Bay Sales Performance Analysis (2017–2020)

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APRIL 2025

Introduction

Every successful business eventually asks the same critical questions:

Are our sales growing?

- **Where are we making money?**
- **And where are we losing momentum?**

Just like companies such as **Amazon, Decathlon, or Jumia**, Bay relies on data to understand customer behavior, product performance, and regional demand. However, raw transaction data alone cannot answer these questions. Without a clear analytical view, decision-makers risk investing in declining products, missing growth opportunities, or misinterpreting customer trends.

This analysis transforms Bay's historical sales data from **2017 to 2020** into a **clear, visual, and actionable dashboard**, enabling leadership to understand performance trends, identify key revenue drivers, and make informed strategic decisions.

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Problem Statement

Bay experienced fluctuating sales and profit performance between 2017 and 2020, but lacked a consolidated view to answer key business questions such as:

- Which years performed best and worst?
- Which product categories and customer segments drive revenue?
- Which countries contribute the most to sales?
- Are sales improving or declining over time?

Objectives

The primary objectives of this analysis were to:

- Evaluate **overall sales, revenue, and profit performance**
- Identify **sales trends over time (monthly and yearly)**
- Determine **top-performing product categories**
- Analyze **customer segments and geographic contributions**
- Provide **data-driven recommendations** to improve revenue and profitability

Dashboard Overview

The dashboard provides a **high-level and detailed view** of Bay's sales performance from 2017 to 2020. It includes:

- Key Performance Indicators (KPIs)
- Time-based trends
- Product, segment, and geographic breakdowns
- Interactive filters for period and category selection
- This design allows decision-makers to quickly move from **summary insights to detailed analysis**.

Bay Sales Performance Analysis 2017-2020

Total No of Customers

18400

Average sales

$486.09

Revenue

$29M

Profit

$12M

OrderDate

All Periods MONTHS

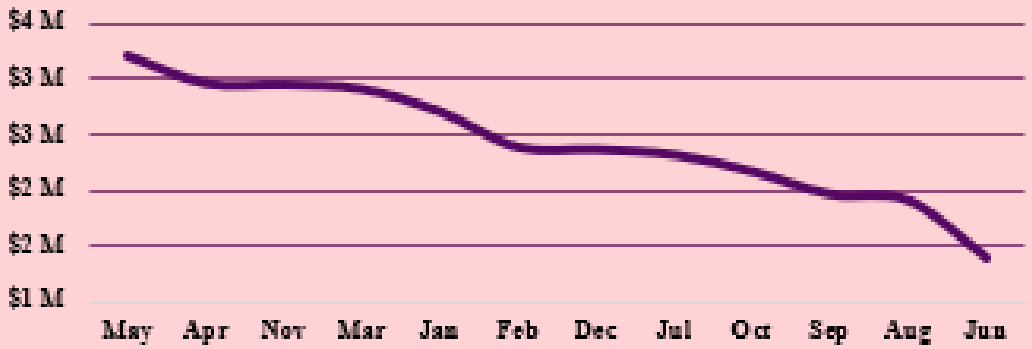
2020

JUN JUL AUG SEP OCT

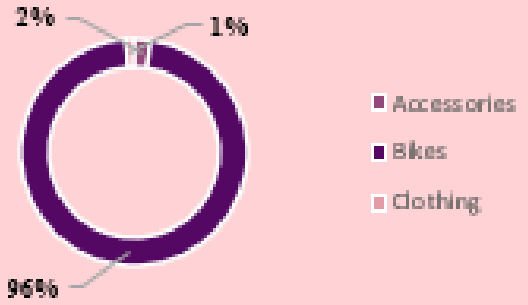
Category

- Bike Racks
- Bike Stands
- Bottles and Cages
- Caps
- Cleaners
- Fenders

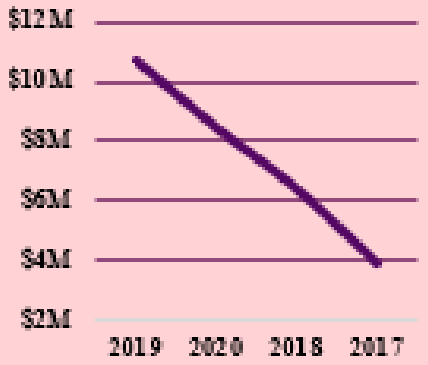
Monthly Sales Trend



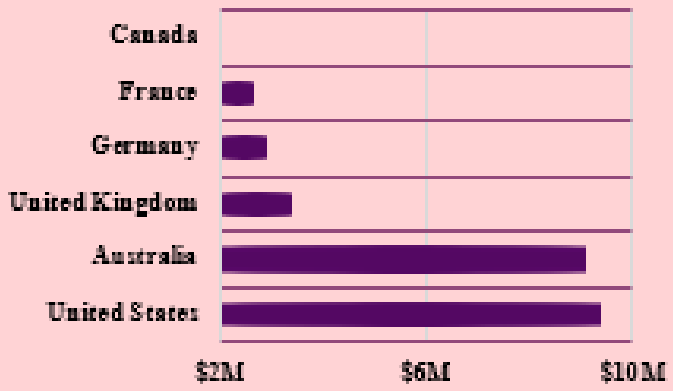
Sales by Segment



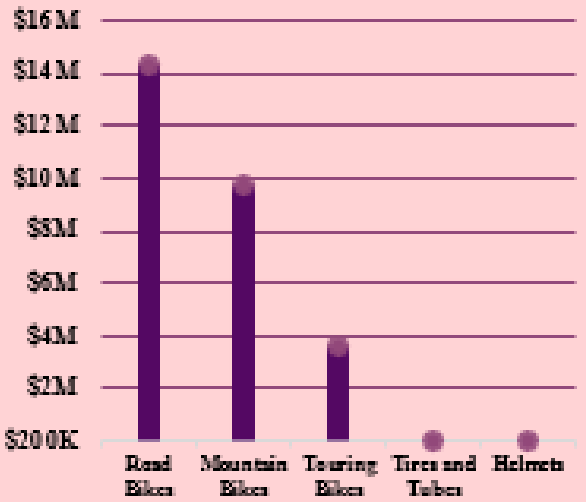
Yearly Sales Trend



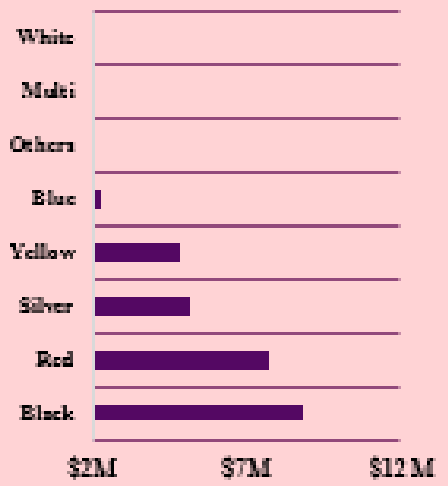
Sales by Country



Top 5 Product Category



Sales by Colour



Business Overview

$ 29m

Total Revenue

18,400

Total Customers

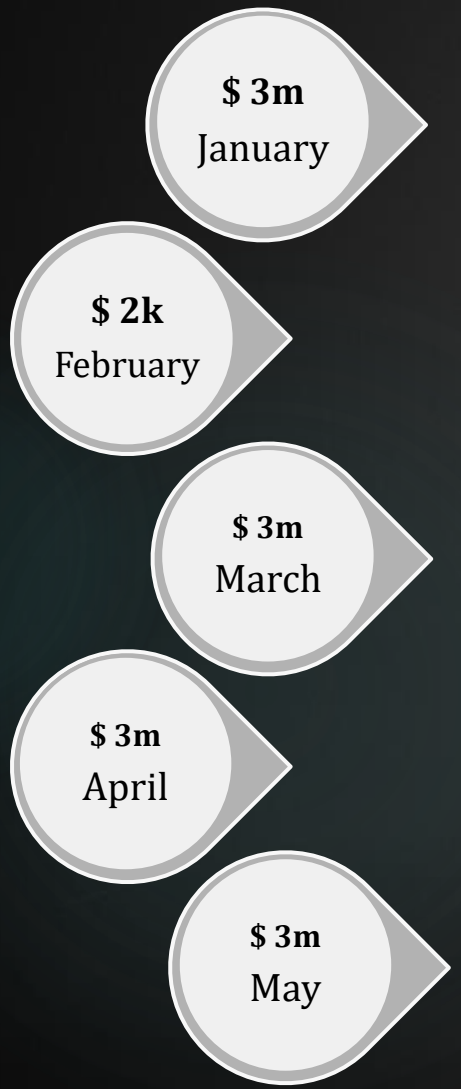
$12m

Total Profit

$ 486.09

Average Sales Per Customer

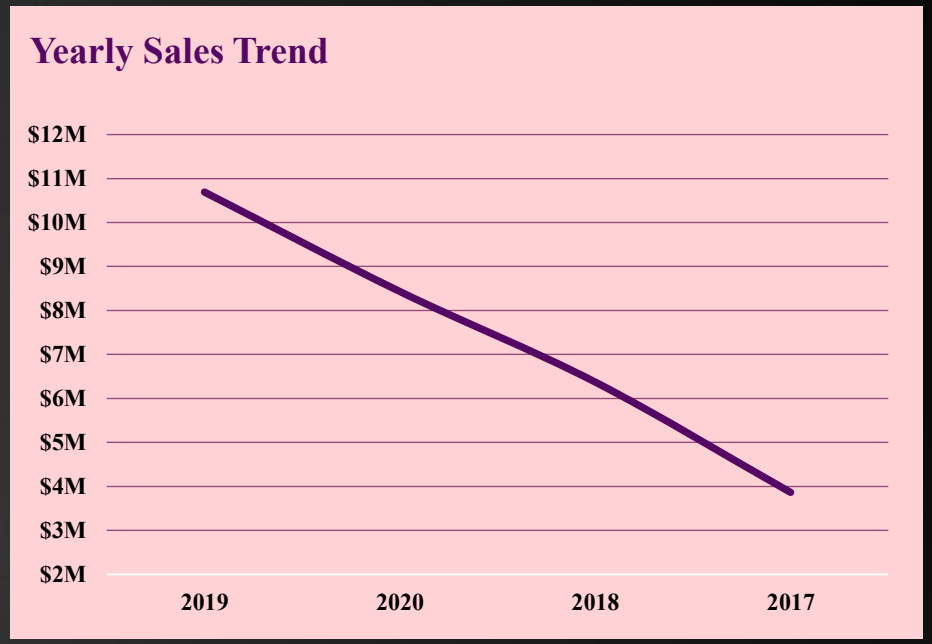
Monthly Sales Trend – Seasonality & Demand Patterns



- Sales peak around **May** and gradually decline toward **June**
- A steady downward trend suggests **seasonal demand or declining customer engagement**
- Indicates potential need for **seasonal promotions or demand stimulation strategies**

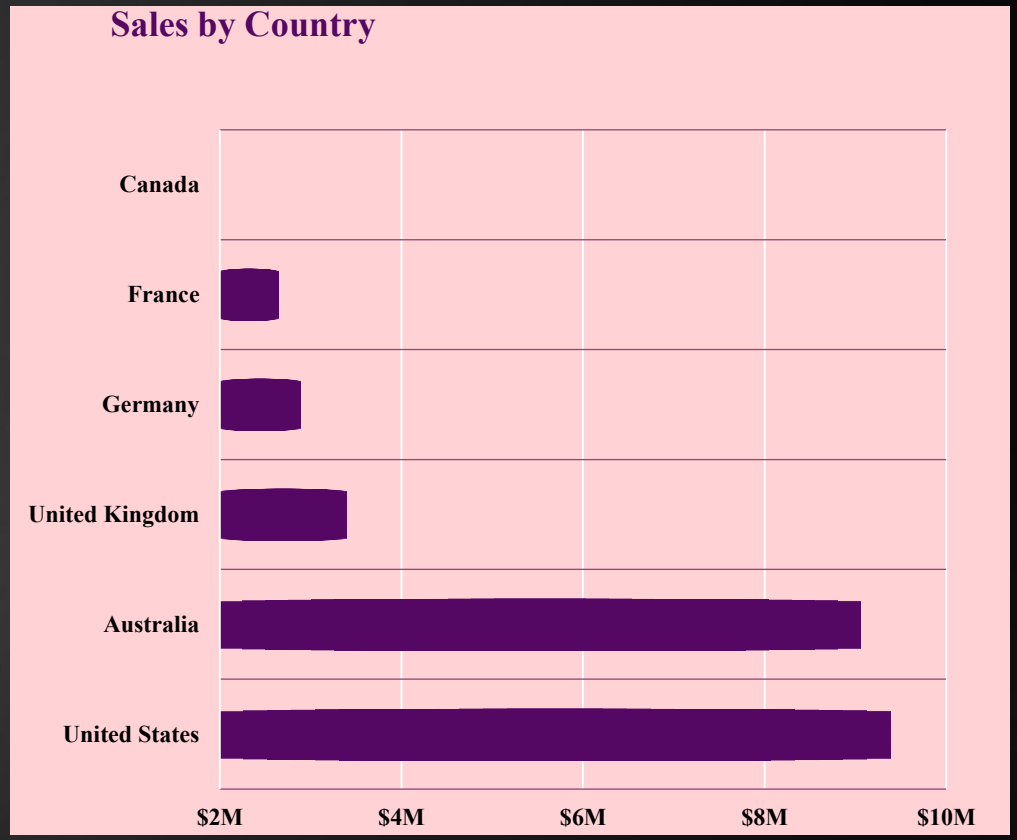
Yearly Sales Trend – Long-Term Performance

- Sales decline steadily from **2017 to 2020**
- Highest sales recorded in **2017**, lowest in **2020**
- Suggests possible impact of **market competition, product lifecycle issues, or external economic factors**



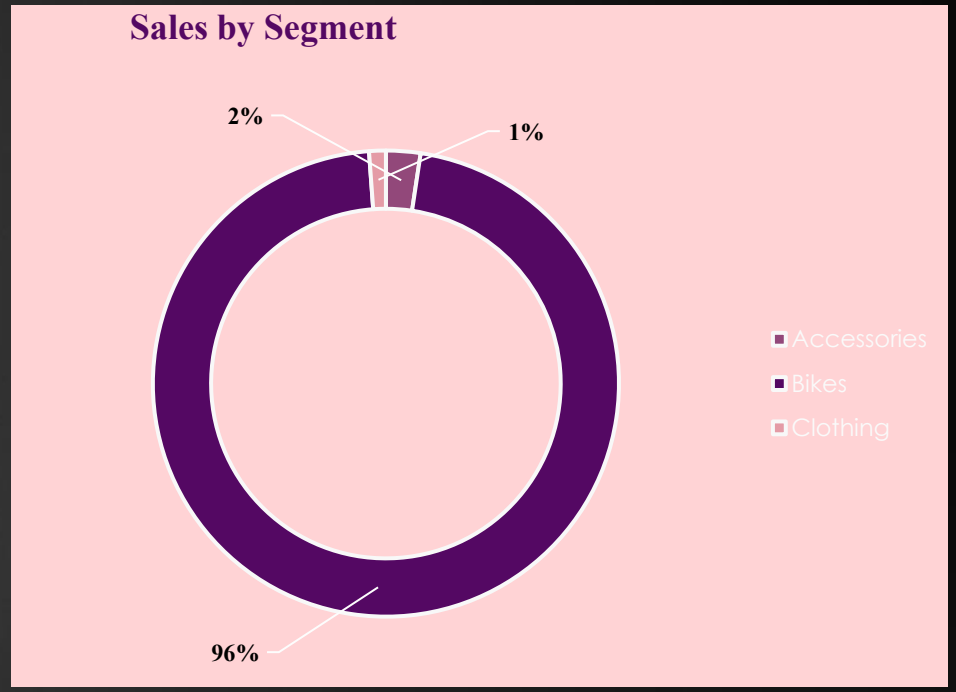
Sales by Country – Geographic Performance

- **United States** is the highest-performing market
- **Australia** follows closely
- European markets (Germany, France) contribute less
- Indicates opportunities for **regional expansion or localized marketing**



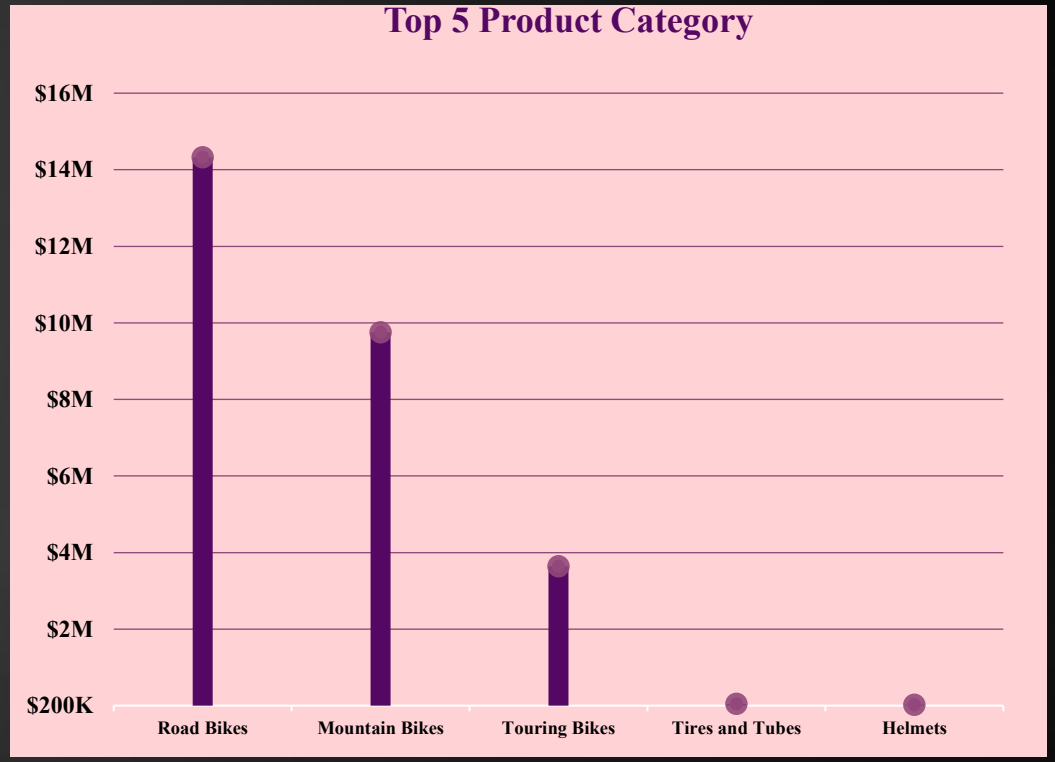
Sales by Segment – Customer Contribution

- **Bikes segment dominates with 96% of total sales**
- Accessories and clothing contribute minimally
- Heavy reliance on a single segment increases **business risk**



Top 5 Product Categories – Revenue Drivers

- **Road Bikes** are the top-selling category
- **Mountain Bikes** follow strongly
- Touring bikes, tires, and helmets contribute significantly less
- Highlights where inventory, marketing, and R&D investments should focus

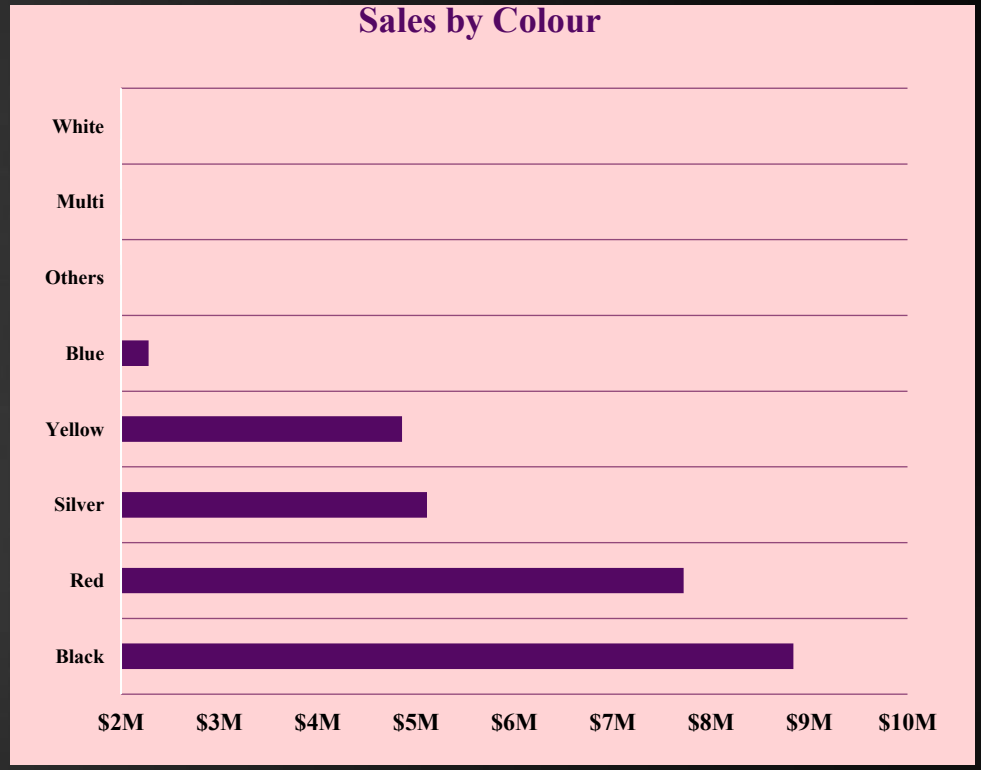


Sales by Colour – Customer Preference

Black and Red are the most popular colors

White and multi-colored items underperform

Useful for **product design, inventory planning, and marketing**



CONCLUSION

The analysis reveals that while Bay remains profitable, it is experiencing a **gradual decline in sales over time**. Revenue is heavily driven by a **single product segment (Bikes)** and a **limited number of regions**, increasing business risk.

However, clear opportunities exist to **diversify product offerings, expand geographically, and re-engage customers through targeted strategies**.

Recommendation

1. **Diversify Product Portfolio**
   Invest in accessories and clothing to reduce dependence on bikes
2. **Strengthen High-Performing Markets**
   Expand marketing efforts in the US and Australia
3. **Revive Declining Sales Trends**
   Introduce seasonal promotions and loyalty programs
4. **Optimize Inventory Strategy**
   Focus on top-selling categories and popular colors
5. **Data-Driven Decision Making**
   Use dashboards like this regularly for performance monitoring

Challenges Encountered

- Cleaning and validating historical sales data
- Aligning multiple metrics across time periods
- Designing a dashboard that balances detail with clarity
- Ensuring insights are **business-focused, not just visual**

References

- Bay Sales Transaction Dataset (2017–2020)
- Microsoft Excel (Data Cleaning, Pivot Tables, Visualization)
- Data Visualization Best Practices
- Sales & Performance Analytics Frameworks

FUN FACT:

"Businesses that use data analytics effectively are 23 times more likely to acquire customers and 19 times more likely to be profitable. Data truly holds the power to transform success!"

-- McKinsey Global Institute

THANK YOU