

Introduction

Axon Automobile, a small retailer specializing in classic cars, faced challenges in managing and comprehending their sales data. The sales team struggled to make sense of the information, while the management lacked accurate and up-to-date sales reports, hindering their ability to make crucial decisions.

To address these issues, Axon embarked on a journey to harness the power of data using Microsoft Power BI and SQL to create a Business Intelligence (BI) tool. The primary goal was to better manage and analyze sales data to drive informed decision-making and improve overall business performance.

Approach

Data Collection: We initiated the project by extracting detailed information from Axon's database, encompassing sales, product, order, customer, and payment data, utilizing SQL as the primary tool.

Data Analysis: With the data in hand, we conducted an in-depth analysis to identify critical insights and determine how to leverage them effectively.

Data Modeling: Data modeling was a key focus, as we established relationships among essential data points, facilitating a cohesive and insightful analysis. Leveraging DAX (Data Analysis Expressions) and Power BI's quick measure feature, we created key performance indicators (KPIs) to compare results and track trends over time.

• The Dashboard

The culmination of our efforts is a user-friendly dashboard that provides invaluable insights into various aspects of Axon Automobile's sales operations:

Sales Performance: Real-time data reveals sales trends and performance metrics.

Customer Profiles: A comprehensive view of customer behavior and preferences.

Order Details: In-depth insights into orders, ensuring efficient order management.

Payments: A transparent overview of payment transactions.

Employee Performance: Performance metrics for employees based on sales contributions.

User Experience Enhancement: To enhance user experience, we introduced tooltips that offer efficient data explanations. Additionally, a minimal view displays essential details and insights upon hovering over specific dashboard elements.

• Key Tools Used

SQL: For data retrieval and Advance analytics and

Power BI: To Transform and visualize and analyze data effectively.

• Key Metrics

• Total Sales: \$9.60 Million

Our total sales for the period analyzed amount to an impressive \$9.60 million. This figure represents the revenue generated from our products and services, showing our market presence and customer engagement.

• Total Profit: \$3.38 Million

Our total profit stands at \$3.38 million, reflecting the financial success of our operations. This profit enables us to invest in further growth and innovation.

• Profit Ratio/Margin: 39.84%

Our profit ratio/margin is a healthy 39.84%. This figure indicates that for every dollar in sales, we earn a profit of approximately \$0.40, demonstrating our operational efficiency.

• Sales by Year

1. 2005: \$1.8 Million

2. 2004: \$4.5 Million

3. 2003: \$3.3 Million

A breakdown of sales by year highlights our revenue trends over time.

• Total Transactions: 326

We've processed 326 transactions during the analyzed period, reflecting the volume of business conducted.

• Total Customers: 122

Our customer base consists of 122 valued clients who contribute to our success.

• Average Order Value: \$3.21K

The average order value, at \$3.21K, provides insights into our customer spending patterns.

• Total Order Count: 2,996

We've successfully fulfilled 2,996 orders, reflecting our customer engagement and operational efficiency.

• Shipped Rate: 92.9%

With a shipped rate of 92.9%, we demonstrate our commitment to timely order fulfillment and customer satisfaction.

• Average Delivery Time: 4.43 Days

Our average delivery time of 4.43 days indicates our efficiency in delivering products to customers.

• Top 5 Employees by Total Sales

Gerard Hernandez: \$1,112,003.81
Leslie Jennings: \$989,906.55
Pamela Castillo: \$750,201.87
Larry Bott: \$686,653.25
Barry Jones: \$637,672.65

Our top-performing employees have contributed significantly to our sales success.

• Top 5 Products by Quantity Ordered

Product Name:	Total Quantity Ordered
1992 Ferrari 360 Spider (Red)	1,808
1937 Lincoln Berline	1,111
American Airlines: MD-11S	1,085
1941 Chevrolet Special Deluxe Cabriolet	1,076
1930 Buick Marquette Phaeton	1,074

These products are our top performers in terms of quantity ordered.

• Customer Sales by Country

Understanding our customer distribution by country is crucial for targeted marketing efforts. Here's a breakdown:

USA: 36 customers
Germany: 13 customers
France: 12 customers
Spain: 7 customers

5. Australia: 5 customers

6. UK: 5 customers7. Italy: 4 customers

And many more countries with their respective customer counts. This data guides our global engagement strategy.

Conclusion

This sales analysis report provides a comprehensive view of our business performance, highlighting key metrics, top-performing employees, products, and customer distribution. Armed with these insights, we can make informed decisions and strategies to drive growth and success. It serves as a valuable resource for our business decision-makers.

• Impact

The Axon Automobile Sales Analytics Dashboard has revolutionized how the company manages and understands its sales data. The benefits are manifold:

Real-time Insights: The dashboard offers real-time data, empowering the sales team and management with up-to-the-minute information.

Enhanced Decision-Making: It enables better decision-making by revealing sales trends, customer behavior, and employee performance

This report provides an overview of the Axon Automobile Sales Analytics Dashboard, its approach, impact, and key tools used. It highlights the transformation of Axon's data management and decision-making processes, enabling the company to thrive in a data-driven landscape.