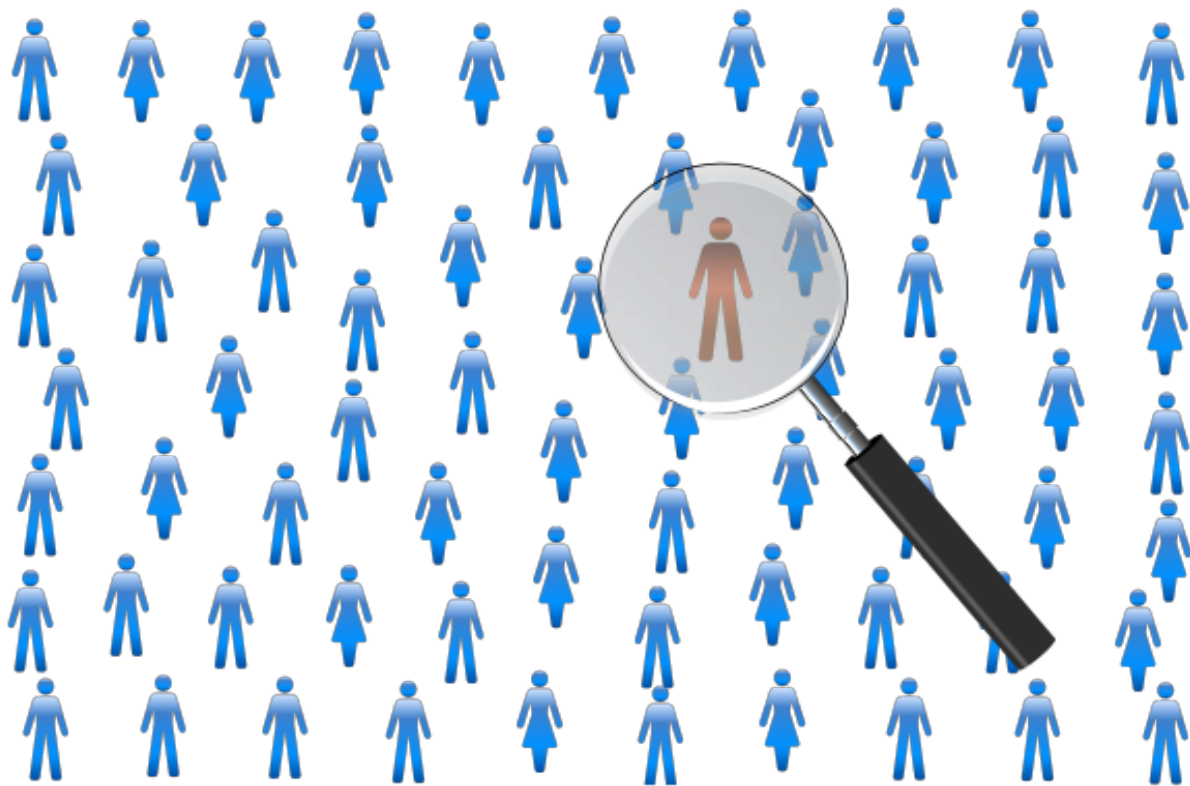


# Enhancing Customer Satisfaction through Segmentation: A Power BI Dashboard

*Pickl.AI's Datathon - 4*



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## INTRODUCTION

In today's competitive market, customer satisfaction is the key to success. To improve customer satisfaction, businesses need to understand their customers' preferences, demographics, and location. Customer segmentation is a powerful tool that can help businesses gain a competitive edge. In this project, I used Power BI to build an interactive dashboard that provides insights into customer segmentation.

## APPROACH

To start with, I explored the dataset and identified the key variables that can be used for customer segmentation. These variables included age, income, occupation, marital status, home ownership, credit score, and product purchases. I then created different visualizations to explore the relationships between these variables. I used scatter plots, histograms, and bar charts to visualize the data.

## CHALLENGES

One of the challenges I faced was creating visualizations that were both informative and aesthetically pleasing. To overcome this challenge, I used color schemes and fonts that were consistent throughout the dashboard. I also used custom visuals to create unique and engaging visualizations.

## IMPROVEMENTS

As I continued to work on the dashboard, I received feedback from my colleagues and made improvements based on their suggestions. I added more

interactivity to the dashboard by including drill-downs and filters.

- I have added an 'Age\_Group' column to the dataset, to classify the age group. It helps me to classify the customers accurately.

DAX Expression for the same :

```
Age_Group = IF([Age] <= 25, "15-25", IF([Age] <= 35, "25-35", IF([Age] <= 45, "35-45", IF([Age] <= 55, "45-55", IF([Age] <= 65, "55-65")))))
```

- I have modified the 'Income' column and have added 'Income\_Range' column, here I have divided the whole cluttered 'Income' column into well-defined 4 groups.

DAX Expression for the same:

Income Range =

```
SWITCH(
    TRUE(),
    [Income] <= 30000, "<=30K",
    [Income] <= 40000, "<=40K",
    [Income] <= 50000, "<=50K",
    [Income] <= 75000, "<=75K"
)
```

- I have calculated 'net\_spending' using the following DAX Expression,  
net\_spending = [Average Purchase Value] - [Total Values of Returns]
- I have grouped the customers on the basis of 'Credit Score', using the following DAX Expression,

Credit Score Range =

```
SWITCH(
    TRUE(),
    [Credit Score] < 500, "Poor",
```

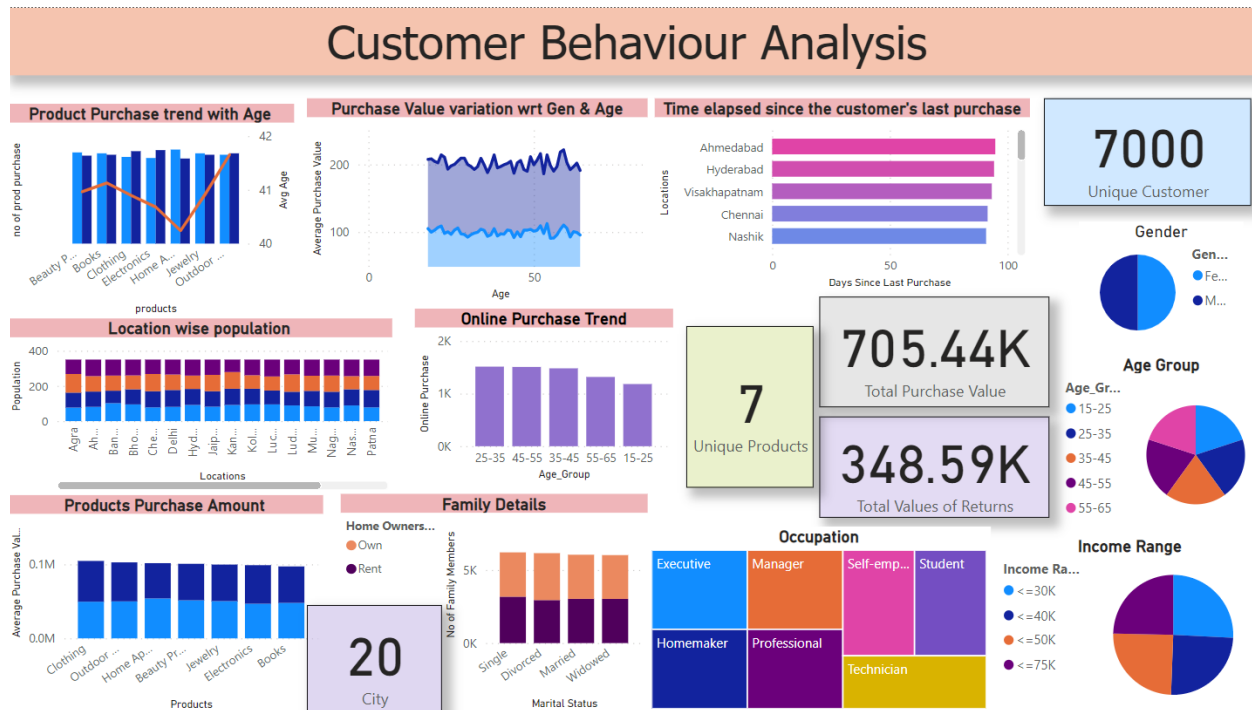
```
[Credit Score] < 600, "Fair",  
[Credit Score] < 700, "Good",  
[Credit Score] < 800, "Very Good",  
"Exceptional"  
)
```

The above modifications have helped me to segment the customers more easily.

## DATA SCIENCE JOURNEY

This datathon was an excellent opportunity for me to apply the skills and techniques I had learned in my data science journey. I learned how to explore and visualize data using Power BI. I also learned how to create interactive dashboards that provide valuable insights. This project helped me gain a better understanding of customer segmentation and how it can be used to improve customer satisfaction.

## RESULTS



A glimpse of the dashboard made by TEAM - 599642-UD7E9P49

And At a glance, One can say that,

1. We have collected information from 7000 customers.
2. Total no of unique products were 7
3. Total Purchase Value was 705.44 K and Total Values of Returns was 348.59 K.
4. Customers were from 20 cities.

## CONCLUSION

Customer segmentation is a powerful tool that can help businesses gain a competitive edge. By using Power BI, I was able to create an interactive dashboard that provided valuable insights into customer segmentation. This project helped me improve my data visualization and dashboard design skills, and I look forward to applying these skills in future projects.

## REFERENCES

1. POWERBI Publish Link - [customer behavioral analysis - Power BI](#)
2. Workspace Link - <https://app.datacamp.com/workspace/w/585601ba-d419-4847-bafb-b97e1b3b523b>
3. Competition Link - [Pickl.AI's Datathon - 4 by Pickl.ai! // Unstop \(formerly Dare2Compete\)](#)
4. Github Link - [Pickl.AI-s-Datathon---4 \(github.com\)](#)
5. Video Link - <https://www.loom.com/share/88d81ee844ac450097539ab427efd5b9>