Bike Store Sales Project

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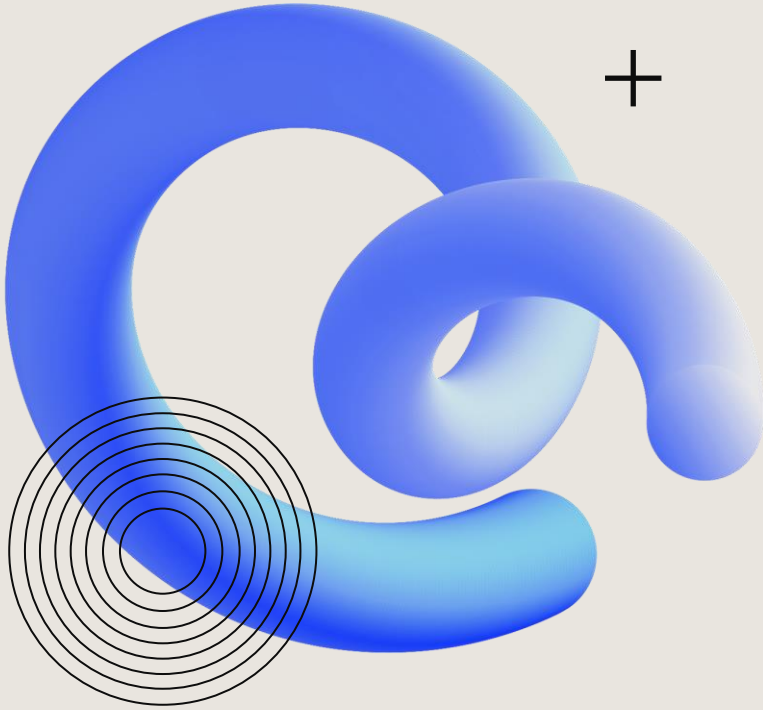
01

Project Details



Overview

Leveraging Data Analytics to Enhance Sales Performance and Strategic Decision-Making.

The bike selling company faces the challenge of effectively analyzing and leveraging its sales data to drive growth, optimize operations, and enhance customer satisfaction. Despite having access to extensive sales data spanning the period from 2016 to 2018, the company lacks the capability to extract actionable insights from this data due to limitations in data analysis tools and expertise.

Key Problems Identified:

Limited Visibility into Sales Trends

The company lacks comprehensive visibility into sales trends and patterns over the specified time period, hindering its ability to identify opportunities for growth and optimization.

Inefficient Sales Performance Evaluation

There is no systematic approach to evaluating the performance of sales representatives, leading to challenges in identifying top performers and areas for improvement.

Lack of Customer Insights

The company struggles to understand its customer base and their purchase preferences, resulting in missed opportunities for targeted marketing and personalized customer engagement.

Data Silos and Inaccessibility

Sales data is fragmented across multiple databases and systems, making it difficult to consolidate and analyze effectively

Need for Actionable Insights

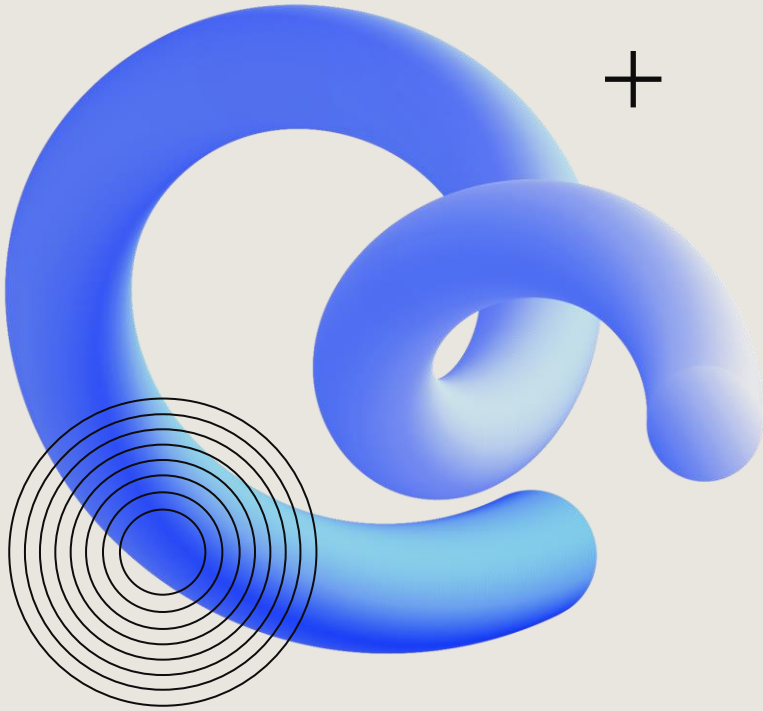
The executive team lacks access to timely and actionable insights derived from sales data, hampering their ability to make informed decisions and drive strategic initiatives.

Objective

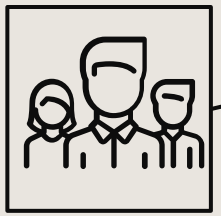
The objective of this project is to address these challenges by leveraging data analytics to gain comprehensive insights into sales activities over the 2016 to 2018 period. The aim is to enable the executive team to make data-driven decisions, optimize sales performance, and enhance customer satisfaction.

02

Methodology

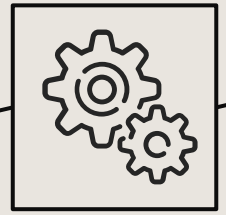


Action Diagram



Understanding the Business Problem and Stakeholder Interests, Expectations

Data Collection



Data Cleaning and Preprocessing

Statistical Analysis Using R Programming

Exploratory Data Analysis (EDA)

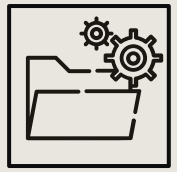
Sales Performance Analysis and Sales Representative Evaluation

Customer Segmentation and Preference Analysis

Documentation of Project Summary

Dashboard Development

Tool Box



Data Collection

SQL was used to collect data from the database by crafting queries to extract relevant information from various tables.

Data Manipulation

MS Excel and **R** were utilized for data manipulation.

Data Visualization

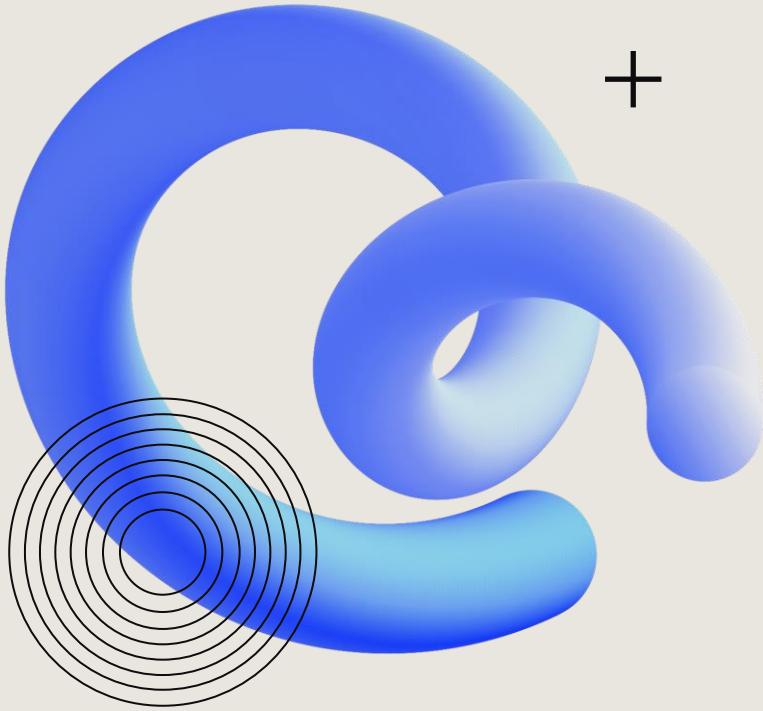
Tableau served as the primary tool for visualizing the processed data to create insightful dashboards.

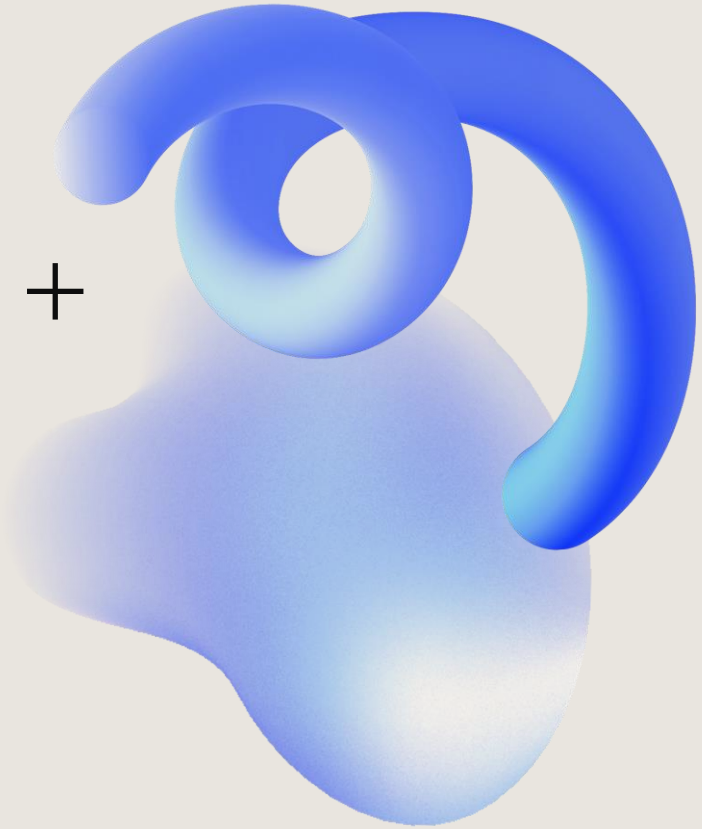
Data Documentation

To communicate project insights, **MS PowerPoint** has been used for presenting summarizing key findings and **MS Word** for detailed reports, ensuring clear communication and informed decision-making among stakeholders.

03

Insights & Analysis





$8579K

Revenue Generated

7070 units

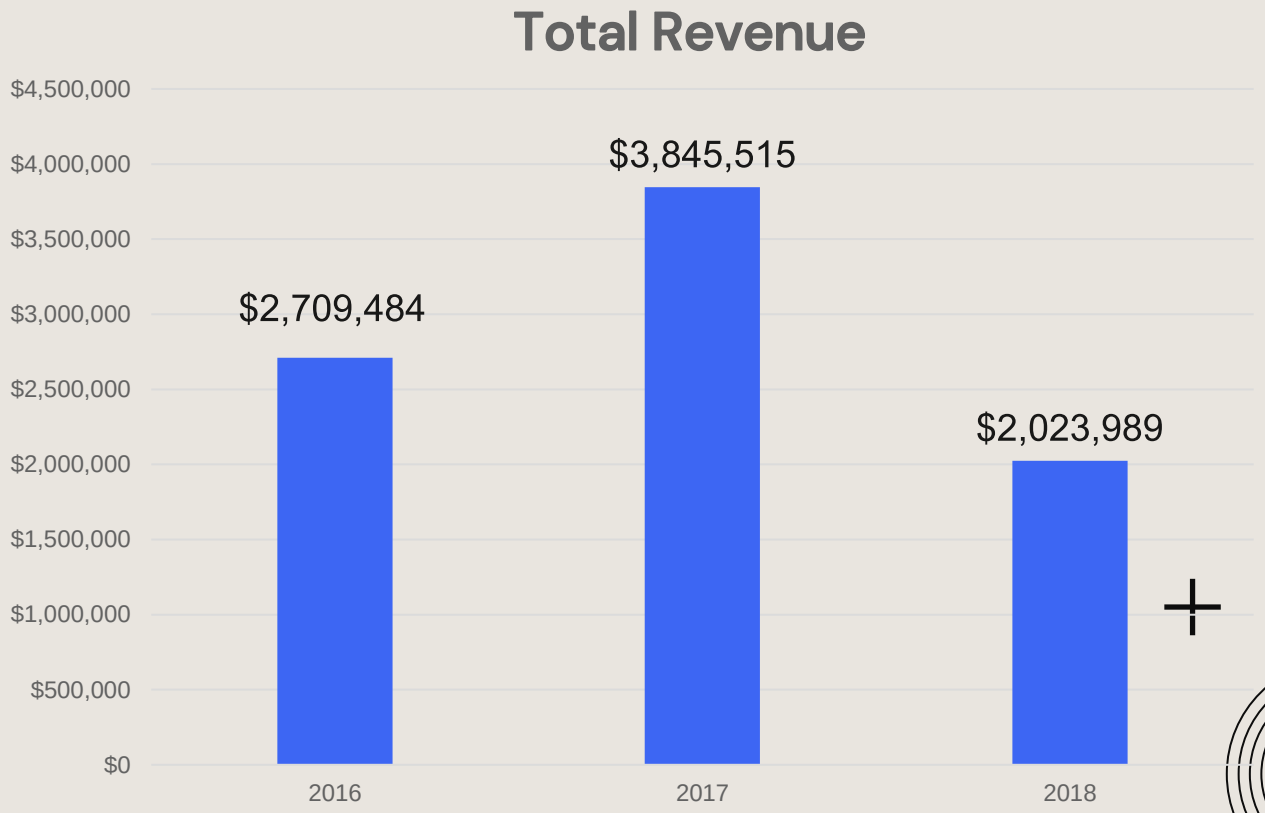
Total Unit Sold

1444

Total Customers

The bar chart illustrates the sales revenue from 2016 to 2018.

So, there was a 42.0% increase in sales revenue from **2016 to 2017**, followed by a 47.4% decrease from **2017 to 2018**.

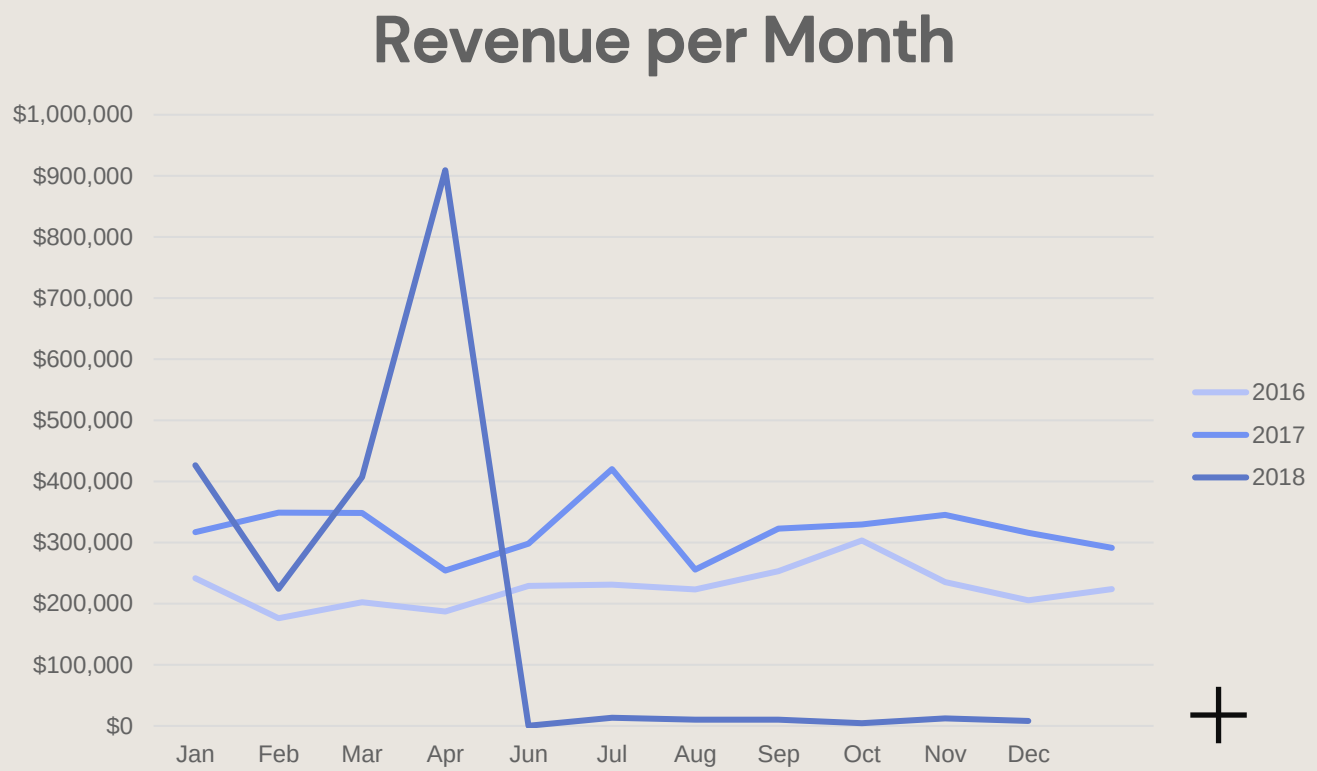


This line chart shows the revenue trends every year from 2016 to 2018. The highest revenue collected every year are:

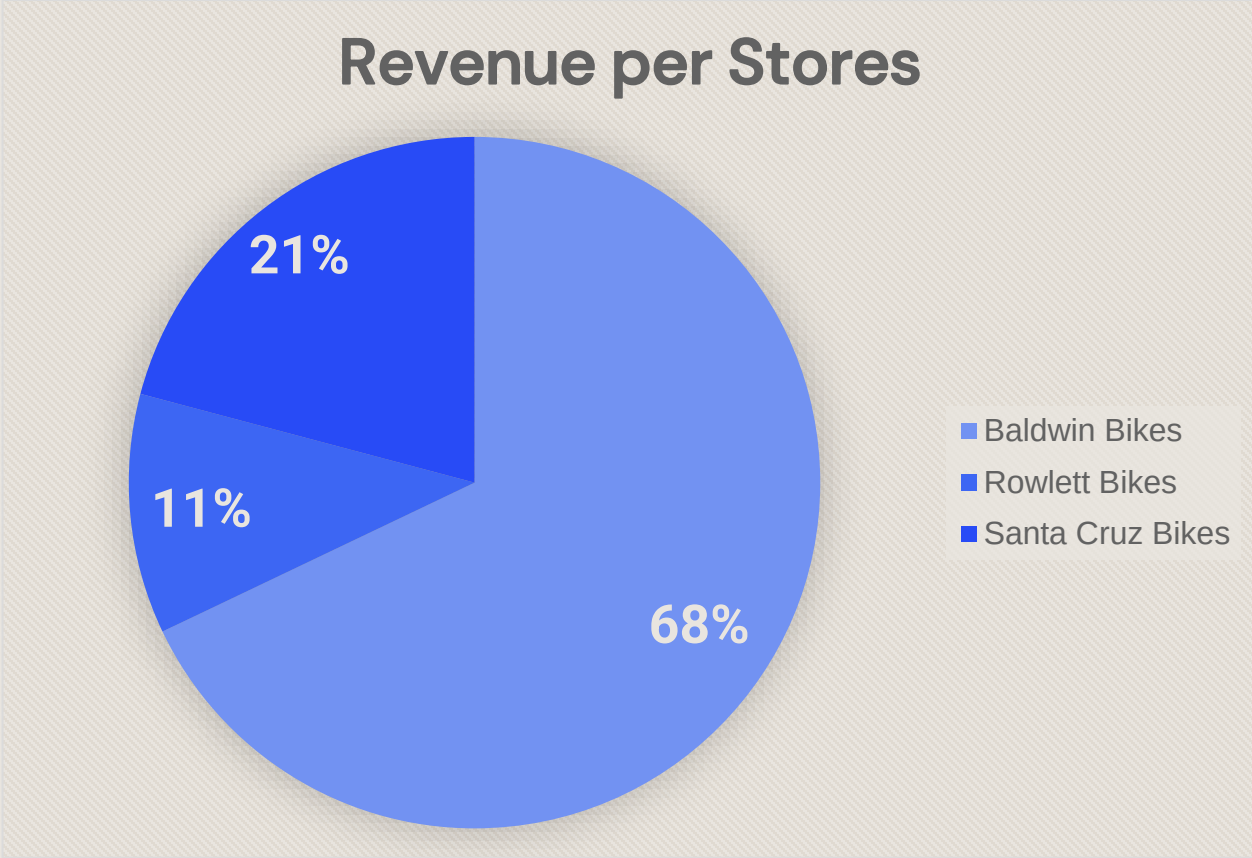
2016: September ($303,282.61)

2017: June ($419,892.07)

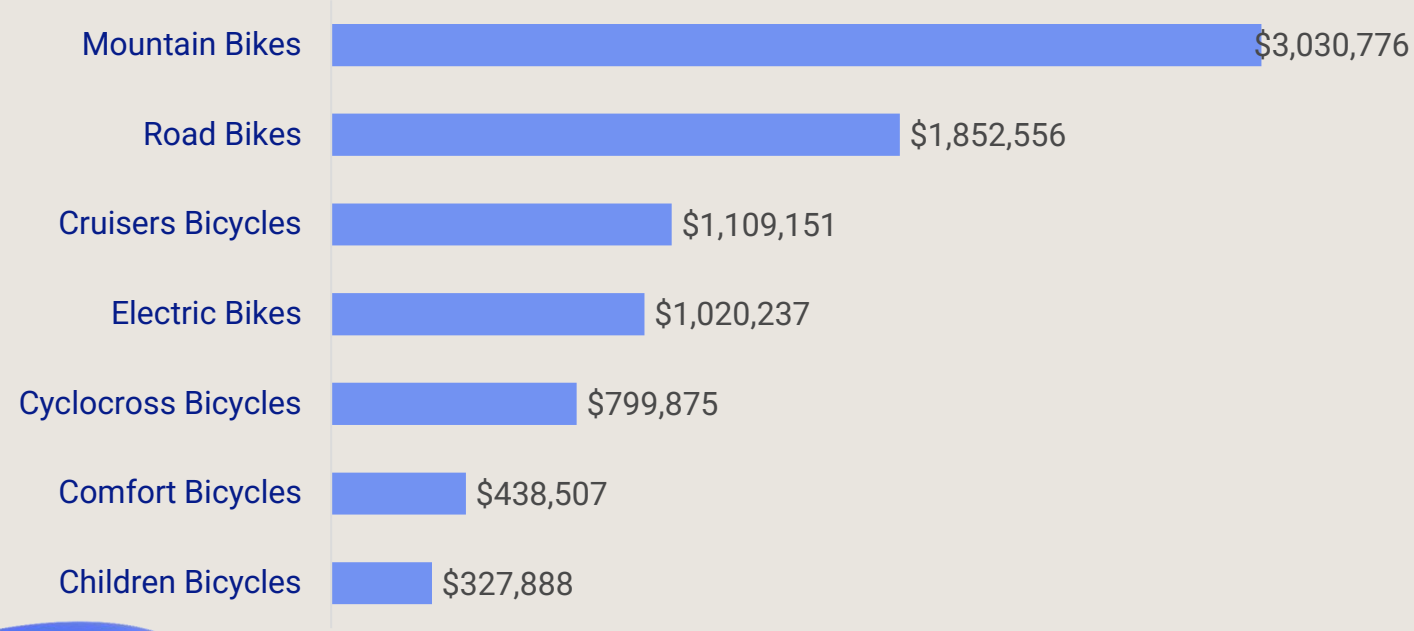
2018: April ($909,179.47)



This pie chart shows revenue collected from different store **Baldwin Bikes**(NY), Rowlett Bikes (TX) and Santa Cruz Bikes (CA). Where we can see that, most of revenue was generated from **NY** **$5,829K** of total revenue.

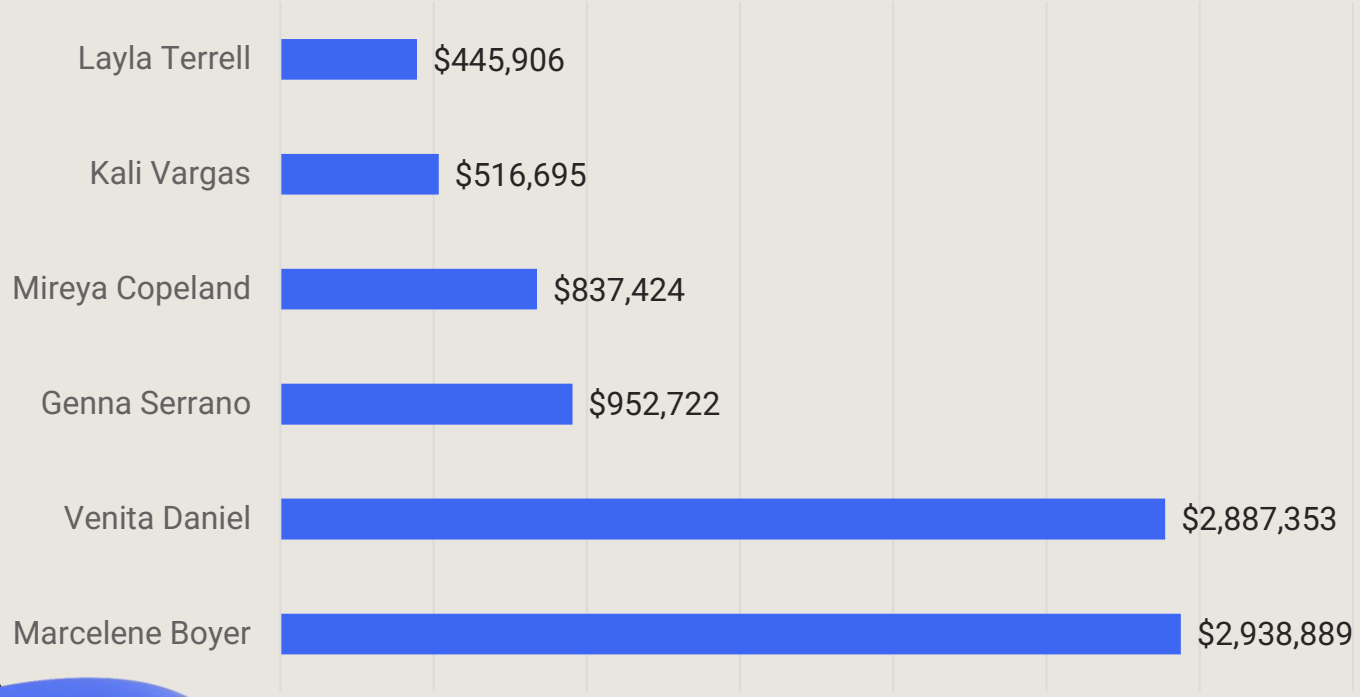


Revenue per Product Category



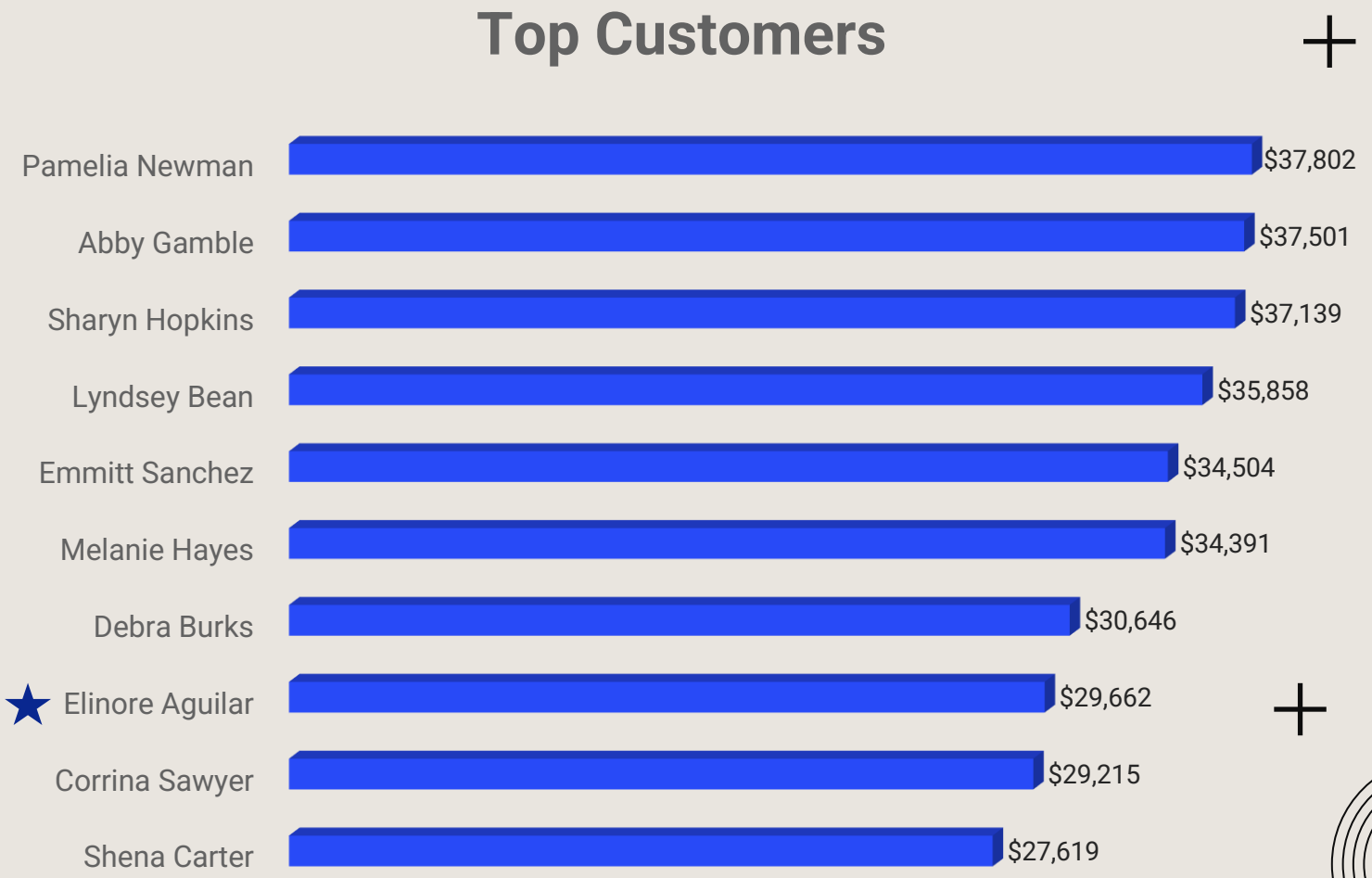
This bar chart shows revenue generated from different product categories. It shows that **Mountain Bikes (35.33%)** and **Road Bikes (21.59%)** are the most popular bike categories.

Revenue per Sales Representative



This bar chart shows revenue generated by Sales Representatives. Here, **Layla Terrell** (TX) had lowest contribution with **371** sales completed and Highest contribution from **Marcelene Boyer** (NY) **2419** sales completed.

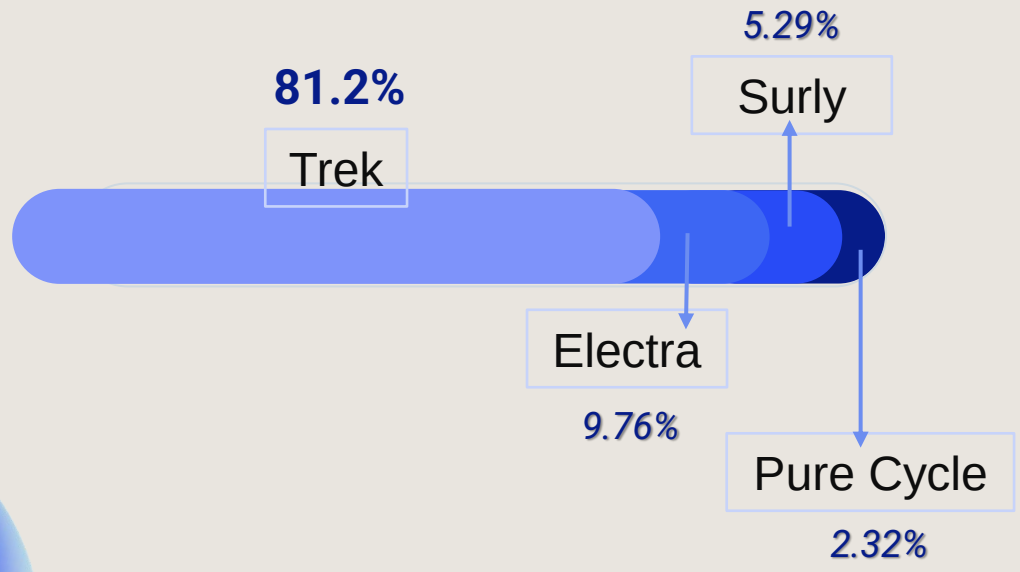
This bar chart shows top customers where 9 Customers from **NY**. Only One customer from **TX**.



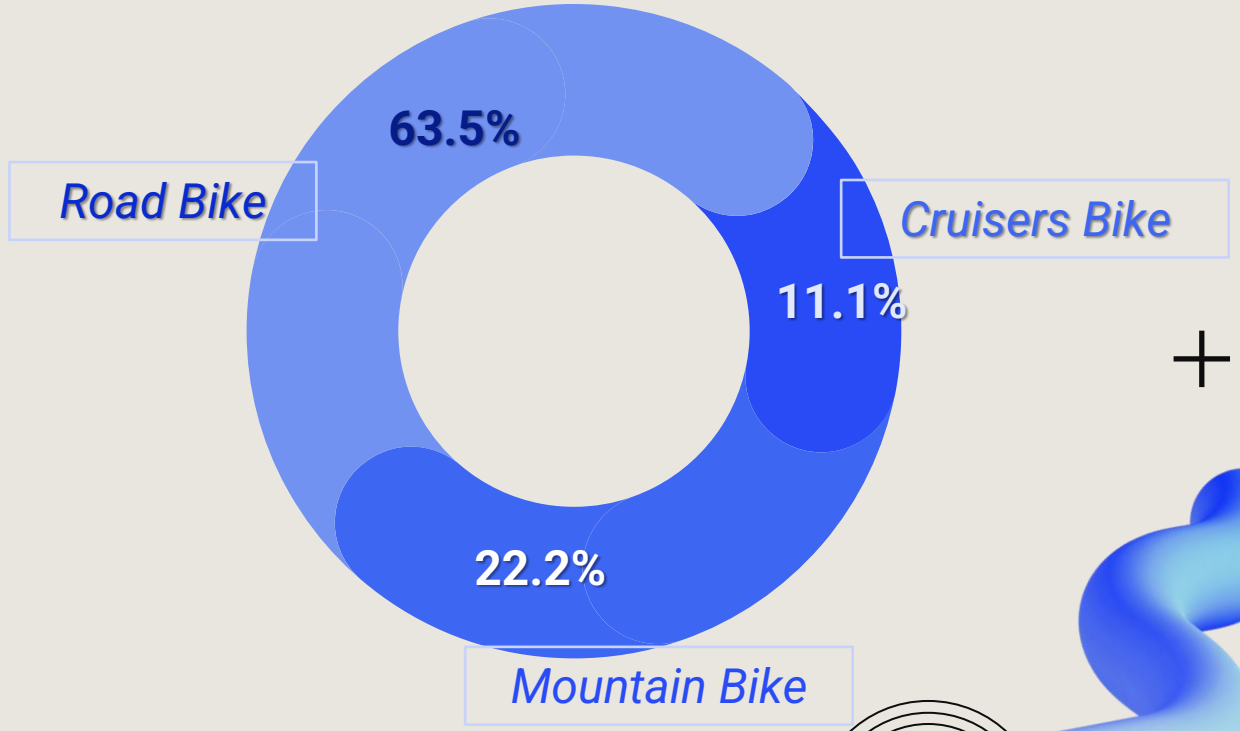
Top Customers Purchase History

Pamelia Newman

Brand Preferred



Product Category Preferred



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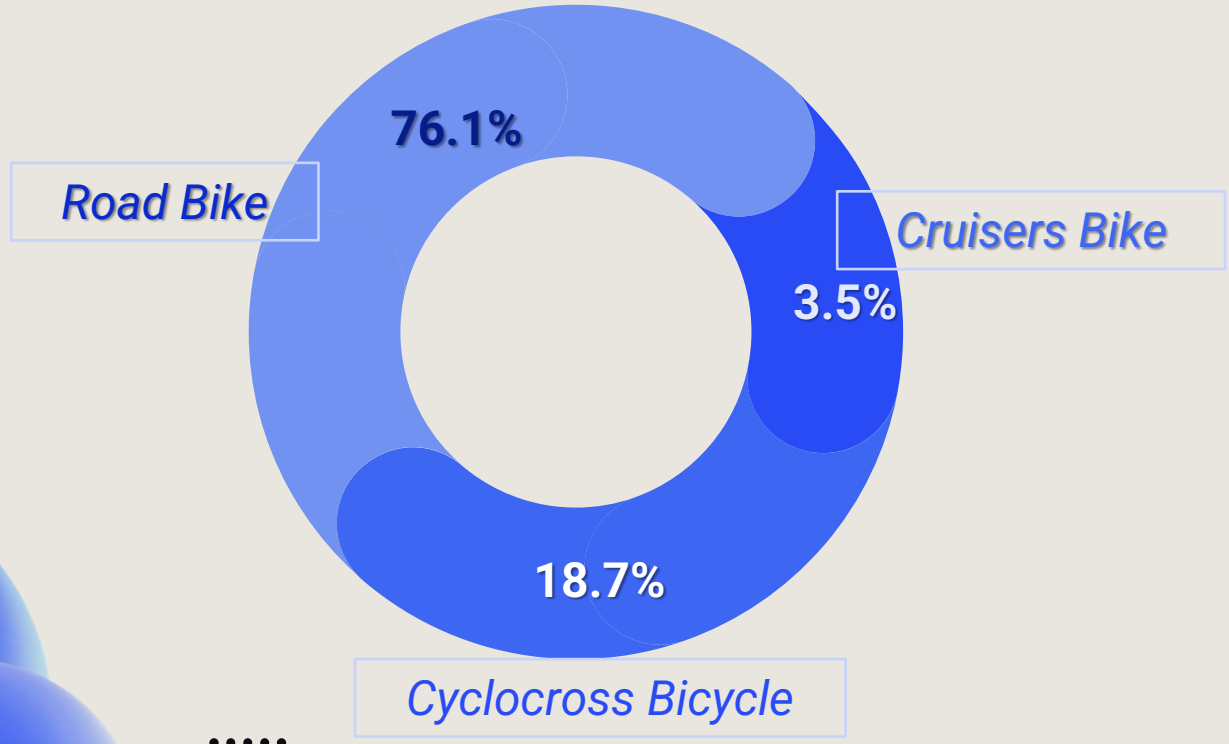
Top Customers Purchase History

Abby Gamble

Product Category Preferred



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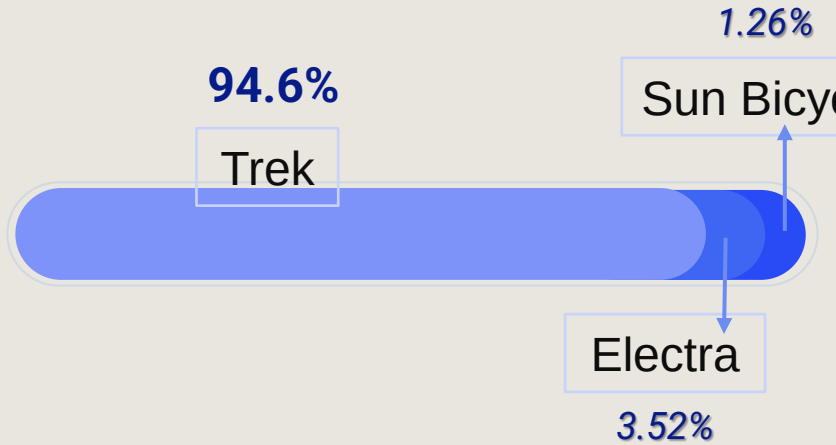
Brand Preferred



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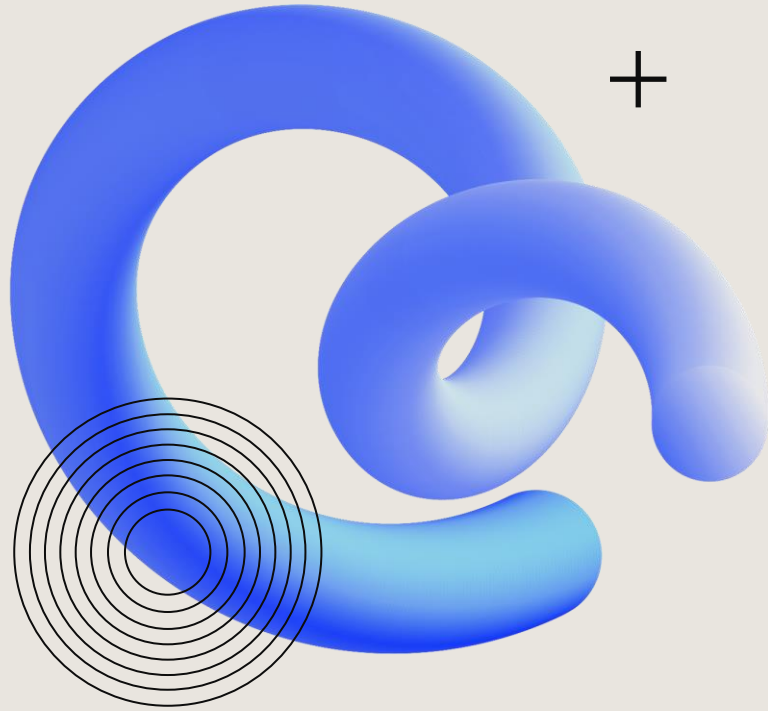
Outcome



Success Criteria ?

Clear Sales Insight

Visibility into sales trends and patterns over the specified time period

Customer Insights

Customer base analysis, their purchase preferences and sales history.

Sales Representative's Performance Evaluation

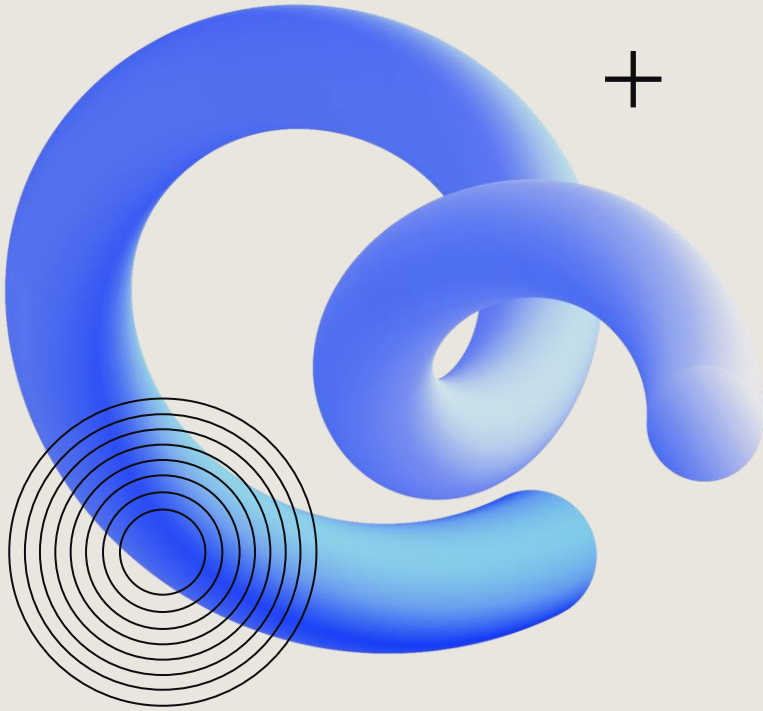
Evaluation of sales representative's performance , leading to identifying top/low performers and areas for improvement.

Executive Dashboard

Access to timely and actionable insights derived from sales data, to make informed decisions and drive strategic initiatives.

05

Appendix



Data & Resources

To get the data and other resources click Github

Executive Dashboard

To Play with this interactive dashboard in Tableau

Thanks!

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