

SALES PERFORMANCE ANALYSIS REPORT

SUBMITTED BY

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BATCH - DATA ANALYTICS

DATASET DESCRIPTION

The dataset used in this analysis is a sales performance dataset containing transactional-level information.

- Total Records: 88
- Number of Columns: 16
- Time Period Covered: 2023-01-01 to 2023-12-31

The main columns in the dataset are: Product_ID , Sale_Date , Sales_Rep , Region ,Quantity_Sold , Product_Category , Sales_Amount , Unit_Cost , Unit_Price , Profit, Discount , Profit Status , Customer_Type , Payment_Method , Sales_Channel , Region_and_Sales_Rep. Each row represents a sales transaction with details about the product sold, sales representative, region, quantity, revenue, profit, discount, customer type, and sales channel.

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
Product_ID	Sale_Date	Sales_Rep	Region	Quantity_Sold	Product_Category	Sales_Amount	Unit_Cost	Unit_Price	Profit	Discount	Profit_Status	Customer_Type	Payment_Method	Sales_Channel	Region
1008	01-01-2023	Eve	North		38 Clothing	₹5,227.81	₹4,635.23	₹5,075.44	₹16,727.98	₹0.05	High Profit	Returning	Cash	Online	North-E
1064	04-01-2023	Eve	East		10 Electronics	₹7,412.11	₹4,764.96	₹5,074.42	₹3,094.60	₹0.12	Low Profit	New	Cash	Online	East-Ev
1087	06-01-2023	Eve	South		46 Furniture	₹7,698.92	₹3,702.51	₹3,964.65	₹12,058.44	₹0.12	High Profit	New	Bank Transfer	Online	South-E
1094	10-01-2023	Eve	North		25 Electronics	₹2,548.67	₹1,933.39	₹1,982.92	₹1,238.25	₹0.17	Low Profit	New	Bank Transfer	Online	North-E
1027	15-01-2023	Bob	West		26 Food	₹6,261.20	₹149.11	₹477.67	₹8,542.56	₹0.14	High Profit	Returning	Cash	Retail	West-B
1046	20-01-2023	Eve	East		43 Clothing	₹4,104.82	₹4,052.42	₹4,199.30	₹6,315.84	₹0.10	High Profit	New	Bank Transfer	Retail	East-Ev
1037	23-01-2023	Bob	North		40 Clothing	₹9,813.81	₹2,790.11	₹3,192.37	₹16,090.40	₹0.26	High Profit	Returning	Bank Transfer	Online	North-E
1018	26-01-2023	Alice	East		11 Clothing	₹3,187.45	₹2,414.82	₹2,519.07	₹1,146.75	₹0.00	Low Profit	Returning	Cash	Online	East-All
1042	31-01-2023	Alice	North		11 Food	₹5,207.03	₹635.20	₹814.14	₹1,968.34	₹0.02	Low Profit	Returning	Cash	Online	North-E
1052	03-02-2023	Bob	North		18 Furniture	₹5,053.97	₹152.75	₹267.22	₹2,060.46	₹0.09	Low Profit	Returning	Cash	Online	North-E
1026	04-02-2023	Alice	West		19 Electronics	₹1,554.93	₹1,265.48	₹1,715.83	₹8,556.65	₹0.05	High Profit	New	Credit Card	Retail	West-A
1080	05-02-2023	Charlie	South		9 Electronics	₹245.46	₹1,141.52	₹1,550.19	₹3,678.03	₹0.28	Low Profit	New	Credit Card	Retail	South-E
1081	07-02-2023	David	East		41 Furniture	₹3,068.03	₹2,782.08	₹2,879.24	₹3,983.56	₹0.21	Low Profit	New	Bank Transfer	Online	East-Da
1092	09-02-2023	David	West		34 Furniture	₹2,749.17	₹2,037.41	₹2,238.65	₹6,842.16	₹0.30	High Profit	New	Credit Card	Online	West-D
1021	11-02-2023	Charlie	West		32 Food	₹3,761.15	₹900.79	₹1,106.51	₹6,583.04	₹0.21	High Profit	New	Cash	Online	West-C
1044	16-02-2023	David	South		22 Food	₹7,754.10	₹3,373.46	₹3,454.76	₹1,788.60	₹0.22	Low Profit	Returning	Bank Transfer	Retail	South-E
1068	24-02-2023	Bob	North		22 Clothing	₹5,118.51	₹3,619.61	₹3,651.42	₹699.82	₹0.26	Low Profit	Returning	Bank Transfer	Online	North-E
1029	01-03-2023	David	East		28 Clothing	₹6,773.89	₹2,873.53	₹3,108.30	₹6,573.56	₹0.15	High Profit	New	Credit Card	Retail	East-Da
1007	03-03-2023	Eve	West		1 Food	₹4,694.54	₹2,543.26	₹2,637.91	₹94.65	₹0.20	Low Profit	Returning	Credit Card	Online	West-E
1099	04-03-2023	David	East		10 Furniture	₹7,952.11	₹1,531.20	₹1,955.56	₹4,243.60	₹0.00	Low Profit	New	Credit Card	Online	East-Da
1040	10-03-2023	Charlie	East		13 Clothing	₹2,331.27	₹2,750.18	₹2,882.85	₹1,724.71	₹0.24	Low Profit	Returning	Credit Card	Online	East-Ch
1038	11-03-2023	Bob	South		15 Clothing	₹1,452.35	₹2,543.36	₹2,790.10	₹3,701.10	₹0.07	Low Profit	Returning	Cash	Online	South-E
1061	24-03-2023	Charlie	East		13 Electronics	₹3,750.20	₹637.37	₹692.71	₹719.42	₹0.08	Low Profit	New	Credit Card	Online	East-Ch
1074	25-03-2023	Eve	West		38 Food	₹7,499.70	₹2,610.60	₹2,836.94	₹8,600.92	₹0.19	High Profit	Returning	Credit Card	Online	West-E
1005	30-03-2023	Alice	East		12 Electronics	₹6,828.24	₹319.83	₹802.43	₹5,791.20	₹0.04	High Profit	New	Credit Card	Retail	East-All
1016	31-03-2023	Eve	East		38 Electronics	₹4,309.76	₹3,883.38	₹4,152.72	₹10,234.92	₹0.26	High Profit	Returning	Cash	Online	East-Ev
1058	05-04-2023	Alice	North		33 Furniture	₹2,072.23	₹1,011.65	₹1,084.28	₹2,396.79	₹0.07	Low Profit	Returning	Bank Transfer	Retail	North-E
1083	11-04-2023	Bob	West		29 Furniture	₹618.31	₹2,408.81	₹2,624.09	₹6,243.12	₹0.14	High Profit	Returning	Cash	Online	West-B
1093	21-04-2023	Bob	West		17 Furniture	₹4,384.02	₹3,816.39	₹4,209.44	₹6,681.85	₹0.11	High Profit	Returning	Cash	Retail	West-B
1009	28-04-2023	Alice	North		33 Clothing	₹1,342.95	₹2,278.90	₹2,626.90	₹11,484.00	₹0.05	High Profit	New	Credit Card	Online	North-E
1056	07-05-2023	David	East		28 Clothing	₹7,611.88	₹1,566.03	₹1,576.34	₹288.68	₹0.20	Low Profit	Returning	Bank Transfer	Online	East-Da
1034	10-05-2023	Eve	East		19 Clothing	₹4,892.36	₹1,922.21	₹2,180.83	₹4,913.78	₹0.17	Low Profit	Returning	Credit Card	Retail	East-Ev
1049	17-05-2023	Alice	West		1 Furniture	₹3,741.08	₹3,290.89	₹3,317.75	₹26.86	₹0.17	Low Profit	Returning	Bank Transfer	Online	West-A
1063	18-05-2023	Bob	West		39 Food	₹3,098.87	₹3,577.69	₹3,931.25	₹13,788.84	₹0.21	High Profit	Returning	Cash	Retail	West-B

The analysis followed a structured workflow:

1. Data Import

- The Excel file Sales Data Analysis was imported into the analysis environment.

2. Data Cleaning

- Removed non-numeric symbols (such as '?' and commas) from numeric fields: Sales_Amount , Unit_Cost , Unit_Price , Profit , and Discount.
- Converted cleaned values into numeric data types.
- Ensured date fields were recognized as proper date values.
- Verified that categorical fields such as Region, Product_Category, Sales_Rep, Customer_Type, and Sales_Channel were consistently labeled.

3. Data Processing

- Verified existing profit values and ensured they aligned with sales and cost information.
- Ensured discount values were in usable numeric form for further analysis.
- Prepared grouped summaries by Region, Product_Category, Sales_Rep, Customer_Type, and Sales_Channel.

4. Analysis

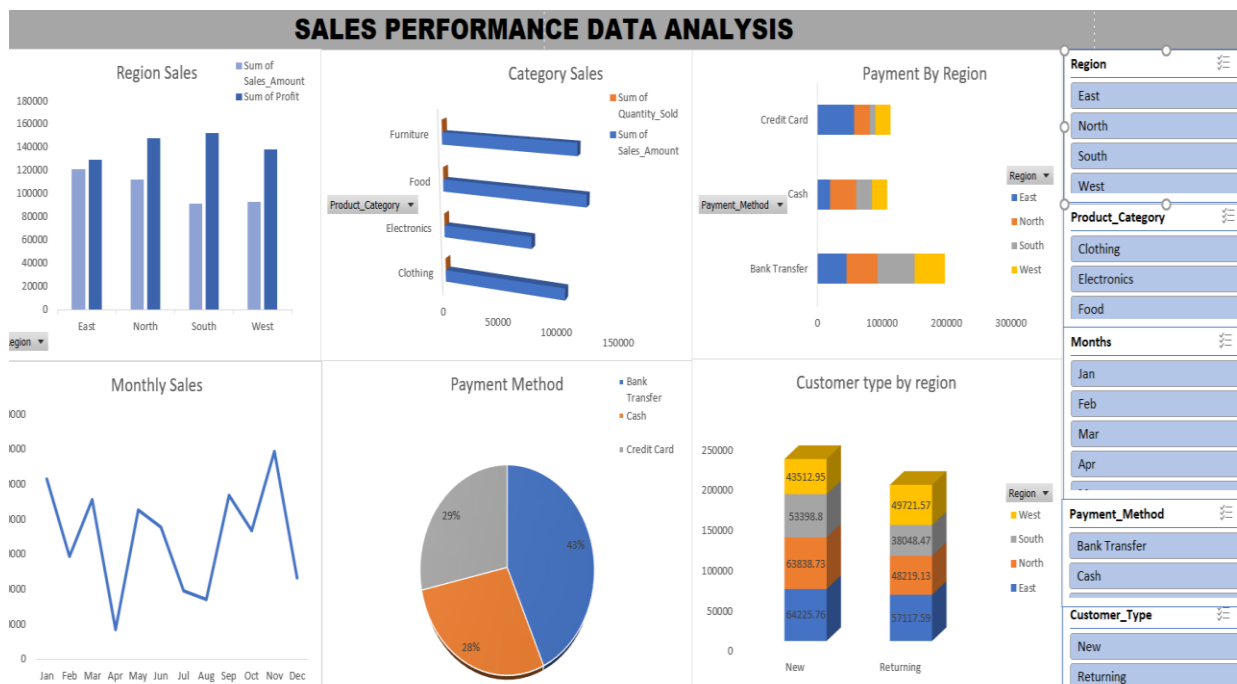
- Computed key performance indicators (KPIs) such as total revenue, total profit, and total quantity sold.
- Performed breakdowns of sales and profit across regions, categories, and sales reps.
- Compared customer types and sales channels to identify dominant contributors.

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KEY METRICS AND KPIS

The following key performance indicators were derived from the dataset:

- Total Revenue (Sales Amount): 418,083.00
- Total Profit: 567,920.60
- Total Quantity Sold: 2,339
- Average Unit Price: 2,681.54
- Average Unit Cost: 2,452.82
- Average Discount: 0.15
- Segment-Level Highlights:
 - Top-Performing Region by Revenue: East (Total Revenue: 121,343.35)
 - Most Profitable Product Category: Clothing (Total Profit: 154,217.42)
 - Top Sales Representative by Revenue: David (Total Revenue: 118,038.10)
 - Dominant Customer Type by Revenue: New
 - Leading Sales Channel by Revenue: Online



ANALYTICAL INSIGHTS

Based on the computed metrics and grouped summaries, several important insights emerge:

1. Revenue Concentration by Region

- The East region generates the highest total revenue, indicating it is the strongest geographical market in the dataset.
- Other regions contribute less comparatively and may have growth potential if targeted properly.

2. Product Category Profitability

- The Clothing category delivers the highest overall profit, making it the most financially attractive product segment.
- Categories with lower profit contribution may require pricing review, cost optimization, or promotional support.

3. Sales Representative Performance

- Among all sales reps, David achieves the highest total sales revenue.
- This could be due to stronger territory, better customer relationships, or effective selling strategies that can be replicated across the team.

4. Customer Type behaviour.

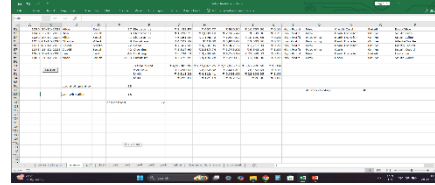
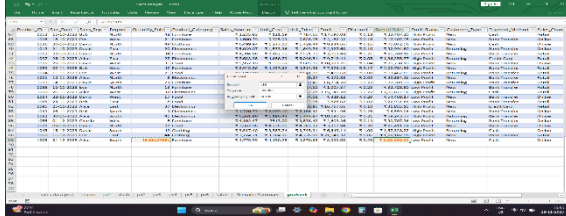
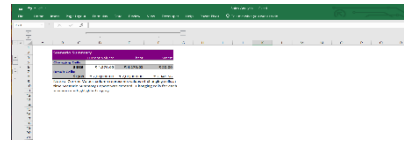
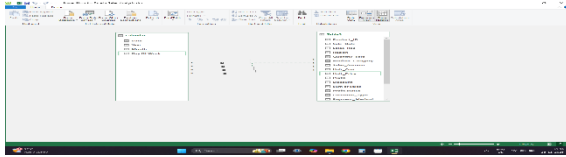
- The customer type contributing the highest revenue is: New.
- This segment represents the core customer base and should be engaged with loyalty programs, personalized offers, and retention strategies.

5. Sales Channel Effectiveness

- The Online channel is the leading channel in terms of revenue contribution.
- Focusing marketing and operational efficiency on this channel can amplify overall sales impact.

6. Pricing and Margin Observations

- The difference between average unit price and unit cost, combined with positive total profit, indicates that pricing is generally profitable.
- However, discount levels should be monitored to ensure they do not erode margins, especially for lower-profit categories.



RECOMMENDATIONS

Based on the above findings, the following recommendations are proposed to improve business performance:

1. Strengthen High-Performing Regions

- Continue to invest in the East region through targeted promotions, enhanced distribution, and better support to the local sales team. Study successful strategies from this region and apply them, where relevant, to weaker regions.

2. Focus on Profitable Product Categories

- Prioritize inventory, marketing, and sales focus on the Clothing category to maximize profit.
- Review underperforming categories for cost reduction, repositioning, or possible product rationalization.

3. Leverage Top Sales Representatives

- Analyse the practices and customer handling techniques used by David.
- Use their methods as a benchmark and consider internal training or mentoring programs to uplift other sales reps.

4. Deepen Relationships with Key Customer Types

- Since New customers contribute the most revenue, design loyalty programs, exclusive discounts, and personalized communication to retain and grow this segment.
- Encourage repeat purchases and cross-selling opportunities within this customer group.

5. Optimize Sales Channels

- Strengthen operations and marketing in the Online channel, as it delivers the highest revenue contribution.
- Evaluate whether other channels can be improved with better digital presence, promotions, or process efficiency.

6. Monitor Discounts and Margins

- Regularly track discount levels against profit margins to ensure profitability is not compromised.
- Consider differentiated discount strategies for high-margin vs low-margin products.

7. Build an Ongoing Monitoring Dashboard

- Implement a BI dashboard using this dataset structure to continuously monitor KPIs such as revenue, profit, quantity, and regional/category performance.
- This will support faster decision-making and performance tracking over time.