Capstone Project  25/4/2025

# Customer Trends Analysis

created by Siranjev

# Agenda

# Target Audience & Business Problem

Target Audience : Retail business owners

Business Problem: Difficulty understanding and predicting customer purchasing behavior

# Business Questions

1. Do seasons affect product category purchases?

2. Whether promo code increase the likelihood of item to be purchase.

3. Who are the highest spenders by demographic?

# Data Cleaning

- Removed duplicates
- Standardized text fields (e.g., Frequency of Purchase, Discount Applied)
- Ensured data types were correct
- Created a new column: Loyalty Level (based on purchase frequency)

# Data Cleaning

| fx | =IF(TRIM(W2)="Every 3 months","Quarterly",IF(TRIM(W2)="Fortnightly","2-week",IF(TRIM(W2)="Bi-Weekly","2-week",IF(TRIM(W2)="Weekly", |

# Data Cleaning

`fx` `=IF(TRIM(W2)="Every 3 months","Quarterly",IF(TRIM(W2)="Fortnightly","2-week",IF(TRIM(W2)="Bi-Weekly","2-week",IF(TRIM(W2)="Weekly",`

| od | T<br>Format Frequency Purchase | U<br>Score of purchase | V<br>Customer loyalty | W<br>Frequency of Purchases | X | Formula to ch<br>No Missing va |
|---|---|---|---|---|---|---|
| | 2-week | 26 | Loyal | Fortnightly | | |
| | 2-week | 26 | Loyal | Fortnightly | | |
| | Daily | 30 | Highly Loyal | Weekly | | |
| | Daily | 30 | Highly Loyal | Weekly | | |
| | Annually | 1 | Low Loyalty | Annually | | |
| | Daily | 30 | Highly Loyal | Weekly | | |
| | Quarterly | 4 | Low Loyalty | Quarterly | | |
| | Daily | 30 | Highly Loyal | Weekly | | |
| | Annually | 1 | Low Loyalty | Annually | | |
| | Quarterly | 4 | Low Loyalty | Quarterly | | |
| | 2-week | 26 | Loyal | Bi-Weekly | | |
| | 2-week | 26 | Loyal | Fortnightly | | |
| | 2-week | 26 | Loyal | Fortnightly | | |
| | Daily | 30 | Highly Loyal | Weekly | | |
| | Daily | 30 | Highly Loyal | Weekly | | |
| | Month | 12 | Moderate | Monthly | | |
| | 2-week | 26 | Loyal | Bi-Weekly | | |
| | Quarterly | 4 | Low Loyalty | Quarterly | | |
| | Daily | 30 | Highly Loyal | Weekly | | |

# Data Cleaning

`=IF(ISBLANK(A2), "Missing", "No Missing values")`

| | X | Y | Z |
|---|---|---|---|
| | | Formula to check for Missing values | Formula to check for duplicates |
| | | No Missing values | Unique |
| | | | |

`=IF(COUNTIF($A$2:$A$3901, A2) > 1, "Duplicate", "Unique")`
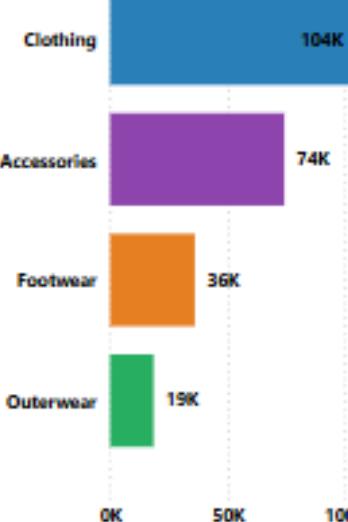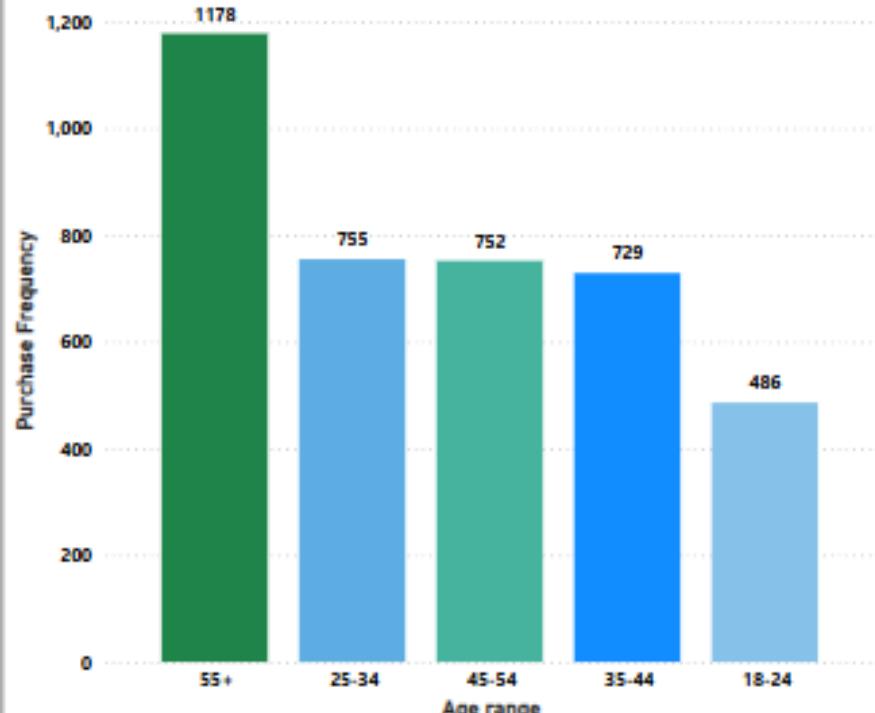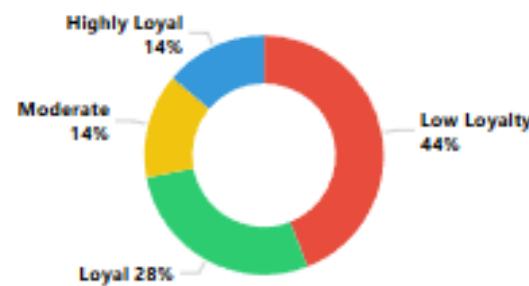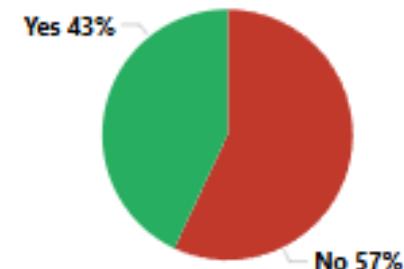
| X | | Y | Z | X |
|---|---|---|---|---|
| | | Formula to check for Missing values | Formula to check for duplicates | |
| | | No Missing values | Unique | |
| | | | | |

# Recommendations

- Change Store layout to encourage customer to shop there more.
- Held events to attract more customer.
- Offer digital payment incentives
- Offer more attractive promo codes to encourage more  purchases

# Conclusion

Data-driven visualisation help businesses better understand customers behavior

# Thank you

# Q & A