Tech Saksham

Case Study Report

Data Analytics with Power BI

“360-Degree Business Analysis Of Online Delivery Apps Using Power BI”

“A.P.C. Mahalaxmi College For Women”

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ABSTRACT

In the modern digital landscape, online delivery apps have revolutionized the way consumer's access goods and services. This study conducts a comprehensive 360-degree business analysis of online delivery apps using Power BI, a powerful data visualization tool. By leveraging various data sources such as transactional data, user demographics, market trends, and customer feedback, this analysis aims to provide insights into key performance indicators (KPIs) such as customer satisfaction, delivery efficiency, market penetration, and revenue generation. Through interactive dashboards and reports, stakeholders can gain actionable insights to optimize operations, enhance customer experience, and drive business growth in the competitive online delivery market.

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CHAPTER 1

INTRODUCTION

1.1 Problem Statement

Despite the rapid growth and adoption of online delivery apps, businesses face various challenges in optimizing their operations and maximizing their impact. These challenges include inefficient delivery routes, fluctuating customer satisfaction levels, fierce competition, and evolving market dynamics. The problem statement of this study is to address these challenges by conducting a comprehensive analysis of online delivery apps using Power BI. By identifying bottlenecks, trends, and opportunities within the data, businesses can make data-driven decisions to improve efficiency, enhance customer satisfaction, and stay ahead in the competitive online delivery landscape.

1.2 Proposed Solution

The proposed solution involves leveraging Power BI to analyze diverse datasets from online delivery apps comprehensively. By integrating transactional data, customer feedback, market trends, and operational metrics, businesses can gain holistic insights into their performance. Through interactive dashboards and reports, stakeholders can visualize key KPIs, such as delivery times, customer satisfaction scores, market penetration, and revenue trends. Additionally, advanced analytics techniques like predictive modeling and clustering can be applied to anticipate demand patterns, optimize delivery routes, and personalize customer experiences. By implementing these insights, businesses can streamline operations, improve service quality, and gain a competitive edge in the online delivery Market

1.3 Feature

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- **Delivery Performance**: Visualizations showcasing delivery times, routes, and efficiency metrics to identify bottlenecks and optimize logistics.
- **Customer Satisfaction**: Metrics such as ratings, reviews, and feedback sentiment analysis to gauge customer sentiment and prioritize areas for improvement.
- **Market Analysis:** Insights into market trends, competitor performance, and customer demographics to inform strategic decision-making and market expansion efforts.
- **Revenue Generation**: Visualizations tracking revenue streams, order volumes, and sales trends to identify opportunities for upselling, cross-selling, and revenue optimization.
- **Operational Efficiency**: Metrics on order processing times, inventory management, and resource utilization to streamline operations and reduce costs.

1.4 Advantages

Analyzing online delivery apps using Power BI offers several advantages:
Data Visualization: Power BI allows you to create interactive and visually appealing dashboards and reports, making it easier to analyze complex data sets related to online delivery apps.

Real-Time Insights: With Power BI's ability to connect to live data sources, you can gain real-time insights into various aspects of your online delivery business, such as order volume, customer demographics, and delivery times.

Performance Tracking: By utilizing Power BI's capabilities for tracking key performance indicators (KPIs), you can monitor the performance of your online delivery app over time and identify areas for improvement.

1.5 Scope

- Data Collection: Gather diverse datasets from online delivery apps, including transactional data, customer feedback, market trends, and operational metrics.

- Data Preparation: Clean, transform, and integrate data from multiple sources to ensure consistency and reliability for analysis.

- Dashboard Development: Design interactive dashboards and reports using Power BI to visualize key performance indicators (KPIs) such as delivery performance, customer satisfaction, market analysis, revenue generation, and operational efficiency.

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- Analysis and Insights: Conduct in-depth analysis to derive actionable insights and trends from the data, including identifying areas for improvement, opportunities for growth, and competitive benchmarking.

- Recommendations: Provide recommendations based on the analysis findings to optimize operations, enhance customer experience, and drive business growth in the online delivery market.

- Implementation Support: Assist stakeholders in implementing recommended strategies and monitor performance metrics to track progress over time.

CHAPTER 2

SERVICES AND TOOLS REQUIRED

2.1 Services Used

Data Collection: Gather data from various sources such as transactional databases, customer feedback, app usage statistics, delivery metrics, etc. Ensure data integrity and cleanliness.

Data Preparation: Cleanse and transform the collected data to make it suitable for analysis. This might involve tasks like removing duplicates, handling missing values, and structuring data into a suitable format for Power BI.

Service Usage Analysis:Transaction Analysis: Analyze transactional data to understand the frequency and volume of orders for different services.

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2.2 Tools and Software used

Tools:

- **Data Collection: Gather relevant data from your online delivery app, including sales data, customer reviews, delivery times, user interactions, and marketing campaign performance.**

- **Data Preparation**: Clean and prepare the data for analysis. This may involve removing duplicates, handling missing values, and structuring the data in a way that is suitable for analysis.

Software Requirements:

- **Power BI Service (Optional):** If you want to share your reports and collaborate with others in your organization, you may choose to publish your Power BI reports to the Power BI service. This requires a Power BI Pro license for each user accessing the shared content.

- **Internet Connection:** A stable internet connection is required for downloading Power BI Desktop, accessing online data sources, and publishing reports to the Power BI service (if applicable).

CHAPTER 3

PROJECT ARCHITECTURE

3.1 Architecture

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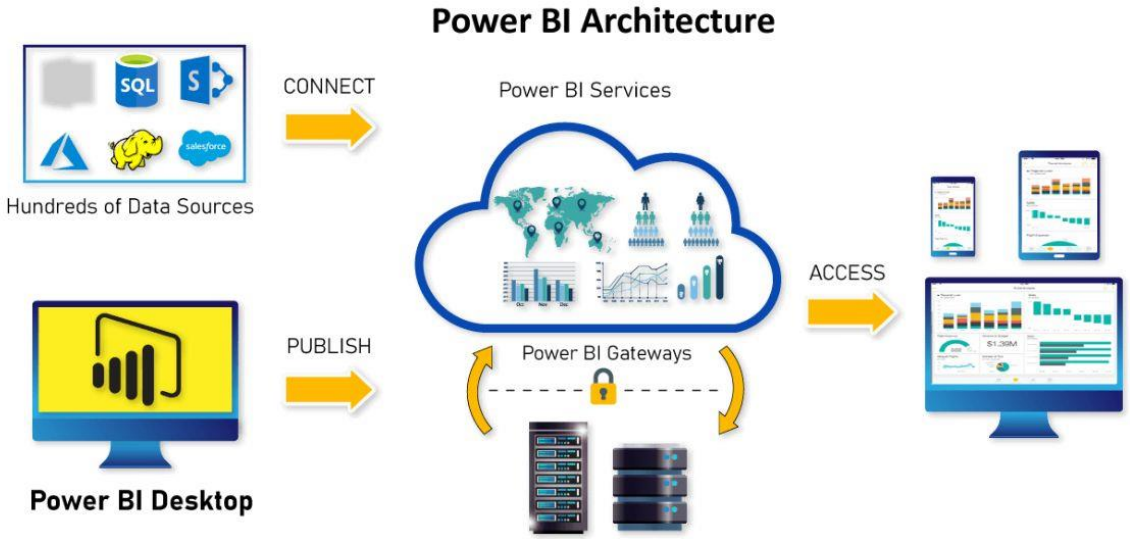

Here's a high-level architecture for the project:**ck systems, marketing analytics platforms, and operational systems capturing**

Data Sources: This is where the raw data originates. Data sources for online delivery apps may include transactional databases, customer feedback systems, marketing analytics platforms, and operational systems capturing delivery logistics.

Data Integration: Data integration involves extracting data from various sources, transforming it into a format suitable for analysis, and loading it into Power BI. This process may utilize tools like Microsoft Power Query or SQL Server Integration Services (SSIS) to clean, merge.

Order Management System (OMS): The OMS is responsible for managing the entire order lifecycle, from order placement to delivery. It tracks orders in real-time, assigns delivery drivers, and updates order statuses. It often integrates with external services such as GPS tracking and messaging APIs.

Payment Gateway: This component facilitates secure payment processing. It allows users to pay for their orders using various payment methods such as credit/debit cards, digital wallets, or cash on delivery. Integration with third-party payment gateways like Stripe, PayPal, or Braintree is common.

By leveraging Power BI for analytics and reporting, businesses can gain valuable insights into various aspects of their online delivery app, including user engagement, order volumes, revenue, and customer feedback. They can create interactive dashboards and reports to

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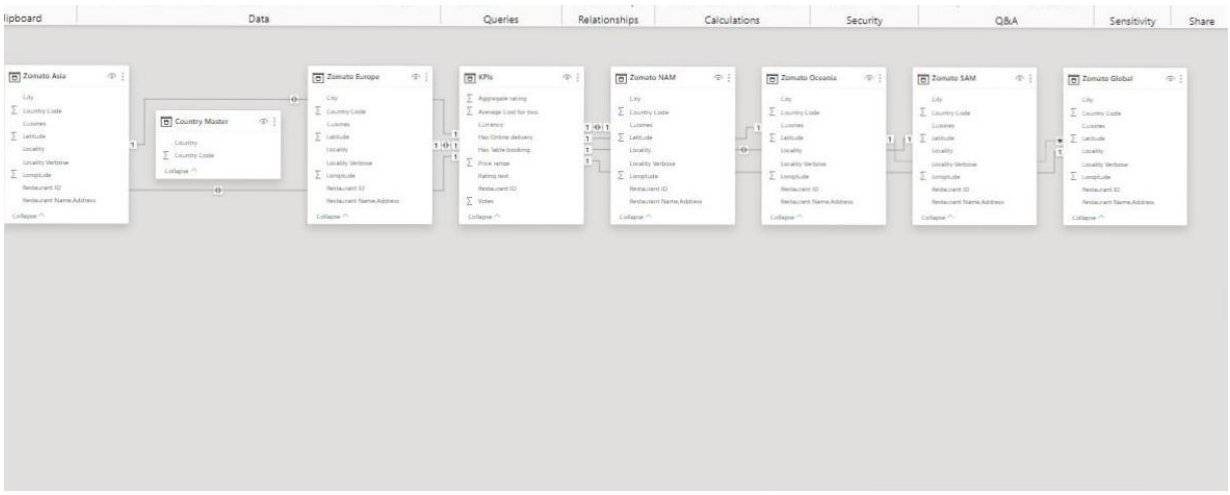
monitor key performance indicators (KPIs) and identify areas for improvement, ultimately enhancing the overall customer experiencee and maximizing profitability.

CHAPTER 4

MODELING AND RESULT

Manage relationship



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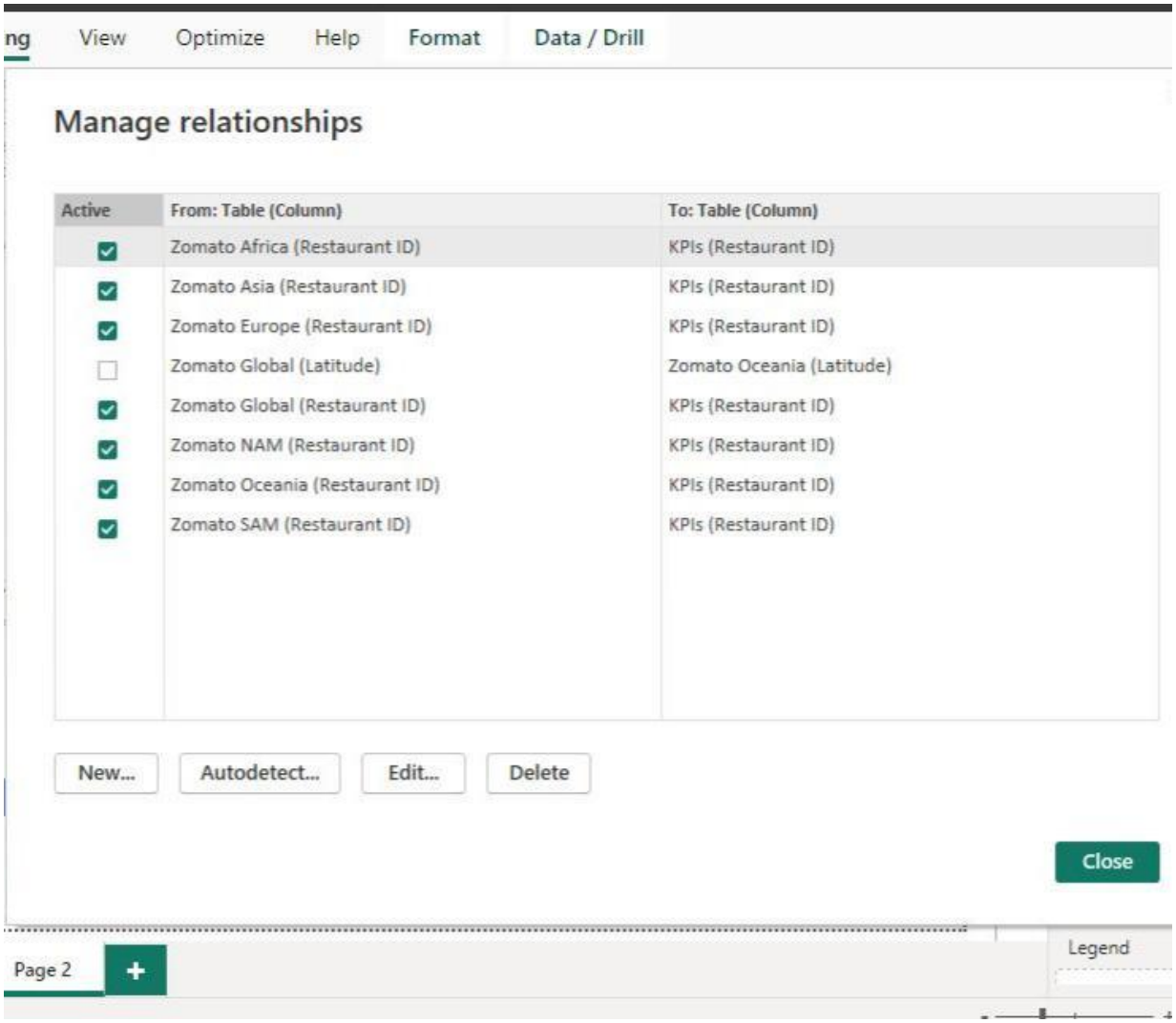

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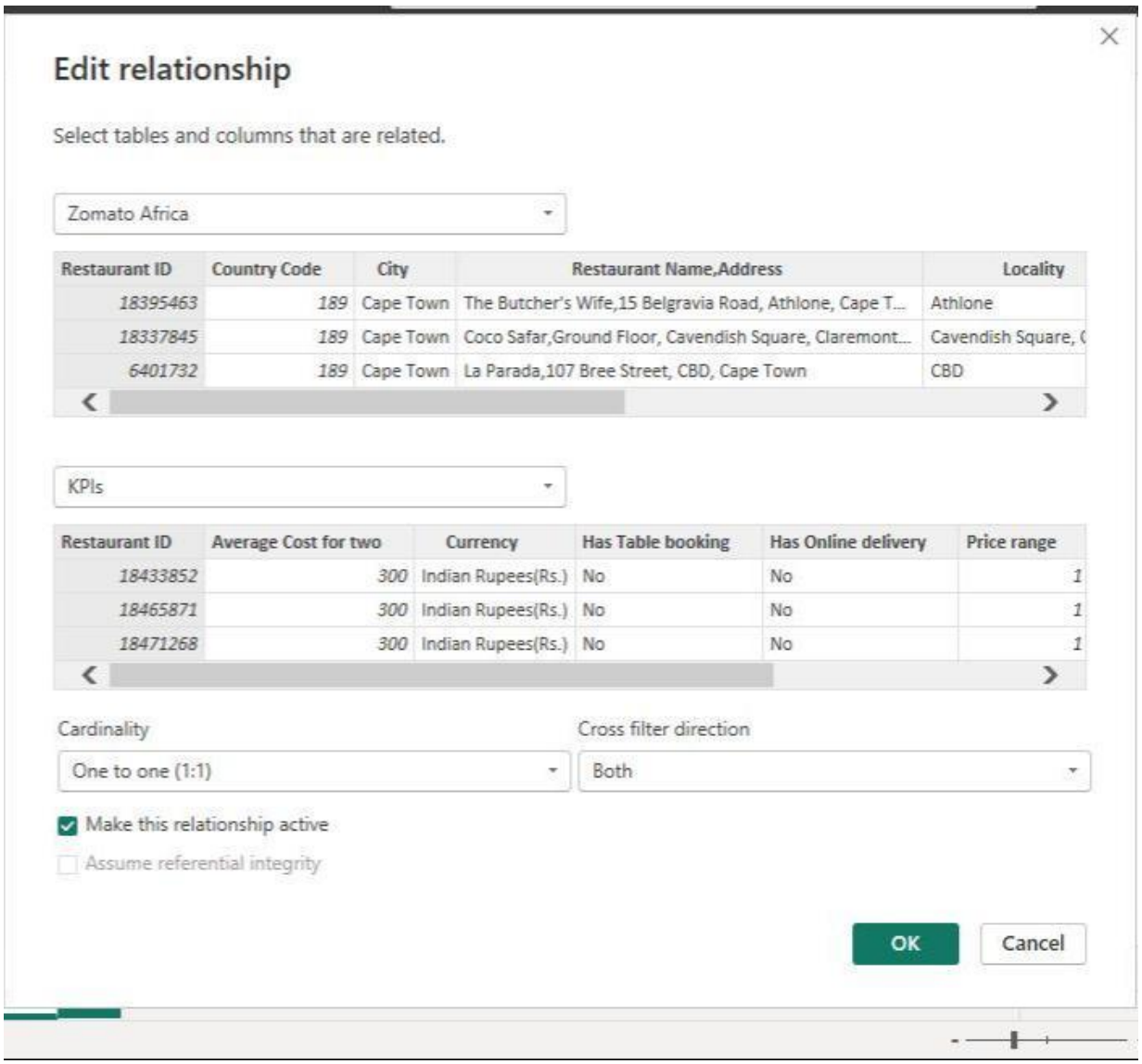

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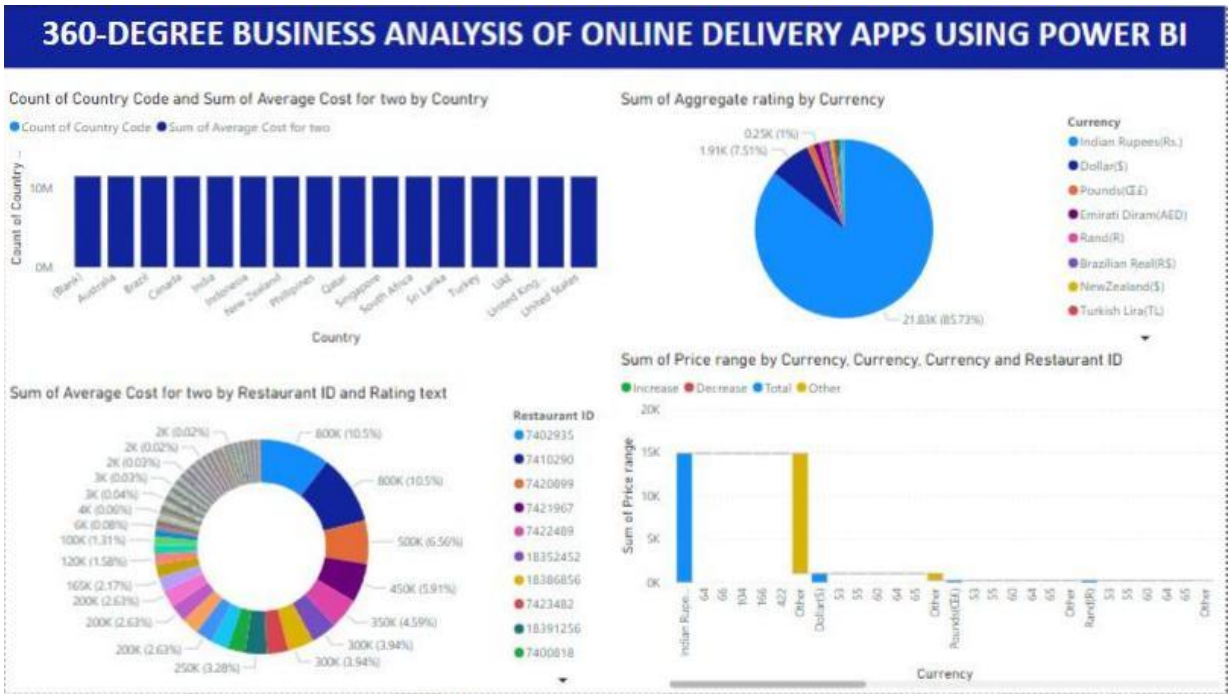
Dashboard



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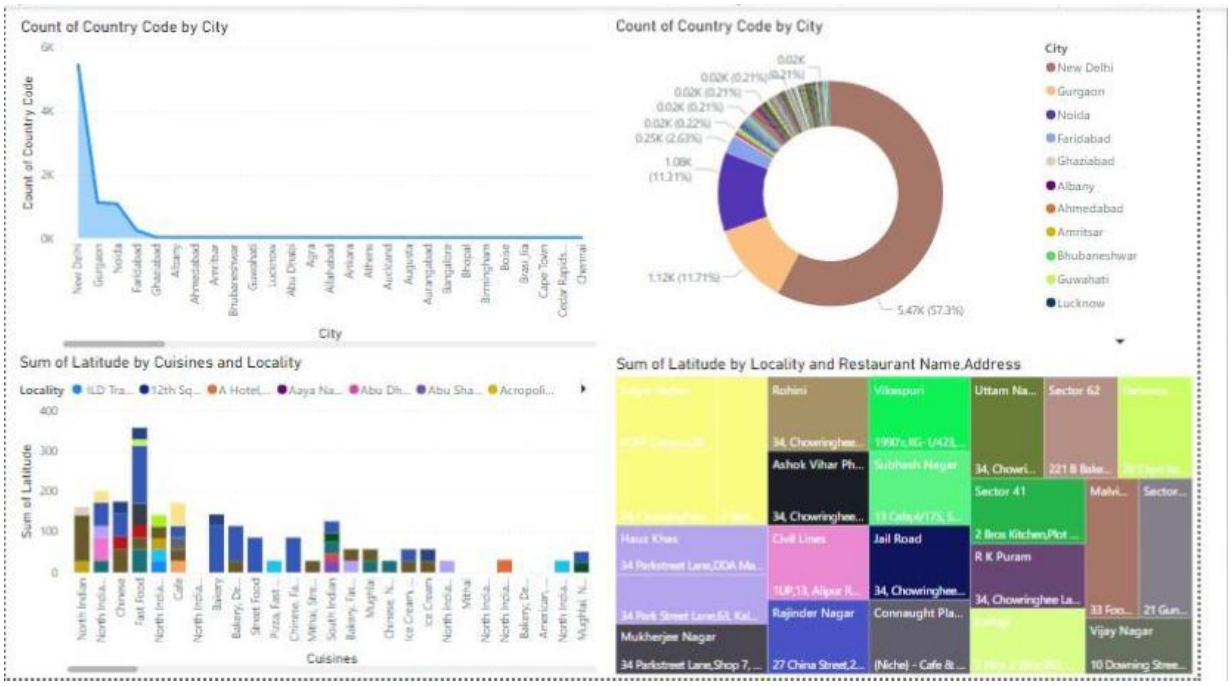

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CONCLUSION

In conclusion, the future of online delivery apps presents a vast landscape of opportunities driven by data analytics and insights. By harnessing the power of tools like Power BI for a comprehensive business analysis, companies can gain a deeper understanding of their operations, customers, and market dynamics. With predictive analytics, enhanced customer experiences, optimized supply chains, and strategic expansion, online delivery apps can stay ahead in a competitive market. Moreover, by addressing challenges such as risk management and regulatory compliance, businesses can build trust and credibility among customers and stakeholders. Overall, the future scope for online delivery apps is promising, with data-driven strategies playing a crucial role in shaping their success and sustainability in the evolving digital economy.

FUTURE SCOPE

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Market Expansion: Identifying new market segments or geographic areas with potential for growth based on data-driven insights.

Partnership Opportunities: Analyzing data to identify potential partnerships with local businesses or other service providers to enhance offerings and reach new customer segments.

Risk Management: Using data to identify and mitigate risks such as fraudulent activities, delivery delays, or market fluctuations.

Regulatory Compliance: Ensuring compliance with regulations and standards related to data privacy, food safety, and labor laws through continuous monitoring and reporting.

Overall, the future scope lies in leveraging data analytics to drive innovation, improve efficiency, and enhance the overall value proposition of online delivery apps in a competitive market landscape.

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