

Sales Performance Analysis

Domain: Retail

Function: Optimize sales and profitability

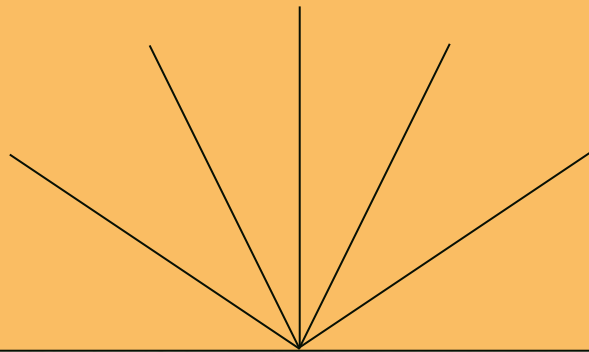
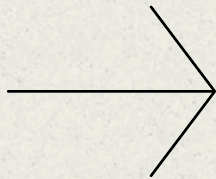
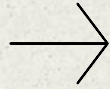


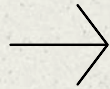
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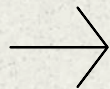
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PROBLEM STATEMENT

In a competitive market, understanding the factors driving sales performance, profitability, and customer satisfaction is crucial for sustainable growth. Our organization faces challenges in identifying top performing products, optimizing inventory, top performing regions and top customers. Additionally, we need to understand the financial impact of discounts to enhance our profit margins.

OBJECTIVE

The primary objective of this analysis is to provide actionable insights into our sales performance, identify areas for improvement, and develop strategies to boost revenue and profitability. By examining key performance indicators (KPIs) and detailed sales metrics, we aim to:

1. Identify best-selling products and high-revenue generators.
 2. Assess total revenue and profit margins to gauge financial health.
 3. Understand the impact of shipping methods, category, customer segments and discounts on sales.
 4. Develop targeted strategies to reduce losses and enhance customer satisfaction.
-



Tools Used

Analytical & Visual:

- MySQL

Presentation:

- Microsoft power point

PRIMARY INSIGHTS

Total Sales

\$9.79M

Profit margin

2.88%

Top Customer

Adrian

Best selling product

**Canon image CLASS
2200 Advanced
Copier**

Most selling
category

Technology

Top revenue
ship mode

Standard

SECONDARY INSIGHTS



```
1 -- Total Sales by region
2 SELECT Region,
3 CONCAT(CAST(ROUND(SUM(amount)/1000000, 2) AS CHAR(5)), "M") AS revenue_in_millions
4 FROM sales GROUP BY Region
5 ORDER BY revenue_in_millions DESC;
```

East, and West

are generating more sales compared to other regions.

	Region	revenue_in_millions
▶	West	3.09M
	East	2.89M
	Central	2.09M
	South	1.73M

Recommendation:

Focus marketing and sales efforts on the East and West regions to capitalize on their higher sales potential, while developing targeted strategies to boost sales in the South and Central regions.

SECONDARY INSIGHTS



```
1 -- Sales by Shipping Mode
2 SELECT Ship_Mode,
3 CONCAT(CAST(ROUND(SUM(amount)/1000000, 2) AS CHAR(5)), "M") AS revenue_in_millions
4 FROM sales
5 GROUP BY Ship_Mode ORDER BY revenue_in_millions DESC LIMIT 10;
```

Standard class

is generating more than 60% revenue with \$5.86M in sales.

	Ship_Mode	revenue_in_millions
▶	Standard Class	5.86M
	Second Class	2.05M
	First Class	1.38M
	Same Day	0.49M

Recommendation:

Prioritize and optimize the Standard Class shipping mode to maintain and enhance its efficiency.

Additionally, explore ways to improve the attractiveness of other shipping modes to balance the distribution of shipping choices.

SECONDARY INSIGHTS

```
1 -- Sales and Profit by Category
2 SELECT Category,
3 CONCAT(CAST(ROUND(SUM(amount)/1000000, 2) AS CHAR(5)), "M") AS revenue_in_millions,
4 CONCAT(CAST(ROUND(SUM(Profit)/1000,2) AS CHAR(5)), "K") AS profit_in_thousands FROM sales
5 GROUP BY Category ORDER BY revenue_in_millions DESC;
6
```

	Category	revenue_in_millions	profit_in_thousands
▶	Technology	3.49M	145.3K
	Office Supplies	3.1M	120.4K
	Furniture	3.19M	16.98K

Technology is generating more sales compared to others though they are not far behind .

Recommendation:

Continue to invest in promoting Technology category, while also enhancing marketing efforts for others to potentially boost its sales and close the gap further.

SECONDARY INSIGHTS



```
1 -- Customer Segmentation Analysis
2 SELECT Segment,
3 CONCAT(CAST(ROUND(SUM(amount)/1000000, 2) AS CHAR(5)), "M") AS revenue_in_millions
4 FROM sales
5 GROUP BY Segment ORDER BY revenue_in_millions DESC;
```

	Segment	revenue_in_millions
▶	Consumer	4.96M
	Corporate	3.03M
	Home Office	1.8M

Consumer

Segment is generating half of the total sales with \$4.96M.

Recommendation:

Focus on maintaining and expanding the Consumer segment through targeted marketing strategies and personalized customer experiences. Additionally, explore opportunities to grow the Home Office and Corporate segments to diversify the customer base and increase overall sales.

SECONDARY INSIGHTS



```
1 -- Monthly Sales Trend
2 SELECT MONTH(order_date) AS month,
3 CONCAT(CAST(ROUND(SUM(amount)/1000000, 2) AS CHAR(5)), "M") AS revenue_in_millions
4 FROM sales
5 GROUP BY month ORDER BY month ASC;
```

	month	revenue_in_millions
▶	1	0.43M
	2	0.24M
	3	0.81M
	4	0.53M
	5	0.68M
	6	0.62M
	7	0.59M
	8	0.74M
	9	1.28M
	10	0.87M
	11	1.48M
	12	1.52M

The last quarter (October, November, December)

is generating significantly higher sales compared to other quarters, with notable peaks in November (\$1.48M) and December (\$1.52M).

Recommendation:

Capitalize on the strong sales in the last quarter by planning targeted marketing campaigns and promotions during this period. Additionally, ensure adequate inventory and staffing to meet increased demand, and consider analyzing the factors driving these high sales to replicate similar strategies throughout the year.

SECONDARY INSIGHTS



```
1 -- Top 10 Cities by Sales
2 SELECT City, SUM(amount) AS revenue
3 FROM sales
4 GROUP BY City ORDER BY revenue DESC
5 LIMIT 10;
```

New York City

is generating the highest revenue with \$1.16M, significantly more than other cities.

	City	revenue
▶	New York City	1163623.895153284
	Los Angeles	750573.4599831104
	Seattle	549751.6225568056
	San Francisco	470865.3233163357
	Philadelphia	375865.5707862079
	Detroit	268371.1521282196
	San Diego	227159.7321047783
	Springfield	217321.30257165432
	Houston	209291.81043671072
	Columbus	157250.48495090008

Recommendation:

Focus on maintaining and expanding market presence in New York City through tailored marketing strategies and enhanced customer engagement. Additionally, investigate successful tactics in New York City that can be applied to other high-potential cities to boost their revenue.

SECONDARY INSIGHTS

```
1 -- Impact of Discount on Profit
2 SELECT Discount,
3 CONCAT(CAST(ROUND(SUM(amount)/1000000, 2) AS CHAR(5)), "M") AS revenue_in_millions ,
4 CONCAT(CAST(ROUND(SUM(Profit)/1000,2) AS CHAR(5)), "K") AS profit_in_thousands
5 FROM sales
6 GROUP BY Discount
7 ORDER BY Discount;
```

	Discount	revenue_in_millions	profit_in_thousands
▶	0	5.47M	317.1K
	0.1	0.28M	9.03K
	0.15	0.12M	1.42K
	0.2	2.91M	89.38K
	0.3	0.34M	-10.3K
	0.32	0.05M	-2.39K
	0.4	0.37M	-23.0K
	0.45	0.01M	-2.49K
	0.5	0.14M	-20.5K
	0.6	0.01M	-5.55K
	0.7	0.06M	-39.6K
	0.8	0.02M	-30.1K

Due to high discounts,

we are incurring losses, resulting in negative profits.

Recommendation:

Reevaluate the discount strategy for these products to reduce losses. Consider lowering the discount percentage or implementing targeted promotions that balance attracting customers and maintaining profitability. Additionally, analyze the cost structure of these products to identify opportunities for cost reduction.

SECONDARY INSIGHTS



```
1 -- Top 5 Products by Profit
2 SELECT Product_Name,
3 ROUND(SUM(Profit),2) as Total_Profit
4 FROM sales GROUP BY Product_Name
5 ORDER BY Total_Profit DESC LIMIT 5;
```

Canon,

generates more than triple profit
than Fellowes PB500

	Product_Name	Total_Profit
▶	Canon imageCLASS 2200 Advanced Copier	25199.93
	Fellowes PB500 Electric Punch Plastic Comb Bind...	7753.04
	Hewlett Packard LaserJet 3310 Copier	6983.88
	Canon PC1060 Personal Laser Copier	4570.93
	HP Designjet T520 Inkjet Large Format Printer -...	4094.98

Recommendation:

Prioritize promoting and stocking Canon products to capitalize on their high profitability. Consider reducing inventory or promotional focus on less profitable items to optimize profit margins.

SECONDARY INSIGHTS



```
1 -- Profit Margin by Product
2 SELECT Product_Name, ROUND((SUM(Profit)/SUM(amount))*100,2) as Profit_Margin_Pct
3 FROM sales GROUP BY Product_Name
4 ORDER BY Profit_Margin DESC;
```

	Product_Name	Profit_Margin_Pct
▶	Xerox 20	48
	Sharp 1540cs Digital Laser Copier	30.49
	Boston 1900 Electric Pencil Sharpener	30
	Color-Coded Legal Exhibit Labels	29.4
	Hammermill Color Copier Paper (28Lb. and 96 Br...	27
	Xerox 218	25.9
	Canon imageCLASS MF7460 Monochrome Digital...	25
	Xerox 1984	24.5
	Xerox 1969	24.5
	Avery 5	24.5

Xerox 20,

Most profitable product.

Recommendation:

Focus marketing and sales efforts on Xerox 20, the most profitable product, to maximize revenue. Ensure stock availability and consider offering special promotions to boost its sales further. Analyze and replicate successful strategies from Xerox 20 for other high-margin products. Prioritize these top products in your inventory and promotional plans to enhance overall profitability.

SECONDARY INSIGHTS



```
1 -- Average Purchase Value
2 SELECT Customer_Name, ROUND(SUM(amount)/COUNT(Order_ID),2) as avg_purchase_value FROM sales
3 GROUP BY Customer_Name
4 ORDER BY avg_purchase_value DESC LIMIT 10;
```

Kelly Collister

has the highest average order value among the top 10 customers.

	Customer_Name	avg_purchase_value
▶	Kelly Collister	9560.61
	Mitch Willingham	8491.12
	Tamara Chand	8385.65
	Bill Shonely	7885.04
	Adrian Barton	7441.66
	Stefanie Holloman	5854.72
	Tom Ashbrook	5761.06
	Sean Miller	5073.06
	Daniel Raglin	4910.94
	Christopher Martinez	4612.56

Recommendation:

Focus on maintaining strong relationships with top customers like Kelly through personalized offers and exceptional service. Implement loyalty programs to encourage continued high-value purchases. Analyze the purchasing behavior of these top customers to identify trends and opportunities for cross-selling and upselling. Ensure a premium experience to retain and grow this valuable customer segment.

SECONDARY INSIGHTS



```
1 -- Customer Lifetime Value
2 SELECT Customer_Name,
3 SUM(Quantity)*(SUM(amount)/COUNT(Order_ID)) as clv
4 FROM sales
5 GROUP BY Customer_Name
6 ORDER BY clv DESC LIMIT 10;
```

Adrian Barton

has the highest lifetime value among all customers.

	Customer_Name	clv
▶	Adrian Barton	528357.6265986845
	Bill Shonely	307516.5631785393
	Tamara Chand	293497.77656815265
	Daniel Raglin	279923.8487249521
	Jamie Kunitz	273509.85614759277
	Ken Lonsdale	270909.57362835715
	Kelly Collister	267697.0324415684
	Nora Preis	265905.13983667817
	Sean Miller	253652.78496106467
	Joseph Holt	252482.260685512

Recommendation:

Prioritize Adrian Barton and other top lifetime value customers with exclusive rewards and personalized services to ensure their continued loyalty. Implement targeted retention strategies to maximize their long-term value and encourage similar high-value behaviors in other customers.

SECONDARY INSIGHTS



```
1 -- Top 10 customer in each segment by amount
2 WITH cte1 AS (SELECT Segment, Customer_Name, SUM(amount) AS total_amount,
3 RANK() OVER(PARTITION BY Segment ORDER BY SUM(amount) DESC) as customer_rank
4 FROM sales GROUP BY Customer_Name, Segment)
5 SELECT Segment, Customer_Name, total_amount, customer_rank
6 FROM cte1 WHERE customer_rank ≤ 10;
```

	Segment	Customer_Name	total_amount	customer_rank
▶	Consumer	Adrian Barton	141391.477540493	1
	Consumer	Ken Lonsdale	69005.26875439286	2
	Consumer	Greg Tran	61821.84593153	3
	Consumer	Sanjit Chand	61481.97870540619	4
	Consumer	Raymond Buch	60880.520741939545	5
	Consumer	Becky Martin	55687.83546590805	6
	Consumer	Joseph Holt	55230.49452495575	7
	Consumer	Nora Preis	54869.31456947327	8
	Consumer	Patrick O'Brill	54208.43907499313	9
	Consumer	Seth Vernon	53665.597725868225	10
	Corporate	Tamara Chand	92242.15834999084	1
	Corporate	Bill Shonely	70965.36073350906	2
	Corporate	Helen Wasserman	59334.158082962036	3
	Corporate	Anna Häberlin	50910.139680713415	4
	Corporate	Harry Marie	46915.428898856044	5
	Corporate	Todd Sumral	46845.885058403015	6
	Corporate	Justin Deggeller	41539.900859832764	7
	Corporate	Rick Wilson	41251.99218559265	8
	Corporate	Yana Sorensen	40723.046657562256	9
	Corporate	Fred Hopkins	40694.03555870056	10
	Home Of...	Sean Miller	76095.8354883194	1
	Home Of...	Daniel Raglin	63842.28128814697	2
	Home Of...	Maria Etezadi	62783.54069900513	3
	Home Of...	Tom Ashbrook	57610.59684753418	4
	Home Of...	Karen Ferguson	55311.13307952881	5
	Home Of...	Paul Prost	42057.7839281559	6
	Home Of...	Corinna Mitchell	37370.00857543945	7
	Home Of...	Penelope Sewall	35778.71114730835	8
	Home Of...	Adam Bellavance	31667.930010557175	9
	Home Of...	Tamara Willingham	31126.831249713898	10

Adrian Barton, Tamara Chand, and Sean Miller are the top customers in the Consumer, Corporate, and Home Office segments, respectively..

Recommendation:

Develop tailored loyalty programs and personalized marketing strategies for top customers in each segment to enhance their experience and encourage repeat business. Focus on maintaining strong relationships with Adrian Barton, Tamara Chand, and Sean Miller by offering exclusive benefits and targeted promotions. Analyze the purchasing behavior of these top customers to identify trends and opportunities for cross-selling and upselling across segments.

Key Findings

This analysis provides a comprehensive overview of the sales performance, focusing on various aspects such as total sales, profit margins, regional performance, product categories, customer segments, and seasonal trends. The data reveals a total sales figure of \$9.79M with a profit margin of 2.88%. The best-selling product is Canon image CLASS 2200 Advanced Copier and preferred shipping mode is standard.

Key findings include:

- 1.Regional performance: East and West regions outperform others.
 - 2.Shipping: Standard class generates over 60% of revenue.
 - 3.Product categories: Technology lead in sales.
 - 4.Customer segments: Consumer segment accounts for half of total sales.
 - 5.Customer: Adrian Barton, Tamara Chand, Kelly Collister and Sean Miller are top customers across various matrices.
 - 6.Seasonal trends: Last quarter (Oct-Dec) shows significantly higher sales.
 - 7.City-wise performance: New York City leads in revenue generation.
 - 8.Discounting strategy: Current approach results in losses for top discounted products.
 - 9.Products: Canon most sold and profitable product. But Xerox 20 leads in profit margin.
-

Recommendations

The analysis reveals both strengths and areas for improvement in the sales strategy. While overall sales and order completion rates are strong, the low profit margin and significant losses due to returns and discount are concerning. The company has clear leaders in terms of regions, product categories, and customer segments, which can be leveraged for future growth.

To improve performance, the company should:

1. Optimize inventory and marketing for top-performing products.
 2. Focus on expanding in high-performing regions (East and West) while developing strategies for underperforming areas.
 3. Reevaluate the discounting strategy to minimize losses and maximize profitability.
 4. Capitalize on the strong performance during the last quarter by implementing targeted marketing campaigns and ensuring adequate inventory.
 5. Maintain the success of non-discounted products while gradually adjusting strategies for other items.
 6. Enhance the performance of other shipping modes to balance out the heavy reliance on Standard class.
 7. Create tailored loyalty programs and personalized marketing for top customers in each segment to boost repeat business. Analyze their purchasing behavior to find cross-selling and upselling opportunities.
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Thank you!!!

—Amanat Mahmud

