

# Analysis of Bike Sales Data

## Introduction

Understanding sales trends and customer purchasing behavior is crucial for businesses to maximize revenue and optimize marketing strategies. This analysis explores key insights from bike sales data, including yearly revenue trends, country-wise performance, customer demographics, and product category contributions. By examining these aspects, businesses can identify opportunities for growth and areas requiring improvement.

## Overview

The given dataset provides an in-depth look into bike sales trends across different customer demographics, regions, and product categories. The analysis highlights key insights into revenue generation, profit distribution, and customer purchasing behavior over time.

### 1. Sales Trends by Year

The dataset contains revenue and profit figures for the years 2017 to 2019:

- **2017:** Revenue of \$10,289,670 with a profit of \$4,065,680.
- **2018:** Significant increase in revenue to \$17,028,380 and profit to \$7,747,551.
- **2019:** A slight decline in revenue to \$15,705,990 and profit to \$7,417,353.

This indicates a strong growth in 2018, followed by a slight dip in 2019. External factors such as market conditions or competition might have influenced this decline.

### 2. Revenue by Country

The major contributors to revenue include:

- **Australia:** \$25,427,586 (largest market)
- **Canada:** \$8,014,536
- **Other countries** also contribute, but Australia dominates the sales figures.

Australia's high revenue may be due to a strong market presence, customer preference for bikes, or favorable economic conditions.

### 3. Revenue by Age Group

- **Adults (35-64 years)** generated the highest revenue of \$47,323,876, indicating that middle-aged individuals are the primary consumers.

- **Young Adults (25-34 years)** followed closely with \$34,310,905.
- **Seniors (64+)** contributed the least revenue at \$339,700, suggesting minimal interest or affordability concerns in this segment.

#### **4. Product Category Analysis**

- **Bikes** are the primary revenue driver, significantly outperforming Accessories and Clothing.
- Accessories and Clothing provide supplementary sales, but their impact is minimal compared to bikes.

#### **5. Gender-Based Purchasing Behavior**

The dataset suggests a fairly balanced distribution between male and female customers, with both contributing significantly to overall revenue.

#### **Conclusion**

The analysis reveals that the bike sales industry is largely driven by middle-aged adults, with Australia being the most profitable region. Revenue saw strong growth in 2018 but slightly declined in 2019, potentially due to market shifts. While bikes remain the dominant product category, opportunities exist to expand accessory and clothing sales. Businesses can focus on sustaining revenue growth by targeting high-performing customer segments and regions, while also exploring strategies to increase sales in underperforming demographics such as seniors.