

# Comprehensive Purchase Analytics

An in-depth study on purchase behaviors across various customer segments.



## 01 Pre-trained Models

Utilize advanced models for data segmentation.

## 02 Purchase Analysis

Evaluate purchase frequency and trends among consumers.

## 03 Brand Preferences

Identify consumer preferences for different brands.

## 04 Promotion Effectiveness

Assess how promotions influence buying behavior.

## 05 Actionable Insights

Deliver insights for targeted marketing strategies.

## 06 Marketing Theories

Connect findings with existing marketing theories.

# Study Objectives in Purchase Analytics



# Methodology Overview in Purchase Analytics

## Data Collection from 'purchase\_data.csv'

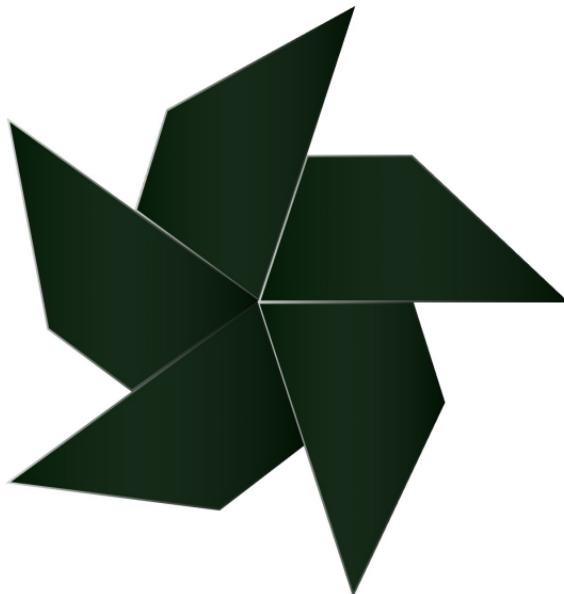
Utilized a dataset comprising **2000 customers** that includes both **transactional** and **demographic** information.

## Visualizations Used

Created **bar plots**, **heatmaps**, and **boxplots** to visually represent the findings and insights from the data.

## Analytical Focus Areas

Analyzed **purchase frequency**, **brand preferences**, **revenue**, and the impact of **promotions** on buying behavior.



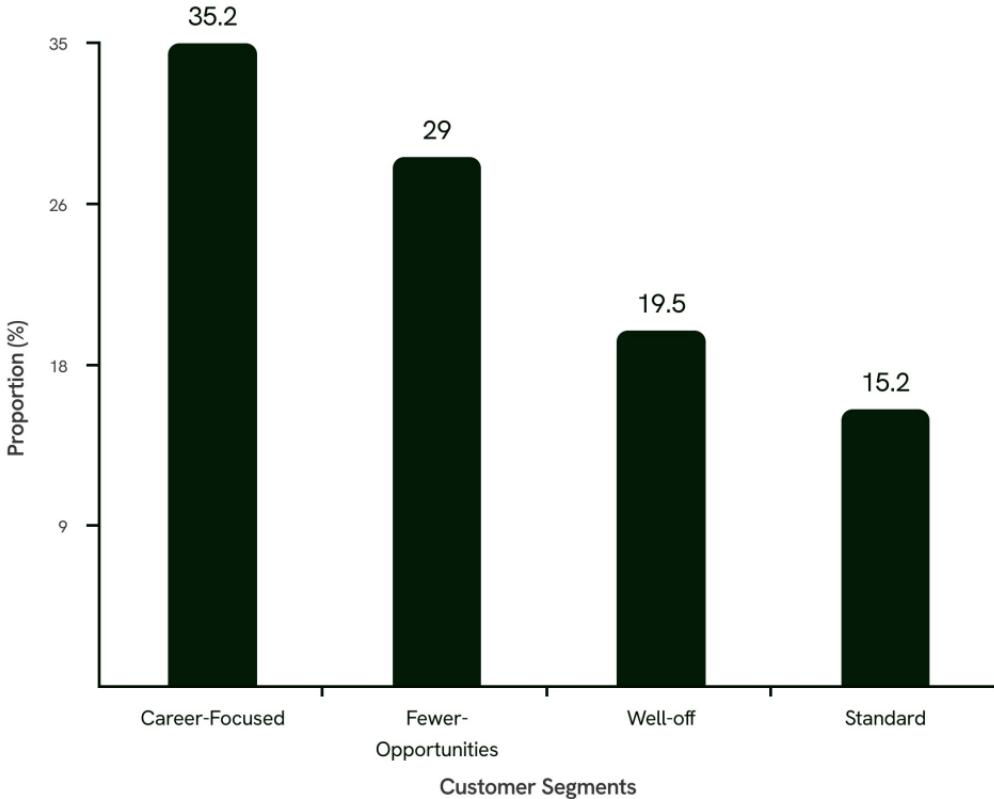
## Preprocessing Steps

Handled **missing values** and standardized the data to ensure consistency before analysis.

## Segmentation Techniques

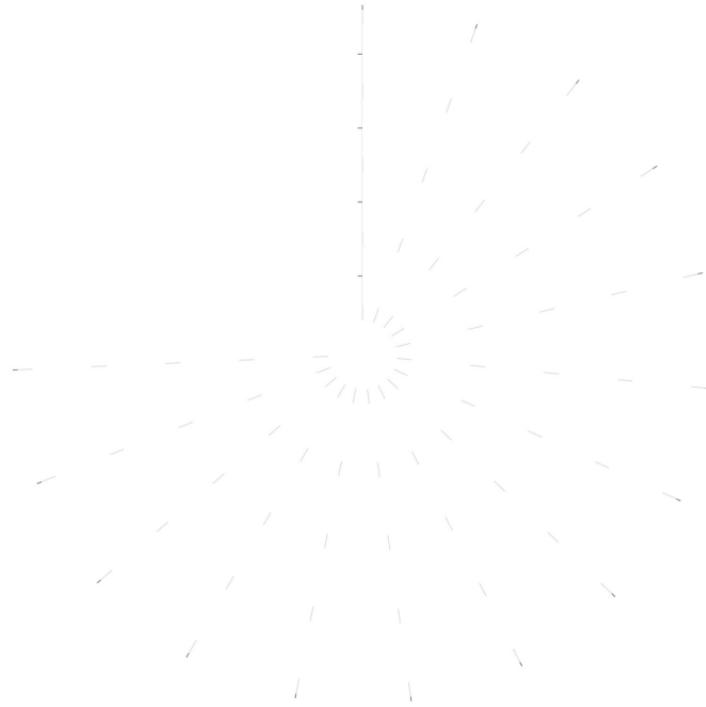
Applied a **pre-trained scaler**, **PCA**, and **KMeans** to create **4 segments** for analysis.

# Customer Segment Proportions Analysis



Source: Companies Market Cap

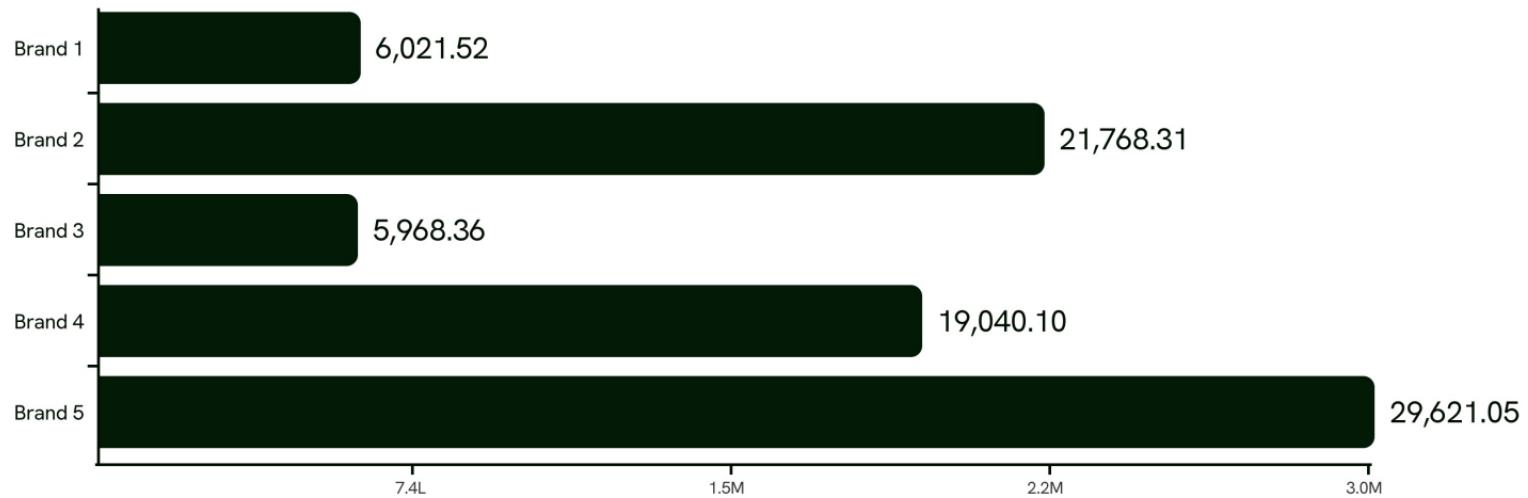
# Average Purchase Incidence by Segment



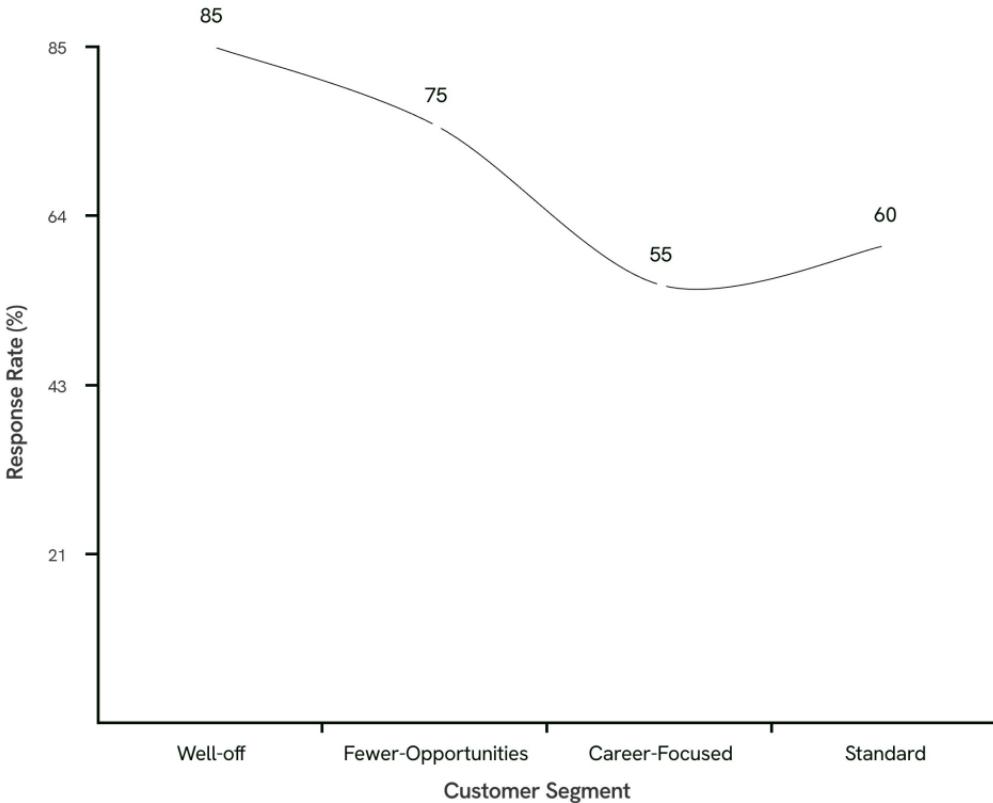
# Brand Preferences by Market Segment



# Revenue Analysis by Brand



# Promotion Effectiveness Analysis



Source: Companies Market Cap

# Analysis of Spending and Quantity per Transaction

## Well-off & Fewer-Opportunities: Higher spending, larger quantities

01

This demographic shows a trend towards increased spending and larger purchase quantities, indicating a focus on quality and value in their transactions.

## Career-Focused: Lowest spending and quantities

02

Individuals in this group tend to spend the least and purchase fewer items, likely due to prioritizing work over leisure or shopping.

## Standard: Moderate levels

03

The standard group represents a balanced approach to spending and purchasing, indicating average consumer behavior in terms of quantity and expenditure.

# Understanding Marketing Implications Across Demographics

- **Well-off consumers demand exclusivity and quality**

Focus on offering **premium products** and **exclusive promotions** to attract affluent customers who seek luxury and status.

- **Career-Focused individuals prioritize convenience and digital engagement**

Utilize **convenience-driven** approaches and **digital campaigns** to reach busy professionals looking for efficient solutions.

- **Fewer-Opportunities consumers are attracted to value and loyalty rewards**

Implement **value deals** and **loyalty rewards** programs to engage customers facing economic challenges and enhance retention.

- **Standard market segment favors versatile mid-range options**

Offer a range of **versatile mid-range products** that appeal to the mass market, ensuring accessibility for all consumers.

# Limitations of Purchase Analytics

Limitation	Details
Focus on demographic/transactional data only	Analysis is restricted to demographic and transactional data, limiting the scope of insights.
Static analysis, no temporal trends	The analysis does not account for changes over time, which can overlook important trends.
PCA variance loss (20%)	Principal Component Analysis shows a variance loss of approximately 20%, indicating some loss of information.

# Thank You for Engaging with Our Analysis

Thank you for your attention. We hope this comprehensive analysis provides valuable insights and inspires **data-driven strategies** in the industry. We're eager to address any questions you may have.