



Tech Saksham

Case Study Report

Data Analytics with Power BI

“360 – degree Business Analysis of Online Delivery Apps using Power BI”

“S. T. HINDU COLLEGE”

Nagercoil

NM ID	NAME
D9F549994A1D999BC974903AD7A22146	ATHIRA. L. T

Trainer Name : UmaMaheshwari

Master Trainer : UmaMaheshwari

ABSTRACT

“In the contemporary landscape of digital commerce, online delivery apps have emerged as indispensable tools, reshaping how consumers access goods and services. This abstract presents a comprehensive 360-degree business analysis of such an app utilizing Power BI, a powerful data visualization and analytics tool. Beginning with data collection from diverse sources such as transactional databases, user engagement metrics, and customer feedback, the analysis proceeds to data cleaning and preparation, ensuring the integrity and accuracy of the dataset. Through meticulous data modelling, a coherent representation of relationships between customers, orders, products, and delivery locations is established, forming the foundation for insightful analysis. The focal point of the analysis lies in the creation of interactive dashboards within Power BI, offering visualizations of key performance indicators (KPIs) including sales trends, order volumes, customer demographics, and delivery times. These dashboards facilitate in-depth sales analysis, segmentation of customers based on purchasing behaviour and identification of cross-selling opportunities through market basket analysis. Furthermore, the analysis delves into operational aspects, evaluating delivery performance metrics, order processing times, and driver efficiency to optimize resource allocation and enhance service quality. Leveraging historical data, forecasting models are employed to anticipate future sales and demand patterns, empowering businesses to make proactive decisions and personalize marketing strategies. Integration of sentiment analysis tools enables a deeper understanding of customer feedback, allowing businesses to address concerns and enhance overall user experience. Financial analysis is also conducted to assess revenue trends, profit margins, and cost structures, guiding strategic decision-making towards sustainable growth and profitability. Finally monitoring mobile app performance metrics such as downloads, active users, and retention rates provides insights into the effectiveness of marketing efforts and user engagement strategies. Through this holistic approach to business analysis using Power BI, online delivery apps can unlock valuable insights, drive operational efficiency, and cultivate customer satisfaction in an increasingly competitive market landscape.”

INDEX

Sl. No	Table of Contents	Page .No
1	Chapter 1: Introduction	4
2	Chapter 2: Services and Tools Required	7
3	Chapter 3: Project Architecture	8
4	Chapter 4: Modelling and Result	10
5	Conclusion	19
6	Future Scope	20
7	References	21
8	Links	22

CHAPTER 1

INTRODUCTION

Problem Statement

The problem statement revolves around the need to comprehensively analyse the various facets of an online delivery app's business operations to drive informed decision-making and enhance overall performance. With the exponential growth of the online delivery sector, businesses face challenges in understanding customer preferences, optimizing operational efficiency, and maximizing revenue streams. Leveraging Power BI, the objective is to tackle these challenges by consolidating and analysing data from multiple sources to gain insights into sales trends, customer behaviour, delivery performance, and financial metrics. The aim is to identify areas for improvement, capitalize on opportunities for growth, and ultimately enhance the app's competitiveness and value proposition in the dynamic digital marketplace.

Proposed Solution

The proposed solution entails leveraging Power BI's robust data visualization and analytics capabilities to conduct a comprehensive 360-degree analysis of the online delivery app's business operations. By integrating data from various sources such as transactional databases, user engagement metrics, and customer feedback, the solution aims to create interactive dashboards that provide real-time insights into key performance indicators (KPIs) including sales trends, customer segmentation, delivery performance, and financial metrics. Through predictive analytics and forecasting models, businesses can anticipate future demand, optimize resource allocation, and personalize marketing strategies. Furthermore, sentiment analysis tools enable the extraction of actionable insights from customer feedback, allowing for continuous improvement of the app's user experience. By empowering decision-makers with actionable insights, the proposed solution enables the online delivery app to drive operational efficiency, enhance customer satisfaction, and sustainably grow its market presence.

Feature

1. **Data Integration:** Consolidate data from diverse sources including transactional databases, user engagement metrics, and customer feedback channels.
2. **Interactive Dashboards:** Create visually engaging dashboards to visualize key performance metrics such as sales trends, customer demographics, delivery times, and financial indicators.
3. **Advanced Analytics:** Utilize predictive modelling and forecasting techniques to anticipate future demand patterns and optimize resource allocation for efficient operations.
4. **Customer Segmentation:** Implement segmentation techniques like RFM analysis and market basket analysis to tailor marketing strategies and enhance personalized customer experiences.
5. **Sentiment Analysis:** Employ sentiment analysis tools to extract actionable insights from customer feedback, enabling businesses to identify areas for improvement and enhance overall service quality

Advantages

1. **Holistic Insights:** Power BI enables businesses to gain a comprehensive understanding of their online delivery operations by integrating data from various sources and providing insights across multiple dimensions, including sales, customer behaviour, delivery performance, and financial metrics.
2. **Real-time Monitoring:** With Power BI's interactive dashboards and visualization capabilities, businesses can monitor key performance indicators in real-time, allowing for timely decision-making and proactive response to changing market conditions, customer preferences, and operational challenges.
3. **Predictive Analytics:** Power BI's advanced analytics features empower businesses to forecast future demand, optimize resource allocation, and anticipate market trends, enabling them to stay ahead of the competition and capitalize on emerging opportunities.
4. **Actionable Insights:** By leveraging Power BI's data analysis and visualization tools, businesses can extract actionable insights from their data, enabling them to identify areas for improvement, enhance operational efficiency, and drive strategic growth initiatives.

Scope

The scope of the 360-degree business analysis of the online delivery app using Power BI encompasses a comprehensive examination of all aspects of the app's operations and performance. This includes analyzing data related to sales trends, customer demographics, delivery performance, and financial metrics. The analysis will delve into various dimensions such as time (daily, weekly, monthly), geography, product categories, and customer segments to provide a holistic view of the business. Furthermore, the scope extends to predictive analytics, forecasting future demand patterns, and identifying opportunities for optimization in resource allocation and marketing strategies. Additionally, sentiment analysis of customer feedback will be conducted to understand user satisfaction levels and pinpoint areas for enhancement within the app's user experience. Through Power BI's robust capabilities, this analysis aims to provide actionable insights that can drive strategic decision-making and enhance the overall performance and competitiveness of the online delivery app.

CHAPTER 2

SERVICES AND TOOLS REQUIRED

2.1 Services Used

- **Data Collection and Storage Services:** Banks 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 Sage Maker can be used to build predictive models based on historical data.

2.2 Tools and Software used

- **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.

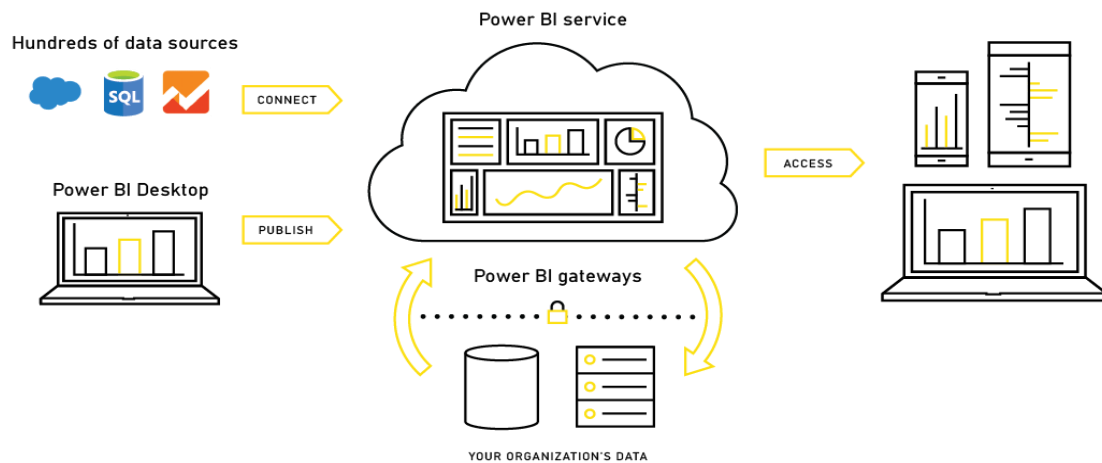
Software Requirements

- **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:** Real-time customer data is collected from various sources like bank transactions, customer interactions, 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 Sage Maker. These models can help in predicting customer behaviour, detecting fraud, etc.



5. Data Visualization: The processed data and the results from the predictive models are visualized in real-time using Power BI. Power BI allows you to create interactive dashboards that can provide valuable insights into the data.

6. Data Access: The dashboards created in Power BI can be accessed through Power BI Desktop, Power BI Service (online), and Power BI Mobile. This architecture provides a comprehensive solution for real-time analysis of bank customers. However, it's important to note that the specific architecture may vary depending on the bank's existing infrastructure, specific requirements, and budget. It's also important to ensure that all tools and services comply with relevant data privacy and security regulations.

CHAPTER 4

MODELING AND RESULT

Manage relationship

Managing relationships in India's power consumption context involves fostering collaboration, communication, and trust among diverse stakeholders. This entails creating inclusive platforms for dialogue and decision-making to address concerns and align objectives effectively. Additionally, building strategic partnerships with industry, academia, and international entities enhances knowledge sharing and resource mobilization. Engaging local communities through outreach programs and participatory approaches ensures grassroots involvement and tailors solutions to regional needs. Moreover, transparent processes and accountability mechanisms build confidence and ensure that energy policies reflect societal interests while promoting sustainable development.

Modelling for states and mega units

Modelling for states and mega units involves developing sophisticated computational models tailored to the unique energy dynamics and requirements of individual states or large industrial units within India. These models incorporate diverse data sources and factors such as energy demand, supply, infrastructure, demographics, industrial activity, and environmental considerations. By simulating various scenarios and interventions, these models provide valuable insights into energy consumption patterns, efficiency opportunities, and optimization strategies specific to each entity. Results from state-level modelling can inform policymakers and energy planners about the state's energy profile, potential areas for improvement, and the implications of different policy decisions on energy security, affordability, and sustainability. This enables the formulation of targeted policies and investment plans to address specific challenges and leverage opportunities for renewable energy integration, grid modernization, and demand-side management. Similarly, modelling for

mega units, such as large industrial complexes or manufacturing facilities, helps optimize energy usage, reduce costs, and enhance competitiveness. These models analyse production processes, energy-intensive operations, equipment efficiency, and alternative energy sources to identify opportunities for energy savings, process optimization, and emissions reduction. By optimizing energy usage and reducing carbon footprint, mega units can improve operational efficiency, comply with regulatory requirements, and enhance their environmental stewardship. Overall, state-level and mega unit modelling facilitate evidence-based decision-making, resource allocation, and performance improvement in the energy sector, contributing to India's energy transition and sustainable development goals.

Replacing Values

Modelling for states involves creating tailored computational models integrating diverse data on energy demand, supply, and infrastructure to inform policy decisions and investment strategies. These models offer insights into efficiency opportunities, renewable energy integration, and grid modernization specific to each state, aiding in sustainable energy planning. Similarly, modelling for mega units optimizes energy usage and enhances competitiveness by analysing production processes and identifying energy-saving opportunities. Results from both state and mega unit modelling facilitate evidence-based decision-making, resource allocation, and performance improvement, crucial for India's energy transition and sustainable development goals.

Grouping of states and mega units

Grouping by states involves categorizing regions based on energy demand, renewable potential, and industrial activity for tailored policy implementation. Mega units, large industrial complexes, are classified by energy consumption and production processes to prioritize efficiency measures and renewable integration. This integrated approach ensures coordinated strategies for energy sustainability. Data-driven analysis forms the basis, incorporating consumption patterns and environmental impact assessments. Stakeholder collaboration is pivotal, engaging government, utilities, industries, and communities for effective planning and implementation. Continuous monitoring and evaluation refine strategies, while capacity building initiatives foster knowledge sharing for sustainable energy management. This approach ensures optimized resource allocation and alignment with evolving energy transition goals.

Credit Rating and Loan Status

In the realm of power consumption, credit ratings play a significant role in accessing financing for energy projects and infrastructure development. For energy companies, utilities, and renewable energy developers, securing loans is crucial for funding capital-intensive projects such as building power plants, upgrading transmission lines, or installing renewable energy facilities. A strong credit rating enhances their ability to negotiate favourable loan terms, including lower interest rates and longer repayment periods. This facilitates investment in sustainable energy solutions and contributes to the expansion and modernization of the power sector. Conversely, entities with lower credit ratings may face challenges in obtaining financing or may be subject to higher borrowing costs, potentially impeding efforts to improve energy infrastructure and transition to cleaner energy sources. Therefore, maintaining sound financial management practices and demonstrating creditworthiness are essential for ensuring access to financing and driving progress in power consumption initiatives.

Transform Data

Append

Concatenate rows from three or more tables into a single table.

☐ Two tables ☒ Three or more tables

Available tables

- Zomato Africa
- Zomato Asia
- Country Master
- Zomato Europe
- KPIs
- Zomato NAM
- Zomato Oceania
- Zomato SAM**

Add >>

Tables to append

- Zomato Africa
- Zomato Asia
- Zomato Europe
- Zomato NAM
- Zomato Oceania
- Zomato SAM

OK

Cancel

Append the data source, Zomato Africa, Zomato Asia, Zomato Europe, Zomato NAM, Zomato Oceania, Zomato SAM into a new data source. The new data source was renamed 'Zomato Global'. Then the other sub data source was disabled.

Queries [10]

- Zomato Africa
- Zomato Asia
- Country Master
- Zomato Europe
- KPIs
- Zomato NAM
- Zomato Oceania
- Zomato SAM
- Zomato Global**
- Cuisines

Table.TransformColumnTypes(#"Split Column by Delimiter1",{{"Cuisines", type text}})

	Restaurant ID	Cuisines
1	18395463	Pizza
2	18395463	Grill
3	18337845	Cafe
4	18337845	Patisserie
5	6401732	Spanish
6	6401732	Tapas
7	6401060	Cafe
8	6401060	Bakery
9	6400421	Cafe
10	6402177	Japanese
11	6402177	Sushi
12	6402177	Asian
13	6401198	Cafe
14	6401198	Bakery
15	6401198	Tea
16	6401198	Vegetarian
17	6401054	Mediterranean
18	6403291	Burger
19	6403291	American
20	6403499	Sushi
21	6400191	Seafood
22	6400191	Asian
23	6400191	Grill
24	6400191	Sushi

Modified relationship

Edit relationship

Select tables and columns that are related.

Cuisines

Restaurant ID	Cuisines
3400025	North Indian
3400341	North Indian
3400005	North Indian

Zomato Global

Restaurant ID	Country Code	City	Restaurant Name	Restaurant Address
306531	1	New Delhi	PM 2 AM Food Bank	1st Floor, Alaknanda Market, Alaknanda, New Delhi
18354658	1	New Delhi	Punjabi Chaap Corner	Shop 6, GF, Plot 2, NRI Colony, Alaknanda, New Delhi
18311953	1	New Delhi	Lemon Chick	7 & 11, G-1, Raj Tower 1, Alaknanda Shopping Complex, .

Cardinality

Many to many (*:*)

Cross filter direction

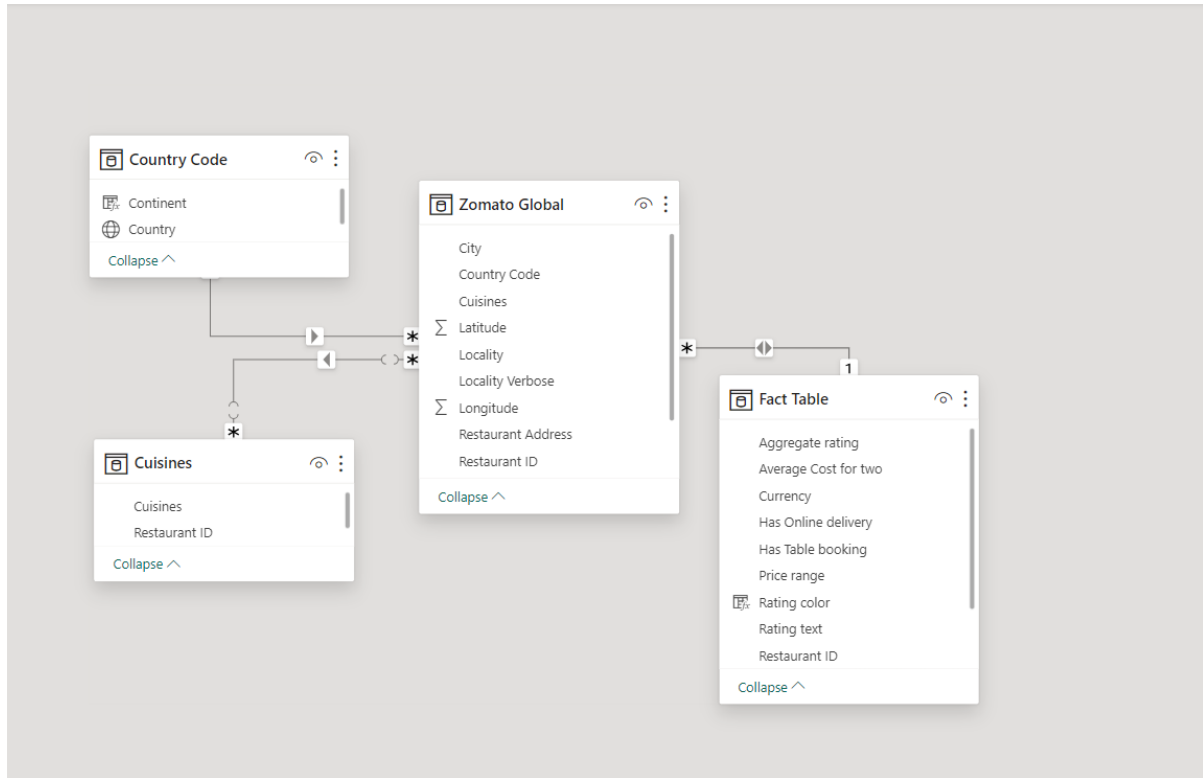
Single (Zomato Global filters Cuisines)

☒ Make this relationship active

☐ Apply security filter in both directions

☐ Assume referential integrity

Remove the Restaurant ID relationship between Fact Table to Cuisines and merge new Restaurant ID relationship between Zomato Global to cuisines in 'many to many' format.



The above model view image shows the relationship of the full data base Zomato Global database to other data sets Fact Table, Country Code, Cuisines.

Modelling rating colour

Notice that the Rating color are missing from the Fact table data. These can be formulated from the Aggregate rating column in the fact table by give four color value like red, orange, green, dark green to separate value of Aggregate rating

1 Rating color = IF('Fact Table'[Aggregate rating]=0,"Not Rated",IF('Fact Table'[Aggregate rating]<=2.9,"Red",IF('Fact Table'[Aggregate rating]<=3.4,"Orange",IF('Fact Table'[Aggregate rating]<=4.4,"Green",IF('Fact Table'[Aggregate rating]<=5,"Dark Green","Others")))))

Restaurant ID	Average Cost for two	Currency	Has Table booking	Has Online delivery	Price range	Aggregate rating	Rating text	Votes	Rating color
18433852	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18465871	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18471268	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18472429	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18471296	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18466420	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18464607	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18464631	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18433879	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18480389	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18446428	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18446082	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18471244	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18424179	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18294253	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18471308	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18471320	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18398616	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18481295	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18462605	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18463989	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18463992	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18451168	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18312606	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18393717	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18392211	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated
18438453	300	Indian Rupees(Rs.)	No	No	1	0	Not rated	0	Not Rated

Apply the colors, show Not Rated to the Aggregate value '0', Red for the values<=2.9, Orange for the values<=3.4, Green for the values<=4.4, Dark green for the values<=5 and other values.

Creating new measurements

1 Restaurant Count = COUNT('Zomato Global'[Restaurant ID])

Restaurant ID	Country Code	City	Restaurant Name	Restaurant Address
306531	1	New Delhi	PM 2 AM Food Bank	1st Floor, Alaknanda Market, Alaknanda, New Delhi
18354658	1	New Delhi	Punjabi Chaap Corner	Shop 6, GF, Plot 2, NRI Colony, Alaknanda, New Delhi
18311953	1	New Delhi	Lemon Chick	7 & 11, G-1, Raj Tower 1, Alaknanda Shopping Complex, Near Post Office, Alaknanda, New Delhi
18489513	1	New Delhi	Tandoori Kebab	356 Narmada, Alaknanda, New Delhi
3326	1	New Delhi	The Mirch Masala	DDA Murga Market, Near Deep Cinema, Ashok Vihar Phase 1, New Delhi
18457050	1	New Delhi	Puran Dhaba	Shop J-11/11, Sanjay Market, Opposite Nimri Colony, Ashok Vihar Phase 4, Near Ashok Vihar
18375413	1	New Delhi	Rama Desi Ghee Meat Wala	IA, Block 10 C, Ashok Vihar Phase 1, New Delhi
6574	1	New Delhi	Pandit Ji Paranthhe Wale	Ashok Vihar Phase 2, New Delhi
1192	1	New Delhi	Apni Rasoi	1, Pocket B, DDA Market, Ashok Vihar Phase 3, New Delhi
18400739	1	New Delhi	Balaji Dhaba	Shop 23, NDMC Market, Babar Road, Near Bengal Market, Barakhamba Road, New Delhi
304211	1	New Delhi	High Street Kitchen & Bar	32, Basant Lok Market, Vasant Vihar, New Delhi
6394	1	New Delhi	Punjabi Tadka	6, UG-64, Ansal Chamber 2, Bhikaji Cama Place, New Delhi
6079	1	New Delhi	Break Fast Point	27, Satnam Park, Bhagat Singh Road, Chander Nagar, New Delhi
6117	1	New Delhi	Breakfast Corner	K-14, Bhagat Singh Road, Satnam Park, Chander Nagar, New Delhi
302490	1	New Delhi	Vaishno Punjabi Dhaba	H 1A, New Gobind Pura, Near, Chander Nagar, New Delhi

Create new measurement 'Restaurant Count' using count function to the Restaurant ID in the Zomato Global data source

✕ ✓
1 Average Cost = AVERAGE('Fact Table'[Average Cost for two])

Restaurant ID	Average Cost for two	Currency	Has Table booking	Has Online delivery	Price range	Aggregate rating	Ri
18433852	300	Indian Rupees(Rs.)	No	No	1	0	Not
18465871	300	Indian Rupees(Rs.)	No	No	1	0	Not
18471268	300	Indian Rupees(Rs.)	No	No	1	0	Not
18472429	300	Indian Rupees(Rs.)	No	No	1	0	Not
18471296	300	Indian Rupees(Rs.)	No	No	1	0	Not
18466420	300	Indian Rupees(Rs.)	No	No	1	0	Not
18464607	300	Indian Rupees(Rs.)	No	No	1	0	Not
18464631	300	Indian Rupees(Rs.)	No	No	1	0	Not
18433879	300	Indian Rupees(Rs.)	No	No	1	0	Not
18480389	300	Indian Rupees(Rs.)	No	No	1	0	Not
18446428	300	Indian Rupees(Rs.)	No	No	1	0	Not
18446082	300	Indian Rupees(Rs.)	No	No	1	0	Not
18471244	300	Indian Rupees(Rs.)	No	No	1	0	Not
18424179	300	Indian Rupees(Rs.)	No	No	1	0	Not
18294253	300	Indian Rupees(Rs.)	No	No	1	0	Not
18471308	300	Indian Rupees(Rs.)	No	No	1	0	Not
18471320	300	Indian Rupees(Rs.)	No	No	1	0	Not

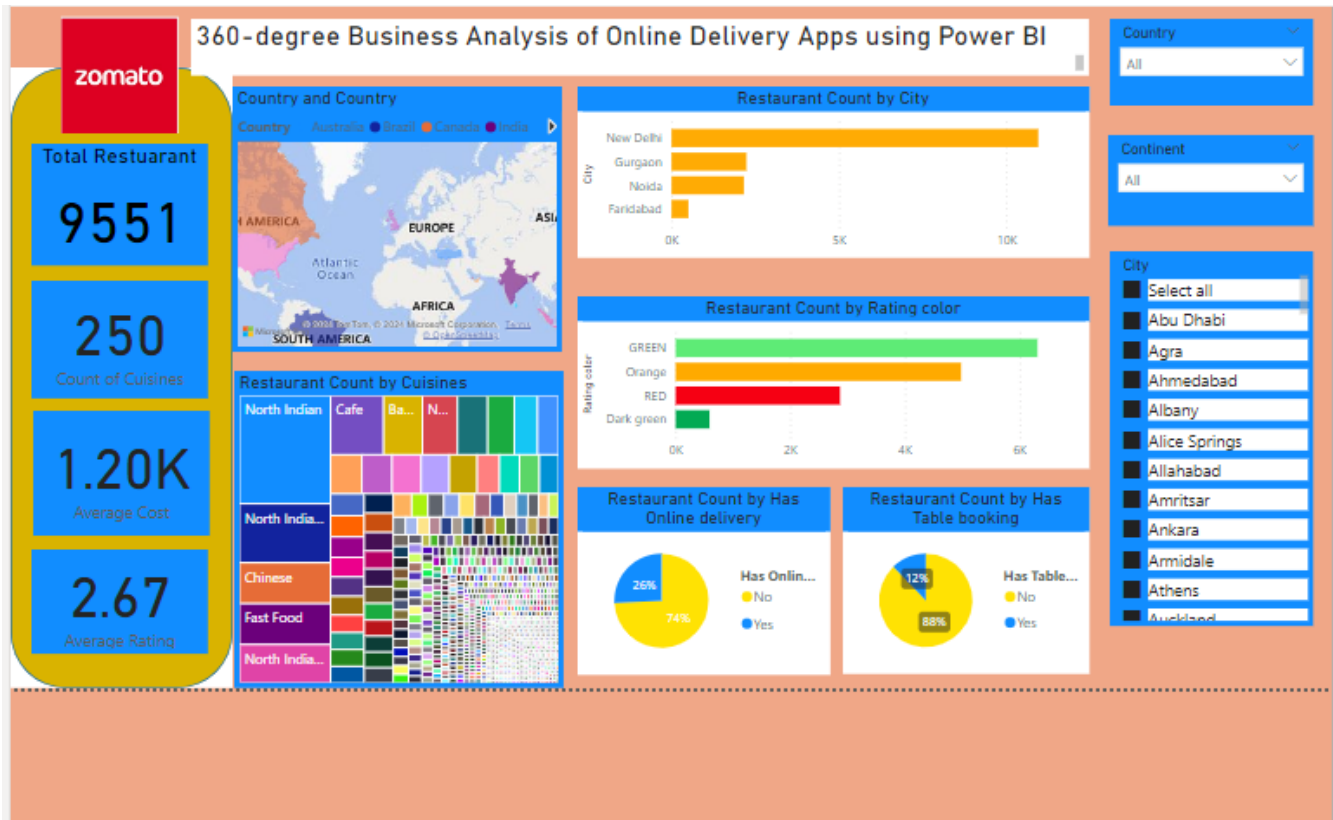
Creating new measurement 'Average Cost' by using average function 'Average Cost for two' table in the fact table data source.

✕ ✓
1 Average Rating = AVERAGE('Fact Table'[Aggregate rating])

Restaurant ID	Average Cost for two	Currency	Has Table booking	Has Online delivery	Price range	Aggregate rating	Rati
18433852	300	Indian Rupees(Rs.)	No	No	1	0	Not
18465871	300	Indian Rupees(Rs.)	No	No	1	0	Not
18471268	300	Indian Rupees(Rs.)	No	No	1	0	Not
18472429	300	Indian Rupees(Rs.)	No	No	1	0	Not
18471296	300	Indian Rupees(Rs.)	No	No	1	0	Not
18466420	300	Indian Rupees(Rs.)	No	No	1	0	Not
18464607	300	Indian Rupees(Rs.)	No	No	1	0	Not
18464631	300	Indian Rupees(Rs.)	No	No	1	0	Not
18433879	300	Indian Rupees(Rs.)	No	No	1	0	Not
18480389	300	Indian Rupees(Rs.)	No	No	1	0	Not
18446428	300	Indian Rupees(Rs.)	No	No	1	0	Not
18446082	300	Indian Rupees(Rs.)	No	No	1	0	Not
18471244	300	Indian Rupees(Rs.)	No	No	1	0	Not
18424179	300	Indian Rupees(Rs.)	No	No	1	0	Not
18294253	300	Indian Rupees(Rs.)	No	No	1	0	Not
18471308	300	Indian Rupees(Rs.)	No	No	1	0	Not
18471320	300	Indian Rupees(Rs.)	No	No	1	0	Not

Creating new measurement 'Average Rating' by using average function to 'Aggregate rating' table in the fact table data source.

Dashboard



Conclusion

The 360-degree business analysis delivers actionable insights across market penetration, customer behaviour, operational efficiency, financial performance, competitive analysis, risk management, and growth strategies. By leveraging interactive visualizations and data-driven metrics, the analysis enables informed decision-making and strategic planning. It identifies key market segments, customer preferences, and operational bottlenecks, allowing for targeted marketing efforts, personalized services, and streamlined operations. Moreover, the evaluation of financial performance and competitive landscape supports revenue growth, cost reduction, and differentiation strategies. Proactive risk management and data-driven growth strategies further ensure the app's resilience and competitiveness in the dynamic market landscape, fostering long-term success and sustainability.

Future Scope

Looking ahead, the future scope for leveraging Power BI in the analysis of the online delivery app is promising, with opportunities for further enhancement and innovation. Firstly, advancements in machine learning and predictive analytics can be integrated into Power BI to forecast customer demand more accurately, optimize delivery routes in real-time, and anticipate market trends. By harnessing the power of AI-driven insights, the app can proactively adapt to changing consumer preferences, minimize delivery times, and maximize operational efficiency. Additionally, incorporating geospatial analysis capabilities into Power BI can provide deeper insights into customer demographics, traffic patterns, and competitor locations, enabling more targeted marketing strategies and expansion plans. Furthermore, as IoT devices continue to proliferate, integrating sensor data from delivery vehicles and warehouses into Power BI can enable real-time monitoring of inventory levels, temperature control, and vehicle performance, ensuring timely restocking, quality control, and preventive maintenance.

Secondly, the future scope also encompasses the integration of Power BI with emerging technologies such as blockchain and augmented reality (AR) to enhance transparency, security, and user experience. Implementing blockchain technology can improve supply chain traceability, authenticate product origins, and facilitate secure transactions between stakeholders, enhancing trust and accountability in the delivery ecosystem. Moreover, by integrating AR capabilities into Power BI dashboards, users can visualize data overlays in the physical environment, enabling more immersive and interactive analytics experiences. For instance, delivery drivers can use AR-enabled maps to navigate routes more efficiently, while customers can use AR to visualize product details and promotions.



Reference Link

<https://www.spec-india.com/blog/power-bi-dashboard-examples>



Git Hub Link

[AthiraArathi86/360-degree-Business-Analysis-of-Online-Delivery-Apps-using-Power-BI- \(github.com\)](#)