

Executive Summary: *Riding the Data – The Bike Buyer Report*

This project focuses on uncovering key patterns behind bike purchases using a demographic dataset sourced from Kaggle. With over 1,000 rows and more than 12 columns, the data spans variables such as gender, income, marital status, region, age brackets, education, commute distance, and ownership.

The analysis was conducted entirely in Microsoft Excel, utilizing Pivot Tables, Slicers, and Pivot Charts to create a dynamic and interactive dashboard that presents critical business insights at a glance.

Key Insights Uncovered

- **Equal Gender Representation:** Both male and female respondents are equally represented (489 each), allowing for balanced gender-based analysis.
- **Average Income of Buyers:** Individuals who purchased bikes have a noticeably higher average income than those who didn't, suggesting income plays a critical role in purchase behavior.
- **Marital Status Impact:** A higher percentage of married individuals own bikes compared to single individuals, hinting at lifestyle or family-oriented needs.
- **Commute Distance Behavior:** Those commuting 0–1 mile and 5–10 miles show higher interest in bike ownership—possibly for health, convenience, or cost-effectiveness.
- **Age Bracket Distribution:** The Middle Age group dominates the buyer pool, while both the adolescent and older age groups show minimal interest in bike purchases.
- **Regional Preferences:** Regional filters suggest that North America has a higher buyer concentration compared to other regions, reflecting possibly cultural or infrastructure differences.

Recommendations

1. **Target High-Income Segments:** Marketing campaigns should focus on individuals earning above the average income range.
2. **Focus on Middle-Aged Married Demographics:** This segment shows the strongest correlation with bike purchases.
3. **Develop Region-Specific Campaigns:** Emphasize promotions in **North America**, while investigating low-performing regions for potential growth barriers.
4. **Commute-Friendly Messaging:** Promote bikes as ideal for short-to-mid distance commuting.

