

Tech Saksham

Case Study Report

Data Analytics with Power BI

“360-degree Business Analysis of

Online Delivery Apps”

“Rani Anna Government College for Women”

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ABSTRACT

The rise of online delivery apps has transformed the way businesses operate and consumers access goods and services. This paper presents a comprehensive analysis of online delivery apps from a 360-degree business perspective. It examines various aspects including market trends, competitive landscape, business models, technological advancements, regulatory challenges, customer preferences, and future prospects. Through a thorough examination of these dimensions, this analysis aims to provide insights into the dynamics shaping the online delivery app industry and offer strategic recommendations for businesses to thrive in this rapidly evolving ecosystem.

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CHAPTER 1

INTRODUCTION

1.1 Problem Statement

The problem statement for a 360-degree business analysis of online delivery apps would typically involve assessing various aspects of these platforms comprehensively. This may include examining their business models, market positioning, user experience, revenue streams, operational efficiency, technology infrastructure, customer satisfaction, competitive landscape, regulatory compliance, and potential areas for improvement or innovation. The goal is to gain a holistic understanding of the online delivery app ecosystem to identify strengths, weaknesses, opportunities, and threats, and to formulate strategic recommendations for enhancing performance and staying competitive in the market.

Business Models: Evaluate the different business models employed by online delivery apps, such as commission-based models, subscription-based models, or hybrid approaches. Analyze their effectiveness in generating revenue and sustaining profitability.

Market Positioning: Assess how online delivery apps position themselves within the market. This includes identifying target demographics, geographic reach, and brand perception relative to competitors.

User Experience: Evaluate the user experience across various touchpoints, including app interface, ordering process, delivery speed, and customer support. Identify pain points and areas for improvement to enhance user satisfaction and retention.

Revenue Streams: Analyze the sources of revenue for online delivery apps, including transaction fees, delivery fees, advertising, partnerships, and subscription services. Assess the contribution of each revenue stream to overall profitability.

Operational Efficiency: Evaluate the efficiency of backend operations, including order processing, dispatching, routing, and delivery logistics. Identify opportunities for streamlining processes and reducing operational costs.

1.2 Proposed Solution

Analyzing online delivery apps comprehensively involves several facets. Here are some proposed solutions for conducting a 360-degree business analysis:

Market Analysis: Evaluate market trends, competitive landscape, consumer behavior, and potential opportunities for growth.

Financial Analysis: Assess revenue streams, profitability, cost structures, and financial projections to understand the financial health of the business.

Operational Analysis: Examine operational processes, logistics efficiency, delivery times, order accuracy, and customer service performance.

Technological Analysis: Evaluate the app's technology stack, user experience, mobile responsiveness, security features, and scalability.

Customer Analysis: Understand customer demographics, preferences, satisfaction levels, retention rates, and feedback to improve service quality..

1.3 Feature

Market Analysis: Examining market trends, competition, and customer preferences to identify opportunities and challenges.

User Experience Evaluation: Assessing the user interface, ease of navigation, checkout process, and overall user experience to improve customer satisfaction and retention.

Delivery Logistics: Analyzing delivery times, routes, efficiency, and costs to optimize the delivery process and ensure timely service.

Technology Infrastructure: Evaluating the app's technology stack, scalability, security measures, and integration capabilities to support business growth and meet user demands.

Revenue Model: Studying the app's pricing strategy, revenue streams, and monetization opportunities, such as delivery fees, subscription models, or partnerships with restaurants.

Customer Feedback and Reviews: Analyzing customer feedback, reviews, and ratings to identify areas for improvement and enhance service quality.

1.4 Advantages

Comprehensive Understanding: It provides a holistic view of the business, including its strengths, weaknesses, opportunities, and threats from all angles.

Identifying Trends: Helps in identifying emerging trends in the market, consumer behavior, and technology, enabling the business to stay ahead of the competition.

Optimizing Operations: Allows for optimization of various aspects such as delivery routes, inventory management, and customer service based on thorough analysis.

Enhancing Customer Experience: Insights gained from the analysis can be used to improve the user interface, personalized recommendations, and overall customer experience.

Strategic Decision Making: Helps in making informed strategic decisions regarding expansion, partnerships, marketing strategies, and investment opportunities.

Risk Mitigation: Identifies potential risks and challenges, enabling proactive measures to mitigate them before they escalate.

Resource Allocation: Enables efficient allocation of resources by identifying areas of high performance and those needing improvement.

1.5 Scope

Preferences: Understanding customer demographics, purchasing patterns, The scope for a 360-degree business analysis of online delivery apps includes examining various aspects such as market trends, competition analysis, customer preferences, operational efficiency, technology infrastructure, user experience, marketing strategies, regulatory considerations, and financial performance. This holistic approach enables businesses to identify strengths, weaknesses, opportunities, and threats, facilitating informed decision-making and strategic planning.

Market Trends: Analyzing current and emerging trends in the online delivery industry, including changes in consumer behavior, preferences, and expectations.

Competition Analysis: Assessing the competitive landscape, identifying key competitors, their strengths, weaknesses, market share, pricing strategies, and unique selling propositions. Customer satisfaction levels, and feedback to tailor services and offerings accordingly.

Operational Efficiency: Evaluating the efficiency of various operational processes such as order management, inventory management, logistics, delivery times, and customer service.

Technology Infrastructure: Reviewing the robustness and scalability of the technology stack, including the app's architecture, security measures, payment systems, and integration capabilities.

CHAPTER 2

SERVICES AND TOOLS REQUIRED

2.1 Services Used

Several services can be used to conduct a 360-degree business analysis of online delivery apps:

Business Intelligence (BI) Tools: Platforms like Tableau, Power BI, or Google Data Studio can help gather and visualize data from various sources to provide insights into customer behavior, sales trends, and operational efficiency.

Customer Feedback and Review Analysis Tools: Services like Review Trackers or Trustpilot can aggregate and analyze customer reviews across multiple platforms to identify strengths, weaknesses, and areas for improvement.

Market Research Firms: Companies such as Nielsen, Euromonitor International, or Statista provide comprehensive market research reports and analysis on the online delivery industry, including competitor analysis, market trends, and consumer preferences.

Analytics Platforms: Google Analytics, Mixpanel, or Kissmetrics offer in-depth analytics on website and app usage, conversion rates, and user engagement, helping businesses understand how customers interact with their online delivery platforms.

Supply Chain Management Software: Solutions like SAP, Oracle SCM Cloud, or Blue Yonder (formerly JDA Software) can optimize supply chain operations, including inventory management, logistics, and order fulfillment, leading to improved efficiency and cost-effectiveness.

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 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 sources.

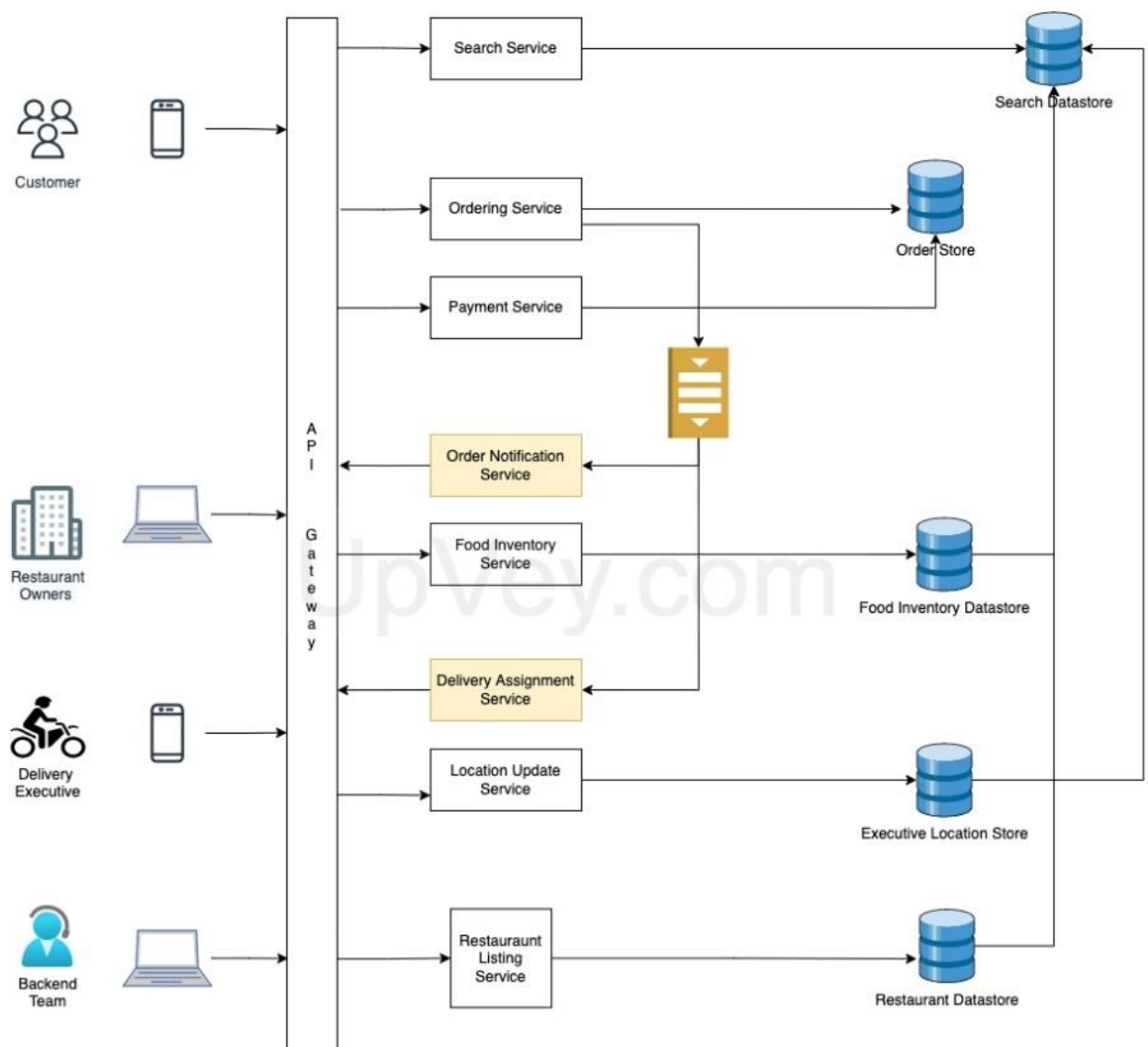
Software Requirements:

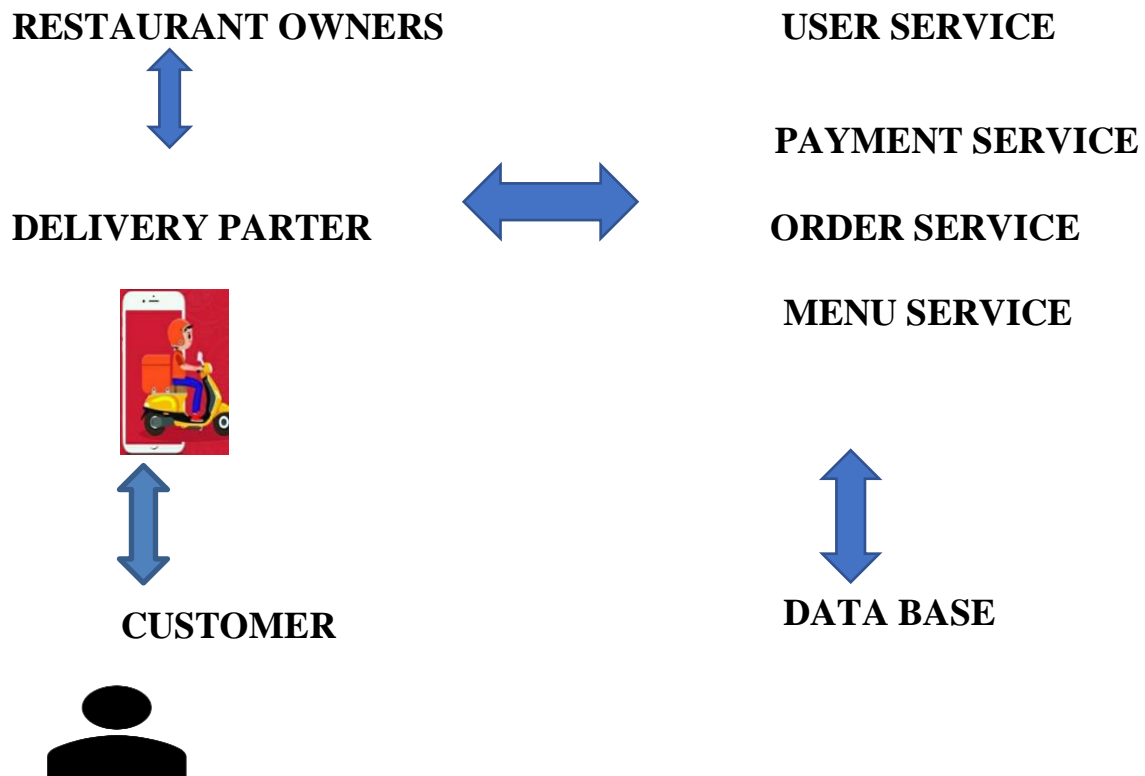
- **PowerBI Desktop:** This is a Windows application that you can use to create reports and publish them to PowerBI.
- **PowerBI Service:** This is an online SaaS (Software as a Service) service that you use to publish reports, create new dashboards, and share insights.
- **PowerBI Mobile:** This is 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:** Data is collected from various sources like restaurant, country.
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.

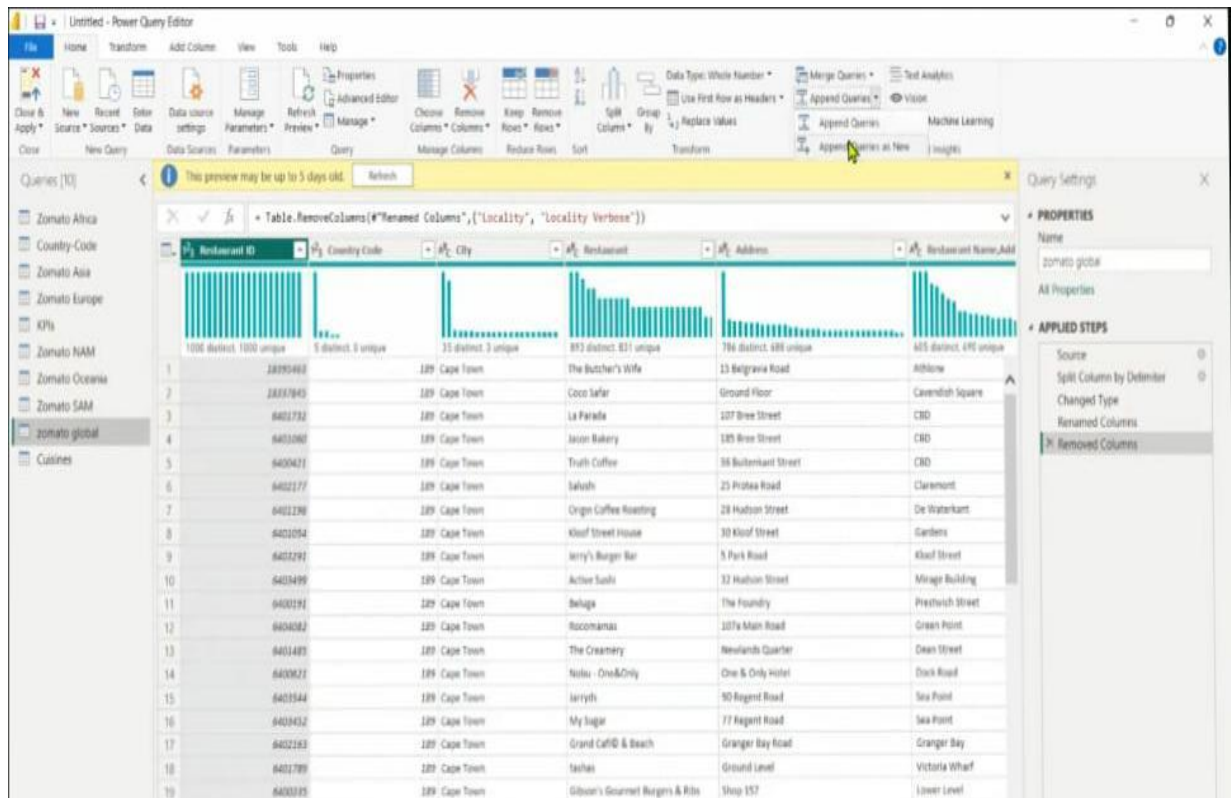
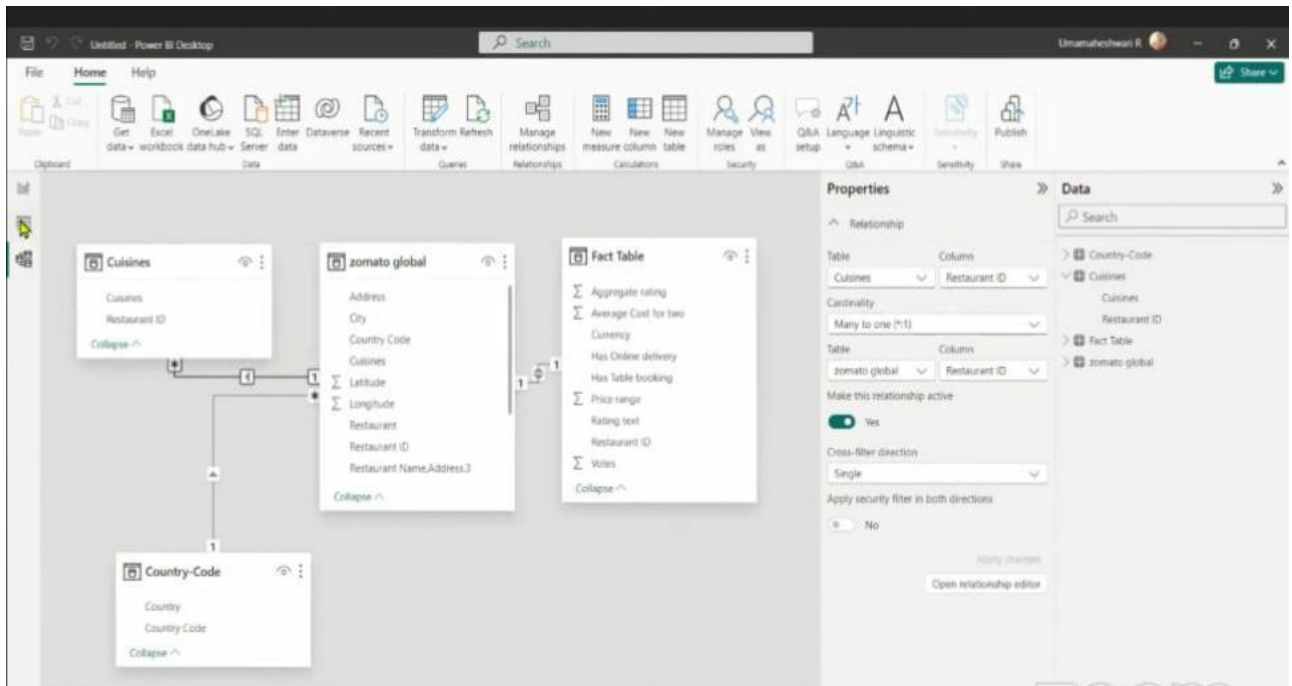
This architecture provides a comprehensive solution for real-time analysis of online delivery apps. However, it's important to note that the specific architecture may vary depending on the user service, payment service, order service, menu service.

CHAPTER 4

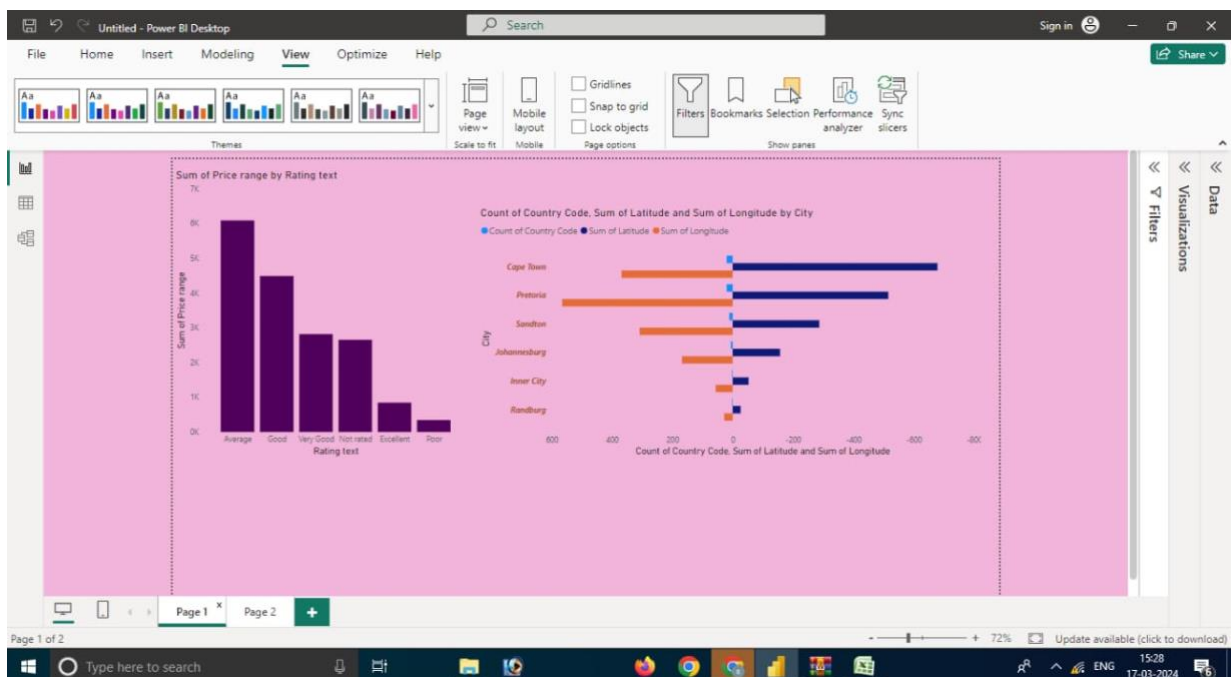
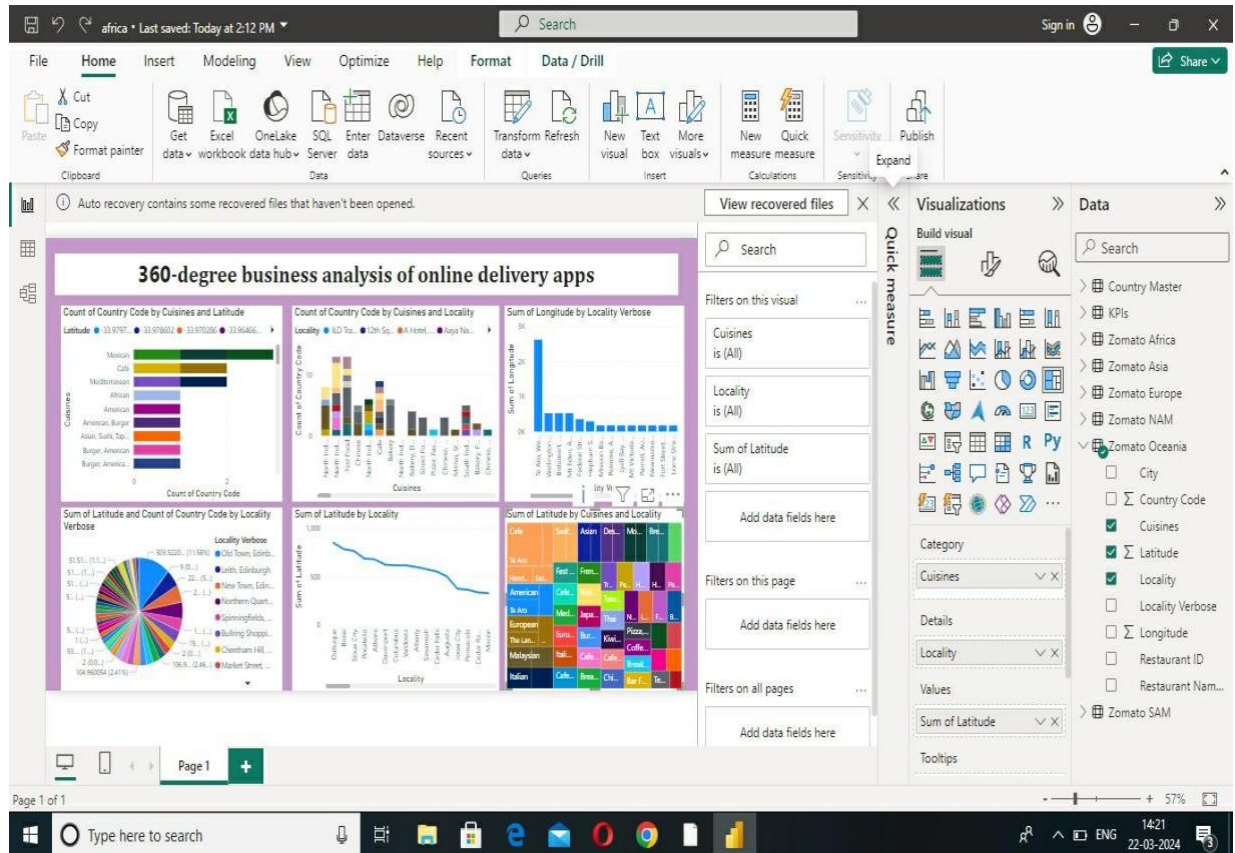
MODELING AND RESULT

Manage relationship

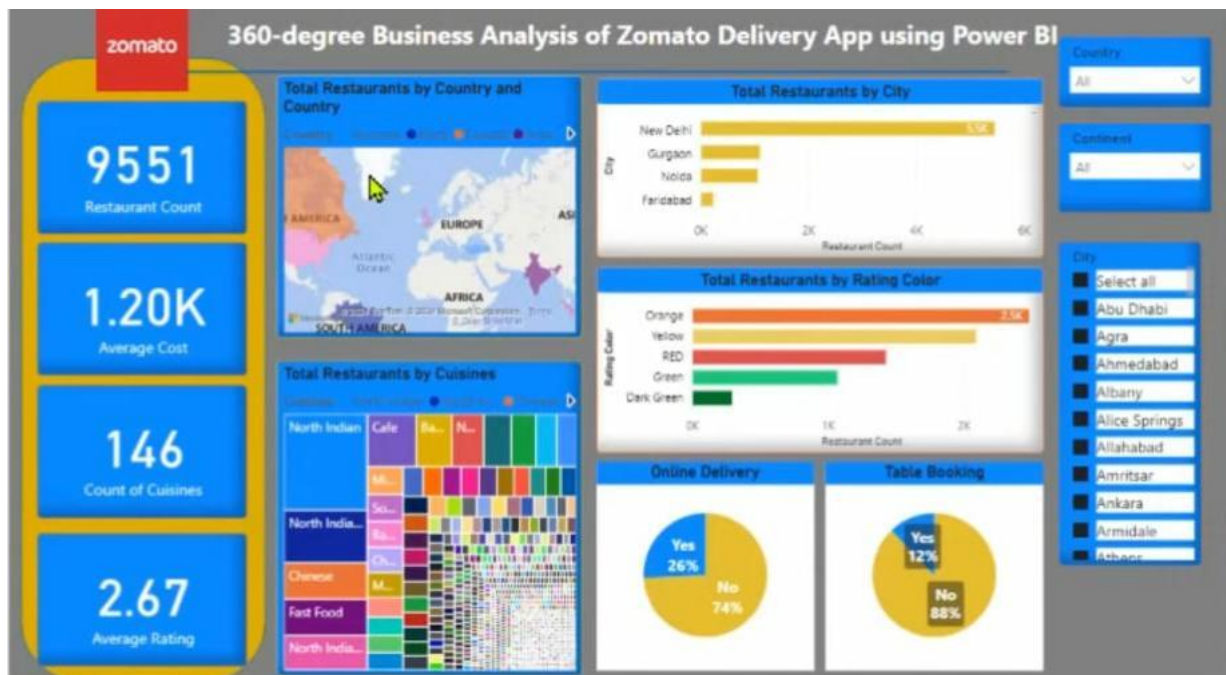
Online food delivery systems allow restaurants and food businesses to serve their customers at their doorsteps. Restaurants can manage a digital menu, accept orders online, accept payments, and automate other operations using a food ordering and delivery mobile app. These datas related the country, restaurants id, online delivery apps (Zomato).



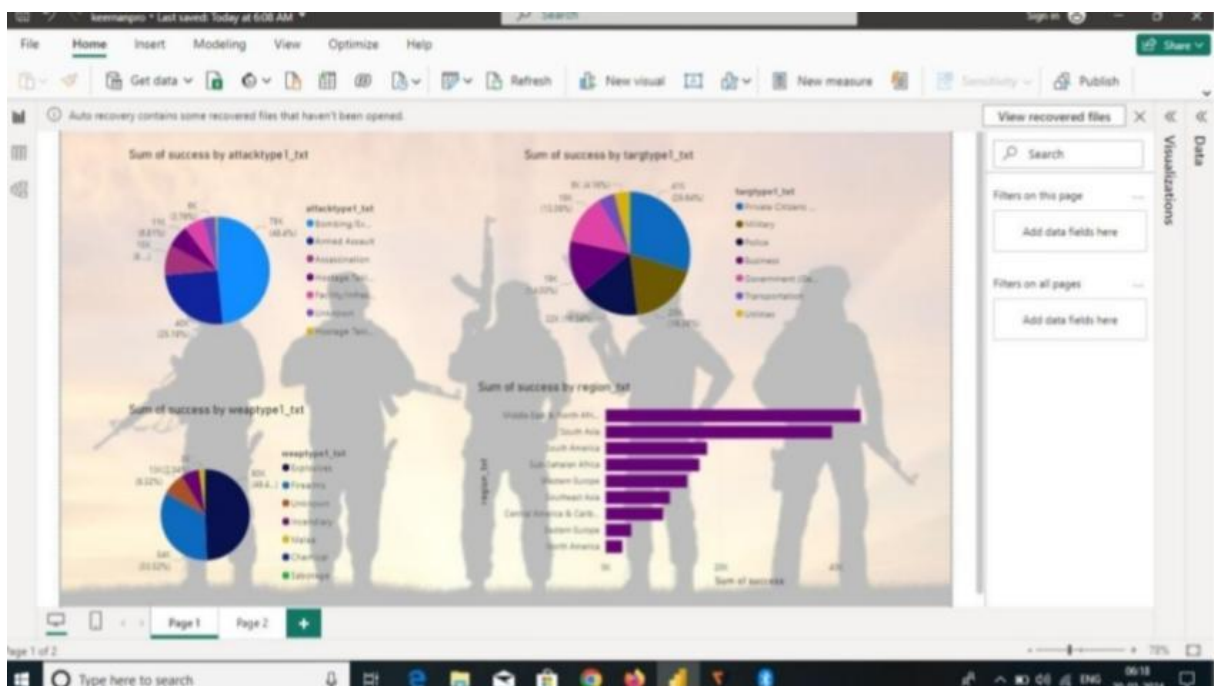
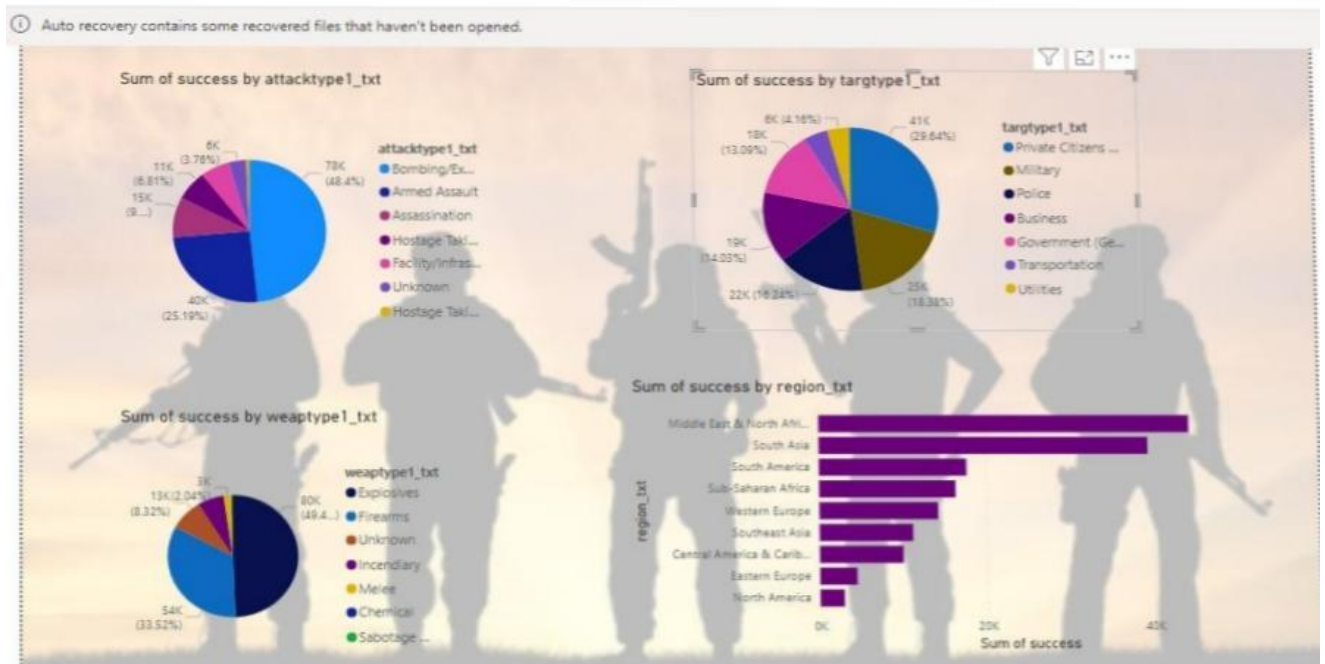
Visualization



Dashboard 1



Dashboard 2



CONCLUSION

The project “360-degree business analysis of online delivery apps” using PowerBI has successfully demonstrated. The real-time analysis of apps data has provided valuable 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. 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. By synthesizing these insights, businesses can make informed decisions to drive growth, enhance profitability, and maintain a competitive edge in the dynamic online delivery app market.

FUTURE SCOPE

With the advent of advanced analytics and machine learning, PowerBI can be leveraged to predict future trends based on historical data. The future scope for 360-degree business analysis of online delivery apps involves leveraging AI and big data analytics to enhance customer experience, optimize delivery routes, personalize recommendations, forecast demand, and improve operational efficiency. Additionally, integrating IoT devices for real-time tracking and monitoring can further enhance the analysis and decision-making process. Moreover, incorporating machine learning algorithms for fraud detection and risk management can help ensure the security and integrity of transactions. Overall, the future lies in harnessing advanced technologies to continuously refine and optimize every aspect of the online delivery app business.



