benefits are applicable to most organizations across diverse industries, a key advantage of analytics is that it can be customized to create solutions to meet the specific requirements of a particular industry.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Problem Statement

In many various sectors have problem with the efficiency of a customer behavior, preferences. This will play a major role in Banking Sector. However, this problem creating a crucial effect of banking history. Traditional data analysis has a problem with this trend which is rapidly changing, time consuming and lack to provide insightful solution.

### 1.2 Proposed Solution

The proposed solution is taking a most advanced Software's to create insightful real-time analytics. In this project we using a one of powerful Analytical tool called Power BI. We have to real-time dashboard of a bank customers data with Power BI. Using this tool, we can analyze the data for customer preferences and tailoring the User Experience for the customers.

### 1.3 Feature

- **Real-Time Analysis:** The dashboard will provide a real-time analysis of customer data
- **Customer Segmentation:** It will segment customers based on various parameters like age, gender, behavior, etc.
- **Predictive Analysis:** It will use previous data to forecast the customer behavior.
- **Trend Analysis:** The dashboard will display the trends of customer behavior.

## 1.4 Advantages

- **Data-Driven Decisions:** Banks can make insightful decisions with real-time data.
- **Increased Efficiency:** From the analytics the we can get the efficiency of handling the customer's data.
- **Increased Revenue:** By Identifying the flaws, we can grow the trust of customers and increasing the revenue.

## 1.5 Scope

- The Scope of the project is widely used for all sector other than banking.
- This project can be extended for more data resources.
- We can also build stronger analytics with data.

## **CHAPTER 2**

### **SERVICES AND TOOLS REQUIRED**

#### **Tools:**

- **Power BI:** The main tool for this project Power BI, which is use to create interactive dashboards for real-time data visualization.
- **Power Query:** This is a data connection technology that enables you to discover, connect, combine, and refine data across a wide variety of source.

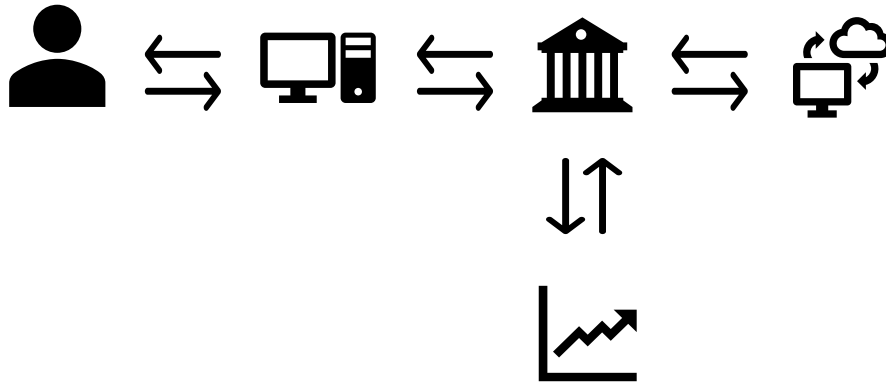
#### **Software Requirements:**

- **Power BI Desktop:** This is a windows application that you can create reports and publish them to Power BI.
- **Power BI Service:** This is an Online SaaS (Software as a Service) Service that you use to publish reports, create new dashboards, and share insights.
- **Power BI Mobile:** This is a mobile application that you can use to access your reports and dashboards on the go.

## CHAPTER 3

### PROJECT ARCHITECTURE

#### 3.1 Architecture

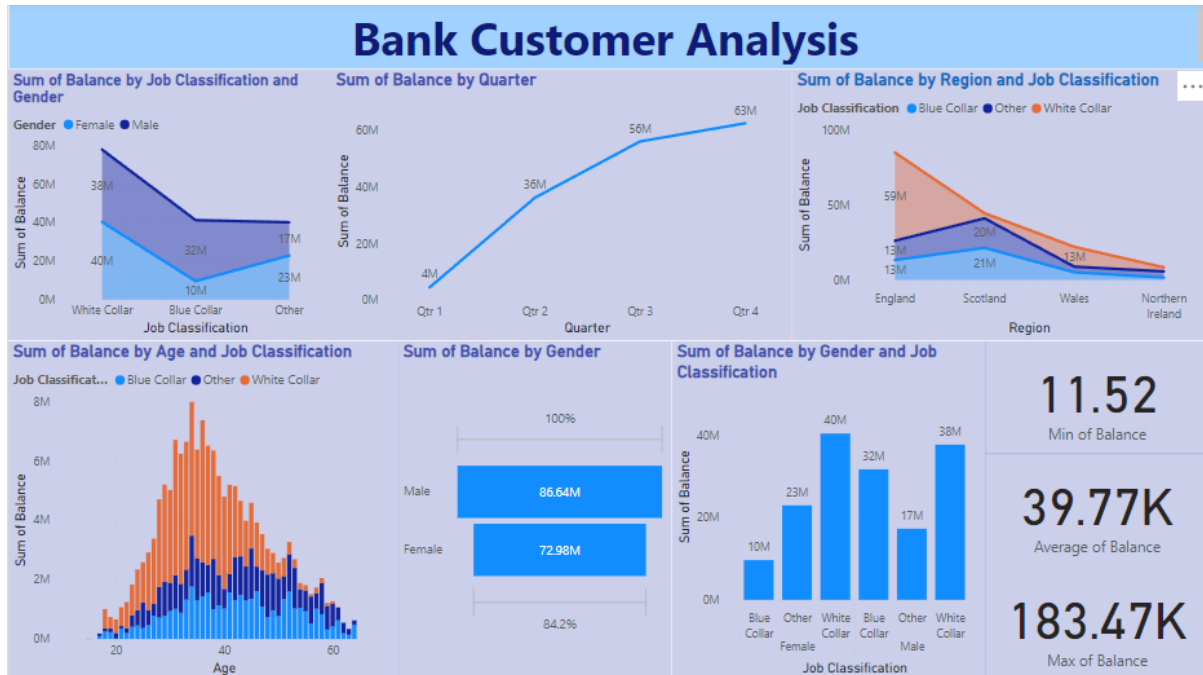


- **Data Collection:** Real-time customer data collected from various sources(transactions, web interaction).
- **Data Storage:** Collected Data is stored in database and Servers.
- **Data Processing:** Non sensitive data is processed to take analysis.
- **Analytics :** Processed Data is analyzed by experts.

# CHAPTER 4

## MODELING AND RESULT

### Dashboard





## **CONCLUSION**

Analytics used to be a term reserved for data scientists - a word heard by many, but understood by a few. This is no longer the case. Enterprises that do not reap the benefits of analytics will soon be edged out by their competitors. With data being a key component in any business today, enterprises are forced to look for new ways to analyze this data and gain insights into their business. Thus, in today's business world, analytics has become vital to improve customer experience, increase market reach, optimize budget spend, enhance business processes, and find and eliminate anomalies. All of these eventually translate to improved revenue for any business.

## **FUTURE SCOPE**

Thanks to big data analytics, the future will see a more personalized and interactive customer experience. Banks can predict customer needs and offer tailored products and services, enhancing customer satisfaction and loyalty.

**Product Development and Marketing:** Analytics helps banks develop and market new products and services tailored to the needs of customers. By analyzing market trends, customer feedback, and competitor data, banks can identify opportunities for innovation, optimize marketing strategies, and attract new customers.

## **REFERENCE**

<https://powerbi.microsoft.com/en-us/desktop/>

## **LINK**

<https://github.com/Sabarigm0/NM-report>