



Amazon Sales Data Analysis

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Introduction

This presentation gives an analysis of Amazon sales data, focusing on identifying sales trends, calculating key performance indicators (KPIs), and examining the relationships between various sales attributes. The insights derived aim to support effective sales management and improve strategies in response to competitive pressures.

Key Performance Indicators

1: Revenue Based

- Total Sales - \$ 137.35 M
- Total Units Sold - 512871
- Average Order Value (AOV) - \$ 1.3735 million
- Sales By Region - The highest sales region is Sub-Saharan Africa, while the lowest is North America.
- Sales By Item Type - The highest sales category is Cosmetics, while the lowest is Fruits
- Sales Channel Performance - *offline (total revenue and total cost)* - \$ 79 M, \$ 54 M

Online (total revenue and total cost) - \$ 58 M, \$ 39 M

- Total Order Counts - 100
- Order Fulfillment type - 23.36 days

Key Performance Indicators

2: Cost Based

- Total Cost - \$ 93.18 M
- Total Profit - \$ 44.17 M
- Profit Margin - 32.16%
- Average Cost Per Unit - \$ 181.68 M

Sales Trend Analysis

Year-wise Sales Analysis	Month-Wise Sales Analysis
<p>Aggregated sales data revealed seasonal trends and fluctuations in sales performance.</p> <p>2012 was the most successful year in terms of both total revenue and total profit.</p> <p>2011 had the lowest performance in both revenue and profit.</p>	<p>Analyzed total revenue and profit over multiple years to assess long-term growth.</p> <p>February stands out as the best month in terms of both revenue and profit, indicating strong sales performance.</p> <p>August is the weakest month in both categories, showing significantly lower sales and profit.</p> <p>This indicates seasonality trends in sales, where some months (e.g., Feb, Nov) are peak times, while others (e.g., Mar, Aug) have less activity.</p>

Correlation

The correlation matrix highlights the relationships between Total Revenue, Total Profit, Total Cost, and Units Sold:

1. **Total Revenue and Total Profit:** Correlation of 0.90 (Very Strong).
2. **Total Revenue and Total Cost:** Correlation of 0.98 (Extremely Strong).
3. **Total Profit and Total Cost:** Correlation of 0.80 (Strong).
4. **Total Revenue and Units Sold:** Correlation of 0.45 (Moderate).
5. **Total Profit and Units Sold:** Correlation of 0.56 (Moderate).
6. **Total Cost and Units Sold:** Correlation of 0.37 (Weak).

Key Insights and Recommendations

Optimize Pricing Strategies: Focus on maximizing revenue and profit through effective pricing.

Control Costs: Implement measures to manage operational costs effectively, maintaining profitability.

Improve Sales Strategies: Launch marketing campaigns that boost sales while maintaining profit margins.

Analyze Product Mix: Prioritize higher-margin products to enhance overall profitability.

Conclusion

Sales Trends: Peak sales in February and November; lowest in August. 2012 had the highest revenue and profit, while 2011 was the lowest.

KPIs: Revenue and profit show growth patterns with seasonal peaks. Profit margin, average order value, and sales growth offer insights into efficiency.

Regional Performance: Sub-Saharan Africa leads in sales; North America has the lowest.

Product Category: Cosmetics generated the highest revenue, while Fruits had the least.

Sales Channels: Performance varies, revealing focus areas for improvement.

This analysis serves as a foundation for strategic decision-making in sales management. By focusing on high-performing regions, product categories, and sales channels, as well as optimizing underperforming areas, Amazon can improve profitability and operational efficiency in the future. The insights gained can further help in managing competition, improving distribution methods, and driving continuous growth.

