

# **Bike Data Problems**

## 1 Bar Chart (Marital Status):

How does the count of bike purchases vary	among different marita	al statuses? Are married	d individuals more
likely to purchase bikes?			

Part 1: Single persons tend to purchase more bikes than Married by 17 bikes.

Part 2: No. The Married individuals are less likely to purchase bikes.



## 2 Bar Chart (Gender):

Does gender influence bike purchases, and if so, to what extent?

Yes, gender does inlfuence bike purchases as we can see that more male purchases bikes than females. Males outrun Female figure by 3 bikes.

### 3 Histogram (Income):

What is the distribution of income among bike buyers? Are there specific income brackets that show a higher likelihood of bike purchases?

The distribution of income among bike buyers are shown in dashboard.

People with income as 6,00,000 INR show a higher likelihood of bike purchases.

#### 4 Histogram (Age):

Are certain age groups more inclined to purchase bikes?

Age group of 35-39 are more inclined to purchase bikes.

## 5 Box Plot (Income):

Are there any extreme income values, and how might they impact purchasing behavior?

Yes there are extreme income values but they don't seem to impact the purchasing behavior.

#### 6 Pie Chart (Region):

Are there regions where bike purchases are notably higher?

North American region seems to have notably higher bike purchases.

## 7 Scatter Plot (Income vs. Age):

Do individuals with higher incomes tend to be in specific age groups?

Age group of 45-49 specifically tend to have higher incomes.

#### 8 Stacked Bar Chart (Marital Status & Gender):

How does the distribution of bike purchases differ when considering both marital status and gender simultaneously? Are there notable patterns?

Married Men purchases more bikes than Married Women. Single Women purchases more bike than Single Men.

## 9 Correlation Heatmap (Numeric Variables):

What variables show a strong correlation, and how might this influence purchasing behavior?

Income and variables show strong correlation when it comes to region like North America where more bikes are purchased.

#### 10 Pair Plot (Subset of Variables):

Are there clear relationships between these variables, and how might they impact bike purchases?

Answer