

E-Commerce Sales and Profit Analysis Report

Business problem

The given business problems aim to provide a comprehensive understanding of an e-commerce store's sales and profitability performance. The first task is to analyze monthly sales to identify seasonal trends by determining which month had the highest and lowest sales. This helps in planning inventory, promotions, and resources effectively. Next, sales need to be examined across product categories to identify top-performing and underperforming categories, followed by a more detailed analysis at the sub-category level to uncover deeper insights. Profitability is another crucial aspect, where monthly profits are analyzed to find the most profitable period, helping in budget planning and strategy. Further, profit should be broken down by category and sub-category to understand where the store is earning the most versus just selling the most. Customer segmentation analysis is also vital, as it reveals which segments bring in the most revenue and profit, enabling targeted marketing. Finally, calculating the sales-to-profit ratio will help evaluate how efficiently the business is converting sales into actual profit. Together, these insights drive data-informed decision-making and strategic planning for growth.

Overview

This report presents a comprehensive analysis of an e-commerce store's sales and profitability using Power BI. The insights help uncover trends in monthly sales, product category performance, customer segments, and profit contribution, which are essential for making data-driven business decisions.

1. Monthly Sales and Profit Analysis

The total sales amount stands at ₹22,97,201 with a total profit of ₹2,86,397.

- Highest Sales Month: November (15.34% of total sales)
- Lowest Sales Month: February (2.60% of total sales)

November also contributed significantly to overall profit, making it the most critical sales month.

2. Category and Sub-Category Performance

Sales by Category:

- Technology leads with 36.4% of sales and 50.79% of profits.
- Office Supplies account for 32.3% of sales and 42.77% of profits.
- Furniture lags with only 6.44% of profits despite 31.3% of sales.

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Sub-Category Insights:

- Phones generate the highest profit (15.84%).
- Chairs and Copiers are also key contributors.
- Tables and Fasteners have the lowest profitability, suggesting possible pricing or demand issues.

3. Customer Segment Analysis

- Consumer Segment dominates with 50.56% of sales and 46.83% of total profit.
- Corporate contributes 30.74% of sales and 32.12% profit.
- Home Office is the smallest but still significant (18.7% of sales and 21.05% profit).

4. Sales to Profit Ratio

- Technology offers the best sales-to-profit ratio, indicating high-margin products.
- Furniture, though contributing significantly to sales, provides the lowest profit margin and needs re-evaluation.
- Focus should be on products like Phones, Copiers, and Accessories for profitability growth.

Conclusion & Recommendations

As we analyzed the sales trends and performance across various segments and categories, a compelling story emerged , one that guides us toward smarter decisions.

During the month of **November**, our sales figures reached their peak, telling us that this is a golden opportunity. Customers are most engaged and willing to spend. By aligning our **marketing campaigns** more aggressively with this high-demand period, we can maximize conversions and revenue.

However, not all categories are performing equally. Take **Furniture**, for instance—while it contributes to sales, its **profit margins remain low**. This signals a need to **rethink our pricing models or consider bundling** strategies to increase profitability in this segment.

On the other hand, categories like **Phones and Copiers** stand out as silent heroes. They don't just sell well—they do so **profitably**. These are the sub-categories we should put under the spotlight in our next promotional campaigns.

Finally, our **Consumer segment** continues to outperform others in terms of return on investment. It's clear that promotions aimed at this group **yield the highest impact**, and thus should be a central focus of our future.

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In summary, by capitalizing on seasonal peaks, refining category strategies, and focusing on high-margin products and customer segments, we pave the way for sustained growth and smarter decision-making.

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