



E-COMMERCE SALES PERFORMANCE DASHBOARD

A Comprehensive Analysis of Sales Data using Excel



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26/07/2024



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INTRODUCTION



Overview of Project

E-commerce dashboard analysis to understand sales performance across product categories and regions



Purpose of the Analysis

Identify trends, and opportunities for improvement, and inform sales and marketing decisions.



Target audience

Sales management, marketing team, and executive leadership.



Instances and Features

51,290 Instances and 20 Features



DATASET OVERVIEW

The dataset contains sales data for various product categories and includes the following features:

FEATURES	DESCRIPTION	FEATURES	DESCRIPTION
Order ID	Unique identifier for each order	Profit	Profit earned from the order
Order Date	Date when the order was placed	Shipping Cost	Cost incurred for shipping
Ship Date	Date when the order was shipped	Order Priority	Priority level of the order
Aging	Days between order placement and shipment	Customer ID	Unique identifier for each customer
Ship Mode	Mode of shipment	Customer Name	Name of the customer
Product Category	Category of the product	City	Customer's city
Product	Name of the product	State	Customer's state
Sales:	Sales amount for the product	Country	Customer's country
Quantity	Number of units ordered	Region	Geographic region of the customer
Discount	Discount applied to the order	Months	Month of order placement

Data source: [E-Commerce Dashboard dataset.xlsx](#)

DATA ANALYSIS CRITERIA



01. Data Formatting

Find duplicate records, indicate data change, and format the dates



2. Analyze Sales and Profit

Sum and Average, month-wise, region-wise, per product category, and statistical analysis.



3. Profit Margin(%) by Product Category

Find the percentage of profit from each product category relative to its revenue, highlighting which categories are more profitable.



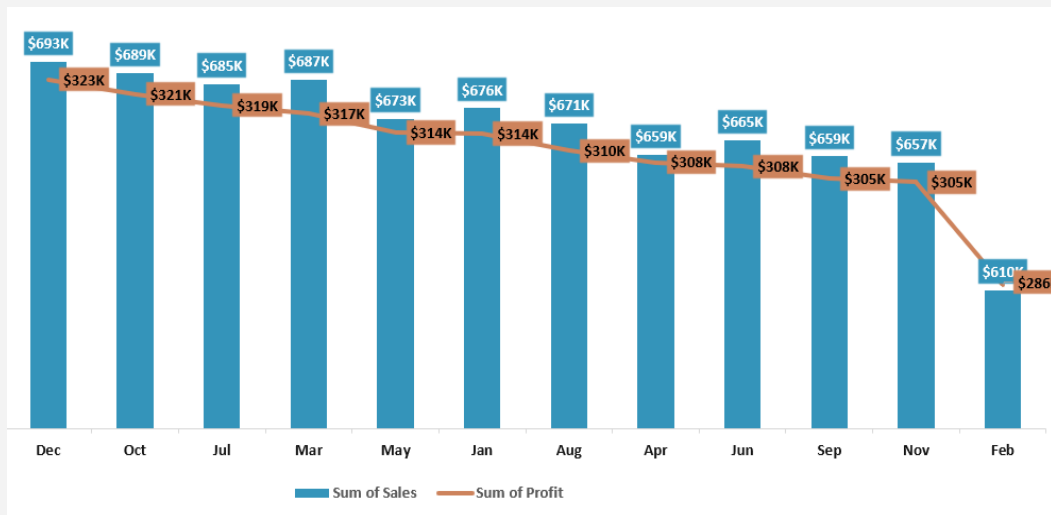
4. Analyze Product Performance

Find the top 3 highest performing product and the bottom 3 lowest performing products



Monthly Sales and Profit Trends

Month	Sum of Sales	Sum of Profit
Dec	\$693K	\$323K
Oct	\$689K	\$321K
Jul	\$685K	\$319K
Mar	\$687K	\$317K
May	\$673K	\$314K
Jan	\$676K	\$314K
Aug	\$671K	\$310K
Apr	\$659K	\$308K
Jun	\$665K	\$308K
Sep	\$659K	\$305K
Nov	\$657K	\$305K
Feb	\$610K	\$286K
Grand Total	\$8,023K	\$3,730K



- Annual sales totaled \$8,023,000, with a total profit of \$3,730,000.
- December emerged as the peak performance period, contributing significantly to overall results.
- In contrast, February represented the most challenging month for both sales and profit.

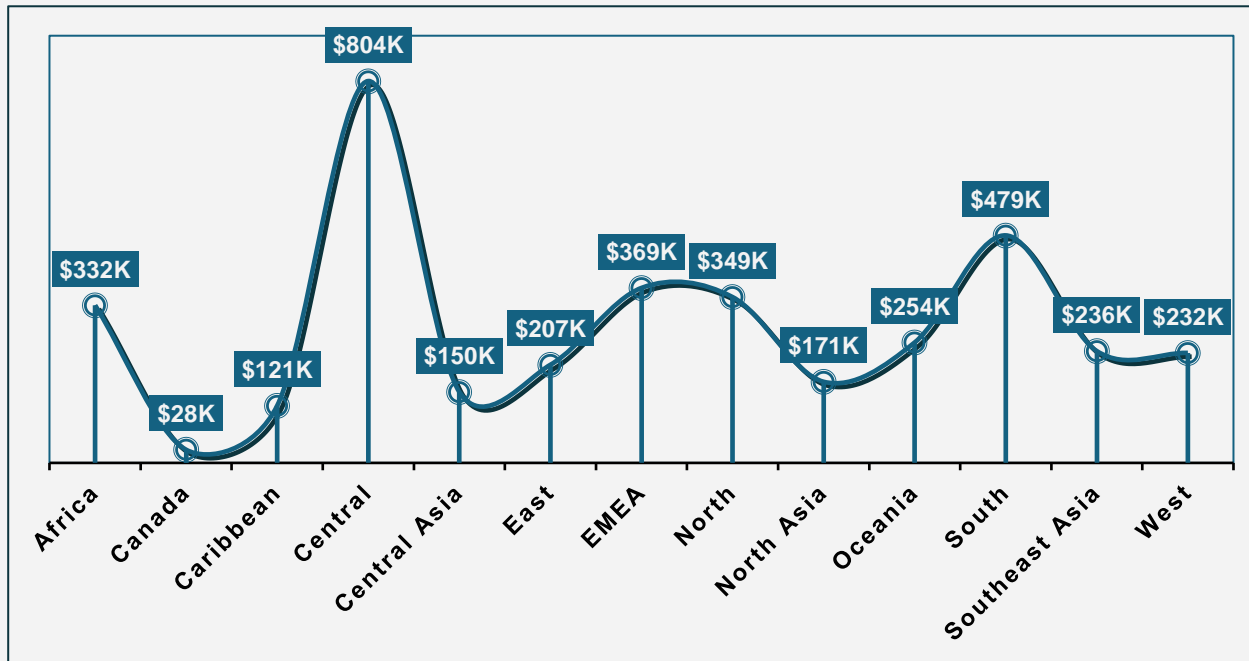
Average Profit by Category and Region

- Fashion is the top-performing product category across all regions.
- Profit margins vary significantly between regions for each product category.
- Canada excels in Fashion with an average profit of \$82.67.
- Canada struggles in Home & Furniture with an average profit of only \$54.18.



Avg of Profit		Product Category				
Region		Fashion	Electronic	Auto & Accessories	Home & Furniture	Grand Total
Southeast Asia	\$	81.88	\$ 68.75	\$ 68.28	\$ 58.92	\$ 75.29
North Asia	\$	81.71	\$ 69.39	\$ 62.54	\$ 57.36	\$ 73.10
North	\$	81.20	\$ 66.62	\$ 64.35	\$ 55.88	\$ 73.00
Oceania	\$	80.68	\$ 66.96	\$ 65.20	\$ 57.84	\$ 72.75
East	\$	79.57	\$ 66.79	\$ 65.17	\$ 59.02	\$ 72.57
Africa	\$	80.52	\$ 65.46	\$ 67.88	\$ 55.63	\$ 72.42
West	\$	80.84	\$ 63.46	\$ 65.28	\$ 55.18	\$ 72.36
Canada	\$	82.67	\$ 71.34	\$ 67.78	\$ 54.18	\$ 72.35
Central	\$	80.61	\$ 63.33	\$ 62.06	\$ 56.43	\$ 72.34
South	\$	80.28	\$ 60.46	\$ 64.50	\$ 56.56	\$ 72.11
Caribbean	\$	79.72	\$ 61.76	\$ 62.91	\$ 56.28	\$ 71.36
Grand Total	\$	80.71	\$ 64.71	\$ 64.55	\$ 56.66	\$ 72.64

Regional Profit Analysis



3. Region-wise Profit

Highest

Central(\$804K)

Lowest

Canada(\$28K)

Action Plan

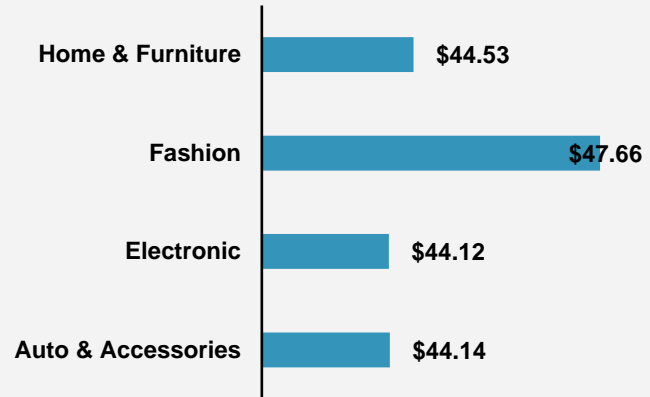
Develop strategies to boost profits in underperforming regions.

Product Category by Profit Margin(%)

Product Category ▾	Profit Margin(%)
Auto & Accessories	\$ 44.14
Electronic	\$ 44.12
Fashion	\$ 47.66
Home & Furniture	\$ 44.53
Grand Total	\$ 46.49

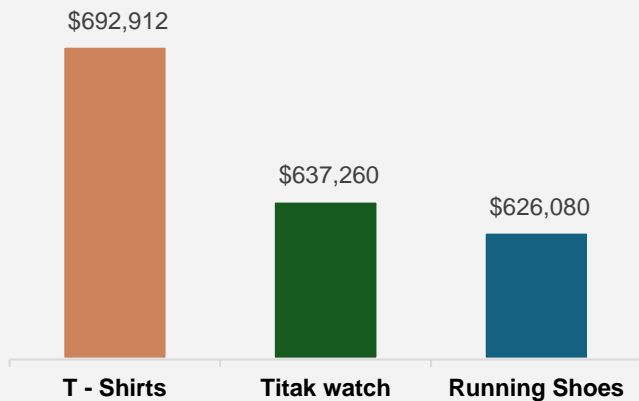
- Fashion has the highest profit margin at 47.66%
- Home & Furniture and Electronics have similar profit margins around 44%.

4. Profit Margin(%) by Product Category



Product performance by sales

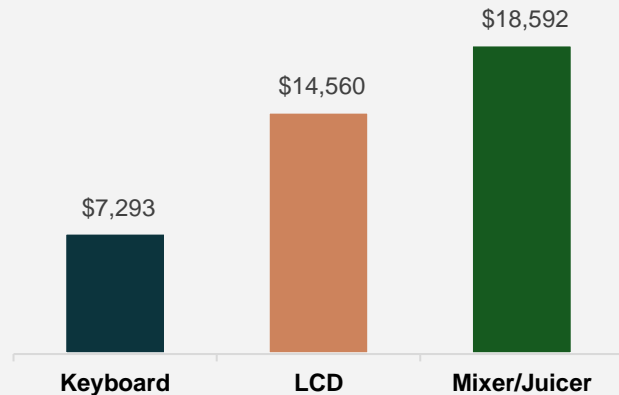
5.1.1 Top 3 highest performing product



- **Top Performing Product by Sales**

T-shirts, Titak Watch, and Running Shoes

5.1.2 Bottom 3 lowest performing product

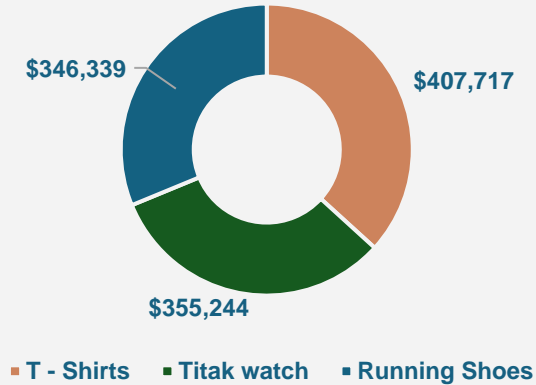


- **Under Performing Product by Sales**

Keyboard, LCD, and Mixer/Juicer

Product Performance by Profit

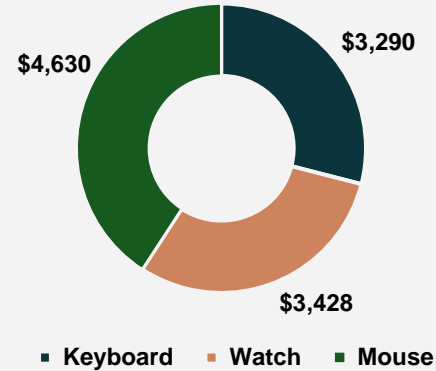
5.2.1 Top 3 highest performing product



● Top Performing Product by profit

T-shirts, Titak Watch, and Running Shoes

5.2.2 Bottom 3 lowest performing product



● Under Performing Product by profit

Keyboard, Wach, and Mouse

STATISTICAL ANALYSIS

Metric	Sales	Profit
Count	51,290.00	51,290.00
Mean (Average)	156.43	72.72
Median	159.00	67.00
Mode	228.00	17.00
Minimum	33.00	0.51
Maximum	250.00	167.50
40th Percentile	122.00	39.00
1st Quartile (Q1)	109.00	25.73
3rd Quartile (Q3)	218.00	120.56
Standard Deviation	65.78	49.10
Variance (Population)	4,327.10	2,410.70
Variance (Sample)	4,327.19	2,410.74
Range	217.00	166.99

- **Distribution:** Both sales and profit amounts are right-skewed, indicating a few high values pulling the mean upwards.
- **Variability:**
Sales Standard Deviation: 66 (moderate variability)
Profit Standard Deviation: 49 (less variability)
- **Range:**
Sales: 33 (min) to 250 (max)
Profit: 1 (min) to 168 (max)
- **Additional Insights:**
Mode: Sales: 228 and Profit: 17
- **Percentiles:**
40th Percentile: Sales: 122 and Profit: 39
- **Quartiles:**
Q1 (25th percentile): Sales: 109 and Profit: 26
Q3 (75th percentile): Sales: 218 and Profit: 121



Sales Dashboard



E-Commerce Sales Dashboard



TOTAL SALES

\$8,023,381



AVERAGE SALES

\$668,615



TOTAL SALES



TOTAL PROFIT

\$3,729,903

Jan	Feb	Mar	Apr
May	Jun	Jul	Aug
Sep	Oct	Nov	Dec

Product Category

- Auto & Accessories
- Electronic
- Fashion
- Home & Furniture

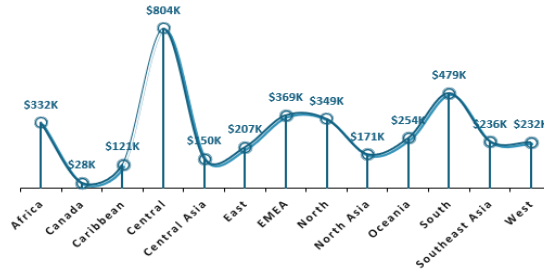
Region

- Africa
- Canada
- Caribbean
- Central
- Central Asia
- East
- EMEA
- North
- North Asia
- Oceania
- South
- Southeast Asia
- West

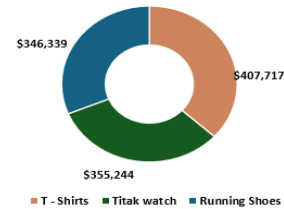
Segment

- Consumer
- Corporate
- Home Office

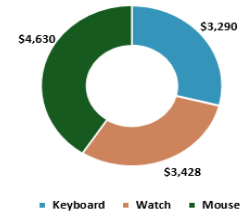
Region- wise Profit



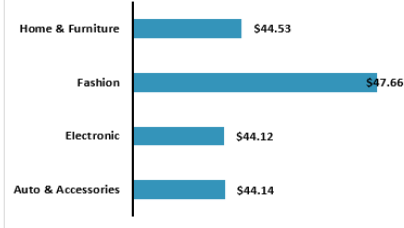
Top 3 Performing Products



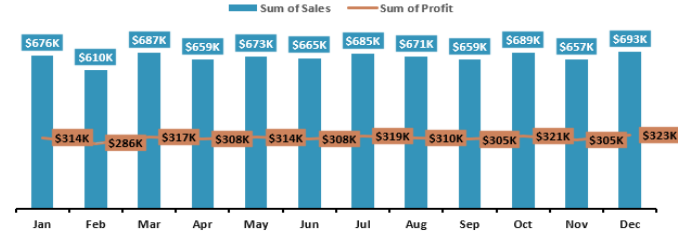
Bottom 3 Performing Products



Profit Margin(%) by Product Category



Month- wise Profit and Sales



CONCLUSION

Based on the analysis of the dataset, the following insights were drawn regarding the most and least profitable products, region-wise:

● Top 3 Highest Performing Products:

1. **T-Shirts:** \$407,717
2. **Titak Watch:** \$355,244
3. **Running Shoes:** \$346,339

● Bottom 3 Lowest Performing Products:

1. **Keyboard:** \$3,290
2. **Watch:** \$3,428
3. **Mouse:** \$4,630

● Highest and Lowest Performing Regions by Profit:

- **Highest Performing Region:** Central (\$804,000)
- **Lowest Performing Region:** Canada (\$28,000)

● Most and Least Profitable Products by Region

- **Most Profitable Product:** T-Shirts in Central
- **Least Profitable Product:** Keyboard in Canada

The analysis reveals significant regional differences in product profitability, indicating the need for targeted strategies to boost profits and address low-performing products.



THANKS!

Do you have any questions?

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