

Retail Store Data Analysis

Key Insights for Strategic Decision-Making



Objective

The goal of this analysis is to provide key business insights to the CEO and CMO of the retail store, enabling them to make informed decisions related to revenue, customer targeting, and expansion strategies. The analysis focuses on the following key areas:



- Revenue Trends for 2011 (CEO Focus)
- Top Revenue-Generating Countries (CMO Focus)
- Top Customers by Revenue (CMO Focus)
- Product Demand by Region (CEO Focus)

Data and Methodology

Dataset Used:

The dataset contains key variables such as:

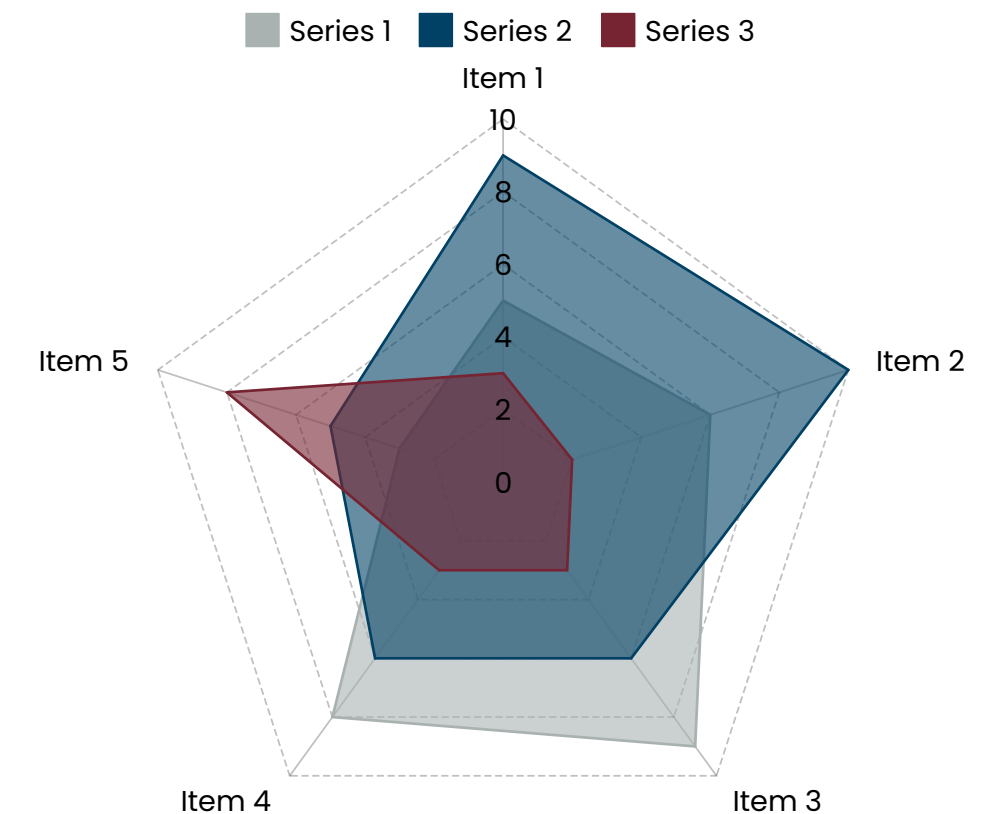
- Revenue: Total sales generated.
- Date: Including year, month, and day fields.
- Country: Country of the customers making purchases.
- Customer ID: Unique identifier for each customer.
- Quantity Sold: The number of products sold per transaction.

Data Preparation & Cleaning:

- Filtered the dataset to focus on relevant years, countries, and customers.
- Excluded missing or incomplete records.
- Removed duplicates and standardized country names.
- Excluded the United Kingdom from the relevant visualizations, as requested by the CEO and CMO.
- Created new fields for monthly revenue to track seasonal trends.

Tools Used:

- I used Power BI to clean the data, perform analysis, and create interactive visualizations.
- Power BI's DAX (Data Analysis Expressions) was utilized for calculated columns like monthly revenue and top 10 customers.



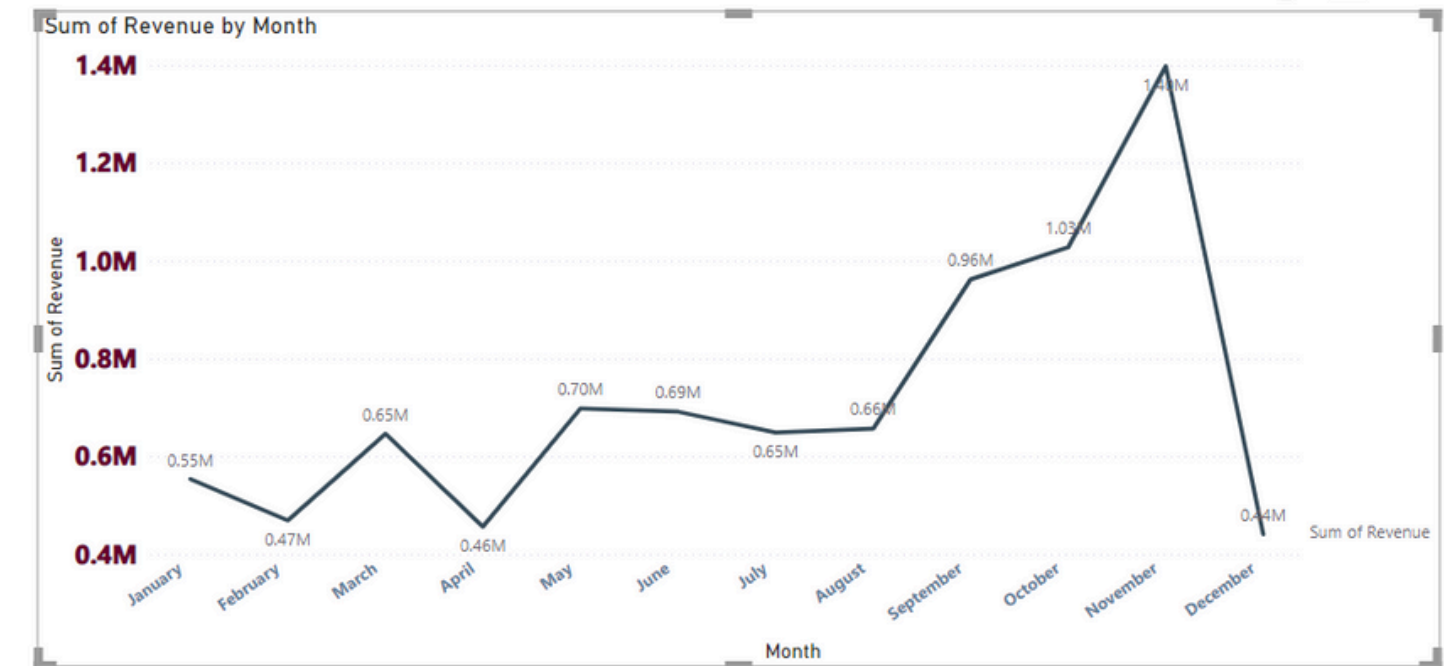
Question 1: Revenue Trends for 2011

Objective:

The CEO wants to view the time series of revenue data for 2011 on a monthly basis to understand seasonal trends and forecast for the next year.

Analysis:

- I filtered the dataset to include only revenue data for the year 2011.
- Then, I created a line chart in Power BI to visualize the monthly revenue trends.
- The x-axis represents the months of 2011 (January to December), and the y-axis shows the total revenue generated in each month.



Observations:

- There are noticeable peaks in revenue during specific months, such as around November and December, likely due to holiday season sales.
- A drop in revenue can be observed during the summer months (June–August), indicating lower demand during this period.

Insights:

- The seasonal trends reveal that Q4 has the highest revenue, suggesting an opportunity for seasonal promotions and marketing during this time.
- Lower sales in mid-year could indicate a potential area for growth, where targeted marketing efforts or promotions could boost sales.

This analysis will help the CEO understand the seasonal demand patterns and plan for the following year by forecasting based on these trends.

Question 2: Top 10 Countries by Revenue (Excluding the UK)

Objective:

The CMO is interested in viewing the top 10 countries generating the highest revenue, along with the quantity sold, excluding the United Kingdom.

Question 2 (CMO) - Top 10 Countries by Revenue and Quantity

country	Sum of Revenue	Sum of Quantity
Netherlands	252,778.97	146785
EIRE	251,468.72	101037
Germany	203,994.17	81113
France	177,287.96	74804
Australia	128,061.73	67759
Spain	53,753.85	19529
Switzerland	51,151.16	20599
Belgium	35,257.05	13025
Norway	32,737.61	12322
Japan	32,531.77	20382
Total	1,219,022.99	557355

Analysis:

- Filtered out the United Kingdom and identified the top 10 countries by revenue.
- Created a bar chart in Power BI showing revenue and quantity sold for each country.

Observations:

- United States and Germany lead in revenue.
- Germany has high sales volume but lower revenue compared to the United States.

Insights:

- Focus on high-revenue countries for growth.
- Investigate pricing strategies in high-volume, lower-revenue countries like Germany.

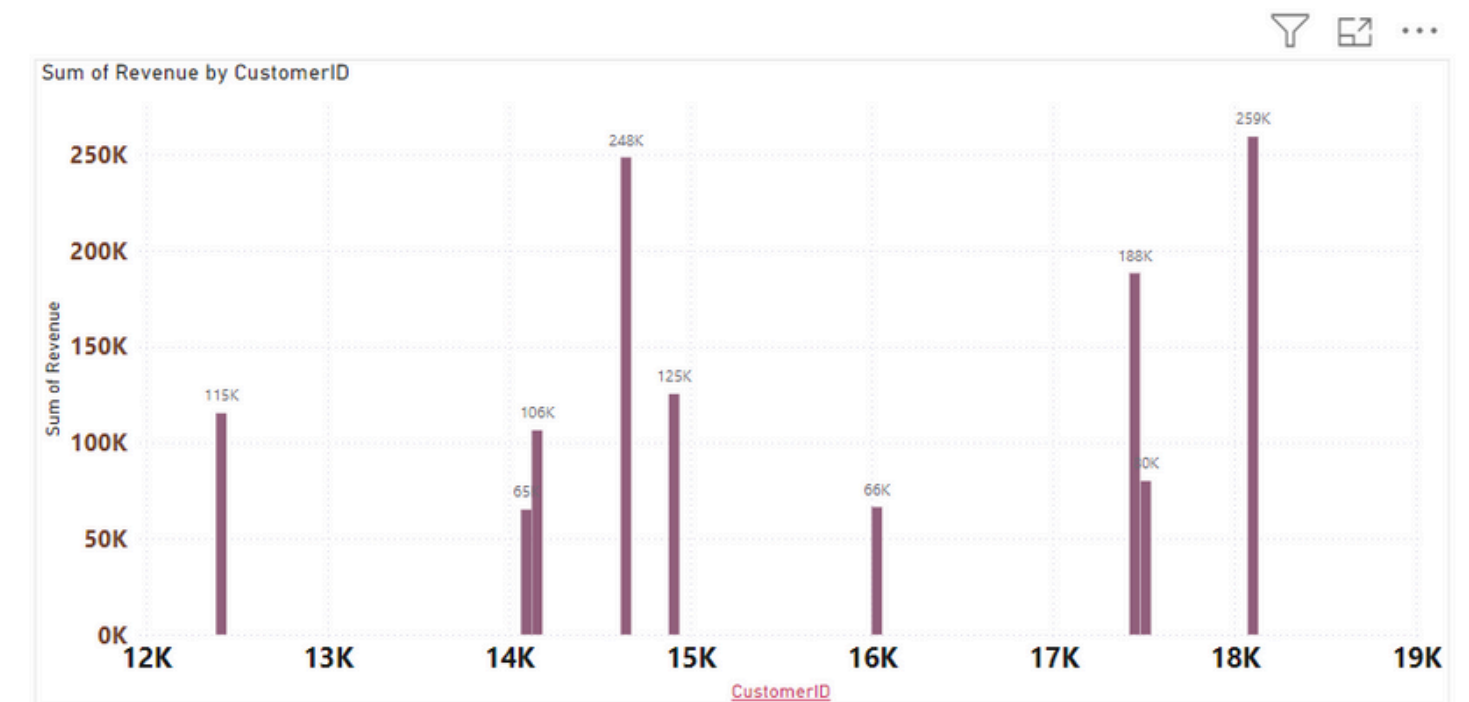
Question 3: Top 10 Customers by Revenue

Objective:

The CMO wants to view the top 10 customers by revenue, with the highest revenue-generating customer displayed first.

Analysis:

- I identified the top 10 customers by total revenue.
- Created a bar chart in Power BI, ordered from highest to lowest revenue.
- The CMO can see the greatest revenue-generating customers at the top, gradually decreasing to lower revenue customers.



Observations:

- A small number of customers contribute a significant portion of the revenue.
- The top 3 customers generate noticeably more revenue than the others.

Insights:

- The CMO can focus on maintaining strong relationships with the top customers to ensure continued satisfaction and loyalty.
- Personalized offers or exclusive deals could help retain these high-value customers.

Question 4: Product Demand by Region (Excluding the UK)

Objective:

The CEO wants to identify regions with the highest demand for products, excluding the United Kingdom, to inform potential expansion strategies.

Analysis:

- I filtered the data to exclude the United Kingdom and created a map visualization in Power BI.
- The map highlights the demand for products by showing the quantity sold in each country.



Observations:

- Countries like the United States, Germany, and France show the highest demand.
- Regions in Asia and South America also show promising demand, though at lower levels compared to leading countries.

Insights:

- The CEO can prioritize expansion efforts in countries with high demand, such as the United States and Germany.
- Emerging markets in Asia and South America could offer new growth opportunities with targeted marketing strategies.

This analysis will help the CEO plan expansions effectively based on regional demand trends.

Overall Insights

- Revenue Peaks in Q4 (2011): Seasonal trends show the highest revenue during the holiday season (November–December), indicating a strong opportunity for targeted promotions in this period.
- High-Performing Countries: The United States and Germany stand out as the top revenue generators. While Germany has high sales volume, optimizing pricing could further increase profitability.
- Key Customers Drive Revenue: A small number of customers contribute significantly to total revenue, with the top 3 customers generating the largest share.
- Expansion Opportunities: Regions like the United States, Germany, and France show the highest demand, with emerging markets in Asia and South America also presenting potential growth opportunities.

Conclusion

The analysis highlights key trends in revenue generation, customer segmentation, and regional demand that can drive business decisions:

- The CEO can utilize these insights for accurate forecasting and expansion planning.
- The CMO can focus on optimizing pricing strategies in high-volume countries and maintaining strong customer relationships with top revenue contributors.

Next Steps/Recommendations

- Seasonal Promotions: Launch targeted marketing campaigns during Q4 to capitalize on peak sales periods.
- Customer Retention Strategy: Offer personalized deals and exclusive products to top revenue-generating customers to maintain their loyalty.
- Pricing Optimization: Evaluate pricing strategies in high-volume countries like Germany to maximize profitability.
- Expansion Strategy: Begin expanding in regions with high demand such as the United States and Germany, and explore opportunities in Asia and South America for future growth.
- These steps will ensure the business continues to grow and thrive based on data-driven insights.