January 21, 2024

Team Assignment: Ford Ka Case

Ford's market segmentation strategy for the Ford Ka and similar cars was historically based on car size, a factor tied to production costs and pricing, leading to a demographic focus primarily on **age and income.** Smaller cars like the Ka were targeted at younger, lower-income buyers, emphasizing affordability and suitability for urban living, where maneuverability and space efficiency are valued.

However, by the 1990s, this market segmentation approach began to evolve, driven by changing consumer preferences and needs. Buyers of small cars started demanding features and comforts once only found in larger, more expensive models. This shift in consumer behavior led to a more nuanced approach to market segmentation, **blending traditional demographic factors with psychographic elements** like lifestyle, attitudes, and preferences. Consequently, the marketing strategy for small cars, including the Ford Ka, adapted to focus on a wider range of attributes. These included not just the practical and economic benefits but also safety, comfort, and performance, reflecting a broader understanding of consumer desires. This evolution in segmentation and marketing strategies illustrated the industry's response to a more diverse, sophisticated consumer market, moving beyond simplistic demographic categorization. [1]

Segmentation is done based on psychographic factors like attitude, aspirations, values, lifestyle, and personality, demographic factors like age, income, marital status, and gender. Additionally, segmentation is done on how MDS data is similar in cars.

Balloon Plot for x by y.
Area is proportional to Freq.
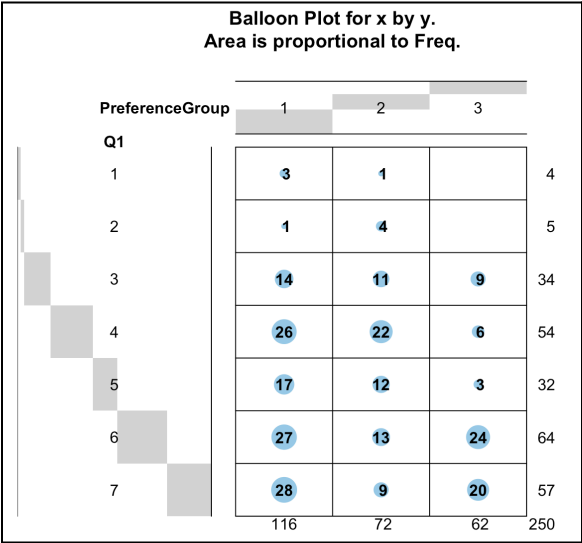
Based on the Balloon Plot which asked the customers 'I want a car that is trendy', **the majority of** Preference Group 1 (Ford Ka) responded with **wanting a trendy car**. To get to this conclusion, we first studied the responses of Preference Group 1 that they gave in the Psychographic Questionnaire specifically for Question 1. Then, using R, we ran the code to see the relationship between the preference group and Q1 to do a cross-tab. Based on the

results achieved, we put together a **balloon plot** as shown in Figure.

While analyzing the **demographic data**, we utilized the elbow method Between SS and Within SS to determine the optimal number of clusters. Upon analyzing the graphs, we concluded that **selecting 7 clusters** would provide a more **nuanced representation** of the variety of data in the demographic dataset as opposed to settling for 3 clusters. We generated the clusters using k=7 and analyzed the distribution of the individuals who favored Ford Ka. We aimed to **address Ford's initial concerns** that this car would be preferred by single, income-constrained people and multi-car households. To delve deeper into the analysis, we generated scatter plots comparing MaritalStatus vs FirstTimePurchase which revealed significant number of married individuals, who own a car have preferred Ford Ka. Extending this, we analyzed Gender vs MaritalStatus finding a higher proportion of married individuals expressed interest in purchasing this car, irrespective of their gender. Looking into MaritalStaus vs IncomeCategory data and clusters showed us that **married people earning more than 200K demonstrated a notable preference for the car.**
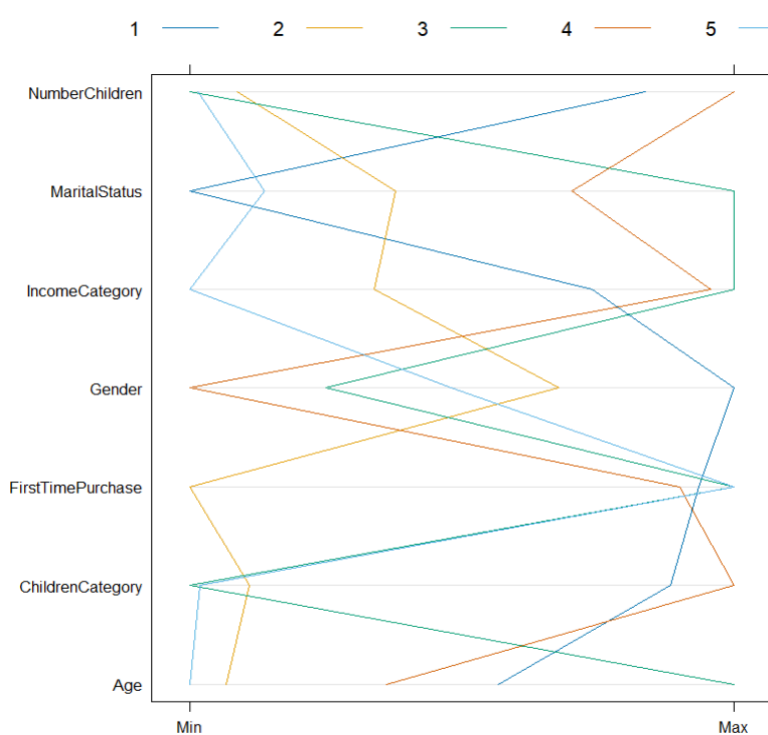
Similar trends can be observed while looking at the parallel plot of the clusters across the features. We focused on the aspects of income, marital status, and First-time purchases and we can observe there that more centroids are towards min which indicates towards more married people(Married category being 1). Also, it's less likely Ford Ka would be preferred by those purchasing the car for the first time as centroids point towards the right(1-yes and 2-no). Looking at income, three centroids are towards the right, and one around the middle which reinstates our previous findings. Moreover, even distribution women and men presents opportunity to target female buyers.

Upon analyzing the **psychographic data**, we utilized the elbow method Between SS and Within SS to determine the optimal number of clusters. Upon analyzing the scree plots, it is evident that the significant change occurs at points 3 or 5. After careful consideration, we experimented with different values of K and ultimately settled on 5 as we believe that this choice of cluster effectively captures the essential variations in the data.
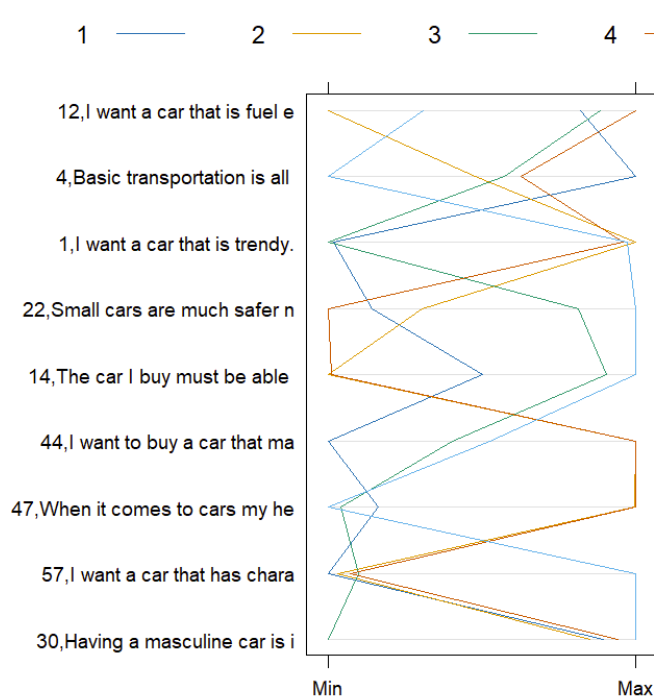
After analyzing **psychographic data** and considering individual values, we utilized the **balloon method** and median of inter quartile range to identify questions to which people strongly agreed. Through this process, we shortlisted 8 questions that helped us segment and target a specific audience. In the Trendy Car vs Personal Statement scenario, it is apparent that customers believe having a trendy car helps them make a personal statement. Similarly, in the Fuel Economic vs Long Journey graph, we observe that people who prioritize long journeys prefer a car that is somewhat fuel-efficient, meets basic transport needs, and comes up as a masculine car. Analyzing parallel plots provides us a comprehensive view of customer preferences across different aspects. Based on these analyses, we can segment Ford Ka's potential target customers into two groups: those who prioritize trendy cars and those who prioritize cars suitable for long journeys.

By looking at the results from the above two clustering analyses, we **recommend that Ford Ka should segment the market based on psychographic cluster analysis** as it gives a better segmentation of customers. Based on the results from the parallel line graph, it can be inferred that Ford Ka focuses on **people attracted to a 'trendy' car who want to make a statement about themselves or adventurous people driving on highways.** To target customers who prioritize a 'stylish' car and seek to express their identity through their vehicle, Ford Ka should highlight the car's unique style and individuality to position itself as a standout choice in the small car industry. The advertising message for the Ford Ka should **emphasize** the Ford Ka as a vehicle that transcends mere transportation,

highlighting its trendsetting design, **cutting-edge features, and an overall stylish driving experience.** Ford Ka should focus on its innovative statement-making features including distinctive exterior features, customizable interiors and effortless style to create a lasting impression while advertising to this group of people. This advertising strategy will encourage customers to see the Ford Ka as a reflection of their **unique style** and a means to stand out in the **fashion-conscious market**. Alternatively to prioritize customers embarking on long highway journeys, the Ford Ka emerges as the ideal choice for customers looking for masculine cars that suit their transport needs and is fuel efficient to some extent. This strategic approach positions the Ford Ka to effectively capture the market segment of **long-distance drivers** while maintaining its allure for **trendy customers**, ensuring a well-balanced and versatile appeal for a broader audience as the message will emphasize the trendy design along with the driving dynamics of the Ford Ka, appealing to customers who prioritize style and comfort in a small car or engine performance. It will position the Ford Ka as more than just a vehicle, but as a reliable and sturdy companion for those seeking a chic and sophisticated driving experience on long journeys. The headline can be:

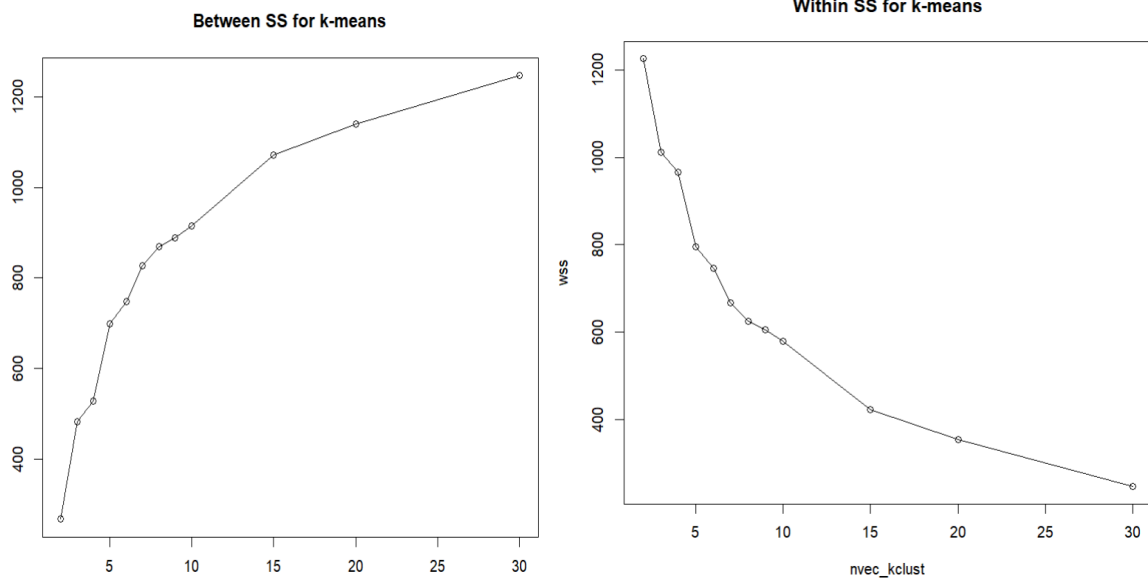*"Elevate Your Drive and Embark on Endless Journeys in Style with the All-New Ford Ka -*
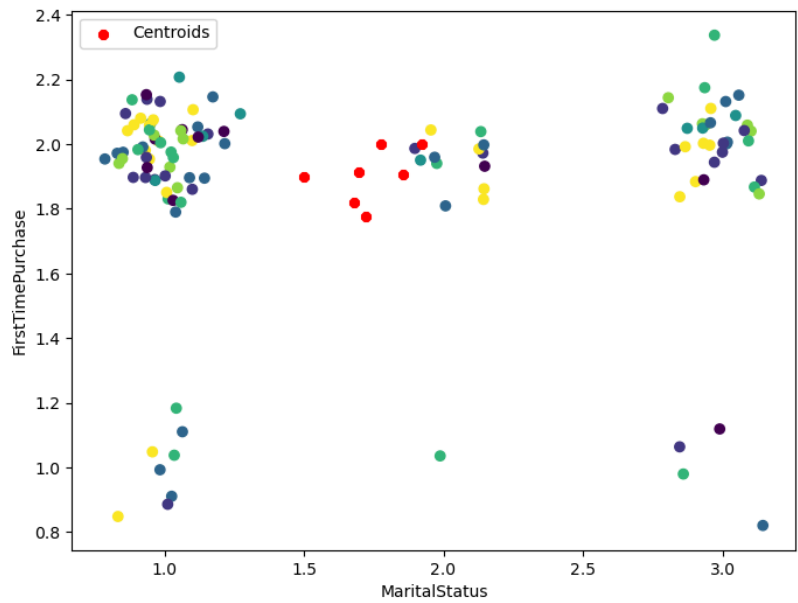
Your Style, Your Statement, Your Ford Ka."

References

1. https://services.hbsp.harvard.edu/api/courses/1127235/items/INS701-PDF-ENG/sclinks/2ddbf6f1f12f78945d9e6b68982a347d
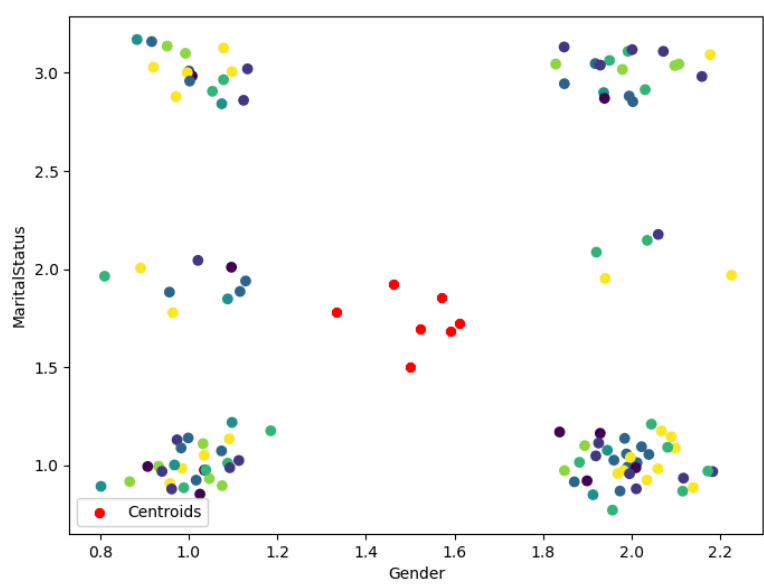
Appendix

Between SS and Within SS for Demographic data

Between SS for k-means

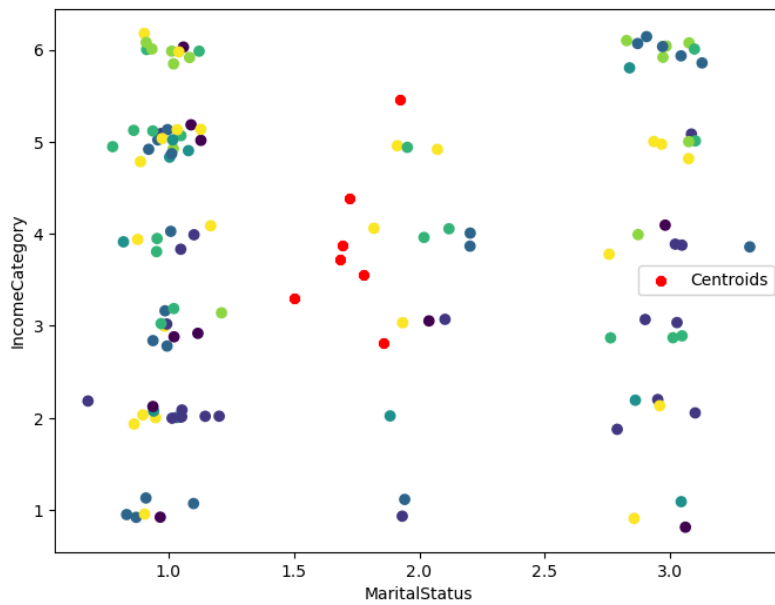**Within SS for k-means**

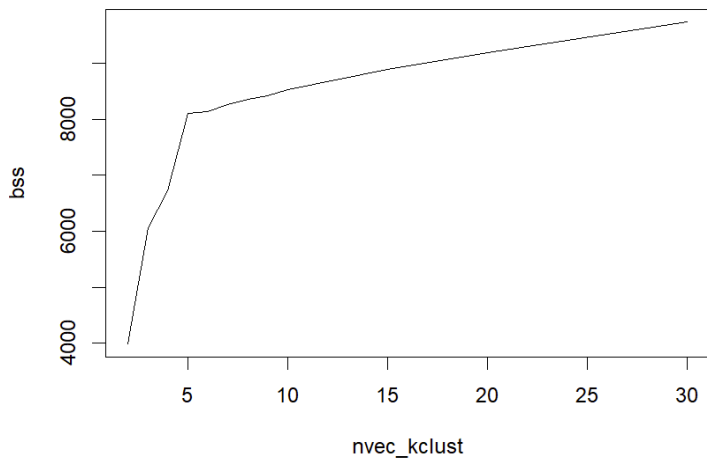## MaritalStatus vs FirstTimePurchase

Gender vs MaritalStatus

MaritalStaus vs IncomeCategory
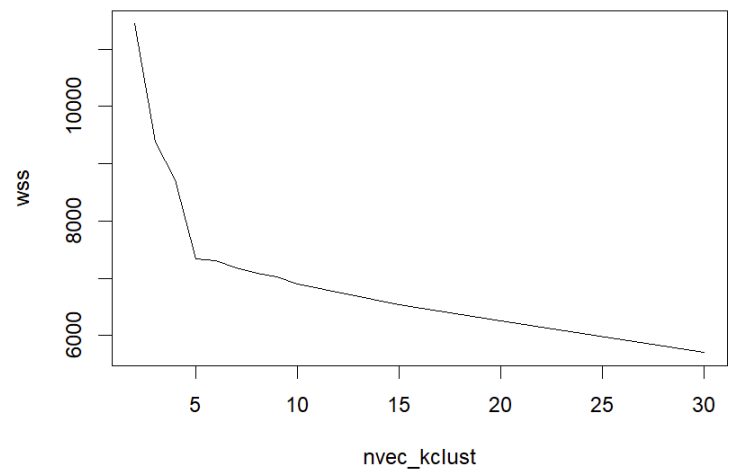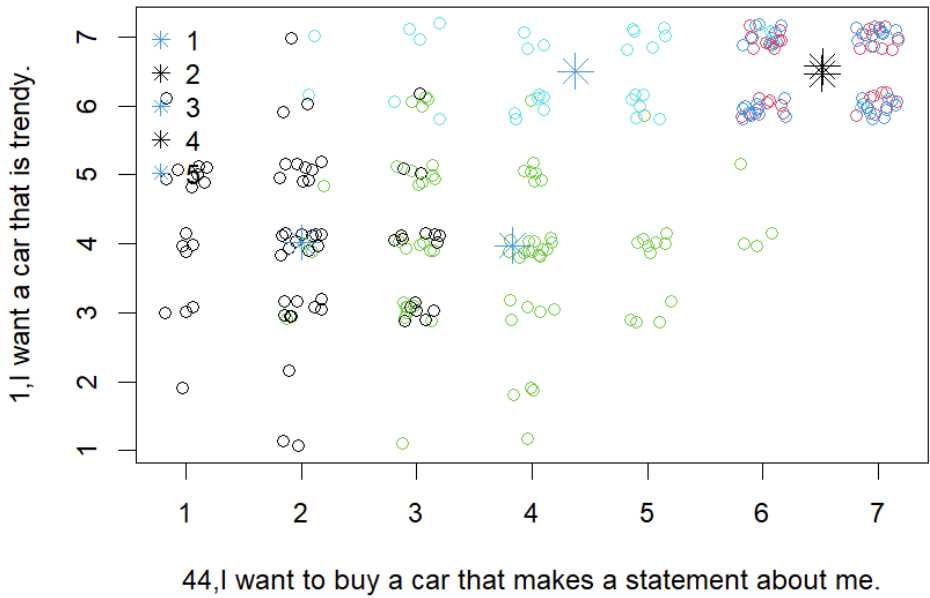

Between SS and Within SS for Psychographic data

Between SS for k-means

Within SS for k-means

Trendy car vs Personal statement

1,I want a car that is trendy.

44,I want to buy a car that makes a statement about me.

Legend:
1, 2, 3, 4, 5

Fuel Economic vs Long journey

14,The car I buy must be able to handle long motorway journeys.

12,I want a car that is fuel economic.

Legend:
1, 2, 3, 4, 5
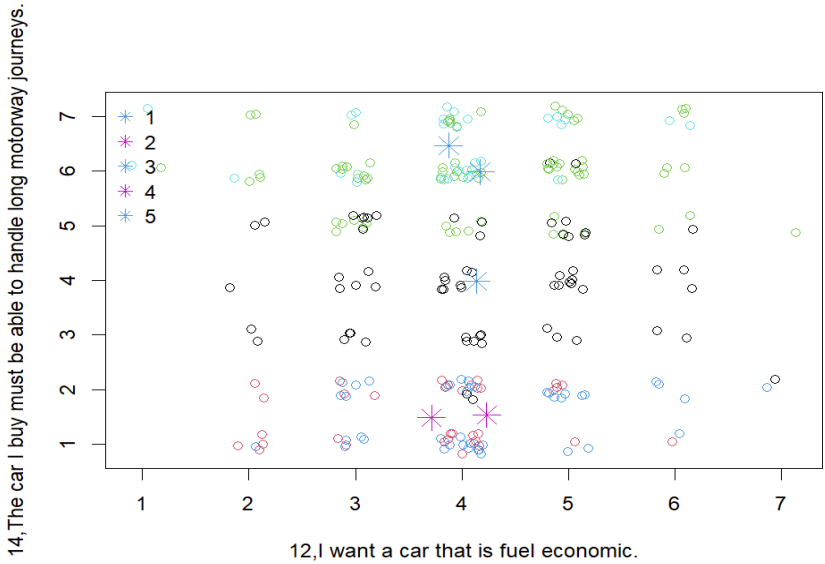
Personal Statement vs Long Journey

14,The car I buy must be able to handle long motorway journeys

44,I want to buy a car that makes a statement about me.