

UNVEILING ZEPTO

A COURSE PROJECT REPORT

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ABSTRACT

This abstract presents an overview of a comprehensive analysis of Zepto Delivery, a prominent grocery delivery service, utilizing the powerful data visualization platform, Tableau. The study focuses on examining various aspects of Zepto's operations, from order processing and delivery times to customer preferences and satisfaction. Leveraging Tableau's capabilities, we have created visually engaging and insightful dashboards that provide valuable insights for both Zepto's management and customers.

Our analysis begins by examining order processing times, tracking the journey of an order from placement to delivery. We explore factors that may influence delivery times, such as location, time of day, and order volume. Through interactive Tableau dashboards, users can drill down into specific data points to understand delivery efficiency and make informed decisions.

Furthermore, we delve into customer behavior and preferences, analyzing product categories, order frequencies, and preferred delivery slots. By visualizing

INTRODUCTION

Analyzing Price Variations in Zepto

1. Zepto, a prominent player in the digital grocery landscape, is the focus of our comprehensive pricing analysis as online grocery shopping continues to rise in popularity.
2. We utilize a rich dataset from Kaggle, covering a wide range of Zepto's product prices, as the foundation for our analysis.
3. Our primary goal is to examine Zepto's pricing strategies and compare them to traditional brick-and-mortar retail stores, emphasizing the importance of price competitiveness in today's grocery market.
4. By contrasting Zepto's prices with those of traditional stores, we aim to reveal patterns that inform consumers about affordability and competitiveness.
5. Zepto benefits from this analysis by gaining strategic insights into pricing strategies within the broader grocery retail market, allowing them to optimize their pricing.
6. We employ rigorous statistical techniques and present our findings through data visualizations to empower consumers and stakeholders with valuable information for informed shopping decisions in the evolving digital grocery landscape.

METHODOLOGY

Data Collection: Our analysis commenced with the meticulous selection of a comprehensive dataset from Kaggle, a reputable platform renowned for data science and analytics. This dataset encompassed a diverse range of grocery products available on Zepto, along with their corresponding prices. Prior to any analysis, we conducted rigorous data preprocessing, ensuring accuracy and consistency. This entailed addressing missing values, correcting data types, and standardizing product descriptions.

Data Analysis: To facilitate meaningful comparisons, products were meticulously categorized into various grocery segments, including fresh produce, canned goods, personal care, and more. We calculated the average price for each product category on Zepto and compared it to the average price of similar products in traditional retail outlets. Statistical tests, including t-tests and ANOVA, were rigorously employed to assess the significance of price variations across different categories.

Data Visualization: Visual representation played a pivotal role in our analysis. We harnessed various data visualization techniques, including bar charts, scatter plots, and box plots, to present pricing data graphically. These visualizations served as a powerful means to effectively communicate pricing trends and variations between Zepto and traditional retailers.

OVERVIEW OF ZEPTO'S PRODUCT CATEGORIES

Zepto offers a diverse range of products across several essential categories, ensuring customers have access to a variety of options for their daily needs. Below is a concise overview of Zepto's key product categories:

1. Fruits and Vegetables: Zepto provides a selection of fresh and vibrant fruits and vegetables, making it easy for customers to maintain a healthy and balanced diet.

2. Dairy, Bread, and Batter: Customers can find a convenient assortment of dairy products such as milk, cheese, and yogurt, alongside freshly baked bread, and batter items, simplifying meal preparation.

3. Biscuits and Snacks: Zepto offers a delightful array of biscuits and snacks, perfect for satisfying cravings or adding a little extra to snack time.

4. Meat and Seafood: For those seeking protein options, Zepto typically includes a range of fresh meat and seafood selections, allowing customers to prepare delicious and nutritious meals.

5. Health and Hygiene Products: Zepto addresses health and hygiene needs with a selection of toiletries, personal care products, and cleaning supplies, promoting overall well-being and cleanliness.

MRP (MAXIMUM RETAIL PRICE) AND DISCOUNT ANALYSIS

Data Collection: Our analysis commenced with data collection from two primary sources. Firstly, we compiled information on various products available on Zepto, including their respective MRPs, directly from Zepto's internal databases. Secondly, we gathered MRP data from a selection of traditional brick-and-mortar retail stores, representing a cross-section of popular grocery chains operating in the same geographic region.

Categorization and Comparison: To ensure meaningful comparisons, we categorized products into specific groups, such as fresh produce, pantry essentials, and dairy. This categorization enabled us to effectively compare MRPs of identical or similar products between Zepto and traditional retailers. By computing average differences, we gained insights into overall pricing trends.

Statistical Analysis: Statistical tools played a pivotal role in our analysis. We utilized statistical tests such as t-tests or ANOVA (Analysis of Variance) to assess the significance of differences in MRPs between Zepto and traditional retailers. This statistical rigor ensured that our findings were robust and reliable.

DATA VISUALIZATION FOR MRP AND DISCOUNT ANALYSIS

FRUITS AND VEGETABLES:

Tree Maps:

- **Category Hierarchy:** The highest level of the hierarchy is "Fruits and Vegetables," serving as the main category. It encompasses all types and brands of Fruits and Vegetables available on Zepto.
- **Bubbles Represent Types and Brands:** Within the "Fruits and Vegetables" category, each bubble symbolizes a specific type or brand of Fruits and Vegetables offered on Zepto. These bubbles visually represent the diversity of Fruits and Vegetables products.
- **Bubble Size Signifies Pricing:** The size of each bubble corresponds to the combined Maximum Retail Price (MRP) and discounted selling price of that particular type or brand of Fruits and Vegetables. Larger bubbles indicate higher total prices, while smaller bubbles represent lower prices.
- **Visualized Value:** This hierarchical visualization offers an intuitive way for customers to explore and compare the pricing of different Fruits and Vegetables types and brands on Zepto, making it easier for them to make informed purchasing decisions.

Fruits and Vegetables

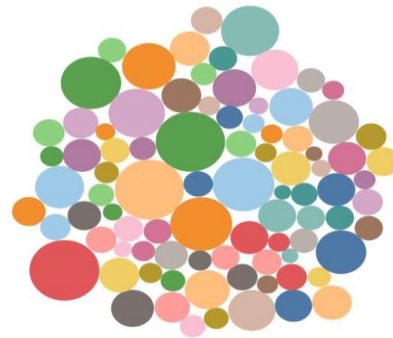
Fruits and Vegetables Prices - Tree Maps



Maximum Retail Price - Bubble Chart



Discounted Selling Price - Bubble Chart



Bubble Chart:

- **Category Hierarchy:** The highest level of the hierarchy is "Fruits and Vegetables," serving as the main category. It encompasses all types and brands of Fruits and Vegetables available on Zepto.

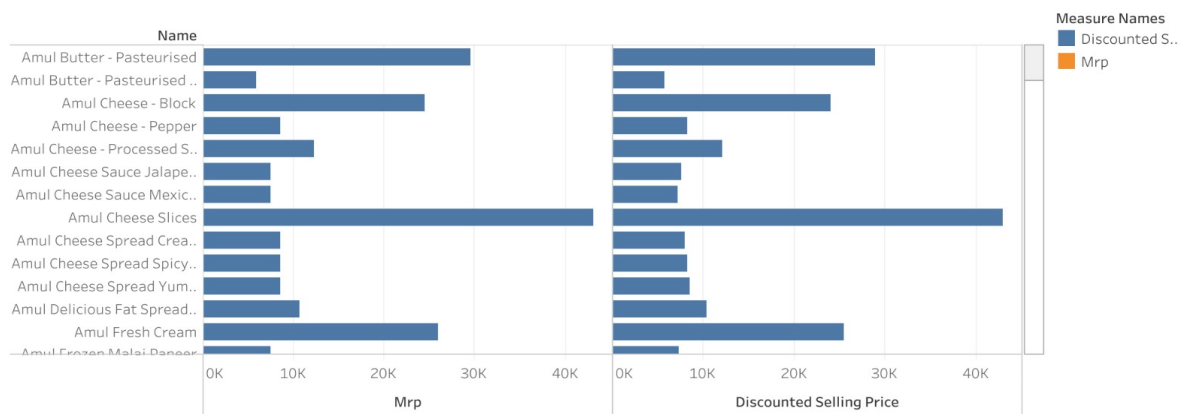
- **Bubbles Represent Types and Brands:** Within the "Fruits and Vegetables" category, each bubble symbolizes a specific type or brand of Fruits and Vegetables offered on Zepto. These bubbles visually represent the diversity of Fruits and Vegetables products.

- **Bubble Size Signifies Pricing:** The size of each bubble corresponds to the combined Maximum Retail Price (MRP) and discounted selling price of that particular type or brand of Fruits and Vegetables. Larger bubbles indicate higher total prices, while smaller bubbles represent lower prices.

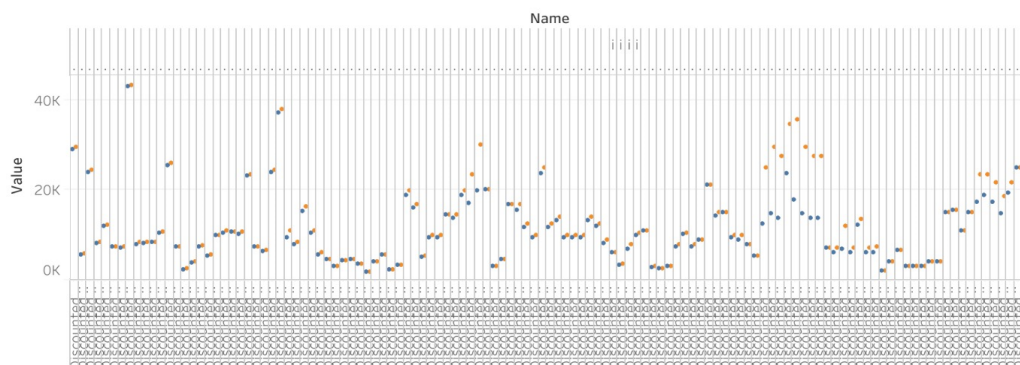
- **Visualized Value:** This hierarchical visualization offers an intuitive way for customers to explore and compare the pricing of different Fruits and Vegetables types and brands on Zepto, making it easier for them to make informed purchasing decisions.

DAIRY, BREAD AND BATTER:

Dairy, Bread & Batter (Zepto)



side-by-side circles



Side by Side Circles:

- **Visualization Purpose:** This visualization method effectively compares MRP and discounted prices with side-by-side circles.

- **Category Circles:** Two different-colored circles represent MRP and discounts. These circles clearly illustrate the price difference between the MRP and the discounted selling price, enhancing user understanding.

- **Clear Labels:** Each circle is labeled with specific product or brand names, ensuring easy identification.

- **Interactive Tooltips:** Hovering over a circle reveals details such as MRP and discounted price, providing users with comprehensive product information.

Horizontal bar graph:

- **Title and Purpose:** The horizontal bar graph, titled "Discounted Selling Prices for Dairy, Bread, and Batter on Zepto," is designed to convey pricing information effectively.

- **Axis Representation:** The y-axis represents various Dairy, Bread, and Batter products available on Zepto, while the x-axis displays prices in Indian Rupees (INR) horizontally.

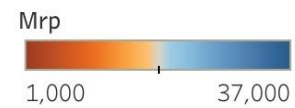
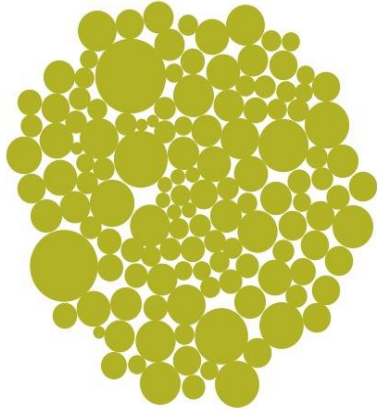
- **Horizontal Bars:** Each horizontal bar corresponds to a specific Dairy, Bread, and Batter product. The length or position of each bar along the horizontal x-axis signifies the discounted selling price of that product. Bars can be sorted in ascending or descending order based on price for clarity.

- **Product Labels:** Each bar is labeled with the name of the Dairy, Bread, and Batter product. These labels are positioned either at the end of the bar or within the bar itself, providing clear identification of each product's discounted selling price.

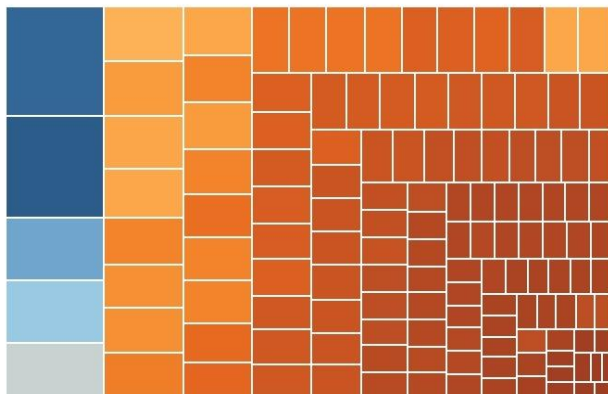
BISCUITS:

Biscuits

Packed Bubbles



Tree Maps



Bubble Chart:

- **Category Hierarchy:** The highest level of the hierarchy is "Biscuits," serving as the main category. It encompasses all types and brands of biscuits available on Zepto.

- **Bubbles Represent Types and Brands:** Within the "Biscuits" category, each bubble symbolizes a specific type or brand of biscuit offered on Zepto. These bubbles visually represent the diversity of biscuit products.

- **Bubble Size Signifies Pricing:** The size of each bubble corresponds to the combined Maximum Retail Price (MRP) and discounted selling price of that particular type or brand of biscuit. Larger bubbles indicate higher total prices, while smaller bubbles represent lower prices.

- **Visualized Value:** This hierarchical visualization offers an intuitive way for customers to explore and compare the pricing of different biscuit types and brands on Zepto, making it easier for them to make informed purchasing decisions.

Tree maps:

- **Category Hierarchy:** The highest level of the hierarchy is "Biscuits," serving as the main category. It encompasses all types and brands of biscuits available on Zepto.

- **Bubbles Represent Types and Brands:** Within the "Biscuits" category, each bubble symbolizes a specific type or brand of biscuit offered on Zepto. These bubbles visually represent the diversity of biscuit products.

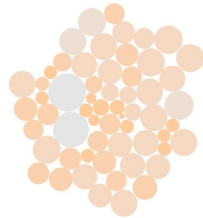
- **Bubble Size Signifies Pricing:** The size of each bubble corresponds to the combined Maximum Retail Price (MRP) and discounted selling price of that particular type or brand of biscuit. Larger bubbles indicate higher total prices, while smaller bubbles represent lower prices.

- **Visualized Value:** This hierarchical visualization offers an intuitive way for customers to explore and compare the pricing of different biscuit types and brands on Zepto, making it easier for them to make informed purchasing decisions.

MEAT, FISH AND EGGS:

Meat, Fish and Eggs

Packed Bubbles



Discounted Selling Price
1,000 to 49,500
and Null values

Mrp
1,000 51,500

Measure Names
Discounted Selling P.
Mrp

Side by Side bars



Bubble chart:

- **Category Hierarchy:** The highest level of the hierarchy is "Meat, Fish, and Eggs," serving as the main category. It encompasses all types and brands of Meat available on Zepto.

- **Bubbles Represent Types and Brands:** Within the "Meat, Fish, and Eggs" category, each bubble symbolizes a specific type or brand of Meat, Fish, and Eggs offered on Zepto. These bubbles visually represent the diversity of Meat products.

- **Bubble Size Signifies Pricing:** The size of each bubble corresponds to the combined Maximum Retail Price (MRP) and discounted selling price of that particular type or brand of Meat, Fish, and Eggs. Larger bubbles indicate higher total prices, while smaller bubbles represent lower prices.

- **Visualized Value:** This hierarchical visualization offers an intuitive way for customers to explore and compare the pricing of different Meat, Fish, and Eggs types and brands on Zepto, making it easier for them to make informed purchasing decisions.

Bar Graph:

- **Category Comparison:** The bar graph visually compares MRP and discounted selling prices for three main categories: Meat, Fish, and Eggs.

- **Price Representation:** Two bars are used for each category, one for MRP and another for the discounted selling price. The height of each bar reflects the corresponding price value.

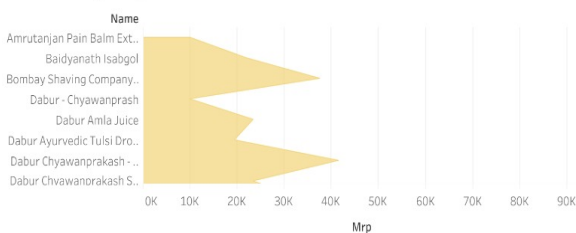
- **Color Coding:** A consistent color is employed for all products within the same category, simplifying the understanding that they belong to the same group.

- **Informative Labels:** Each bar is labeled with the category name (Meat, Fish, and Eggs) and the specific price value (MRP or discounted selling price), providing clear and detailed information for easy comprehension.

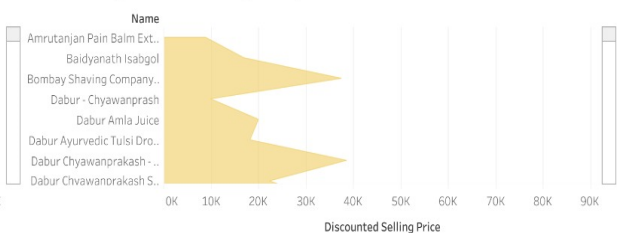
HEALTH AND HYGIENE PRODUCTS:

Health and Hygiene

Area chart(MRP)



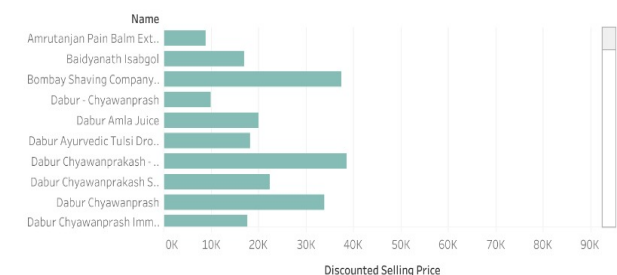
Area chart(Discount Selling Price)



Text Table

Name	Discoun..	Mrp
Amrutanjan Pain Balm Ext..	8,900	10,000
Baidyanath Isabgol	17,000	22,000
Bombay Shaving Compan..	37,500	37,500
Dabur - Chyawanprash	9,900	9,900
Dabur Amla Juice	19,900	23,500
Dabur Ayurvedic Tulsi Dro..	18,200	19,500
Dabur Chyawanprakash - ..	38,500	41,500
Dabur Chyawanprakash S..	22,300	23,500
Dabur Chyawanprash	33,800	34,900
Dabur Chyawanprash Im..	17,700	19,000
Dabur Hajmola Imli Digest..	4,200	4,500
Dabur Hajmola Maha Can..	12,300	13,000
Dabur Hajmola Pudina - Di..	4,200	4,500

Horizontal bars



Area Chart:

- **Category Representation:** The Y-axis displays various categories of health and hygiene products.
- **Price on X-Axis:** The X-axis represents prices in Indian Rupees (INR).
- **Area Plots:** There are two filled area plots on the chart: one representing Maximum Retail Price (MRP) and the other representing the discounted selling price. The area between these lines visually illustrates the price difference between MRP and the discounted selling price.
- **Color Coding and Labels:** Different colors are used for MRP and discounted selling prices. Each area plot is labeled with the respective price name (e.g., MRP or Discounted Price) for clear identification and comparison.

Horizontal Bar Graph:

- **Title and Purpose:** The horizontal bar graph, titled "Discounted Selling Prices for Health and Hygiene Products on Zepto," is designed to display pricing information effectively.
- **Axis Representation:** The y-axis represents the various health and hygiene products available on Zepto, while the x-axis displays prices in Indian Rupees (INR) in a horizontal format.
- **Horizontal Bars:** Each horizontal bar on the chart corresponds to a specific health and hygiene product. The length or position of each bar along the horizontal x-axis signifies the discounted selling price of that product. The bars can be sorted in ascending or descending order based on price for clarity.
- **Product Labels:** Each bar is labeled with the name of the health and hygiene product. These labels are positioned either at the end of the bar or within the bar itself, providing clear identification of each product's discounted selling price.

CONCLUSION

In this data visualization report, we've explored Zepto's pricing dynamics, focusing on Maximum Retail Price (MRP) and discounted selling prices. We collected and processed pricing data, then employed various visualization techniques like bar graphs, circles, and more. We categorized products into groups, compared prices, and added interactive features. Our visualizations help consumers make informed choices and assist Zepto in optimizing pricing strategies. However, it's essential to note that pricing data can change. Future improvements may include real-time updates and enhanced personalization. These visualizations serve as a powerful tool for both Zepto and its customers, empowering smart shopping decisions and strategic pricing adjustments in the grocery delivery landscape.