Tech Saksham

Case Study Report

DATA ANALYTICS WITH POWER BI

"360-degree Business Analysis

of Online Delivery Apps"

"Sri Kumara Gurupara Swamigal Arts college"

NM ID	NAME
4136433505AE9E596874B70A97B5B00B	L.SUBRAMANIAN

Trainer Name : R.Uma maheswari

Master Trainer : R.Uma maheswari

ABSTRACT

In the digital age, data has become an invaluable asset for businesses, particularly in the online delivery app industry. This project conducts a comprehensive 360-degree analysis of various facets influencing the business landscape of online delivery apps. To ensure competitiveness and sustainability in this business must leverage comprehensive data analytics tools such as Power BI to analyze and visualize the data of online delivery apps. This project analyzes key performance indicators such as customer satisfaction, order fulfillment efficiency, delivery time optimization, and revenue generation. This project examines market penetration, user demographics, popular delivery categories, and emerging market trends. Furthermore, it delves into the operational models, revenue streams, and profitability metrics of leading delivery platforms. This project offers strategic recommendations for stakeholders, including app developers, businesses, investors, policymakers, and consumers. These insights can inform decision-making processes, foster innovation, and drive sustainable growth in the online delivery app sector.

INDEX

CHAPTER 1

INTRODUCTION

1.1 Problem Statement

In today's rapidly evolving digital landscape, online delivery apps have become integral to modern lifestyles, offering convenience, accessibility, and a wide array of services. However, amidst fierce competition and changing consumer preferences, understanding the intricate dynamics of these platforms is paramount for sustained success. The problem lies in conducting a comprehensive 360-degree analysis that encompasses all facets of online delivery apps business operations, including but not limited to market dynamics, consumer behavior, technological advancements, regulatory challenges, operational efficiency, and competitive landscape.

1.2 Proposed Solution

The proposed solute on is to develop a PowerBI dashboard that can analyze and visualize business analysis of online delivery apps. The dashboard will integrate data from various sources such as customers orders, delivery times, customer feedback, revenue, expenses, and market trends. It will provide a comprehensive view of customer behavior based on demographics, ordering patterns, and preferences. The dashboard will evaluate the operational efficiency of the delivery process by analyzing delivery times, order fulfillment rates, and driver performance. The dashboard will analyze revenue streams, costs, and profitability to understand the financial health of the business. The dashboard shows market trends, competitor performance, and customer feedback to identify opportunities and threats.

1.3 Feature

- **Real-Time Analysis**: The dashboard will track sales trends, revenue, and order volumes over time. Analyze sales by category, location and customer demographics .
- **Customer Segmentation**: It will segment customers based on their purchasing behavior, frequency, and order value. Identify high value customers for targeted marketing efforts
- **Trend Analysis**: The dashboard will identify and display trends in customer behavior.
- **Predictive Analysis**: It will use historical data to predict future sales, customer behavior and market trends.

1.4 Advantages

- **Data-Driven Decisions**: Utilizes data analytics to make informed decisions, ranging from pricing strategies to marketing campaigns.
- **Enhanced Customer Experience**: Identifies areas for enhancing user experiences, leading to higher retention rates and increased loyality
- **Comprehensive Understanding**: It provides a holistic view of the business, encompassing all aspects from user experience to backend operations

1.5 Scope

The scope of this project to understanding the current market trends, competitor landscape and potential growth opportunities. The project analyzes the efficiency of delivery operations, including route optimization, delivery times, and customer feedback on delivery experiences. The project also analyzes revenue streams, cost structures, profitability, and overall financial health of the business. Furthermore, the project conducts a comprehensive analysis across these dimensions, stakeholders can gain valuable insights into the strengths, weaknesses, opportunities, and threats facing online delivery apps, enabling them to make informed decisions and drive business growth.

CHAPTER 2

SERVICES AND TOOLS REQUIRED

2.1 Services Used

- **Data Collection and Storage Services**: Companies need to collect and store customer data in real time. This could be achieved through services like Azure Data Factory, Azure Event Hubs, or AWS Kinesis for real time data collection, and Azure SQL Database or AWS RDS for data storage.

- **Data Processing Services**: Services like Azure Stream Analytics or AWS Kinesis Data Analytics can be used to process the real time data.

- **Machine Learning Services**: Azure Machine Learning or AWS SageMaker can be used to build predictive models based on historical data.

2.2 Tools and Software used

Tools:

- **PowerBI**: The main tool for this project is PowerBI, which will be used to create interactive dashboards for 360-degree business analysis of online delivery apps 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 sources.

Software Requirements:

- **PowerBI Desktop**: This is a Windows application that you can use to create reports and publish them to PowerBI.

- **PowerBI Service**: This is an online SaaS (Software as a Service) service that you use to publish reports, create new dashboards, and share insights.

- **PowerBI Mobile**: This is a mobile application that you can use to access your reports and dashboards on the go.
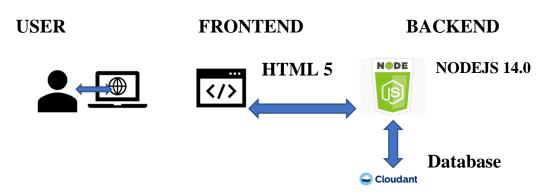
CHAPTER 3

PROJECT ARCHITECTURE

3.1 Architecture

Here's a high-level architecture for the project:

1. **Data Collection**: The data of online delivery apps is collected from companies , customers feedback, etc. This could be achieved using services like Azure Event Hubs or AWS Kinesis.
2. **Data Storage**: The collected data is stored in a database for processing. Azure SQL Database or AWS RDS can be used for this purpose.
3. **Data Processing**: The stored data is processed in real-time using services like Azure Stream Analytics or AWS Kinesis Data Analytics.
4. **Machine Learning**: Predictive models are built based on processed data using Azure Machine Learning or AWS SageMaker. These models can help in predicting customer behavior, detecting fraud, etc.
5. **Data Visualization**: The processed data and the results from the predictive models are visualized in real-time using PowerBI. PowerBI allows you to create interactive dashboards that can provide valuable insights into the data.
6. **Data Access**: The dashboards created in PowerBI can be accessed through PowerBI Desktop, PowerBI Service (online), and PowerBI Mobile.

This architecture provides a comprehensive solution for 360-degree business analysis of online delivery apps. It is also important to ensure that all tools and services comply with relevant data privacy and security regulations.
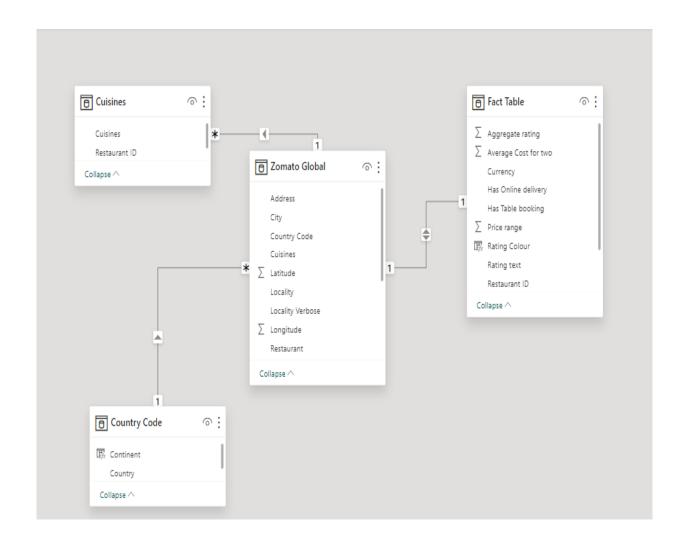
CHAPTER 4

MODELING AND RESULT

Manage relationship

The "Zomato Global" file will be used as the main connector as it contains most key identifier (Country Code,Fact Table) which can be used to relate the 2 data files together. The "Fact Table" file is used to link the "Cuisines File" geographically with "Restaurant ID"
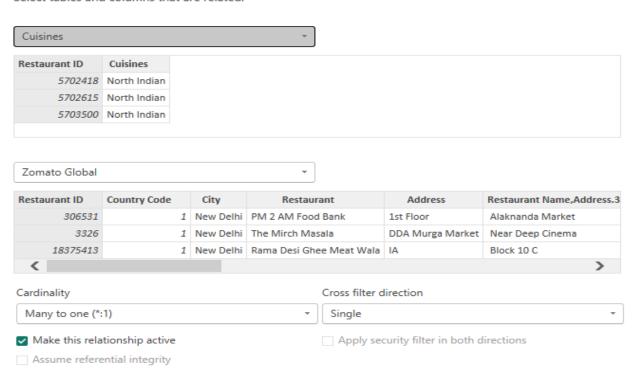
Manage relationships

Active	From: Table (Column)	To: Table (Column)
☑	Cuisines (Restaurant ID)	Zomato Global (Restaurant ID)
☑	Zomato Global (Country Code)	Country Code (Country Code)
☑	Zomato Global (Restaurant ID)	Fact Table (Restaurant ID)

Edit relationship

Select tables and columns that are related.

Cuisines ▾

Restaurant ID	Cuisines
5702418	North Indian
5702615	North Indian
5703500	North Indian

Zomato Global ▾

Restaurant ID	Country Code	City	Restaurant	Address	Restaurant Name,Address.3
306531	1	New Delhi	PM 2 AM Food Bank	1st Floor	Alaknanda Market
3326	1	New Delhi	The Mirch Masala	DDA Murga Market	Near Deep Cinema
18375413	1	New Delhi	Rama Desi Ghee Meat Wala	IA	Block 10 C

Cardinality	Cross filter direction
Many to one (*:1) ▾	Single ▾

☑ Make this relationship active   ☐ Apply security filter in both directions
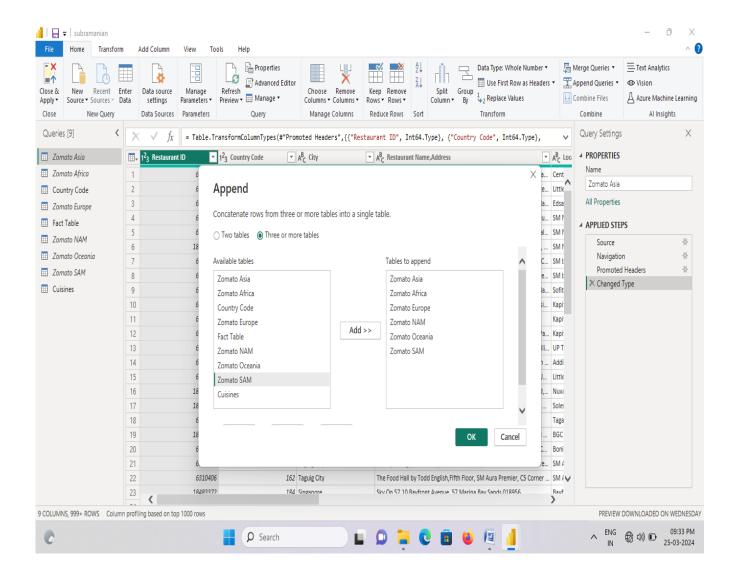
☐ Assume referential integrity

Making of the New Query "Zomato Global"

Notice that all the dates of the different continent are given in separate query. These can be merged into a single query by "append queries as new" option.
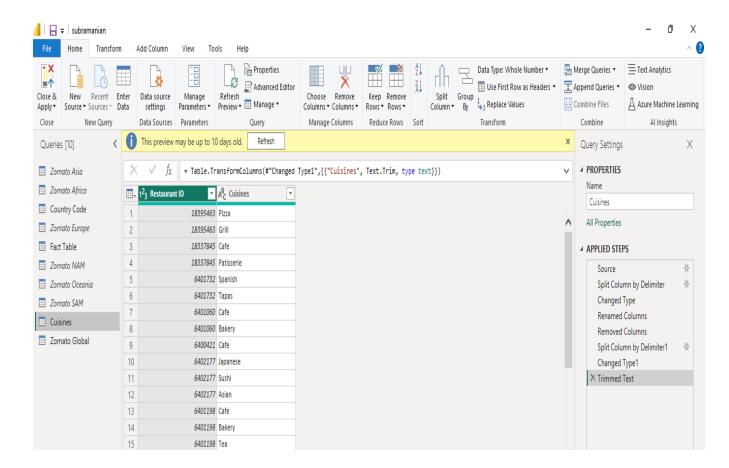
Switch Functions For Continent

From the query "Zomato Global " we take a duplicate of it to create another query called as "Cuisines" which contains only Restaurant ID and Cuisines of different Continents.
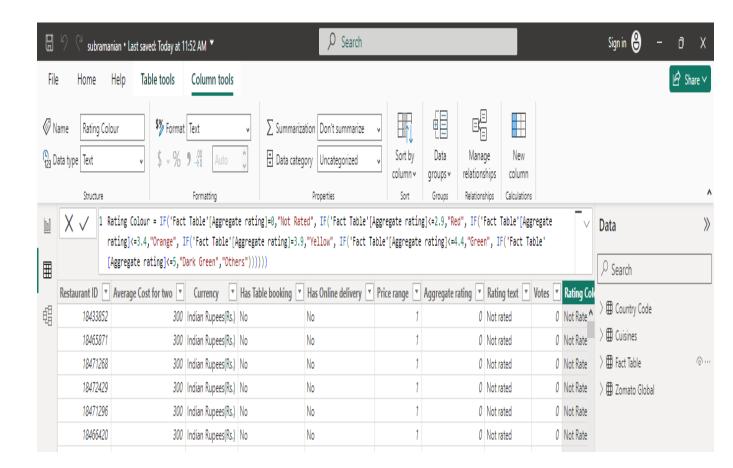
Aggregate Rating and Rating Text

As the Aggregate Rating takes values from 0 to 4.9 which are not reader friendly. We can add a column to represent what it stands for, we also simplify the classification of those with different colours, refer to the table below for details on the new columns added.

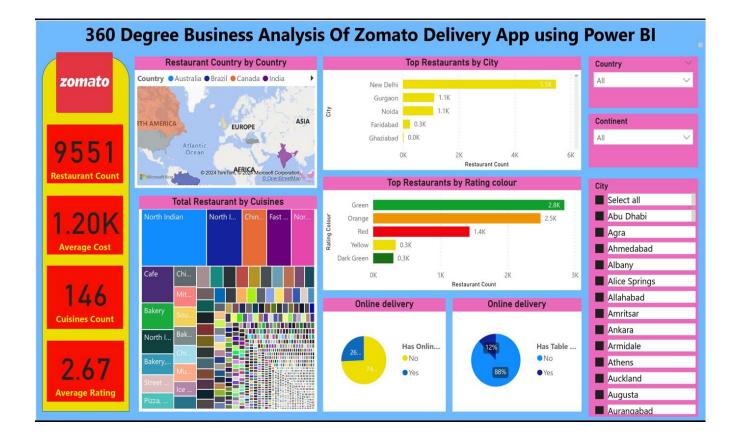| Aggregate Rating	Rating Text	Rating Colour
0	Not Rated	No Colour
0 - 2.9	Poor	Red
3 - 3.4	Average	Orange
3.5 – 3.9	Good	Yellow
4 – 4.4	Very Good	Green
4.5 - 5	Excellent	Dark Green

Dashboard

CONCLUSION

The project "360-degree Business Analysis of Online Delivery Apps" using PowerBI has successfully demonstrated the potential of data analytics in the online delivery apps. The Zomata online delivery app analysis of customer data has provided valuable insights into customer behavior, preferences, and trends, thereby facilitating informed decision-making. The interactive dashboards and reports have offered a comprehensive view of customer data, enabling the identification of patterns and correlations. This has not only improved the efficiency of data analysis but also enhanced the online delivery Zomato app's ability to provide personalized services to its customers. The project has also highlighted the importance of data visualization in making complex data more understandable and accessible. The use of PowerBI has made it possible to present data in a visually appealing and easy-to-understand format, thereby aiding in better decision-making.

FUTURE SCOPE

The future scope of this project is vast. With the advent of advanced analytics and machine learning, PowerBI can be leveraged to predict future trends based on historical data. Integrating these predictive analytics into the project could enable the online delivery apps like Zomato to anticipate customer needs and proactively offer solutions. Furthermore, PowerBI's capability to integrate with various data sources opens up the possibility of incorporating more diverse datasets for a more holistic view of customers. As data privacy and security become increasingly important, future iterations of this project should focus on implementing robust data governance strategies. This would ensure the secure handling of sensitive customer data while complying with data protection regulations. Additionally, the project could explore the integration of Zomato apps data streams to provide even more timely and relevant insights. This could potentially transform the way online delivery apps interact with their customers, leading to improved customer satisfaction and loyalty.

REFERENCES

- **https://www.youtube.com/watch?v=x1ge5UM2ypE**

- **https://iide.co/blog/swot-analysis-of-zomato/**

LINK

https://github.com/Subramanian63/360-degree-business-analysis-of-online-delivery-app