

Bike Purchase Analysis Report

1. Introduction

This report summarizes the key findings from the Bike Purchase Dataset analyzed using Microsoft Excel. The analysis was performed through data cleaning, transformation, and visualization with PivotTables and charts.

2. Key Findings

2.1. Income vs. Bike Purchase

- Women who purchased bikes had a higher average income (around 55774) compared to those who did (around 53440).
- Men who purchased bikes had a higher average income (around 60124) compared to those who did not (around 56208).

Interpretation:

Both men and women who purchased bikes had a higher average income compared to those who did not. This indicates that income is positively associated with bike purchases.

2.2. Age Group vs Bike Purchase

Most bike purchases came from middle-age customers. Purchases dropped significantly in the old age group, and the adolescent group had the lowest number of bike purchases overall.

Interpretation:

Age is an important demographic factor, with middle-aged customers being the main target market for bike sales.

2.3. Commute Distance vs. Bike Purchase

The highest number of purchases occurred among customers with commute distances of 0–1 miles. As commute distance increased, the number of bike purchases decreased.

Interpretation:

Bikes are more attractive to customers with shorter daily travel distances.

3. Additional Insights with Slicers

The dashboard also allows filtering by:

- Marital Status (Single / Married)
- Region (Europe, North America, Pacific)
- Education (Bachelors, Graduate Degree, High School, Partial College, Partial High School)

By using these slicers, the charts can be viewed in multiple variations to gain deeper insights into customer behavior.

4. Conclusion

Bike purchases are positively associated with higher income, most common among middle-aged customers, and more frequent for shorter commute distances. These insights suggest focusing marketing efforts on higher-income, middle-aged individuals with short commutes. Additional insights can be explored using slicers (marital status, region, and education), allowing for more targeted analysis of customer segments.