Tech Saksham

Case Study Report

Data Analytics with Power BI

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

“Sivanthi Arts and Science College for Women”

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ABSTRACT

Online delivery services have become an integral part of modern business operation, offering convenience and efficiency to consumers worldwide. This paper presents a comprehensive analysis of online delivery services, encompassing various dimensions to provide a holistic understanding. By leveraging interactive dashboards and visualizations, this research provides stakeholders with actionable insights to optimize decision-making, enhance user experience, and drive business growth

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CHAPTER 1

INTRODUCTION

1.1 Problem Statement

The quality control of the online food delivery services has never been any good in the last few years history. There have been some efforts but that was not enough in any way. There have been incidents where the food was not in a state to eat even eaten food was served for some unknown reason. All these happened because of lack of quality management and this problem still exists in sylhet also.

1.2 Proposed Solution

A 360-degree business analysis of online would likely involve examining various aspects such as mark trends, consumer behavior,competitive landscape, technological advancements, regulatory considerations, operational efficiencies, supply chain management, marketing strategies, financial performance, and sustainability practices. This comprehensive approach would provide a holistic understanding of the online delivery sector.

1.3 Feature

- **Market Analysis:**

  Understanding market trends,size,growth potential, and competition in the online delivery sector.

- **Competitive Landscape:**

  Evaluating key competitors, their offerings, market share, strengths, weaknesses and strategies

- **SWOT Analysis:**

  Assessing the strengths, weaknesses, opportunities, and threats facing the online delivery business

- **Customer Segmentation:**

  Identifying and analyzing different customer segments based on demographics, behavior, preferences, and needs.

1.4 Advantages

Focus on current strengths,weaknesses, opportunities, and threads of online delivery services. This involves analyzing the current market landscape, customer preferences, competitor strategies and technological advancements.Explore emerging trends and developments likely to impact online delivery within the next few years

1.5 Scope

A 360-degree business analysis of online delivery could provide a comprehensive understanding of various aspects including customer behavior, market trends, operational efficiency and strategic positioning. This approach offers a holistic view that goes beyond the traditional 360-degree analysis by incorporating additional layers of insight.In the future, as online delivery continuous to evolve and expand, such a through analysis could help business stay competitive.

CHAPTER 2

SERVICES AND TOOLS REQUIRED

2.1 Services Used

The service used for 360-degree business analysis of online delivery could be a comprehensive analytics platform or consultancy that offers a holistic view of various aspects of the online delivery business, including customer behavior, market trends, operational efficiency, competitor analysis and more.This analysis typically involves examining data from multiple angles to gain deep insights into the business operations and identify areas for improvement or optimization.

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**:

   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 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.

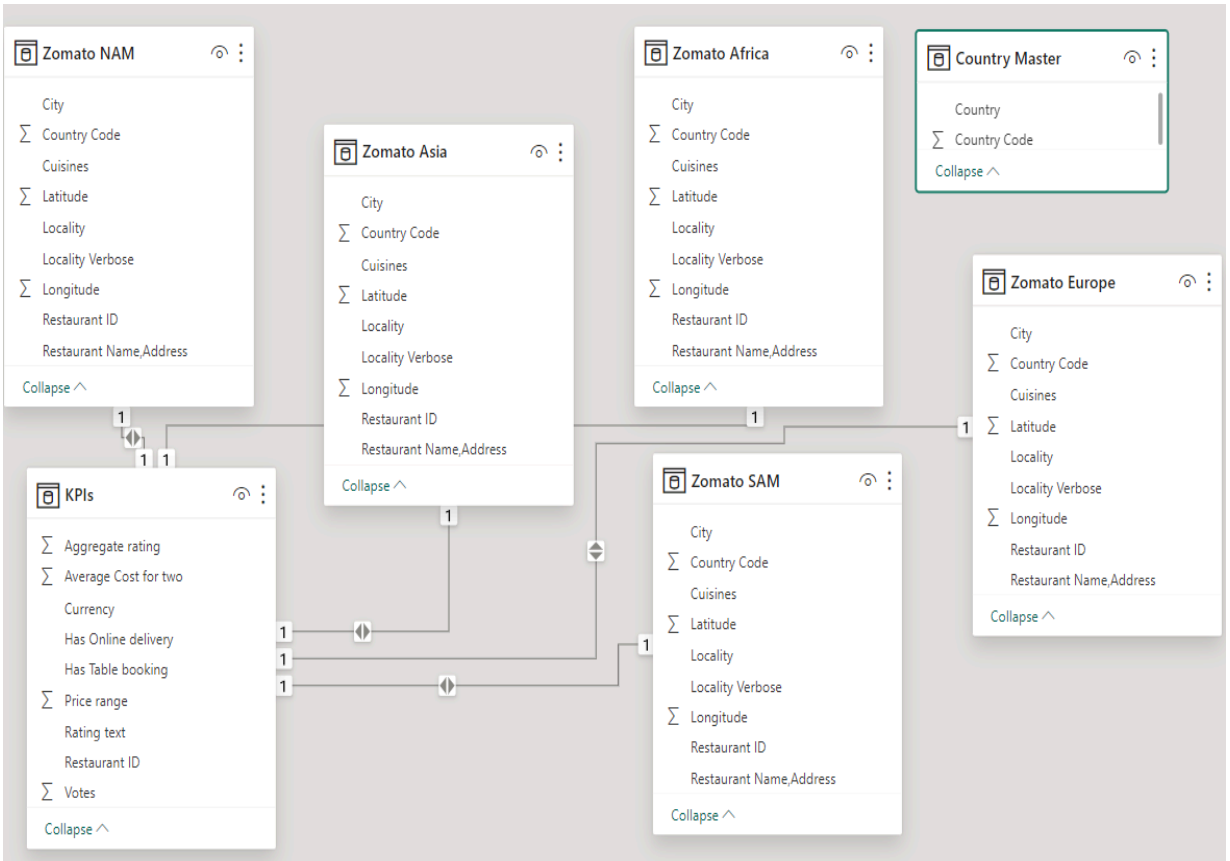
This architecture provides a comprehensive solution for real-time analysis of bank customers. However, it's important to note that the specific architecture may vary depending on the bank's existing infrastructure, specific requirements, and budget. It's also important to ensure that all tools and services comply with relevant data privacy and security regulation.

CHAPTER 4

MODELING AND RESULT

Manage relationship

You can effectively manage relationship and create a robust analytical framework for conducting a 360 degree business analysis of online delivery apps using Power BI. Adjust the specifies according to your data sources, business requirements and analysis objectives.



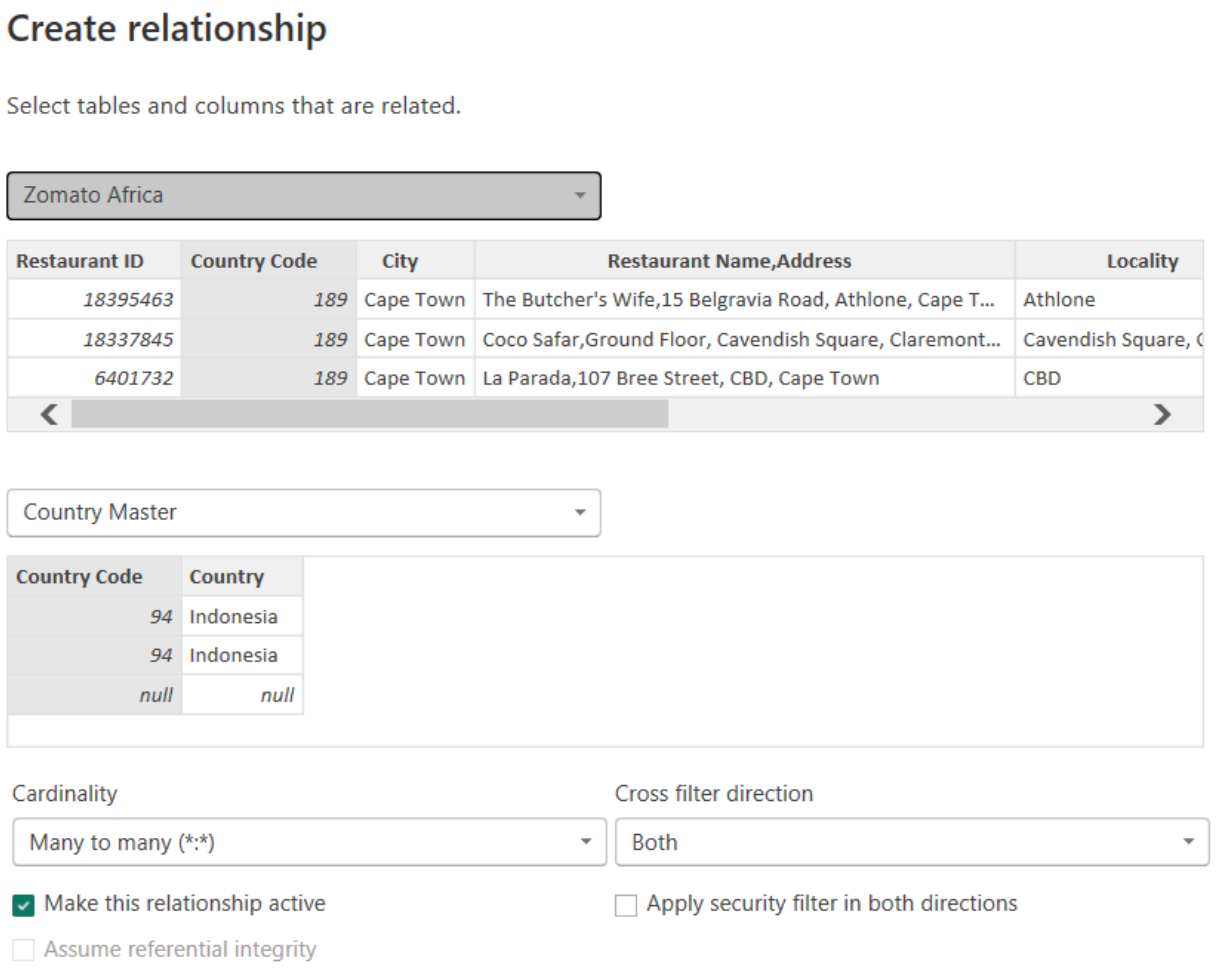
This is the manage relationship for the given data about business analysis of online delivery apps using Power BI.

Manage relationships

Active	From: Table (Column)	To: Table (Column)
☑	Zomato Africa (Restaurant ID)	KPIs (Restaurant ID)
☑	Zomato Asia (Country Code)	Country Master (Country Code)
☑	Zomato Asia (Restaurant ID)	KPIs (Restaurant ID)
☑	Zomato Europe (Restaurant ID)	KPIs (Restaurant ID)
☑	Zomato NAM (Restaurant ID)	KPIs (Restaurant ID)
☑	Zomato Oceania (Restaurant ID)	KPIs (Restaurant ID)
☑	Zomato SAM (Restaurant ID)	KPIs (Restaurant ID)

Create relationship

we create relationship between Zomato Asia and Country Master by using Restaurant ID, Country Code, City, Restaurant Name, Address, Locality and etc.



It is a table transform column types by promoted Headers, Restaurant ID,Country Code, City, Restaurant Name, Address, Locality, Locality Verbose, Longitude, Latitude, cuisines.

```
= Table.TransformColumnTypes(#"Promoted Headers",{{"Restaurant ID", Int64.Type}, {"Country Code", Int64.Type}, {"City", type text},
    {"Restaurant Name,Address", type text}, {"Locality", type text}, {"Locality Verbose", type text}, {"Longitude", type number},
    {"Latitude", type number}, {"Cuisines", type text}})
```

	Restaurant ID	Country Code	City	Restaurant Name,Address	Locality	Lo
1	17284404	216	Albany	Austin's BBQ and Oyster Bar,2820 Meredyth Dr, Albany, GA 31707	Albany	Alb
2	17284203	216	Albany	BJ's Country Buffet,2401 Dawson Rd, Albany, GA 31707	Albany	Alb
3	17284105	216	Albany	Cookie Shoppe,115 N Jackson St, Albany, GA 31701	Albany	Alb
4	17284302	216	Albany	El Vaquero Mexican Restaurant,2700 Dawson Rd, Albany, GA 31707	Albany	Alb
5	17284397	216	Albany	Elements Coffee Co - Northwest,2726 Ledo Rd Ste 10, Albany, GA 31707	Albany	Alb

Here we removed columns and changed types for Restaurant ID, Country Code, City, Restaurant Name, Address.

```
= Table.RemoveColumns(#"Changed Type",{"Restaurant ID", "Country Code", "City", "Restaurant Name,Address"})
```

	Locality	Locality Verbose	Longitude	Latitude	Cuisines
1	Albany	Albany, Albany	-84.221535	31.610387	BBQ, Burger, Seafood
2	Albany	Albany, Albany	-84.207095	31.608743	American, BBQ
3	Albany	Albany, Albany	-84.154	31.5772	null
4	Albany	Albany, Albany	-84.2194	31.6158	Mexican
5	Albany	Albany, Albany	-84.206944	31.622412	Coffee and Tea, Sandwich
6	Albany	Albany, Albany	-84.1759	31.5882	null
7	Albany	Albany, Albany	-84.2193	31.616	Fast Food
8	Albany	Albany, Albany	-84.2091458	31.6155186	Asian, Chinese, Vegetarian
9	Albany	Albany, Albany	-84.205718	31.604905	Pizza, Bar Food, Sandwich
10	Albany	Albany, Albany	-84.223278	31.612121	Steak, Tapas, Bar Food

It is a table transform column types by promoted Headers, Restaurant ID,Country Code, City, Restaurant Name, Address, Locality, Locality Verbose, Longitude, Latitude, cuisines.

```
= Table.TransformColumnTypes(#"Promoted Headers",{{"Restaurant ID", Int64.Type}, {"Country Code", Int64.Type}, {"City", type text},
    {"Restaurant Name,Address", type text}, {"Locality", type text}, {"Locality Verbose", type text}, {"Longitude", type number},
    {"Latitude", type number}, {"Cuisines", type text}})
```

	Restaurant ID	Country Code	City	Restaurant Name,Address	Locality
1	6600681	30	Brasí_lia	Chez Michou,SCLN, 208, Bloco A, Loja 30, Asa Norte, Brasí_lia	Asa Norte
2	6601005	30	Brasí_lia	Cafí© Daniel Briand,SCLN 104, Bloco A, Loja 26, Asa Norte, Brasí_lia	Asa Norte
3	6600292	30	Brasí_lia	Casa do Biscoito Mineiro,SCLN 210, Bloco D, Loja 36/48, Asa Norte, Br...	Asa Norte
4	6600441	30	Brasí_lia	Maori,CLN 110, Bloco D, Loja 28, Asa Norte, Brasí_lia	Asa Norte
5	6600970	30	Brasí_lia	Pizza íæ Bessa,SCS 214, Bloco C, Loja 40, Asa Sul, Brasí_lia	Asa Sul

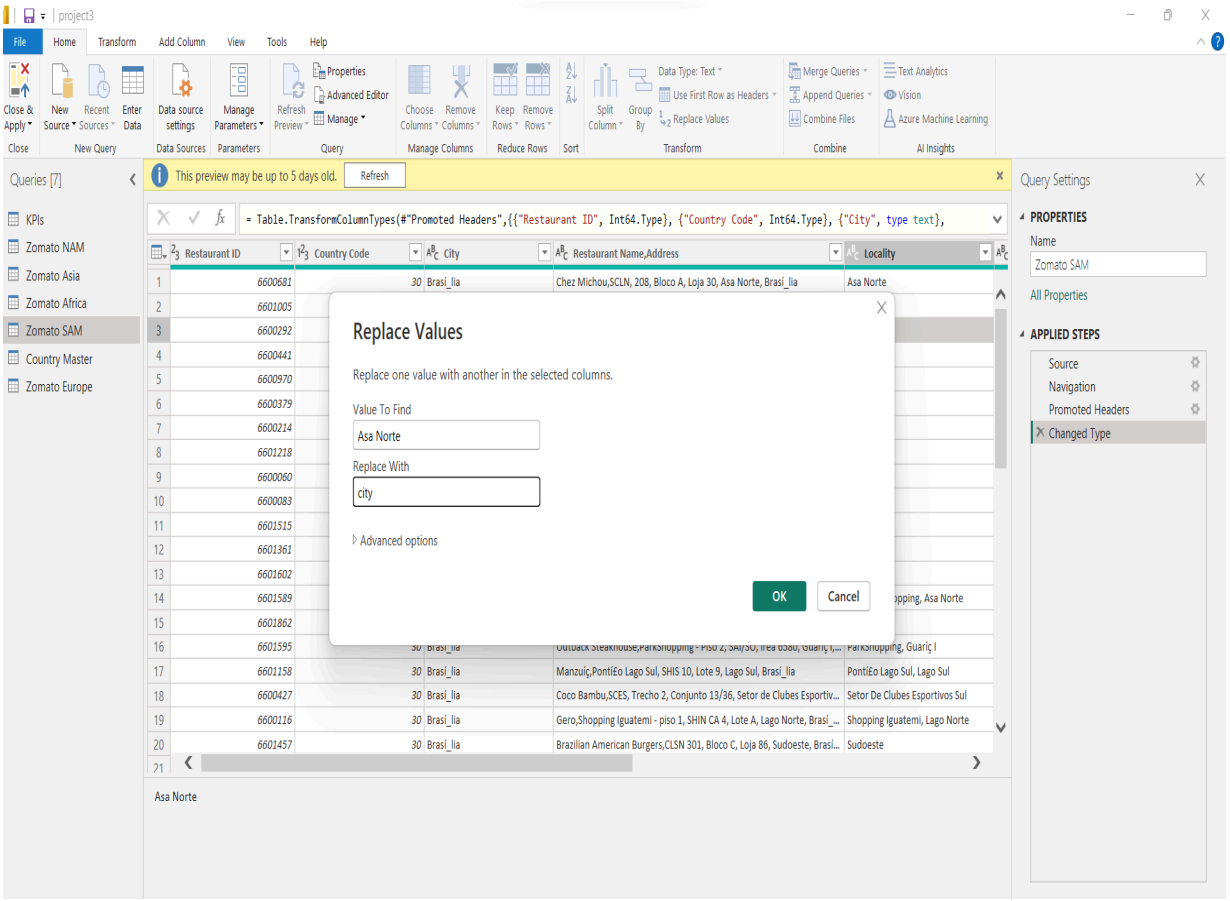
It is a table transform column types by Restaurant ID, Average cost for two currency, Has table booking, Has online delivery, Price Range, Aggregation Rating, Rting Text, Votes.

```
= Table.TransformColumnTypes(#"Promoted Headers",{{"Restaurant ID", Int64.Type}, {"Average Cost for two", Int64.Type}, {"Currency", type
    text}, {"Has Table booking", type text}, {"Has Online delivery", type text}, {"Price range", Int64.Type}, {"Aggregate rating", type
    number}, {"Rating text", type text}, {"Votes", Int64.Type}})
```

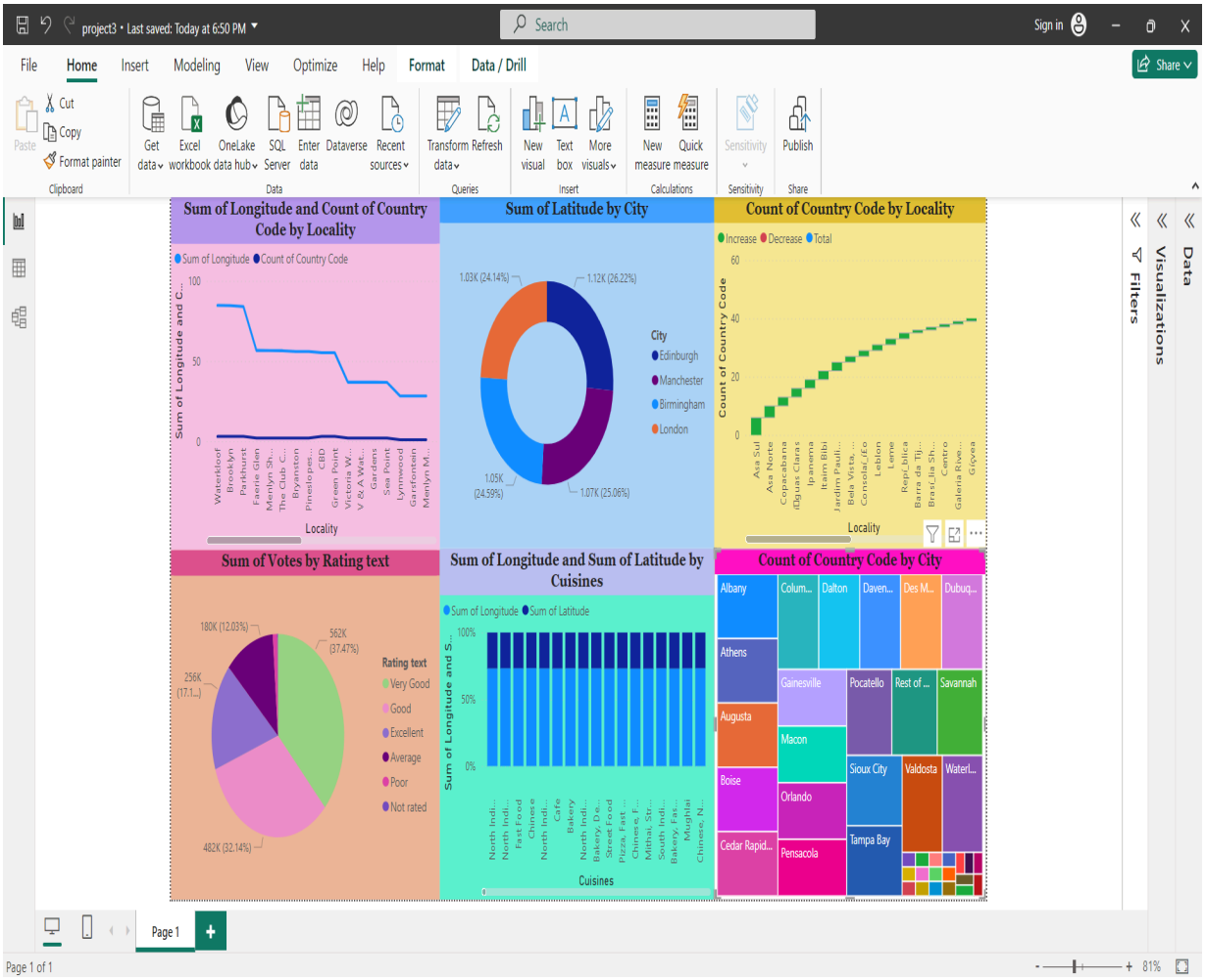
	Restaurant ID	Average Cost for two	Currency	Has Table booking	Has Online delivery	Price range	1.2 Aggre
1	18395463	294	Rand(R)	No	No	3	
2	18337845	300	Rand(R)	No	No	4	
3	6401732	360	Rand(R)	No	No	4	
4	6401060	180	Rand(R)	No	No	2	
5	6400421	150	Rand(R)	No	No	2	
6	6402177	250	Rand(R)	No	No	3	

Replacing values

Here we replace values by replacing one value with another in the selected columns.Typing Asa Norte in values to find and city in replace with boxes.



Dashboard



CONCLUSION

By leveraging business intelligence across all facets of the online delivery business, companies can gain valuable insights, optimize operations, and deliver superior customer experiences. The 360-degree analysis framework provides a comprehensive approach to harnessing BI capabilities driving sustainable growth and competitiveness in the ever-envolving online delivery landscape.

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 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 real-time data streams to provide even more timely and relevant insights.

REFERENCES

https://powerbi.pl/en/ms-power-bi/360-degree-analytics

LINK

