KEY CHURN FACTORS IN

E-COMMERCE

Vida Nurul Ashafy



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General Information



"Shopshop" is a national e-commerce company that sells various daily necessities through its application and website. Currently, Shopshop has thousands of active customers with diverse characteristics.

Problem Statement:

In the highly competitive e-commerce landscape, Shopshop faces a rising churn rate, especially in certain segments. Understanding the drivers of churn is key to building stronger retention strategies and boosting customer loyalty.

Data Understanding

What's in the Dataset?

Customer ID

Output

Demographic

- Gender
- City Tier
- Marital Status

Customer Engagement

- Tenure
- Preferred Login Device
- Hour Spend on App
- Number of Device Registered
- Preferred Order Category
- Satisfaction Score
- Complain

Churn Status

- Churn
- Day Since Last Order

Additional Customer Information

- Number of Address
- Preferred Payment Mode

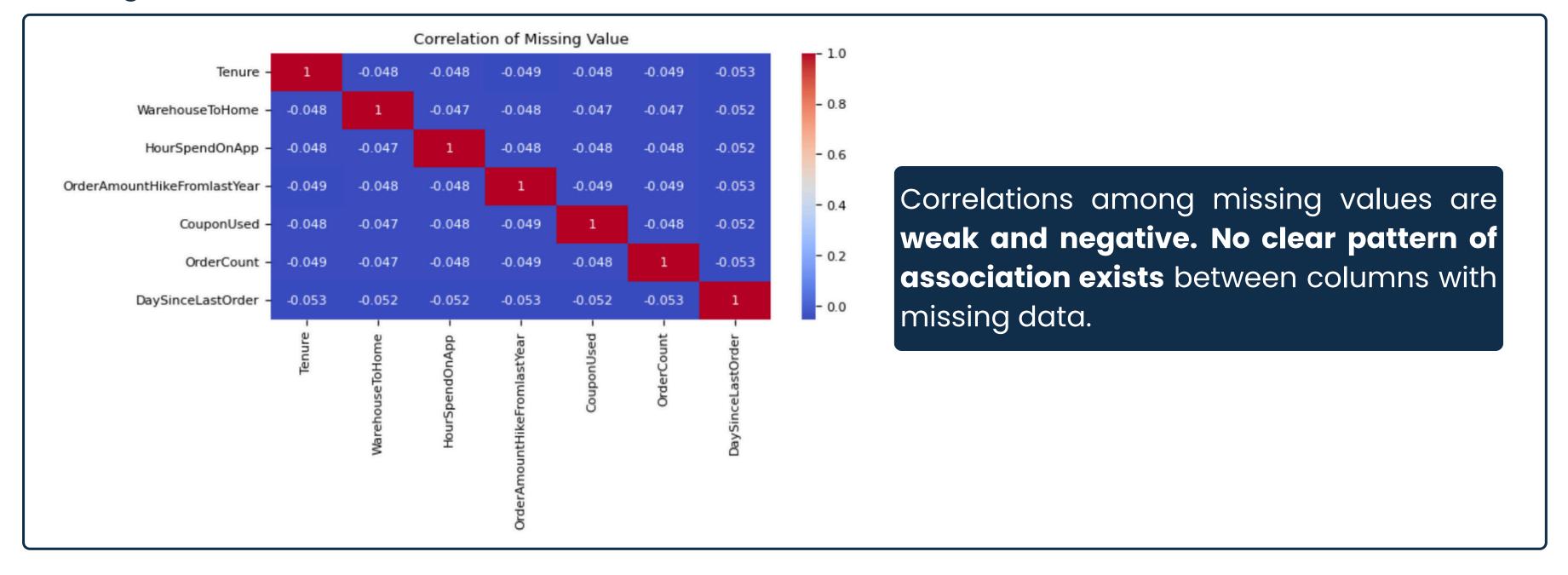
Transaction Data

- Warehouse To Home
- Order Amount Hike From Last Year
- Coupon Used
- Order Count
- Day Since last Order
- Cashback Amount

Data Cleaning

Identify pattern

Some columns in the dataset contain missing values. Further analysis was conducted using a heatmap to identify hidden patterns and potential relationships among the columns with missing value



Data Cleaning Handling missing values

Columns with missing values were imputed based on their most likely values

Data Groups	Column	Method	Reason
Customer Engagement	Tenure	Fillna with 0	Possibly a new customer
	Hour Spend on App	Fillna with Median	Distance is unlikely to be zero
Transaction Data	Warehouse To Home	Fillna with Median	Possibly an error, hence not recorded
	Order Amount Hike From Last Year	Fillna with 0	They may not have ordered in both years / possibly a new customer
	Coupon Used	Fillna with 0	Possibly never used a coupon at all
	Order Count	Fillna with 0	Possibly never placed an order at all
Churn Status	Day Since Last Order	Fillna with 0	Possibly never made a purchase (hence no last order)

Exploratory Data Analysis Churn Proportion by Segment

Churn is dominated by **single male** customers in **metro cities**, especially **mobile phone users** – surprisingly, **even very satisfied customers are leaving**

Demographic

- 63.3% of churned customers are male
- Based on city tier, the highest churn (56.1%)
 comes from City Tier 1 → Metropole City
- 50.6% of churned customers are single

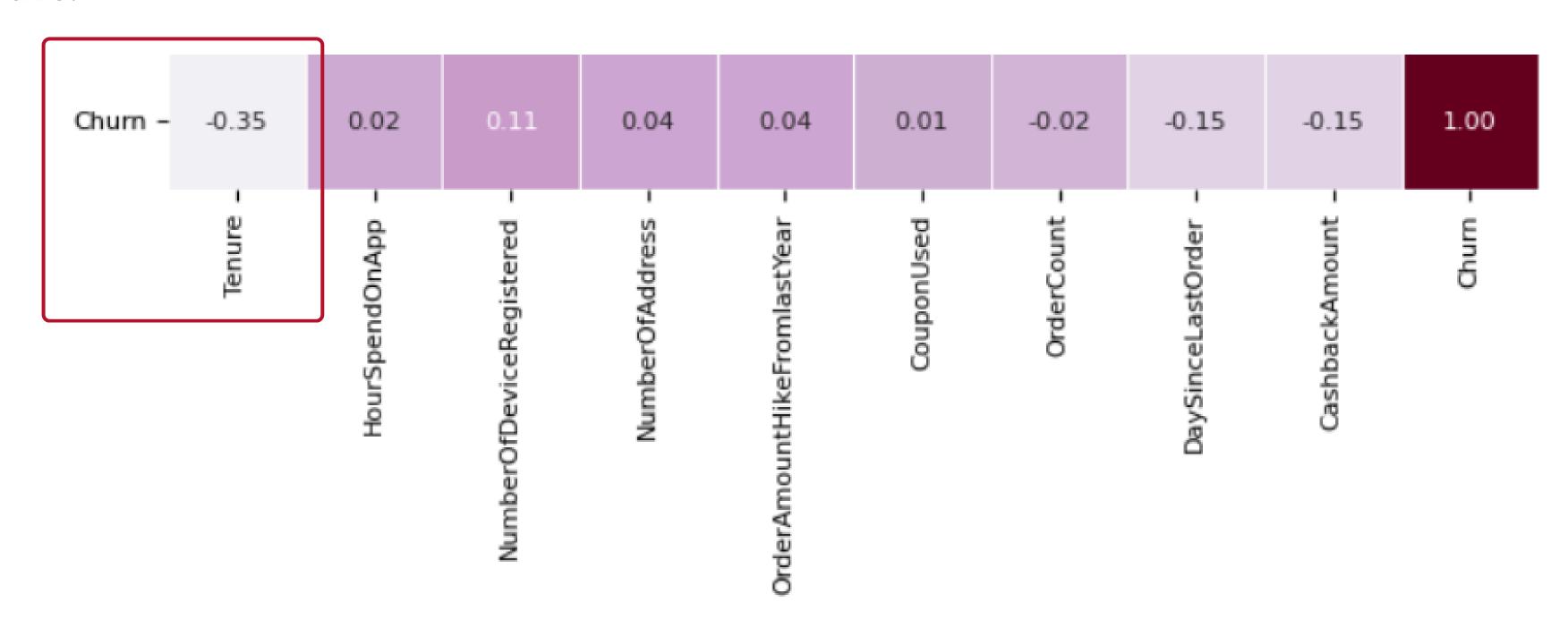
Customer Profile

- 65.8% of churned customers used Mobile
 Phones
- The largest proportion of churn (30.8%) comes from customers with a satisfaction score of 5 (very satisfied).
- 37.5% of customers who used debit cards ended up churning

Key Factor Behind Churn

Churn correlation with numerical variables

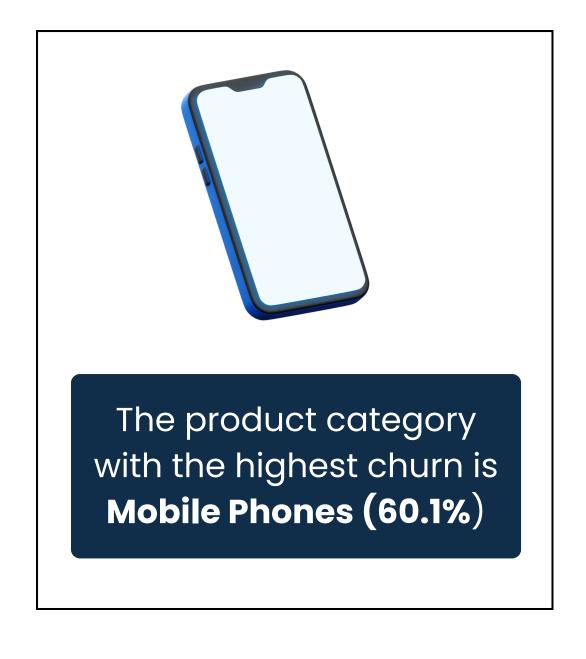
Churn is moderately linked to tenure, meaning customers with shorter lifetimes are more likely to leave.

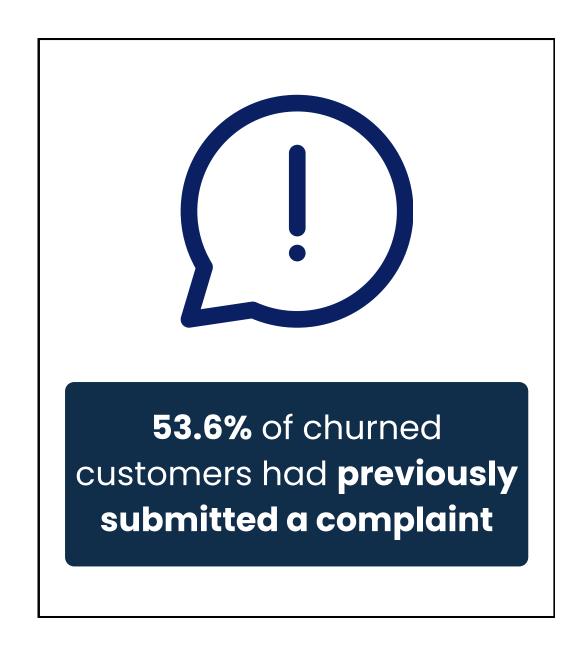


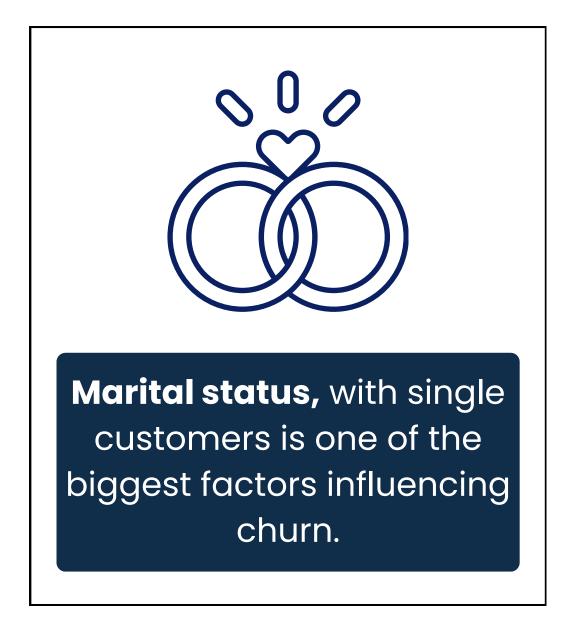
Key Factor Behind Churn

Churn correlation with categorical variables

The factors that most influence churn are complaints, order category, and marital status, while coupon usage does not have a significant effect on churn







Summary and Recommendation

influencing churn

Strengthen Complaint Management : Handle complaints Complains : Customers who have quickly via multichannel support and post-purchase surveys. For customers who never complain, personalized submitted complaints are more product recommendations, or loyalty touchpoints to likely to churn prevent silent churn Tenure : The longer a customer has Retain New Customers : Use welcome programs, been subscribed, the less likely they vouchers, and reminders to reduce early churn are to churn Order Category: The product Cross-Selling & Loyalty Programs : Offer supporting category frequently ordered affects accessories and extra reward points redeemable in other churn, with Mobile Phones having categories can encourage repeat purchases the highest churn rate Customer Experience & Interaction : Reduce Reliance on Coupons: Focus on service quality Overall, customer experience and and personalized product offerings instead of coupon interactions key factors are promotions

Most Important

Less critical

THANK YOU