Data Visualisation

Project Final Report

Team: Insight Imagers

Team Members

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Video:- Click Here

Exploring Bangalore's Appetite

An Analysis of Food Ordering Habits, Delivery Preferences, and Customer Satisfaction in the Silicon Valley of India.

Here, we take a deep dive into the online food ordering habits of Bangaloreans. Our analysis covers factors that drive customer satisfaction and loyalty, as well as the hotspots where most of the online food orders originate.

With our project, one will gain valuable insights into the food ordering behavior of Bangalore's diverse population and discover the city's

unique culinary landscape.

Plots

Stacked Bar plot

1. **Meal Consumption by Age Group: A Grouped Bar Chart**

   "Age group vs Percentage of Orders placed"
   The grouped bar chart shows the meal consumption habits of different age groups in terms of breakfast, lunch, dinner, and snacks. The chart allows for easy comparison between the subgroups and age groups, with each subgroup being represented by a different color.

2. **Meal Consumption by Income level: A Grouped Bar Chart**

   "Income level vs Percentage of Orders placed"
   The grouped bar chart depicts the meal consumption patterns of different income levels in terms of breakfast, lunch, dinner, and snacks. The chart provides a clear overview of the eating habits of people from various income groups, with each subgroup represented by a different color.

Insights:

1. Snacks appear to be the top choice for online food delivery across all age groups and income levels. Although orders for breakfast, lunch, and dinner do make up a portion of the online food delivery market, it is evident that snacks are the preferred option for many customers, regardless of their income or demographic status.

2. This trend seems to hold true, whether one is a student with limited income or a high-earning professional.
3. These findings suggest that snacks are the most popular item among customers who order food online, highlighting the need for food delivery services to continue to offer a wide range of snack options to meet the demands of their customers.

Heatmaps

1. Factors supporting online food ordering

The heatmap represents the degree of agreement with various factors that support food ordering, such as ease and convenience, time-saving, more restaurant choices, good food quality, and easy payment options, using a Likert scale. The rows represent each factor, and the columns represent the scale ranging from strongly disagree to strongly agree. The heatmap is a useful tool to visualize the level of agreement with each factor across the scale.

2. Factors restricting online food ordering

The heatmap depicts the level of agreement with different factors that could hinder food ordering, such as self-cooking, health concerns, late delivery, poor hygiene, bad past experience, and unavailability, using a Likert scale. The rows represent each factor, and the columns represent the scale ranging from strongly disagree to strongly agree. The heatmap provides an overview of the level of agreement with each factor across the scale, allowing businesses to identify the factors that may discourage customers from ordering food.

Insights:

1. Customers are primarily influenced by factors related to the practical aspects of ordering and receiving food, including convenience, food quality, and restaurant variety. In contrast, factors that may be deemed important by companies, such as discounts and tracking systems, do not appear to have a significant impact on customer behavior.
2. These findings suggest that customers prioritize the overall experience of ordering and receiving food over cost savings or other factors that may be emphasized by food delivery services.
3. People's health concerns play a crucial role in their decision-making process when it comes to ordering food online. The report also indicates that late deliveries negatively impact customer satisfaction with online food delivery services.
4. Surprisingly, the report reveals that affordability of food and past negative experiences with online food delivery services are not significant factors in customers' decision-making processes. This implies that food delivery services must prioritize quality and convenience to retain and attract customers, particularly those with health concerns.

Maps

1. Bubble map

Central Neighborhoods Dominate Online Food Orders

"No. of Orders placed from each location"
Each circle represents orders placed at that location and the radius of the circle is proportional to the number of orders placed from that

location. The Bubble map shows the distribution of how the online order traffic is spread over Bangalore City.

Insights:

1. The data shows that people in the central neighborhoods of Bangalore prefer online food ordering. Among these neighborhoods, Gandhinagar, Indiranagar, and Koramangala are particularly popular, and their residents have access to a wide range of restaurants and clubs.
2. This trend is not surprising, as these neighborhoods are also among the most affluent areas in the city, and their residents have the financial means to enjoy good food and dining experiences. Whether one is a local or a visitor seeking out the best places to order food, these neighborhoods are likely to offer satisfying culinary experiences.
3. This information is valuable for food businesses operating in Bangalore. By understanding the preferences and behaviors of customers in different areas of the city, companies can better cater to their target audience and improve customer satisfaction and loyalty, which can positively impact their profits.

2. Map with a Circle Area Locator

Dynamic Area Locator to analyze any particular region

"There is a circle of adjustable radius to select a particular section of data"

A circle can be drawn on a map,and any points that are inside that circle will be used for analysis, as shown in the diagrams below.
Select a region->Set the radius of circle->Select a plot

a. Heatmap

“likertScale(agree,disagree etc.,) vs factors influencing online ordering(Time saving,Health concern etc.,) ”

The gradient of color depends on the number of cell[x][y] that match.

Insights:

1. Is helpful for businesses looking to target their online ordering services to areas with high demand.
2. Secondly, it can help identify the factors that are most important to customers when it comes to online ordering.

Contributions:-

Manohar Naga – Heat Map,Piechart,GeoLocater

Faizal Karim – Bar plots,Stacked bar plots

Nirmala Kadali – Word cloud, Marker map template