

NORTHWIND TRADERS



SALES ANALYSIS REPORT

Problem Statement

Northwind Traders is a global supplier operating across North America, Europe, and South America, with a diverse product portfolio and customer base. Despite its extensive reach and market presence, the company faces challenges in optimizing its operations and identifying growth opportunities.

The key issues to address include:

- 1. Revenue Optimization**
- 2. Product Performance**
- 3. Customer Insights**
- 4. Geographic Impact**
- 5. Shipping Costs**
- 6. Employee Productivity**

Data Overview

- ▶ **Orders Table:** Stores list of orders and their shipment details.
- ▶ **Order Details Table:** Contains details for each order, including quantity, price, discount, and ProductID.
- ▶ **Products Table:** Includes product details like quantity, unit price, and CategoryID.
- ▶ **Categories Table:** Lists all product categories.
- ▶ **Customers Table:** Holds customer information and personal details.
- ▶ **Employees Table:** Contains employee details for Northwind Traders.
- ▶ **Shippers Table:** Lists shipping company names.

Key Performance Indicators (KPIs)

- ▶ Total Revenue: \$1.3M
- ▶ Total Quantity Sold: 51,000 units
- ▶ Total Products Available: 77 products
- ▶ Average Sales per Order: \$1,600
- ▶ Average Discount Offered: 5.5%
- ▶ Total Customers: 91
- ▶ Total Orders Processed: 830
- ▶ Total Shipping Cost: \$65,000
- ▶ Average Shipping Cost per Order: \$78.

Performance Summary

- ▶ **Strong Revenue Performance:** Northwind Traders generated total revenue of **\$1.3M**, averaging **\$1,600** per order across **830** orders.
- ▶ **Product Portfolio:** The company offers **77** distinct products spanning multiple categories, driving a total quantity sold of **51,000** units.
- ▶ **Customer Base:** A robust customer network of **91** customers contributed to the sales, highlighting opportunities for expansion or retention strategies.
- ▶ **Shipping Insights:** Total shipping costs were **\$65,000**, with an average cost of **\$78** per order, emphasizing the importance of optimizing logistics.
- ▶ **Discount Impact:** The average discount provided was **5.5%**, indicating room to analyze its effect on sales volume and profitability

Sales Trend Analysis

Revenue Trends Across Years:

- ▶ With data spanning from July 2013 to May 2015, the highest total revenue was generated in 2014, amounting to \$650K.
- ▶ 2015 shows strong growth potential, with \$460K in revenue already achieved by May, suggesting a likely increase by year-end.

Monthly Performance Highlights:

- ▶ April stands out as the most profitable month, generating \$186K in revenue.
- ▶ Conversely, June experienced a significant drop, with revenue dipping to \$38K.

Revenue by Weekdays:

- ▶ Sales remain consistent across weekdays, with Friday outperforming others by contributing 21% of total revenue

Product Analysis

Top-Performing Products:

- ▶ The highest-grossing product is Cote de Blaye, generating \$141K in total sales, driven by its high unit price.
- ▶ Thüringer Rostbratwurst and Raclette Courdavault rank as the second and third best-selling products.

Quantity Sold:

- ▶ Raclette Courdavault tops with 1,496 units sold, as its lower price appeals to customers.

Category Performance:

- ▶ Beverages leads in category sales, contributing \$270K (21% of total sales).
- ▶ Grains & Cereals have the lowest sales, contributing \$95K (7.5% of total sales)

Customer Analysis

Top Customers by Sales:

- ▶ The highest revenue was generated by Quick-Stop, contributing \$110K from 28 orders, with an average discount of 7% applied.
- ▶ Ernst Handel and Save-a-lot Markets ranked second and third, respectively, in total sales revenue.

Top Customers by Quantity Purchased:

- ▶ Save-a-lot Markets purchased the largest quantity, with 5,000 units sold, highlighting its high demand for products.
- ▶ Both Quick-Stop and Ernst Handel also ranked among the top three customers in terms of quantities purchased, further emphasizing their importance.

Customers across Continents:

- ▶ Northwind Traders proudly serves a diverse customer base across North America, Europe, and the majority of South America.

Geographic Analysis

City-Level Performance:

- ▶ Cunevalde, Germany, emerged as the city with the highest sales, contributing \$110K in total revenue.
- ▶ On the other hand, Walla Walla, USA, recorded the lowest sales, with only \$357 generated.

Country-Level Performance:

- ▶ USA, France, and Germany collectively account for the highest number of customers, each contributing 11% to the overall customer base.
- ▶ The USA leads in total revenue with \$245K, followed closely by Germany at \$230K, reflecting the influence of their large customer base and purchasing power.

Shipping Cost Analysis

Shipping Companies Overview:

- ▶ Northwind Traders partners with three shipping companies: Federal Shipping, United Package, and Speedy Express.
- ▶ United Package incurs the highest overall shipping cost, accounting for 44% of the total shipping expenditure.

Shipping Cost per Order:

- ▶ Federal Shipping has the highest shipping cost per order, averaging \$1,000.
- ▶ United Package follows with an average cost of \$900, while Speedy Express is the most economical, averaging \$460 per order.

Yearly Trends (2013–2015):

- ▶ **United Package:** Shipping costs have steadily increased over the years.
- ▶ **Federal Shipping:** Costs peaked in 2014 but have gradually decreased in 2015.
- ▶ **Speedy Express:** Costs have remained relatively stable throughout the period.

Employee Analysis

Sales Team Overview:

- ▶ Northwind Traders employs 8 sales representatives responsible for driving revenue.

Top Performer:

- ▶ Margaret Peacock leads the team, contributing 18.5% of total sales, making her a critical asset to the company.

Lowest Performer:

- ▶ Steven Buchanan generated the lowest sales, contributing 5.5% of the total, indicating potential areas for training or support.

Recommendations

1. Boost Revenue During Slow Months:

- Develop targeted marketing campaigns and promotions in underperforming months like June to stabilize monthly revenue.
- Offer seasonal discounts or introduce new products to stimulate demand during these periods.

2. Leverage Friday Sales Strength:

- Schedule product launches, special offers, or campaigns on Fridays to capitalize on the already strong revenue trends.

3. Promote Best-Selling Products:

- Highlight top-performing products like Cote de Blaye and Raclette Courdavault in marketing campaigns to further boost sales.
- Bundle these products with lower-performing ones, such as Grains & Cereals, to improve the overall category performance.

Recommendations

4. Expand Beverages Category:

- Given its dominance in sales, introduce new beverage products or variants to sustain and enhance revenue.

5. Strengthen Top Customer Relationships:

- Offer loyalty programs or exclusive discounts to high-value customers like Quick-Stop, Ernst Handel, and Save-a-lot Markets to retain them and encourage larger orders.

6. Upsell and Cross-Sell Opportunities:

- Focus on Save-a-lot Markets due to its high quantity purchasing behavior by introducing complementary products or bulk discount offers.

Recommendations

7. Maximize Potential in High-Performing Regions:

- Focus resources on Germany and the USA, where both revenue and customer bases are strong. Invest in region-specific promotions to solidify these markets.

8. Improve Performance in Low-Sales Areas:

- Investigate reasons for low sales in cities like Walla Walla and consider targeted marketing or pricing adjustments to capture more revenue from these locations.

9. Optimize Shipping Costs:

- Review the cost structure and negotiate better terms with United Package, given its significant contribution to shipping expenses.
- Shift more shipments to Speedy Express, where feasible, to reduce average shipping costs.

10. Monitor Yearly Cost Trends:

- Analyze why shipping costs for United Package are rising and address inefficiencies to control future expenses.