### Automobile Customer Behavior Analysis

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#### 1. DO MEN TEND TO PREFER SUVS MORE

#### **COMPARED TO WOMEN?**

Based on the graph, females tend to prefer SUVs more than males, as the count of females choosing SUVs is significantly higher. This suggests a stronger inclination among women towards SUVs compared to men in the dataset analyzed.

#### **SUV Preference by Gender**

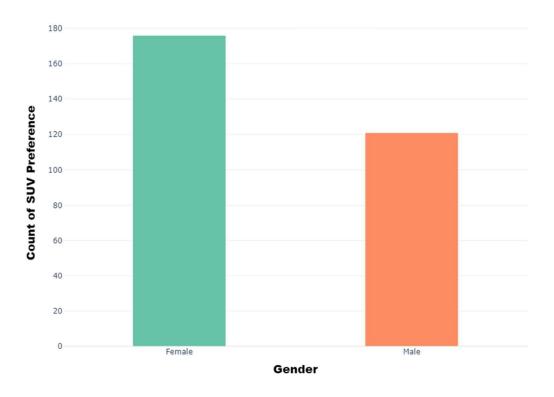


Figure 1.1

## 2. WHAT IS THE LIKELIHOOD OF A SALARIED PERSON BUYING A SEDAN?

- From the heatmap below there is 44% chance of salaried person buying the car sedan

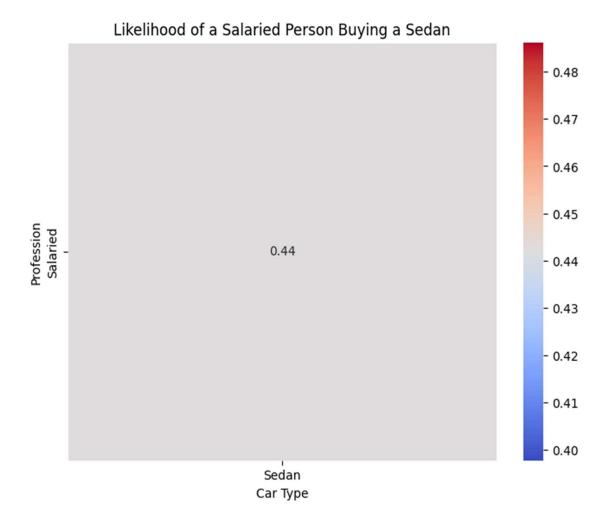


Figure 2.1

# 3. WHAT EVIDENCE OR DATA SUPPORTS SHELDON COOPER'S CLAIM THAT A SALARIED MALE IS AN EASIER TARGET FOR A SUV SALE OVER A SEDAN SALE?

-The data clearly indicates that salaried males are more likely to purchase Sedans over SUVs. Therefore, there is no evidence to support Sheldon Cooper's claim that salaried males are easier targets for SUV sales. Instead, the data points to the opposite—salaried males seem to prefer Sedans by a significant margin.

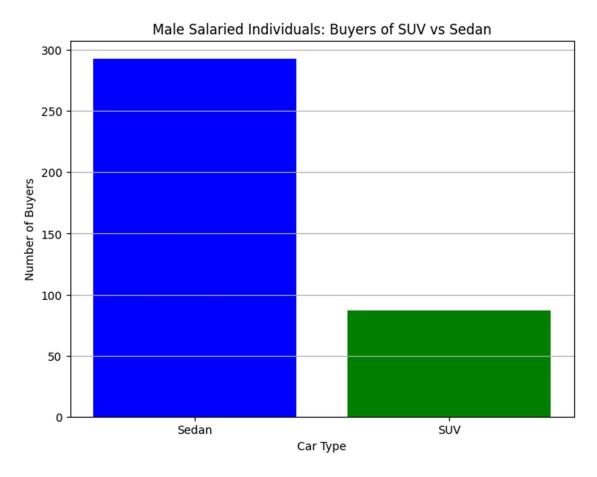
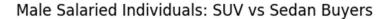


Figure 3.1

-From the dataset of salaried males, 22.9% purchased SUVs, while a significantly larger proportion—77.1%—opted for Sedans.

This shows that Sedans are far more popular among salaried male buyers, with the likelihood of a salaried male purchasing a Sedan being more than three times higher than purchasing an SUV.



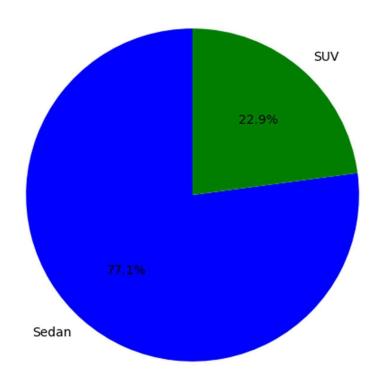


Figure 3.2

#### 4. HOW DOES THE AMOUNT SPENT ON PURCHASING

#### **AUTOMOBILES VARY BY GENDER?**

- Higher Spending Among Females: The data suggests that female car buyers generally spend more on automobiles than their male counterparts, both in terms of median and mean values.

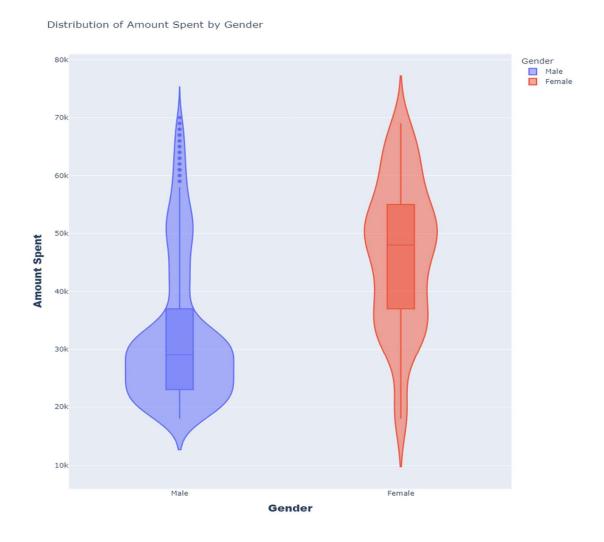


Figure 4.1

The median amount spent by females (\$48,000) is significantly higher than that of males (\$29,000). This indicates that, on average, female buyers tend to spend more on automobiles compared to male buyers.

-This information could be valuable for targeted marketing strategies, indicating that females might prefer higher-end models or brands.

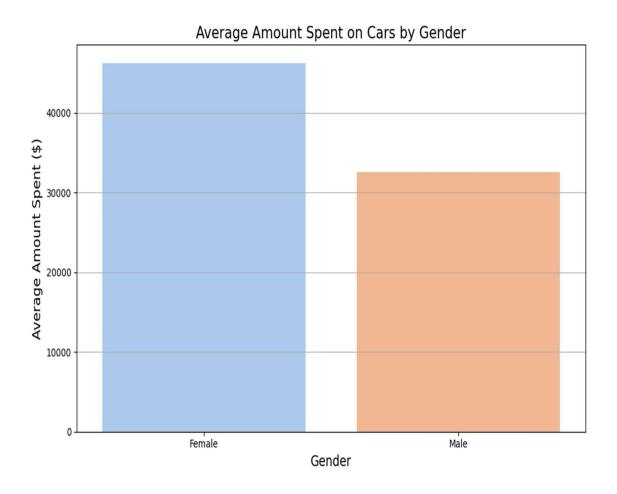
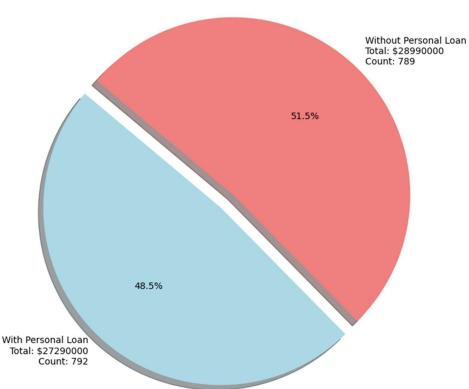


Figure 4.2



# 5. HOW MUCH MONEY WAS SPENT ON PURCHASING AUTOMOBILES BY INDIVIDUALS WHO TOOK A PERSONAL LOAN?

-A total of \$27,290,000 was spent by individuals with a personal loan, representing 48.5% of the total expenditures. Conversely, individuals without a personal loan spent \$28,990,000, accounting for 51.5% of the total amount. This data highlights that a significant portion of automobile purchases was made by individuals utilizing personal loans, indicating a reliance on financing for automobile acquisitions.



Total Amount Spent on Automobiles by Personal Loan Status

Figure 5.1

# 6. HOW DOES HAVING A WORKING PARTNER INFLUENCE THE PURCHASE OF HIGHER-PRICED CARS?

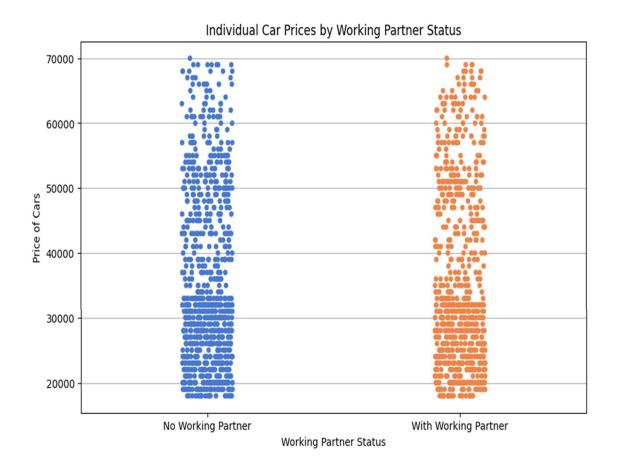


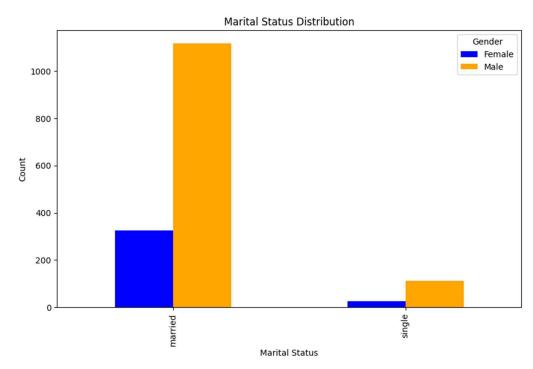
Figure 6.1

From the plot, we can observe that individuals with or without a working partner purchase a similar range of car prices, typically between \$20,000 and \$70,000. However, there appears to be a slightly higher concentration of more expensive cars (above \$60,000) among those without a working partner. In both groups, the majority of cars purchased are clustered around the \$30,000 price point. Therefore, having a working partner does not seem to have a significant influence on the purchase of higher-priced cars.

#### **ACTIONABLE INSIGHTS & RECOMMENDATIONS**

#### **Marital Status Insights:**

- Majority of Married Males: The chart shows that married males form a significantly larger portion of the population, while married females represent a smaller but notable group. The gender gap is much wider in the married category.
- Fewer Singles: Both males and females in the single category represent a small portion of the total population compared to the married segment.
- Married Males Lead Car Purchases: Given the larger count of married males, this group may also lead in car ownership and purchase decisions, especially in dual-income households with a working partner.



#### **BUSINESS RECOMMENDATION**

Target Married Males for Family-Oriented Cars: Automotive companies should focus their marketing efforts on married males by promoting family-oriented vehicles, such as SUVs or sedans with extra space, safety features, and child-friendly amenities.

Focus on Singles with Compact, Affordable Cars: While singles form a smaller portion, this demographic may prefer more affordable and compact cars. Automotive businesses should promote entry-level vehicles with lower pricing, flexible financing options, and modern features for this group.

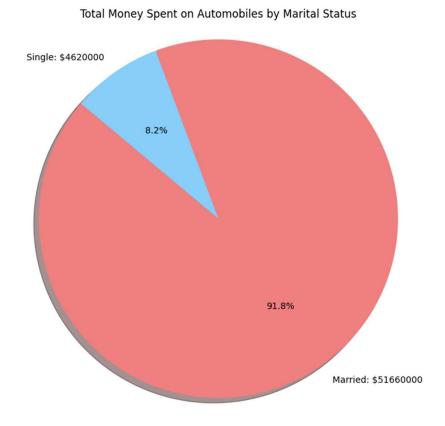


Figure 7.2