SEGMENTATION ANALYSIS AND STRATEGIC RECOMMENDATIONS FOR STICKS KEBOB SHOP

A Data–Driven Approach to Customer Understanding and Business Growth

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Project Overview

Objective:

This project analyzes customer data from Sticks Kebob Shop to gain insights into customer behavior, preferences, and demographics. The goal is to segment customers and non-customers to inform strategic decisions for business expansion and targeted marketing.

Project Components:

- **Data Cleaning:** Preparing the dataset by handling missing values and consolidating categories.
- **Exploratory Data Analysis (EDA):** Understanding customer demographics and behavior through visualization.
- **Customer Segmentation:** Applying K-Means and Hierarchical Clustering to identify distinct customer segments.
- **Strategic Recommendations:** Providing actionable recommendations for business growth based on segmentation insights.

Data Preparation

Data Cleaning Process

- **Handling Missing Values**: Missing data were imputed or rows were removed where necessary to ensure a clean dataset.

- **Consolidation of Professions:** Similar professions were grouped into broader categories to simplify the analysis and enhance interpretability.

- **Column Renaming:** Columns were renamed to ensure clarity and relevance for the analysis.

Data Overview

- **Demographic Variables**: Age, income, gender, household type, and profession.

- **Behavioral Variables:** Customer preferences include the importance of value, health, taste, and perceptions of competitors.

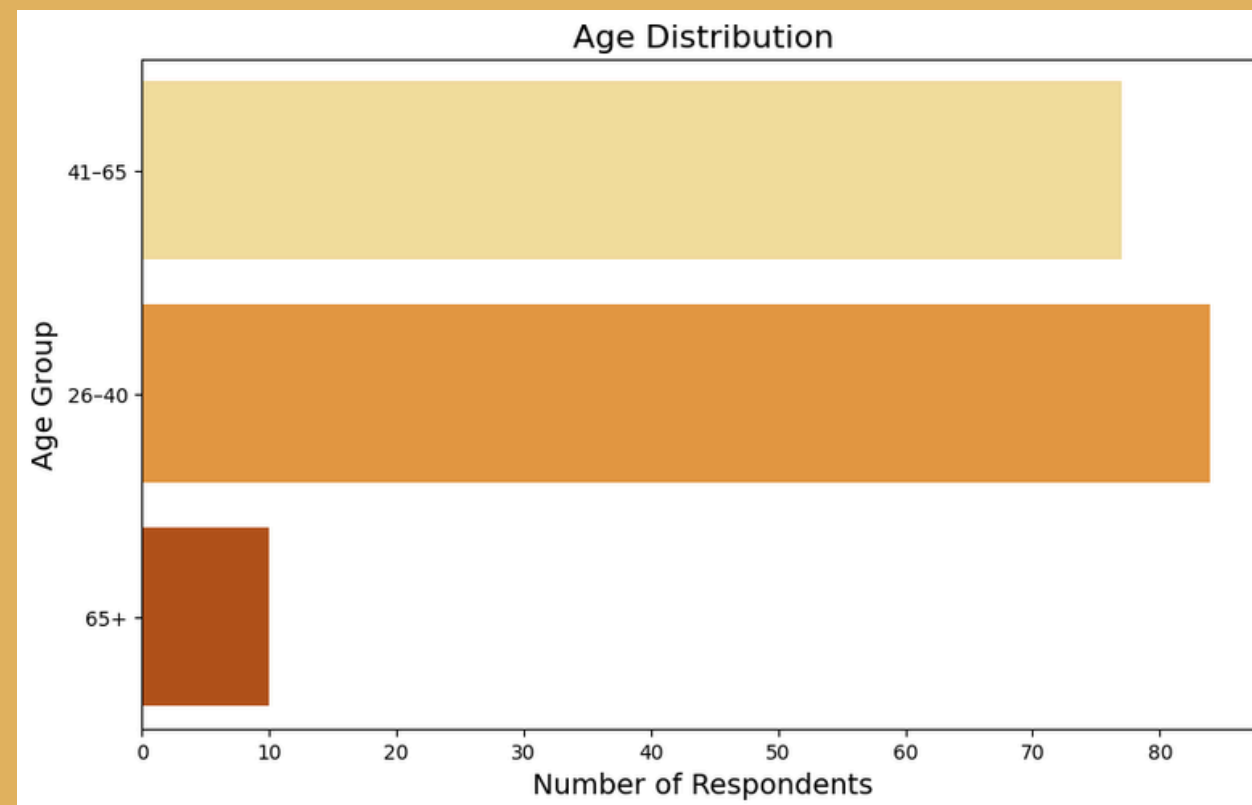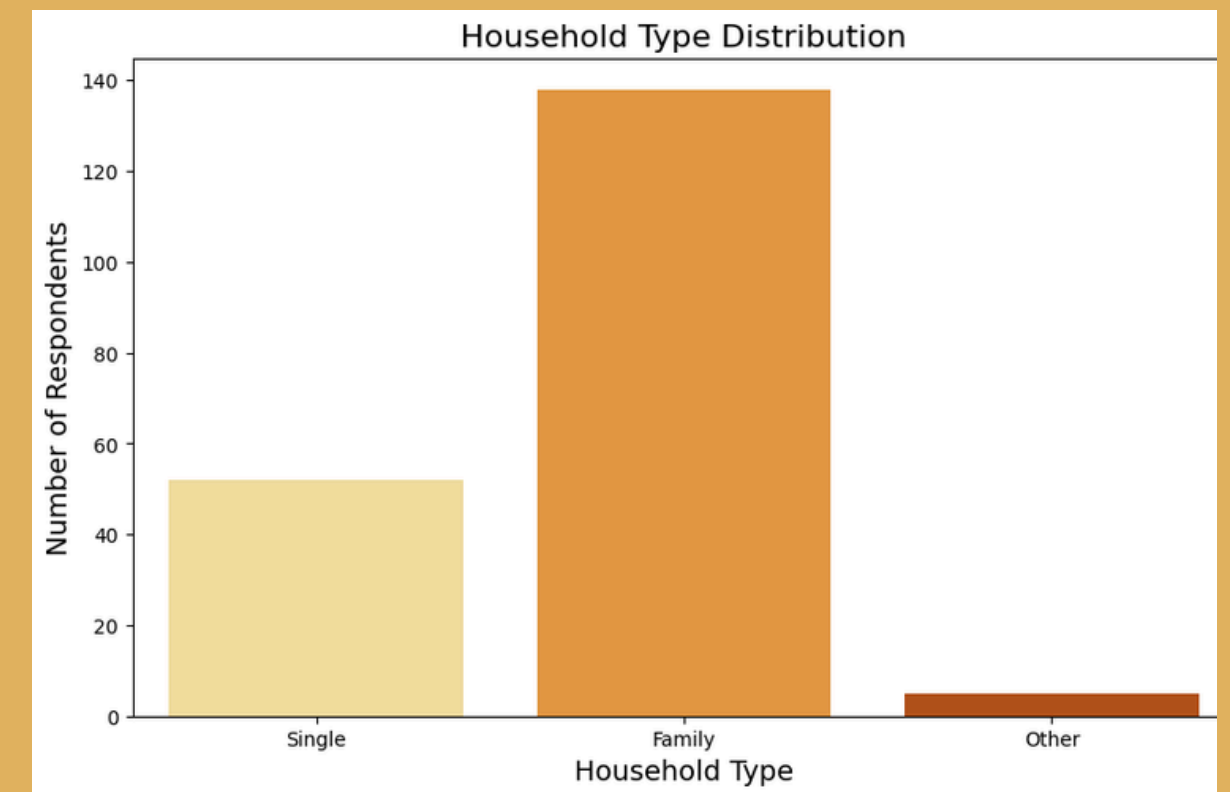# Exploratory Data Analysis (EDA) - Demographics

Gender Distribution

Majority of the customers are female, indicating a potential gender-based preference or influence in decision-making.
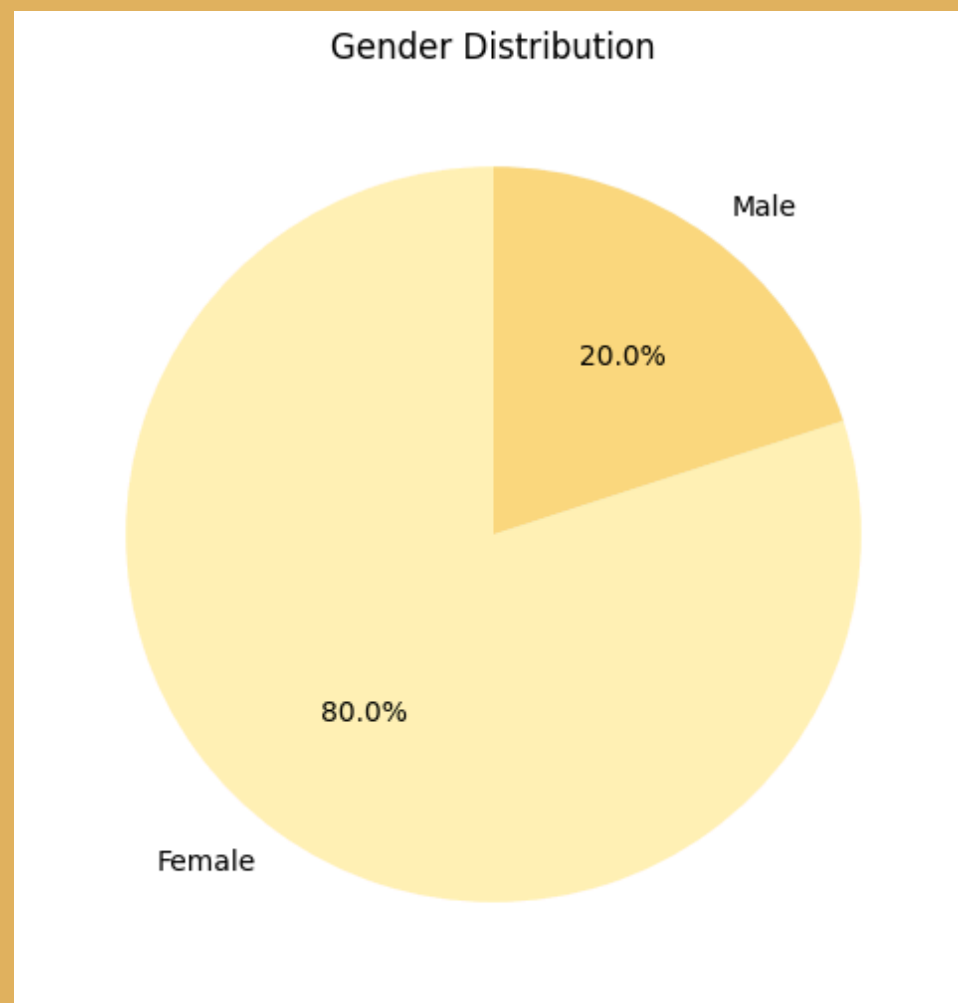
Household Type

A significant portion of the customers consists of families, pointing to the importance of family-friendly offerings.
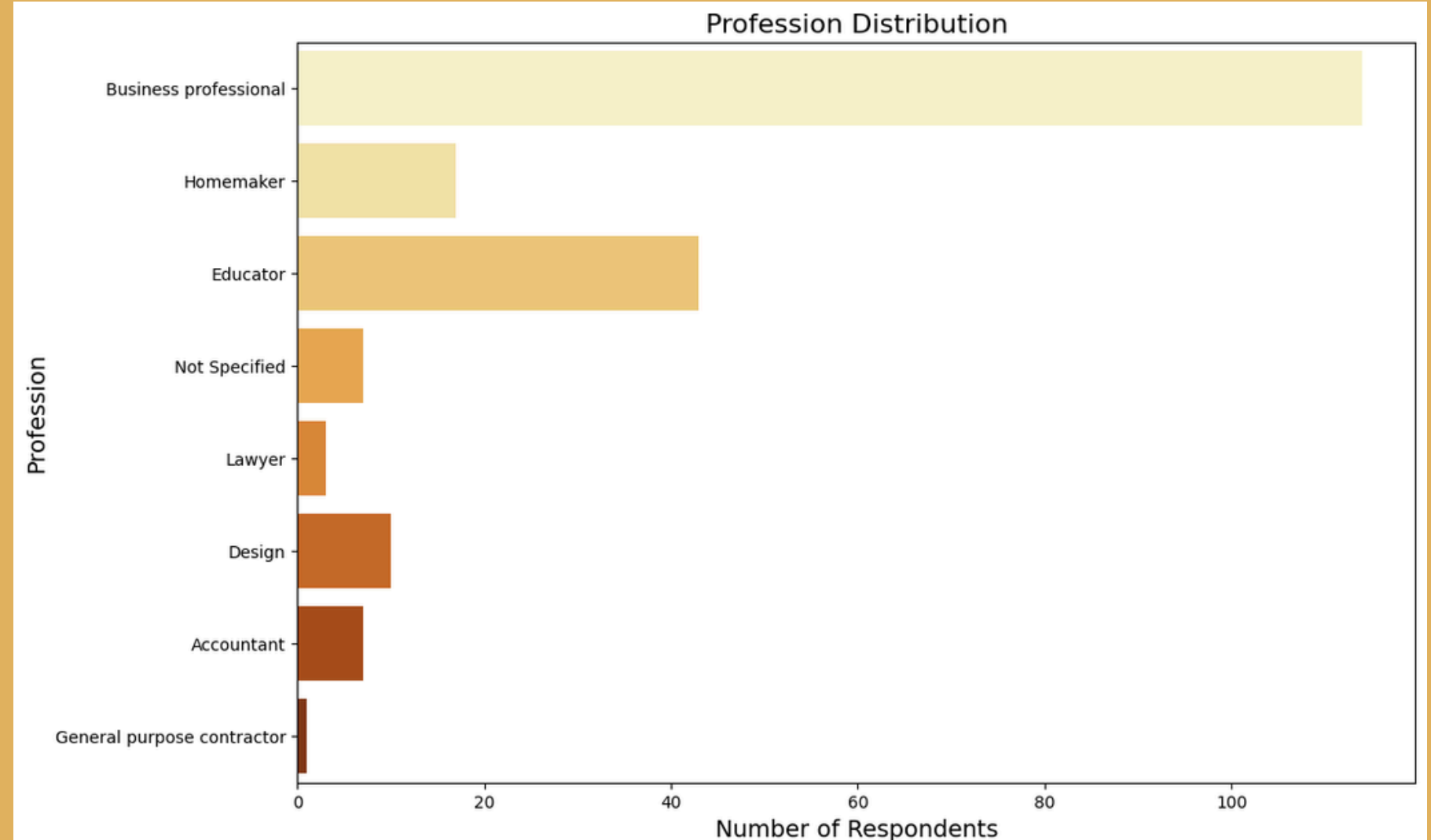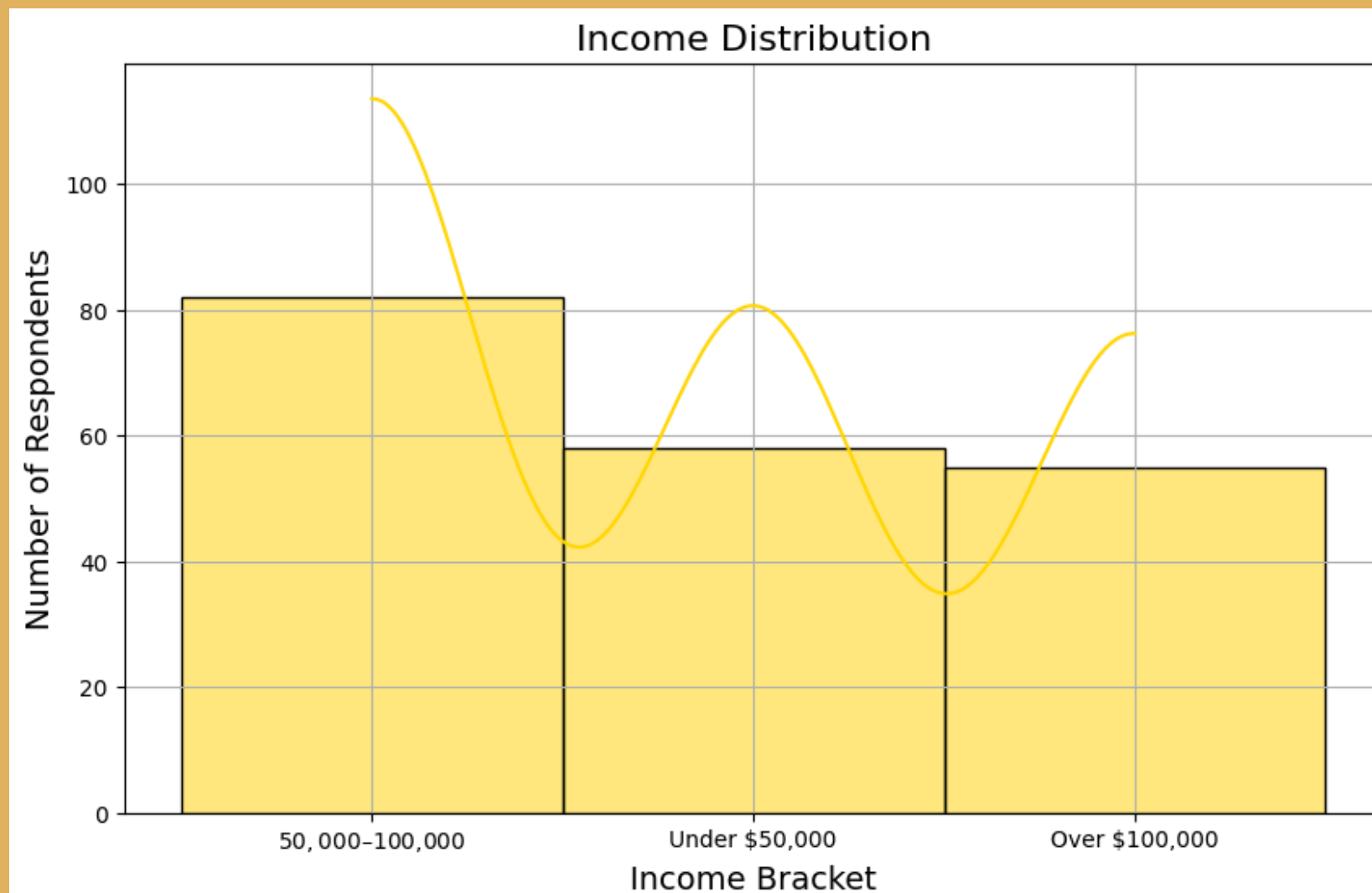

Age Distribution

The primary age group is 26–40 years, representing young adults who are likely to be family-oriented and health-conscious.

Exploratory Data Analysis (EDA) - Demographics (Cont.)

Income Distribution

Most customers fall within the middle-income bracket of $50,000–$100,000, suggesting that the customer base is moderately affluent..

Income Distribution

Profession Distribution

Profession Distribution

The most common professions are business professionals and educators, which may influence dining preferences toward convenience and health

Exploratory Data Analysis (EDA) - Behavioral Insights

Value for Money

A significant consideration for most customers, especially among price-sensitive segments. Value-driven promotions are likely to resonate well.

Health Importance

Health benefits are important to certain customer segments, particularly those who are health-conscious and seek nutritious options.

Taste and Ambiance

While taste is generally important across all segments, ambiance is particularly crucial for customers seeking a quality dining experience.

Consistency and Community Involvement

Customers value consistency in service and appreciate establishments that engage with the community, which could be leveraged in marketing strategies.

Customer Segmentation: K-Means Clustering

Segment 0: Practical Families

- **Demographics**: Predominantly young female customers in family-oriented households with middle incomes.

- **Behavior:** This segment is practical in their dining choices, moderately concerned with value and taste but less focused on health, service, and ambiance. They seek a good balance between cost and experience, making them more price-sensitive and less demanding overall.

Segment 1: Quality Seekers

- **Demographics:** Slightly older, still predominantly female, with middle to upper-middle incomes. This group is often composed of professionals.

- **Behavior:** They prioritize value, health, taste, and ambiance. This segment seeks a high-quality dining experience, with strong preferences for consistency, excellent service, and community involvement. They are more selective and willing to pay for quality.
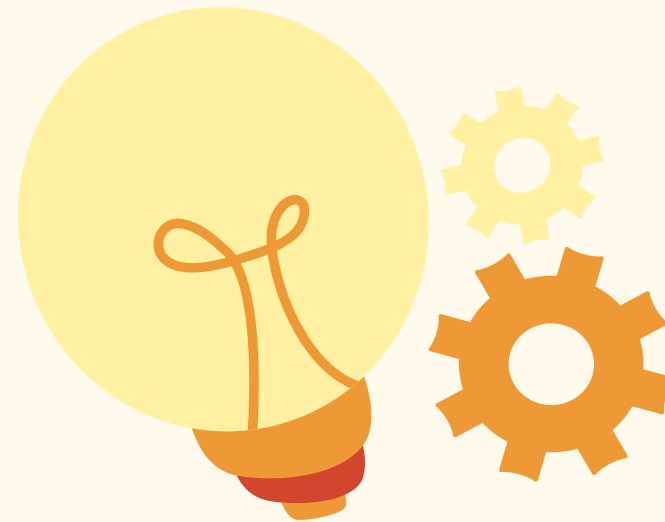
Segment Plot
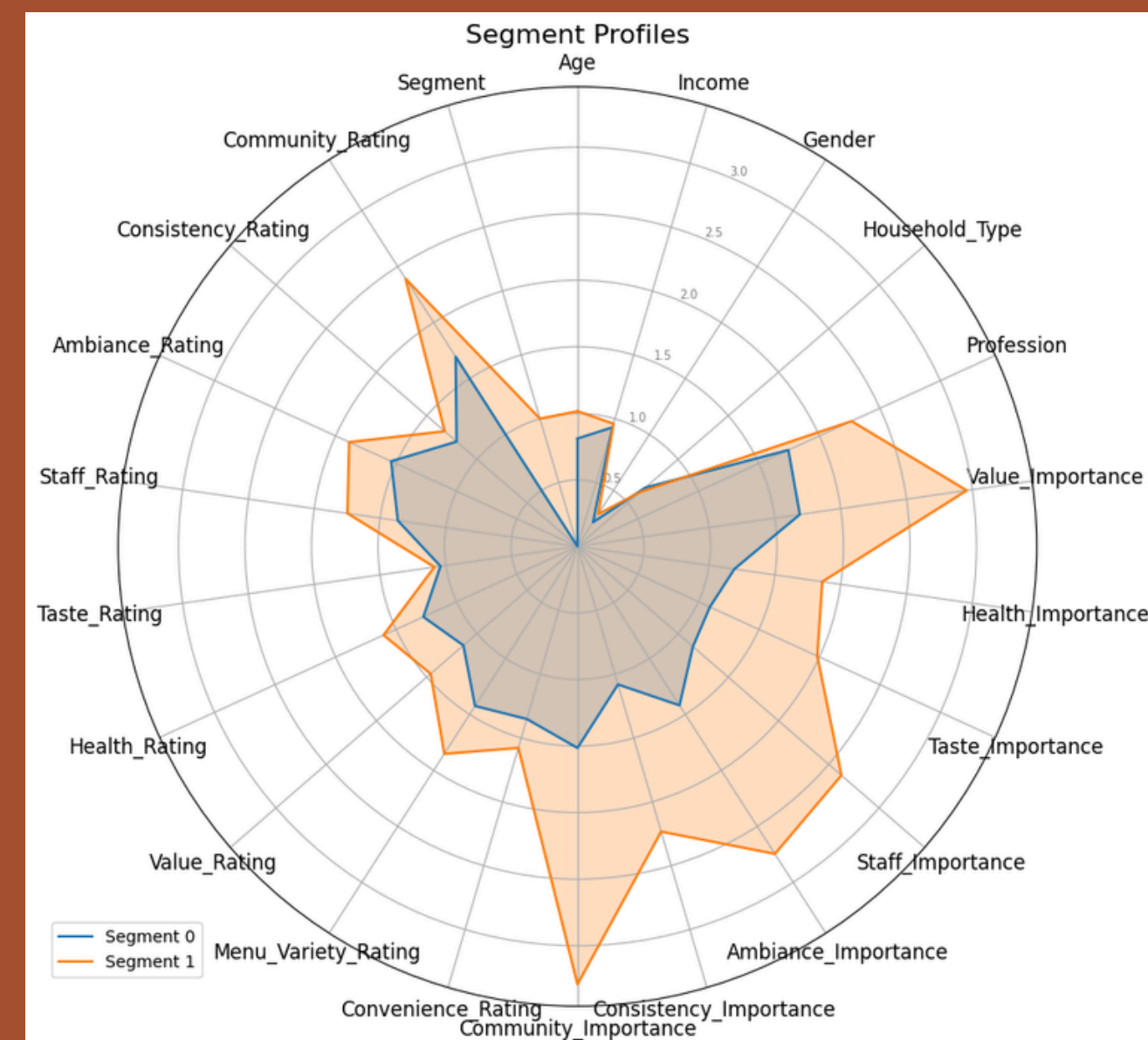
Strategic Recommendations - Marketing Campaigns

For Practical Families

- **Family Promotions:** Offer family meal deals and loyalty programs that provide value for money, catering to their focus on affordability and practicality.

- **Convenience – Focused Advertising:** Highlight the convenience and quick service aspects of Sticks Kebob Shop, making it an attractive option for busy families.

For Quality Seekers

- **Emphasize Quality and Experience:** Focus on marketing the quality of food, health benefits, and the overall dining experience. Highlight community involvement and consistency, which are key factors for this segment.

- **Premium Offerings:** Introduce limited-time premium menu items that cater to their preference for high-quality, unique dining experiences.

Customer Segmentation: Hierarchical Clustering (Non-Customers)

Cluster 0: Careful Planners

- **Profile:** Methodical planners who are deliberate in decision-making, especially regarding spending and eating habits. They value local products and health benefits but struggle with spending control.

- **Strategy:** Focus on value-driven promotions and planning tools. Subtly highlight local and health benefits in marketing without making them the central focus
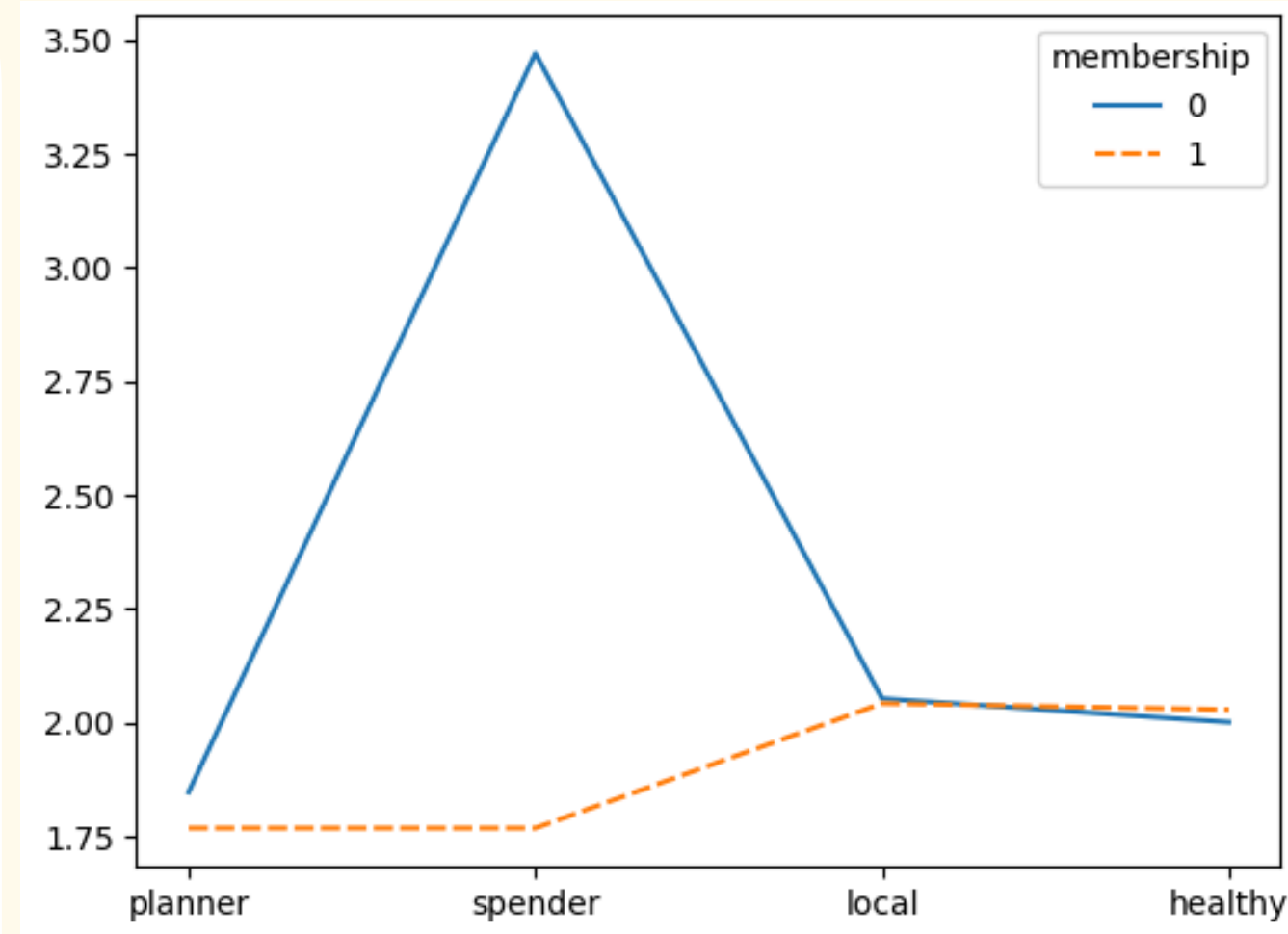
Cluster 2: Cautious Spenders

- **Profile:** Less meticulous planners who exercise caution in spending. They moderately value local products and health benefits but prioritize convenience and simplicity.

- **Strategy:** Emphasize convenience and quick rewards. Offer simple, straightforward promotions that appeal to their cautious spending habits and need for simplicity.

Expansion Recommendations

Location D: The Best Option for Expansion

Rationale

- **Population Size:** Location D has the highest population (57,509), providing a broad customer base.

- **Median Income:** With a median income of $75,500, residents have the financial capacity to support both affordable and premium offerings.

- **Consumer Spending:** The highest consumer spending ($1,184 million) suggests a market with strong purchasing power and a willingness to spend on dining experiences.

Customer Alignment:
The demographic and customer profiles in Location D align well with both identified segments—"Practical Families" and "Quality Seekers." Moreover, the profiles suggest potential resonance with the non-customer segments—"Careful Planners" and "Cautious Spenders."

Community Engagement Strategies

Local Partnerships
Strengthen ties with the community by partnering with local businesses and sponsoring community events. This strategy aligns well with the preferences of "Quality Seekers" and the moderate emphasis on local products by non-customer segments.

Family-Friendly Events
Host events that appeal to families, such as kids-eat-free nights or family fun days, which will attract "Practical Families" and encourage repeat visits.

● Balanced Menu Development

- **Varied Offerings:** To attract both "Practical Families" and "Quality Seekers," the menu should offer a balanced mix of affordable, family-friendly options, as well as premium, health-conscious choices.

- **Health and Local Focus:** Highlight locally sourced, healthy menu items to appeal to both customer and non-customer segments.

● Operational Focus

- **Consistency in Service:** Ensure that the quality of food and service remains consistent across all locations. This focus on consistency is crucial for maintaining the loyalty of "Quality Seekers."

- **Staff Training:** Invest in comprehensive staff training programs to ensure that service quality meets the high expectations of your target segments, particularly the "Quality Seekers."

- **Digital and Mobile Presence:** Enhance the digital experience by offering mobile-friendly services, such as online ordering and loyalty apps. This will appeal to all segments, particularly the non-customers who value convenience and quick service.
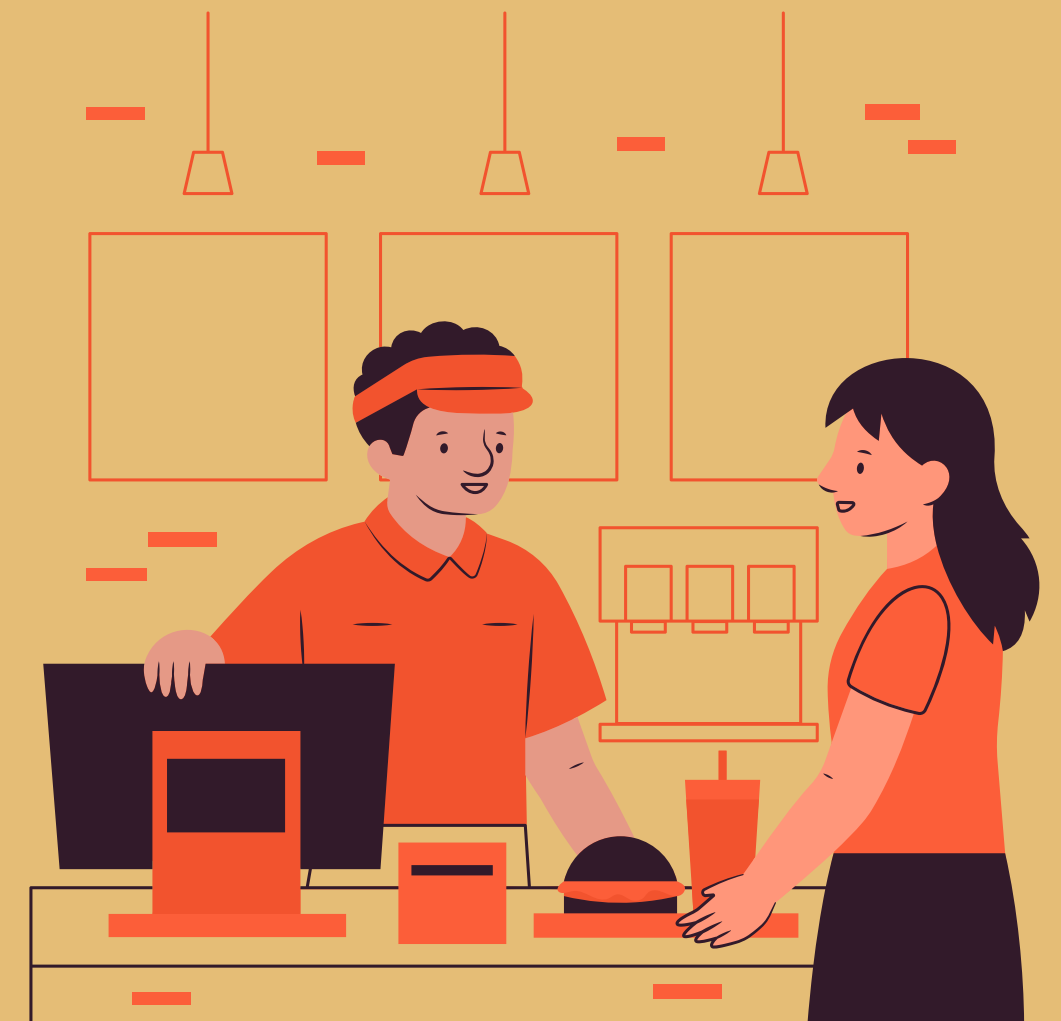
Summary

01 **Customer Insights** identified two key customer segments – **Practical Families** (value-driven, convenience-seeking) and **Quality Seekers** (health-conscious, quality-focused).

Non-customer segments include **Careful Planners** and **Cautious Spenders**, each requiring tailored marketing approaches.

02 **Location D** is recommended for expansion due to its large population, high median income, and strong alignment with the identified customer segments, offering the best potential for business growth.

03 To attract and retain a diverse customer base, Sticks Kebob Shop should focus on developing a **balanced menu** that caters to both value-conscious and quality-seeking customers, **ensuring consistency in service quality** across all locations. Additionally, targeted marketing campaigns should **emphasize the value, convenience, quality, and community engagement** that align with the preferences of the identified customer segments.

Thank you!

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