

Adventure Works Cycles Sales Analysis Report

1. Introduction: Adventure Works Cycles is a renowned manufacturer and retailer of bicycles and accessories operating globally. This report provides a comprehensive analysis of the company's sales data, including insights into sales summary, profit analysis, and customer segmentation. The analysis aims to facilitate data-driven decision-making and optimize business strategies.

2. Data Overview: The dataset comprises sales data spanning three years, along with additional tables containing information on territories, products, returns, subcategories, product categories, customers, and calendar dates. The data was cleaned, transformed, and modeled using Microsoft Power BI to prepare it for analysis.

3. Methodologies:

Data Cleaning:

- Appended three years of sales data into a single table for consolidated analysis.
- Checked for and removed duplicate records to ensure data integrity.
- Adjusted data types and formats to facilitate accurate analysis.
- Created relationships among tables to establish data connections for cross-referencing.

DAX Measures:

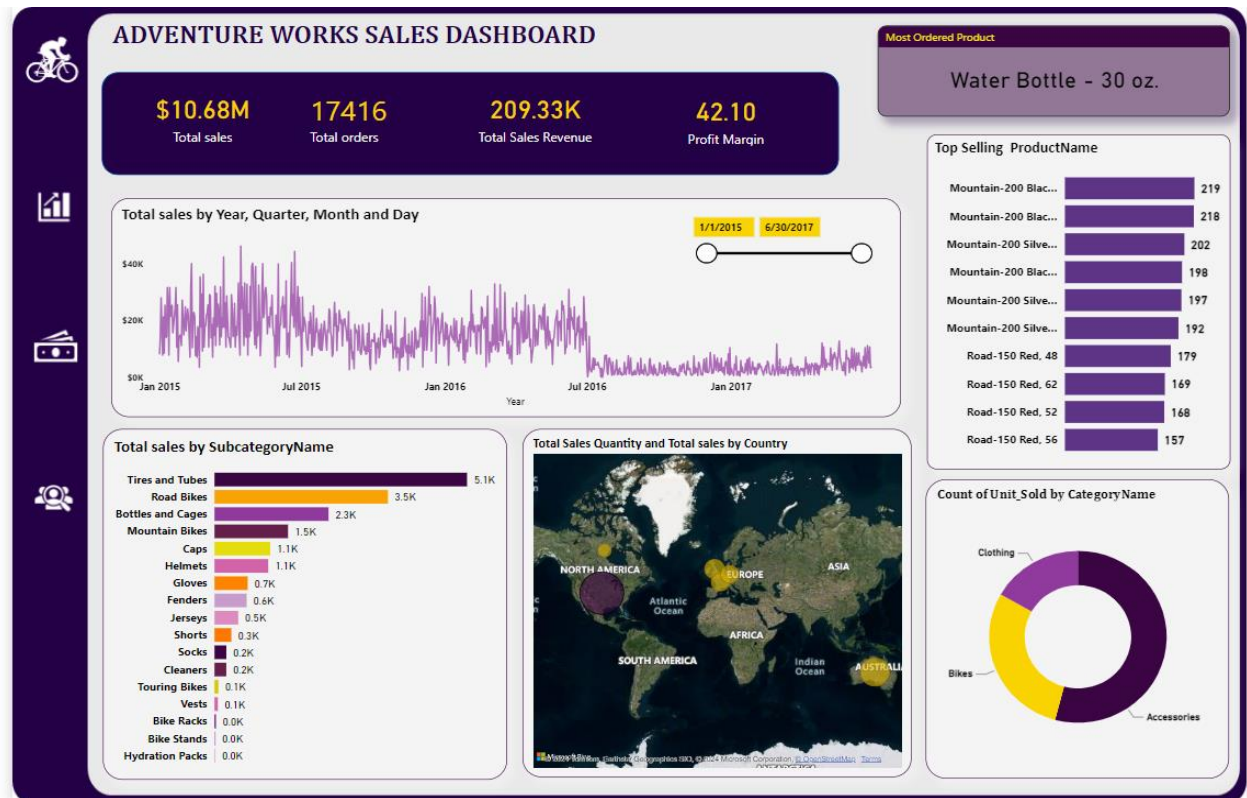
- Total Sales: Calculated as the sum of sales revenue across all transactions.
- Total Profit: Determined by subtracting the total cost from the total revenue.
- Sales Growth Rate: Analyzed the year-over-year growth in sales revenue to identify trends.
- Total Return: Calculated to track revenue lost due to returns, aiding in improving product quality and customer satisfaction.
- Monthly Sales/profit/orders: Tracks trends over time, aiding in forecasting measures
- Previous Month Profit/: Compares current profitability with the previous month, highlighting trends and anomalies.
- Sales Return and Orders: Offers a comprehensive view of sales activity and return impact on sales performance.

4. Sales Summary: The sales summary provides an overview of key metrics such as total sales revenue, total profit, and sales growth rate. Interactive visualizations, including charts and KPI cards, offer insights into sales trends and performance.

5. Profit Analysis: The profit analysis delves deeper into profitability metrics, including profit margin, average order value, and previous month's profit. These insights help identify areas of improvement and optimize pricing strategies.

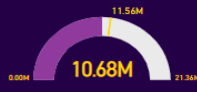
6. Customer Segmentation: Customer segmentation involves categorizing customers based on demographics, purchasing behavior, and preferences. Segmentation analysis enables personalized marketing strategies and enhances customer engagement.

7. Appendix:

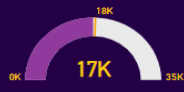


PROFIT INSIGHTS

Monthly Revenue



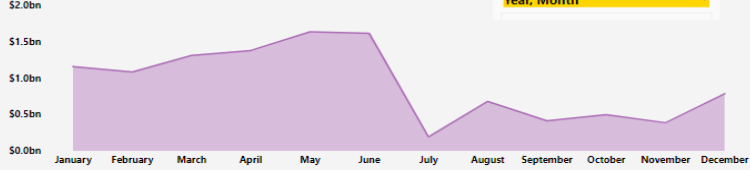
Monthly Orders



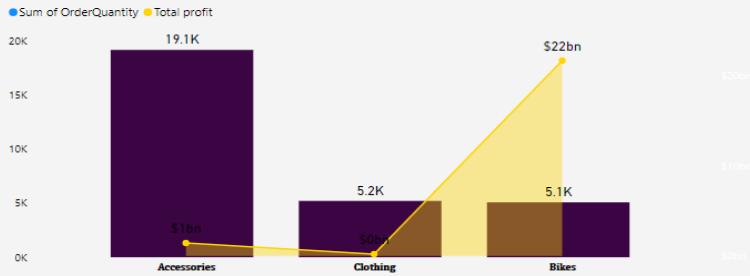
Monthly Returns



Total profit by Month



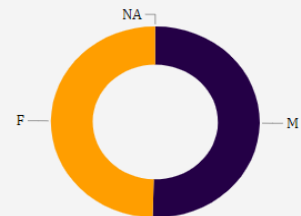
Sum of OrderQuantity and Total profit by CategoryName



Total profit by ProductName



Total profit by Gender



CUSTOMER SEGMENTATION

Occupation: All Gender: All

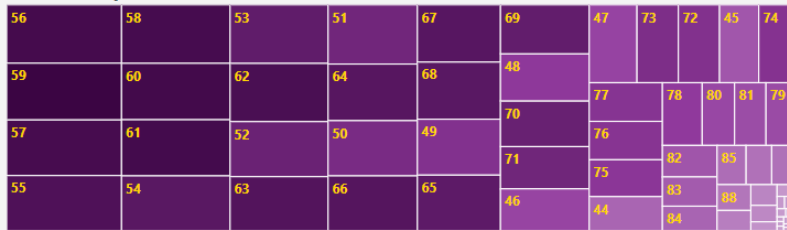
\$129bn
Total profit

18K
Total Customers

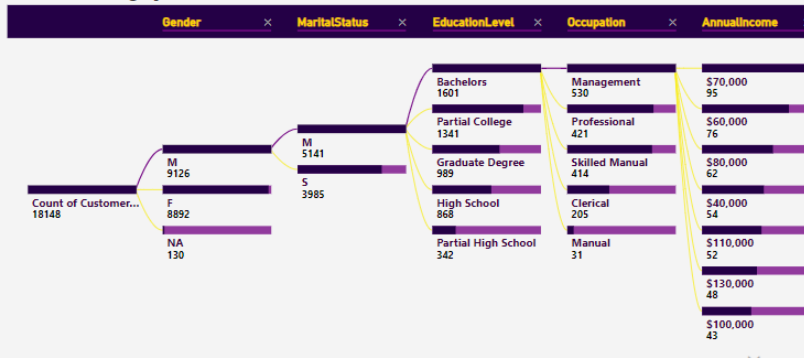
1828
Total Returns

\$714
Avg Product Price

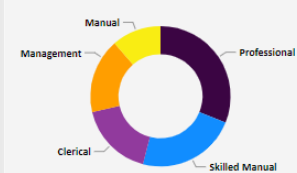
Total orders by AGE



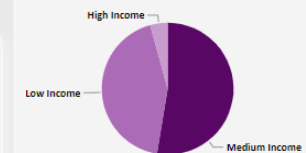
Customer Demographics



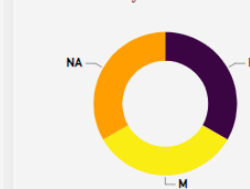
Total sales by Occupation

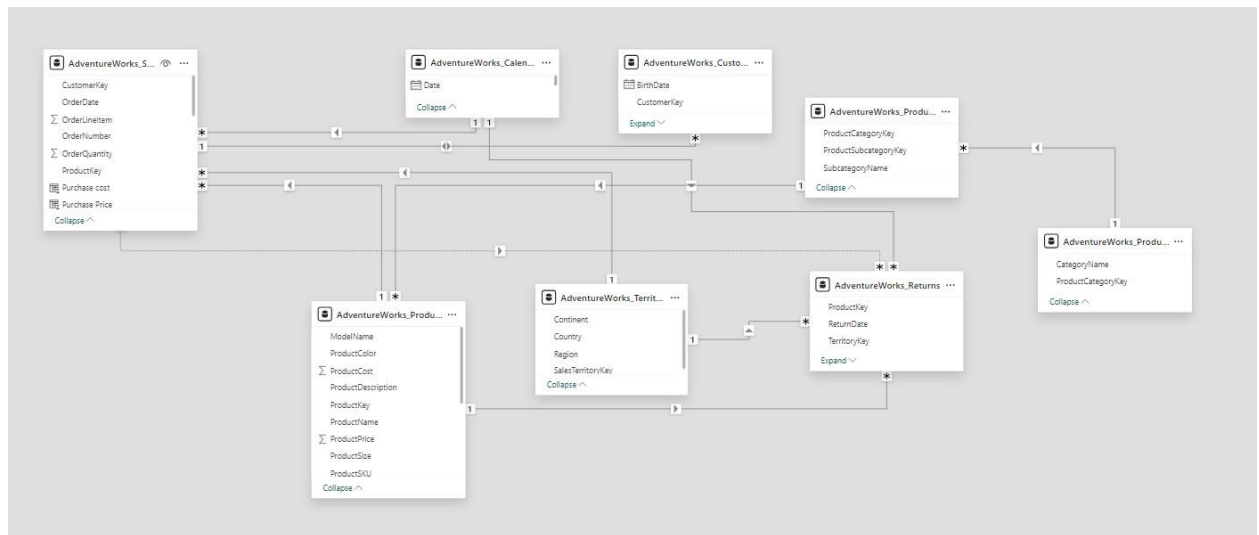


Total profit by IncomeLevel



Total Returns by Gender





This report encapsulates the methodologies employed, insights gained, and recommendations provided through the analysis of Adventure Works Cycles' sales data. It serves as a valuable resource for stakeholders involved in strategic decision-making and business optimization.