**Bike Buyers Data Insights**

**1. Bar Chart (Marital Status):**

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

**Part 1: Married persons tend to purchase more bikes than Single by 78 bikes.**

**Part 2: Yes. The Married individuals are more likely to purchase bikes.**

**2. Bar Chart (Gender):**

Build a bar graph to compare the count of male and female customers. Does gender influence bike purchases, and if so, to what extent?

**Yes, gender does influence bike purchases as we can see that more male purchases bikes than females. Males outrun Female figure by 18 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?

**Part 1: The distribution of income among bike buyers are shown in dashboard.**

**Part 2: People with income as 6,00,000 INR show a higher likelihood of bike purchases.**

**4. Histogram (Age):**

Create a histogram to understand the age distribution of bike buyers. Are certain age groups more inclined to purchase bikes?

**Age group of 31-40 are more inclined to purchase bikes.**

**5. Box Plot (Income):**

Identify outliers in the income distribution of bike buyers. Are there any extreme income values, and how might they impact purchasing behavior?

**There are extreme income values but they don't seem to impact the purchasing behaviour.**

**6. Pie Chart (Region):**

Represent the distribution of bike purchases by region using a pie chart. 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):**

Create a scatter plot to investigate the relationship between income and age. Do individuals with higher incomes tend to be in specific age groups?

**Age group of 41-50 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):**

Use a heatmap to visualize the correlation matrix between numeric variables. What variables show a strong correlation, and how might this influence purchasing behaviour?

**Income and number of cars show a medium correlation of 0.44. Age and number of children also have a medium correlation of 0.53.**