

DATA ANALYSIS REPORT

Report Title: Bike Buyers Analysis

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Executive Summary

Analysis was conducted on bike buyers data to gain insights into factors affecting bike sales. This report summarizes our findings and provides actionable recommendations.

Introduction

This dataset was obtained from Kaggle. It includes information about income, gender, occupation, region.

Data Overview

The dataset contains 1,027 records and includes fields such as regions, occupation, marital status, gender, age, and commute distance.

Data Cleaning and Preprocessing

Data cleaning involved handling duplicate values as lots of duplicated were discovered in the dataset.

Data Analysis

Analysis 1: Age Brackets

- Analysis was carried out to figure out which age brackets purchase the most bikes. Middle aged individuals from age 31 to 54 bought more bikes than others.

Analysis 2: Average Income

- Analysis shows that income has a huge impact on bike purchase. Individuals with higher income are more likely to buy a bike than those without. More insights also shows that married couples earn significantly higher than singles.

Analysis 3: Commute Distance

- There is a drop in bike purchase with respect to the commute distance. Individuals with commute distance of 0-1 miles purchase the most bikes.

Analysis 4: Number of Children

- The number of children greatly affects the purchase of bikes as it is more comfortable to transport more people with a car.

Analysis 5: Occupation

- Professional and Skilled manual occupations purchase more bikes than other occupations.

Key Insights

- **Age Brackets:** Middle aged customers purchase more bikes, Indicating opportunities for more sales in this age demographic.
- **Commute distance:** customers with lower commute tend to purchase more bikes.
- **Occupation:** Most professional and skilled manual workers, purchase more bikes.

Recommendations

- Allocate additional resources and marketing efforts to middle aged customers and customers with shorter commute distance to maximize sales potential.
- Consider creating specific ads targeting professional and skilled manual workers to drive bike sales.

Conclusion

The analysis of bike buyers data provided valuable insights into factors affecting bike purchases. Implementing the recommendations outlined in this report can help drive sales growth and inform strategic decision making.