TECH SAKSHAM

Case Study Report

Data Analytics with Power BI

360-degree Business Analysis of Online Delivery Apps

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ABSTRACT

The study focuses on enhancing operational efficiency, improving customer experience, and optimizing delivery routes. Through a structured approach encompassing data collection, preparation, analysis, and visualization, key insights were derived. These insights include trends in order volume, revenue, and customer satisfaction, the impact of promotions on sales, customer segmentation, delivery performance analysis, and actionable recommendations for improvement. The implementation plan outlines steps for executing recommendations and the expected impact on business performance. This case study serves as a strategic guide for businesses in the online delivery sector, showcasing the power of data analytics in driving informed decision-making and business growth.

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CHAPTER 1

INTRODUCTION

1.1 Problem Statement

The online delivery apps industry is grappling with a range of challenges that hinder operational efficiency, customer experience, and overall business performance. 360-degree business analysis utilizing data analytics with Power BI. This analysis aims to uncover actionable insights, optimize operations, enhance customer satisfaction, and drive strategic initiatives to foster growth and success in the highly competitive online delivery apps sector.

1.2 Proposed Solution

The proposed solution entails leveraging data analytics with Power BI to comprehensively address the challenges faced by the online delivery apps industry. By integrating and cleansing data from diverse sources such as transactional databases, customer feedback systems, and delivery logs, businesses can gain valuable insights into operational inefficiencies, customer preferences, and market trends. Utilizing Power BI's analytics capabilities, businesses can create interactive dashboards and reports to visualize key metrics, track performance indicators, and monitor KPIs such as delivery times, order accuracy, and customer satisfaction scores. Strategic decision-making processes are further informed by actionable insights derived from data analysis, leading to data-driven strategies for competitive differentiation and sustainable growth.

1.3 Feature

- **Real-Time Analysis:** Real-time analysis in the context of online delivery apps using data analytics with Power BI involves features that enable

businesses to monitor and analyze data as it is generated or updated in real-time. Here are the key features for real-time analysis.

- **Customer Segmentation:** This segmentation allows businesses to tailor marketing strategies, promotions, and service offerings to specific customer segments, enhancing engagement, satisfaction, and retention.

- **Trend Analysis**: This analysis enables businesses to understand seasonal fluctuations, recurring patterns, and emerging trends in customer behavior and market demand.

- **Predictive Analysis**: By employing machine learning algorithms and statistical models within Power BI, businesses can analyze customer behavior, demand patterns, market trends, and operational performance to make data-driven predictions.

1.4 Advantages

Data-Driven Decision Making: Power BI enables businesses to make informed decisions based on real-time data insights, improving operational efficiency and strategic planning.

Improved Operational Performance: By analyzing key metrics such as delivery times, order accuracy, and inventory levels, businesses can optimize operations, reduce costs, and enhance customer satisfaction**.**

Personalized Customer Experiences: Customer segmentation and personalized marketing strategies based on data analytics help businesses tailor offerings to specific customer segments, boosting customer engagement and loyalty.

Visualizations and Dashboards: Interactive dashboards and visualizations in Power BI provide a clear and intuitive view of data, facilitating better data interpretation, communication, and collaboration across teams.

Competitive Advantage: By leveraging data analytics with Power BI, businesses gain a competitive edge by understanding market trends, customer

preferences, and competitor strategies, enabling them to innovate and differentiate effectively.

1.5 Scope

The scope of this project extends to all banking institutions that aim to leverage data for decision-making and customer engagement. The project can be further extended to incorporate more data sources and advanced analytics techniques, such as machine learning and artificial intelligence, to provide more sophisticated insights into customer behavior. The project also has the potential to be adapted for other sectors, such as retail, healthcare, and telecommunications, where understanding customer behavior is crucial. Furthermore, the project contributes to the broader goal of digital transformation in the banking sector, promoting efficiency, innovation, and customer-centricity.

CHAPTER 2

SERVICES AND TOOLS REQUIRED

2.1 Services Used

- **Data Collection and Storage Services**: Cloud-based data warehouses such as Azure Synapse Analytics or Amazon Redshift for storing and managing large volumes of structured and unstructured data. Data lakes for storing raw data and enabling scalable analytics using services like Azure Data Lake Storage or AWS S3.
- **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 Sage Maker can be used to build predictive models based on historical data.

2.2 Tools and Software used

Tools:

- **Power BI**: The main tool for this project is Power BI, 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:

- **Power BI Desktop**: This is a Windows application that you can use to 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
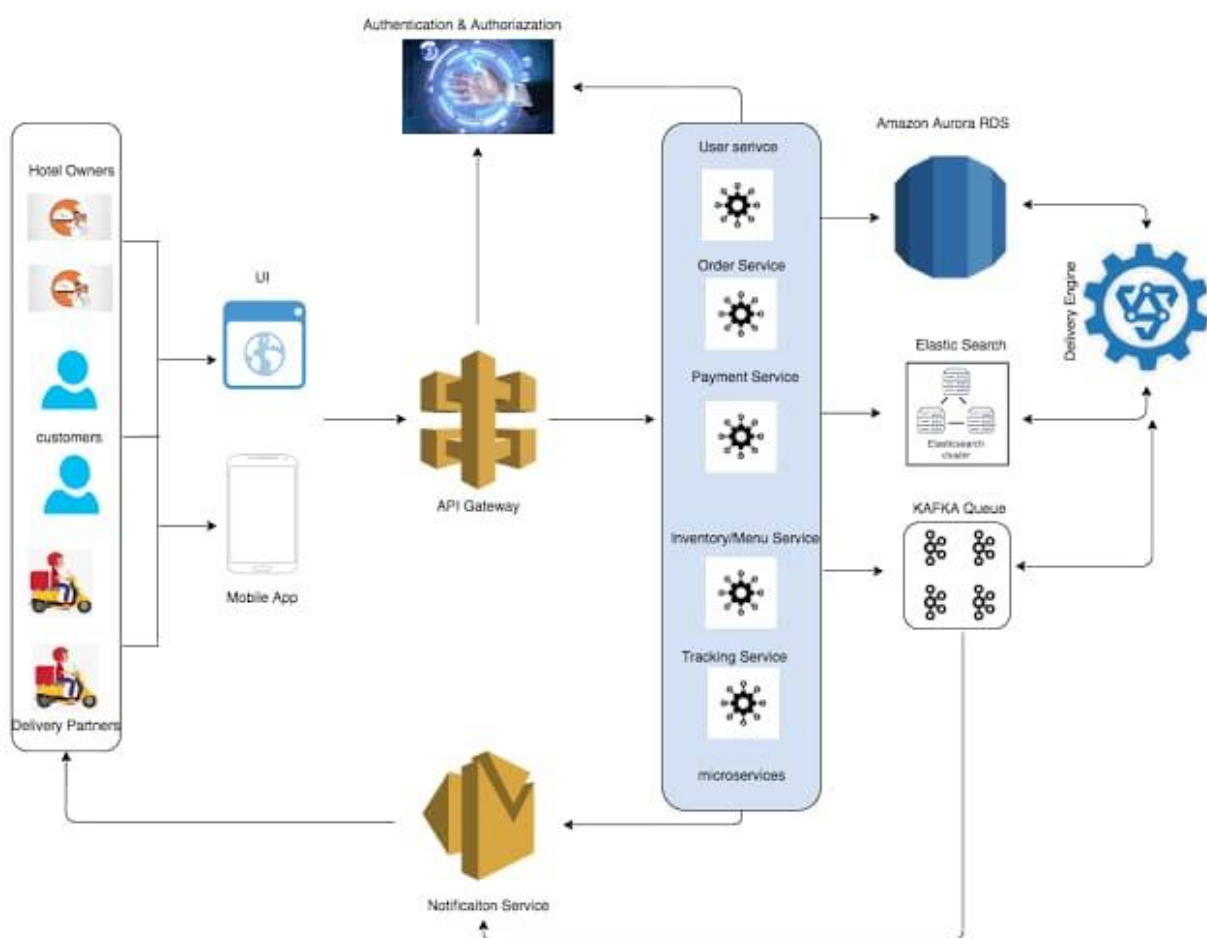
Here's a high-level architecture for the project:

1. **Data Collection:** Cloud-based data warehouses such as Azure Synapse Analytics or Amazon Redshift for storing and managing large volumes of structured and unstructured data.

2. **Data Sources:** Transactional databases: Store order details, customer information, and payment records. Customer feedback systems: Capture reviews, ratings, and comments from customers. Delivery logs: Record information about delivery routes, times, and statuses.

3. **Data Storage**: Cloud-based data storage solutions such as Azure SQL Database, AWS RDS, Google Cloud SQL, or data lakes like Azure Data Lake Storage, AWS S3, Google Cloud Storage. Data partitioning, indexing, and optimization for efficient storage and retrieval of large volumes of data.

4. **Data Processing**: Utilize Power BI's data processing capabilities to perform data transformations, aggregations, and calculations. Apply data modeling techniques to create relationships, hierarchies, and measures for analysis

5. **Advanced Analytics**: Implement advanced analytics techniques such as predictive modeling and machine learning using Power BI's integrated tools or external services. Develop predictive models to forecast demand, identify customer churn, or optimize inventory levels.

6. **Automation and Scheduled Refreshes**: Automate data processing tasks, refresh schedules, and report generation to keep data and insights up-to-date. Schedule regular data refreshes, transformations, and updates to reflect real-time changes and trends.
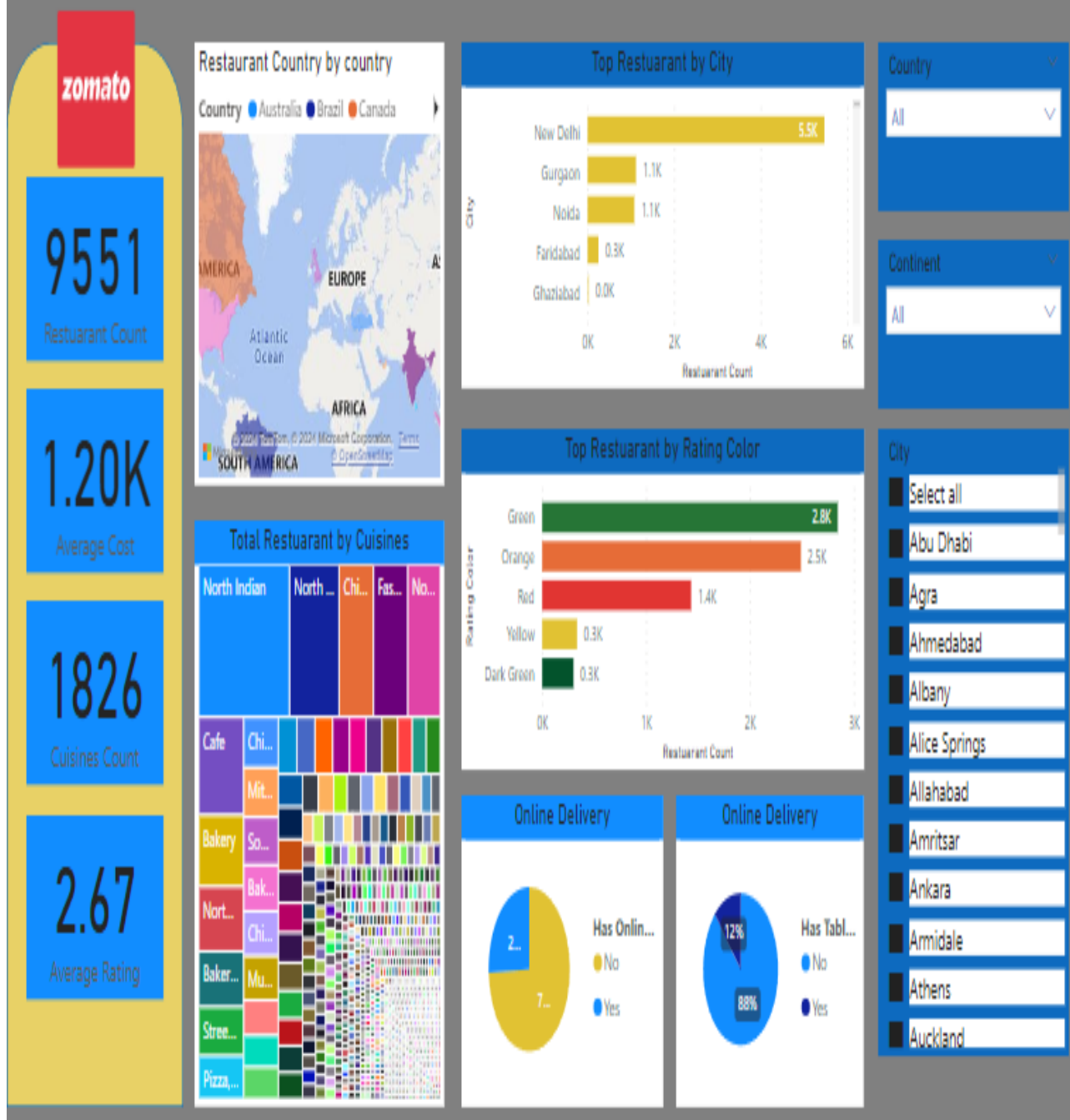
CHAPTER 4

DASHBOARD

OBJECTIVE:

To Evaluate All Aspects Of Their Operations and market presence to improve Performance and Strategic Tecision-Making.

360 degree Business Analysis of Zomato Delivery App using Power BI

CONCLUSION

The Project "The 360-degree analysis of online delivery apps" leveraging data analytics with Power BI offers a transformative approach for businesses in the online delivery apps industry to drive growth, optimize operations, and enhance customer experiences. By harnessing data from diverse sources, conducting comprehensive analyses, and deriving actionable insights, businesses can make informed decisions, personalize offerings, and stay competitive in a dynamic market landscape. The high-level architecture for data processing and analytics outlined above provides a roadmap for implementing data-driven strategies, ensuring data governance, security, and optimization, and ultimately achieving sustainable success in the online delivery apps sector. Through continuous monitoring, optimization, and innovation, businesses can unlock new opportunities, mitigate risks, and adapt to evolving customer needs, positioning themselves for long-term growth and profitability.

FUTURE SCOPE

The future scope of data analytics with Power BI in the online delivery apps industry is promising and holds significant potential for innovation and growth. Moving forward, advancements in artificial intelligence (AI) and machine learning (ML) algorithms will enable more sophisticated predictive analytics models, allowing businesses to forecast demand with higher accuracy, optimize delivery routes in real-time, and personalize customer experiences at scale. Integration with Internet of Things (IoT) devices and sensors will further enhance data collection and analysis capabilities, providing insights into supply chain efficiencies, fleet management, and customer behavior. Additionally, the adoption of augmented analytics tools within Power BI will empower business users to uncover hidden patterns, anomalies, and trends in data more intuitively, driving faster and more informed decision-making. With the increasing emphasis on data privacy and security, future developments in data governance frameworks and compliance standards will ensure responsible and ethical use of data, fostering trust and transparency with customers. Overall, the future scope of data analytics with Power BI in the online delivery apps industry is characterized by innovation, agility, and a customer-centric approach, paving the way for continued growth, differentiation, and value creation.

REFERENCES

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