



Sales and Profit Analysis Report

- Presented by: **Omer Metwally**
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Objective



What are we talking about?

analyze sales performance and profitability across products, regions, and time periods to **identify key factors driving profit** and **recommend actionable strategies** to increase overall business growth and efficiency.

Business Task



The primary objective is to increase overall profit for the Superstore by identifying key performance drivers and surfacing critical weak areas in sales execution.



Which **Products** generate the **highest** and **lowest** sales profits?



Which **time periods** (months/ quarters) show the **strongest** sales performance?



Which **regions** contribute **most** to profit, and which **underperform**?

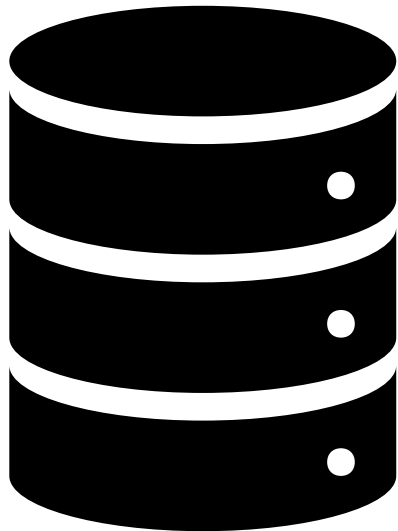


How does **profit margin** vary across **categories** and **sub-categories**?



What **marketing** or **pricing strategies** can help **boost** sales and profitability?

Data source



Data set

- The dataset used in this analysis comes from the [Superstore Data Set](#) — available on [Kaggle](#)

License: Open dataset provided for educational and analytical purposes.
The data has been used strictly for **learning and non-commercial analysis**.

- **Data License:**
© Motivate International Inc. | Public data used for educational purposes only.

Data cleaning summary



Data cleaning

✓ **Removed duplicates**

- ✓ Ensured each transaction record is unique to prevent double-counting.

✓ **Handled missing values**

- ✓ Checked for missing **Sales, Regions, Discount, or Dates**.
- ✓ Imputed missing values where necessary or excluded incomplete rows.

✓ **Standardized formats**

- ✓ Ensured consistent **States and city names** (fixed typos or inconsistent naming).
- ✓ (Order Date, Ship Date) to **DD/MM/YYYY**.
- ✓ **Cleaned currency symbols and spaces** in Sales and Profit columns for numerical calculations.



Data cleaning

✓ **Validate Relationships**

- ✓ Between fields (e.g., no negative sales or incorrect dates).

✓ **Ensured consistent text formatting**

- ✓ (e.g., product names, region names).

✓ **Created** new calculated columns:

- ✓ Ship Days : Difference between **Ship Date** and **Order Date**.
- ✓ Shipping Speed : Slow, Average, Fast on **Ship Days**
- ✓ Year, Quarter, Month extracted from **Order Date**
- ✓ Avg Profit Margin = **Profit / Sales**
- ✓ Sales Category = Profitable / Loss based on **Profit** value

✓ **Result:**

Clean and structured dataset ready for analysis and dashboard creation.

The story with data



Executive Sales & Performance Overview.

Total Sales

\$2.30M

Total Profit

\$286.40K

Profit Margin

12.47%

Total Customers

9.994K

Sales Growth
% by Year

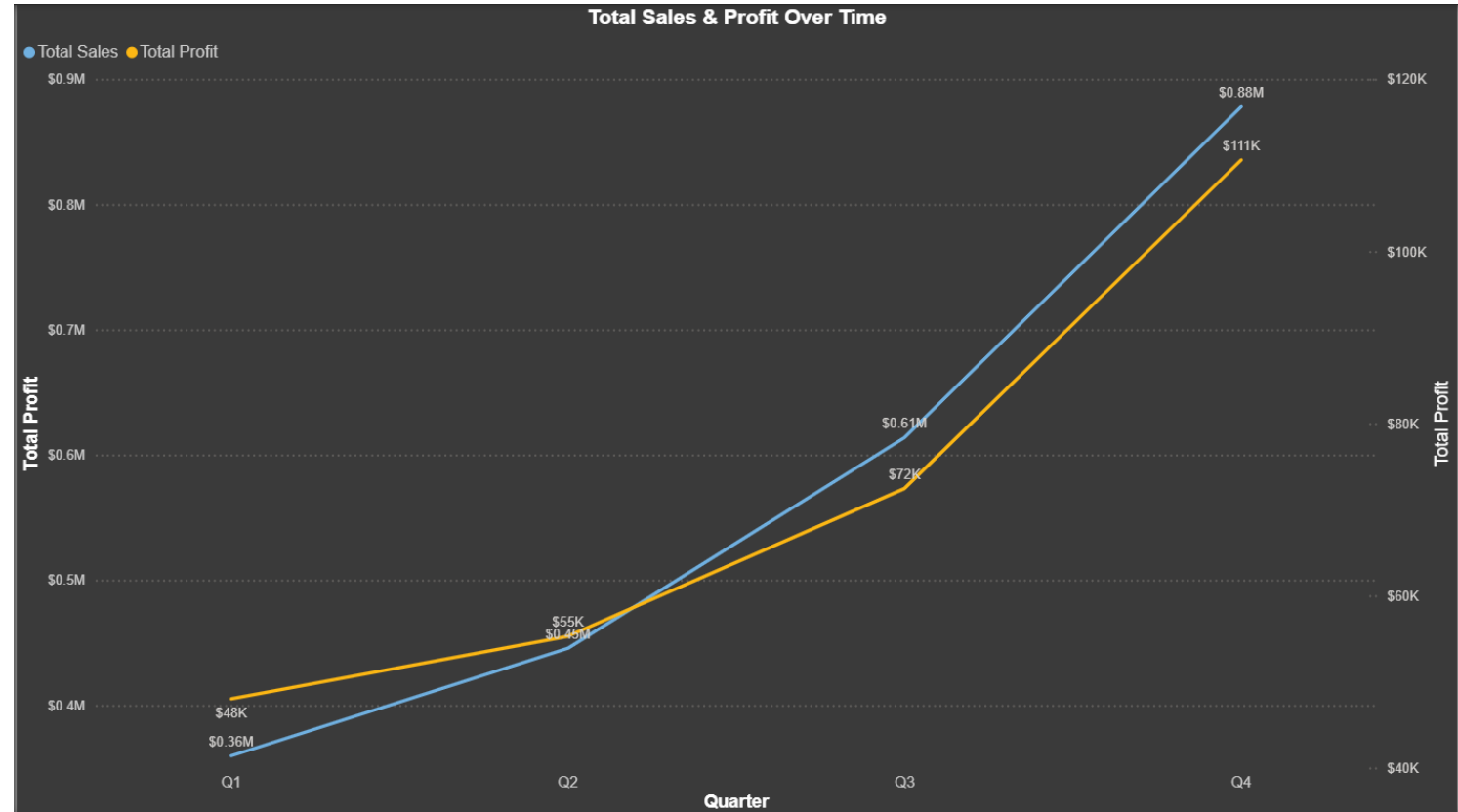
20.36%!
Goal: 30.00%
(-32.15%)

Profit Growth
% by Year

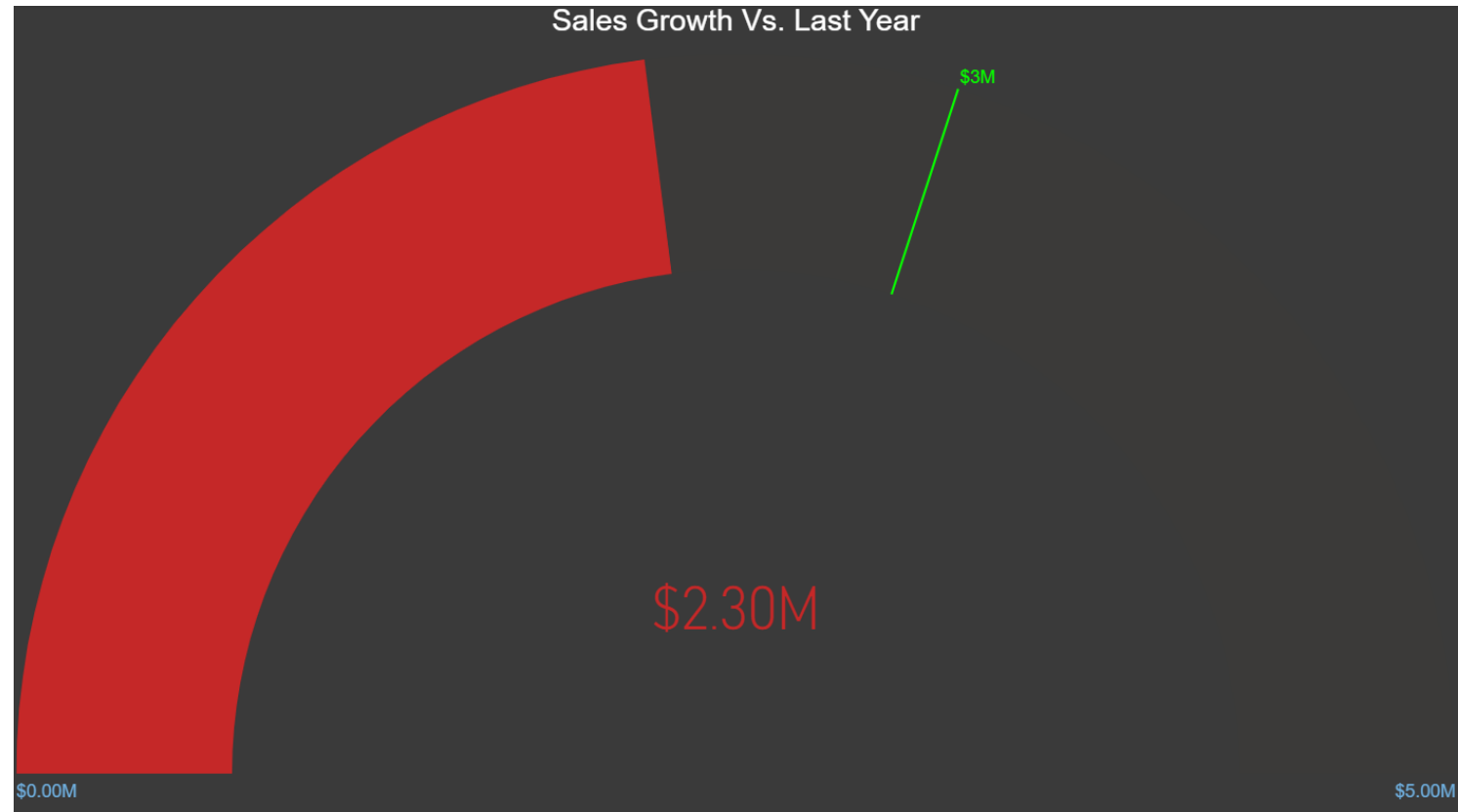
14.24%!
Goal: 20.00%
(-28.82%)

- The Superstore has achieved \$2.30M in sales with a 12.47% Margin, but must pivot its strategy toward high-margin "Champion" customers and technology bundling to overcome a 2.49% furniture profit drain and bridge the 10% gap to its annual growth targets.

- Both total sales and profit showed consistent growth throughout the year, with a significant acceleration in performance during the fourth quarter.



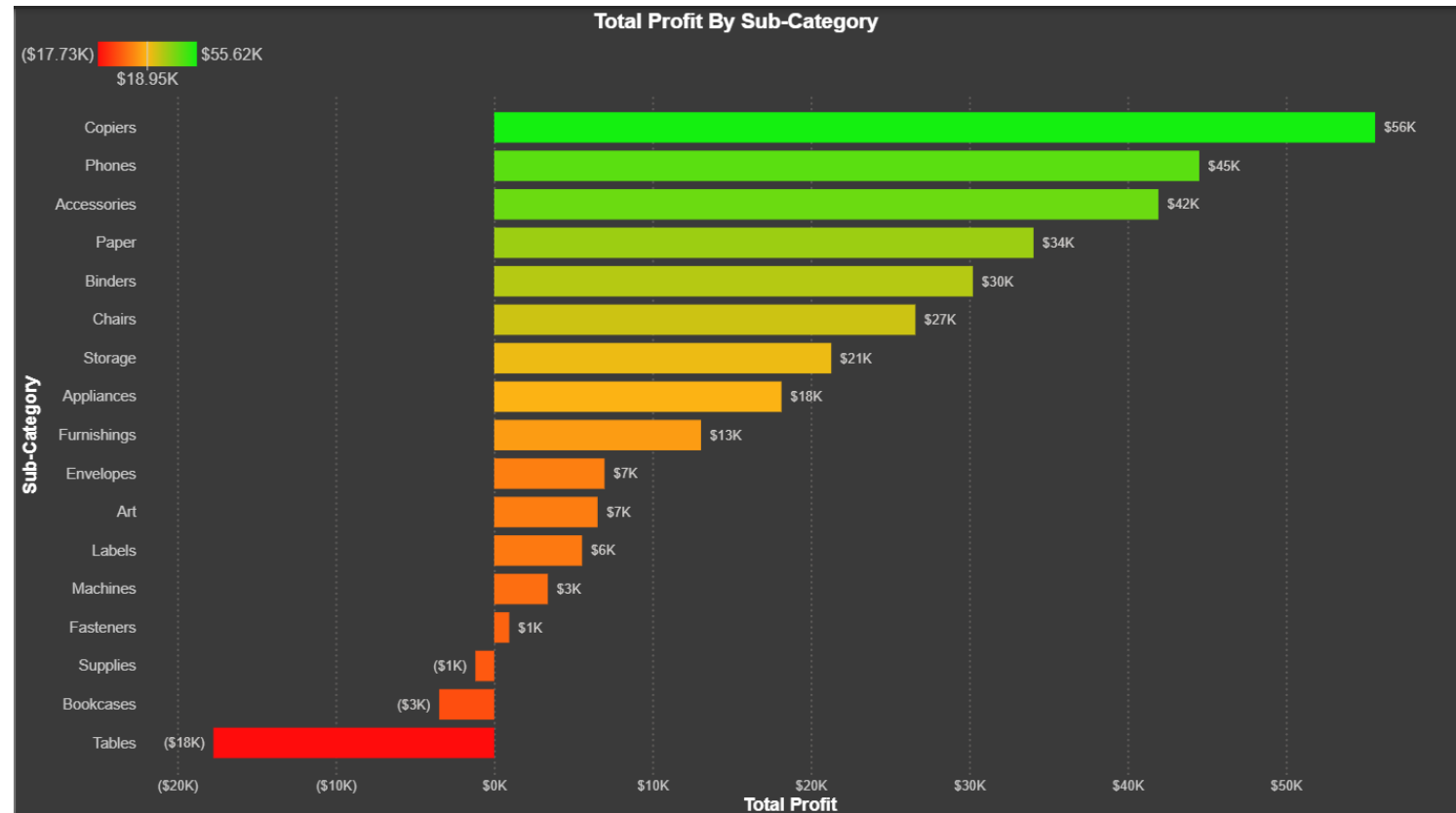
Current sales of **\$2.30M** are while last year's performance benchmark of **\$3M**.



Profitability & Discount Risk Analysis.



- Overall profitability is heavily dependent on high-performing **Copiers (\$56K)** to offset a significant **\$18K loss** in the **Tables** sub-category.

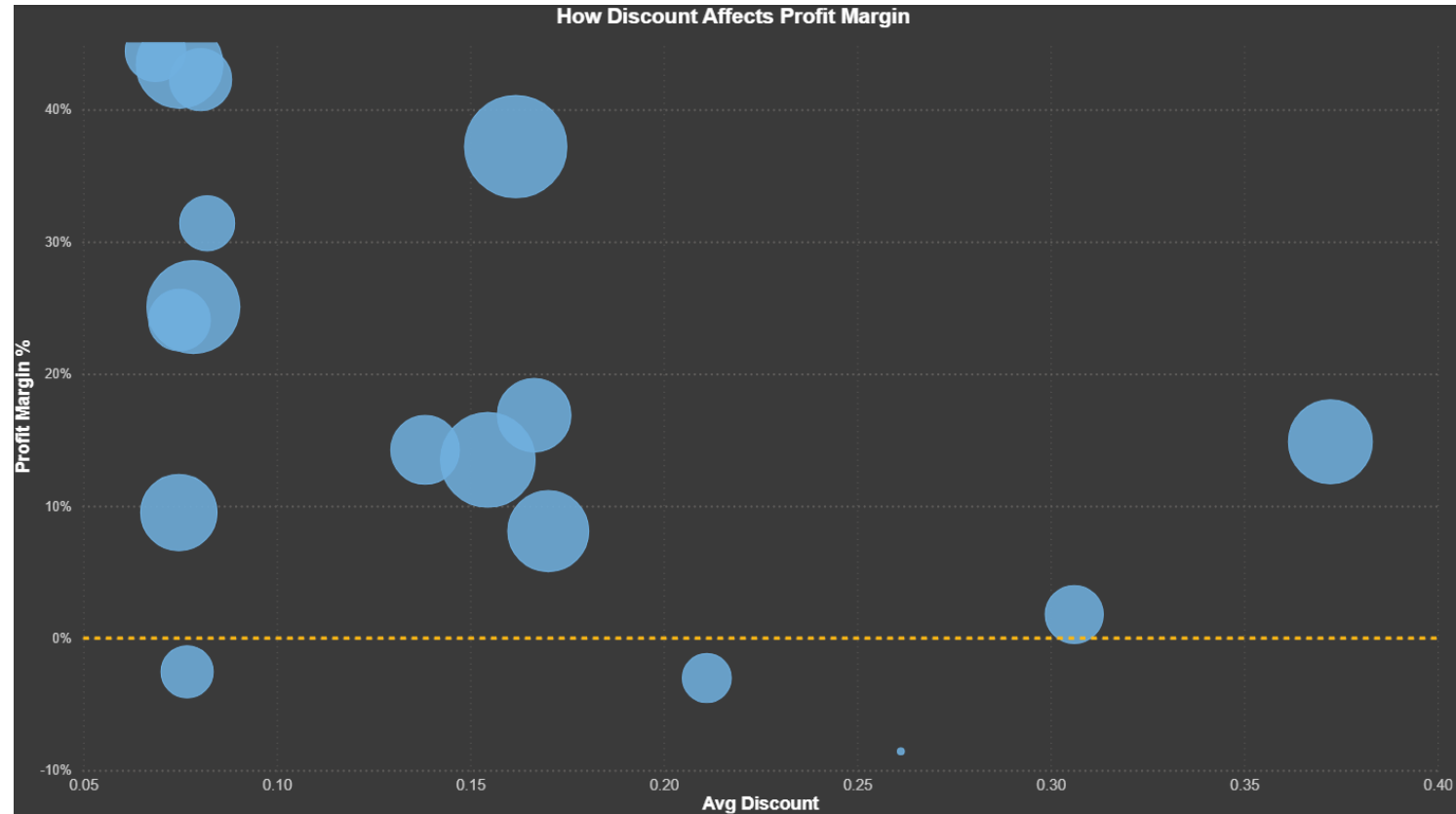


- Overall **12.47%** profit margin supported by strong performance in the **West region** and **Copiers**, but significantly offset by losses in **Tables** and **Colorado**.

Profitability by Geography

Region	Total Sales	Profit Margin %
[-] West	\$725,457.82	14.94%
[+] Montana	\$5,589.35	32.80%
[+] New Mexico	\$4,783.52	24.19%
[+] Washington	\$138,641.27	24.09%
[+] Utah	\$11,220.06	22.70%
[+] Nevada	\$16,729.10	19.83%
[+] Idaho	\$4,382.49	18.86%
[+] California	\$457,687.63	16.69%
[+] Wyoming	\$1,603.14	6.25%
[+] Oregon	\$17,431.15	-6.83%
[+] Arizona	\$35,282.00	-9.72%
[+] Colorado	\$32,108.12	-20.33%
[+] East	\$678,781.24	13.48%
[+] South	\$391,721.91	11.93%
[+] Central	\$501,239.89	7.92%
Total	\$2,297,200.86	12.47%

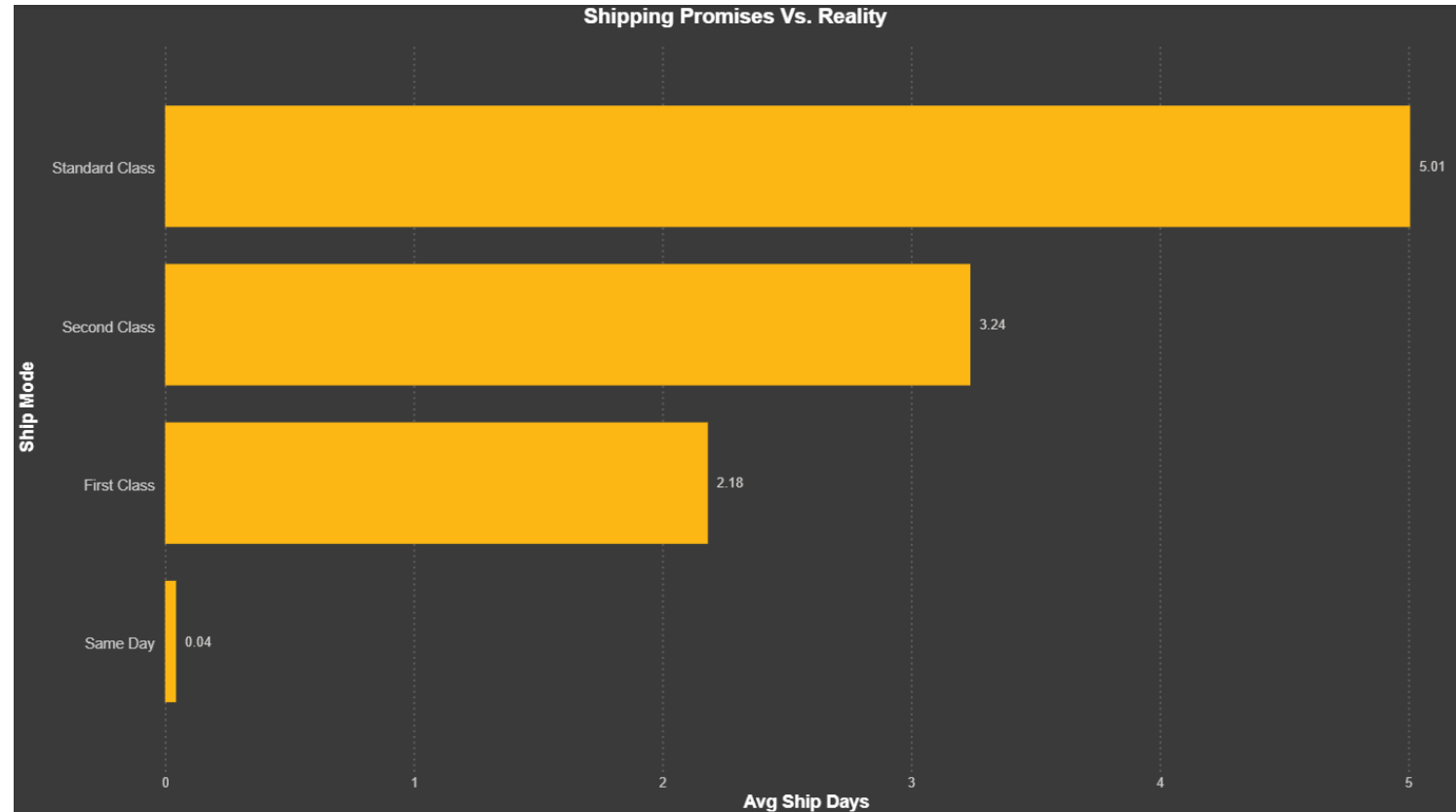
- Overall **12.47%** profit margin supported by **Copiers** and the **West region** but significantly offset by losses in **Tables, Colorado**, and high **discounts** that correlate with negative profitability.





Logistics & Shipping Performance.

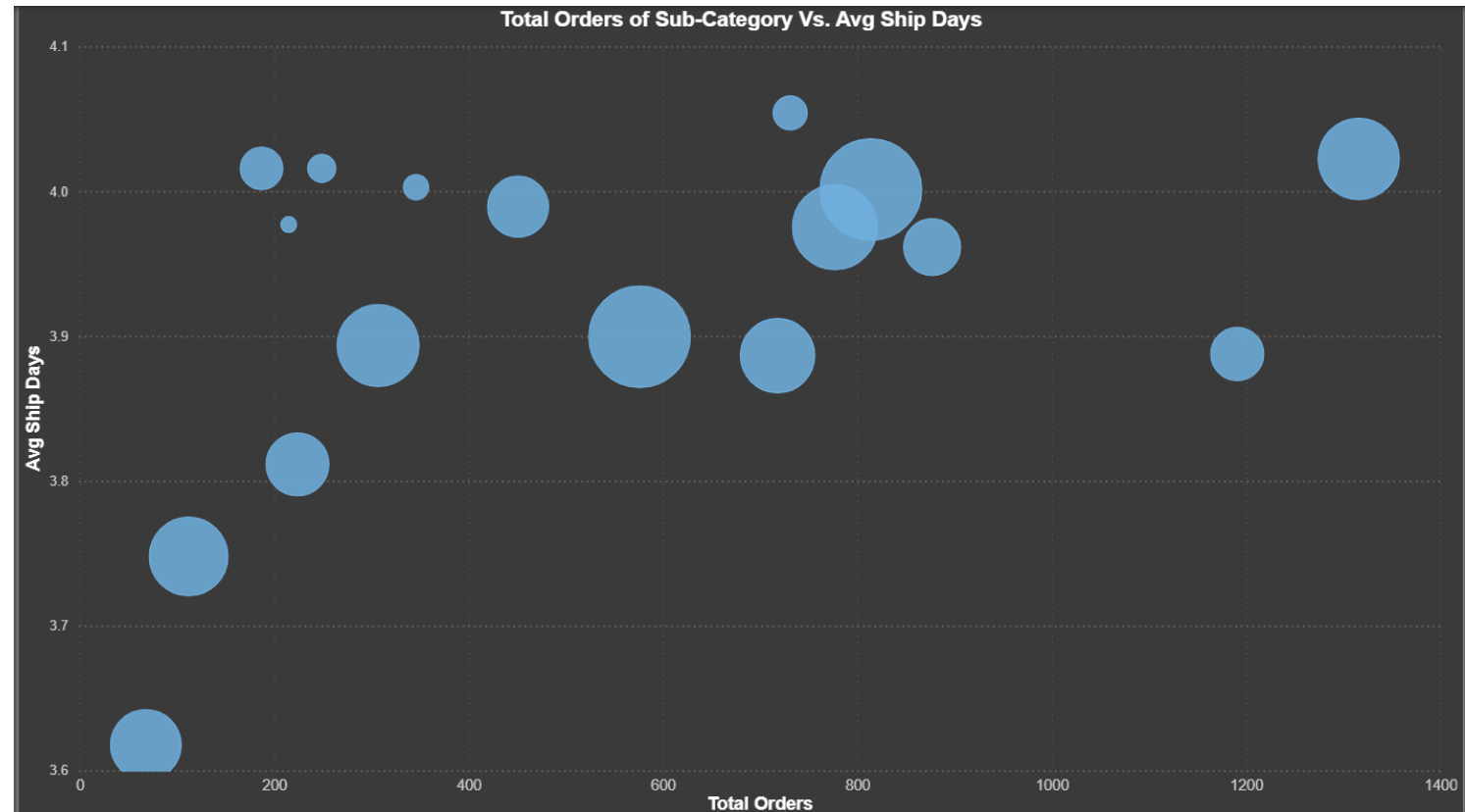
- Average shipping fulfillment times range from a highly efficient 0.04 days for **Same Day** service to 5.01 days for **Standard Class** orders.



Average shipping fulfillment times across all regions and months maintain a consistent total average of **3.96 days**, with monthly fluctuations ranging from a low of **3.67 days** in March to a high of **4.22 days** in January.

Month Name	Avg Ship Days				
	Central	East	South	West	Total
January	4.47	4.11	4.22	4.04	4.22
February	4.19	4.33	3.00	4.28	4.05
March	3.89	3.51	3.57	3.70	3.67
April	4.00	4.07	4.11	4.37	4.15
May	3.87	3.84	3.46	4.10	3.85
June	3.95	4.15	4.12	3.54	3.92
July	4.30	3.62	3.98	3.87	3.91
August	4.14	3.86	3.85	4.34	4.09
September	4.17	3.92	4.19	3.78	3.97
October	4.07	3.67	3.87	3.76	3.83
November	4.09	3.95	4.17	3.80	3.98
December	3.86	4.04	4.11	4.00	4.00
Total	4.06	3.91	3.96	3.93	3.96

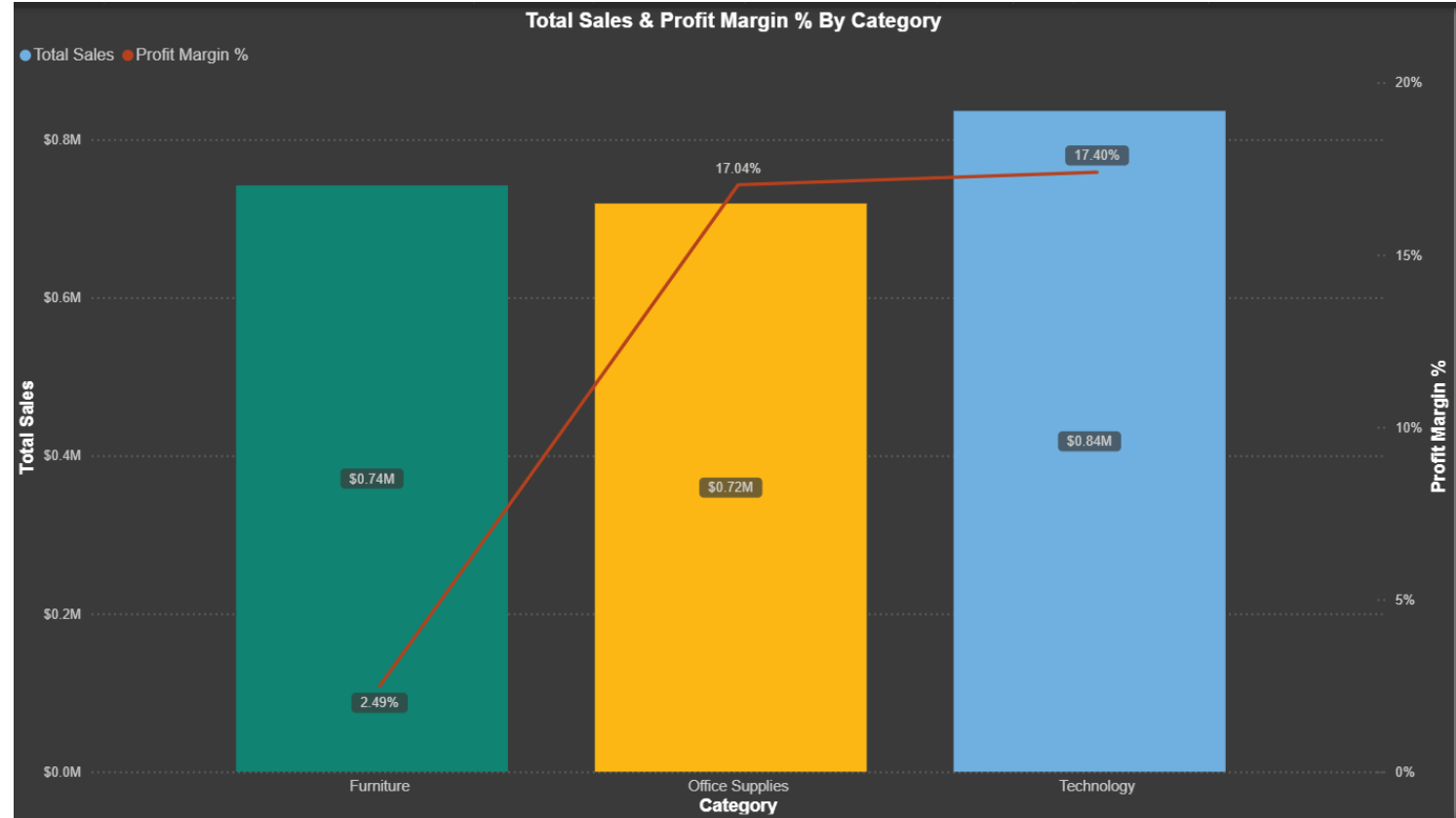
Total shipment volume across different sub-categories does not appear to significantly impact fulfillment speed, as average ship days remain relatively stable between **3.6** and **4.1 days** regardless of order quantity.





Customer & Product Strategy.

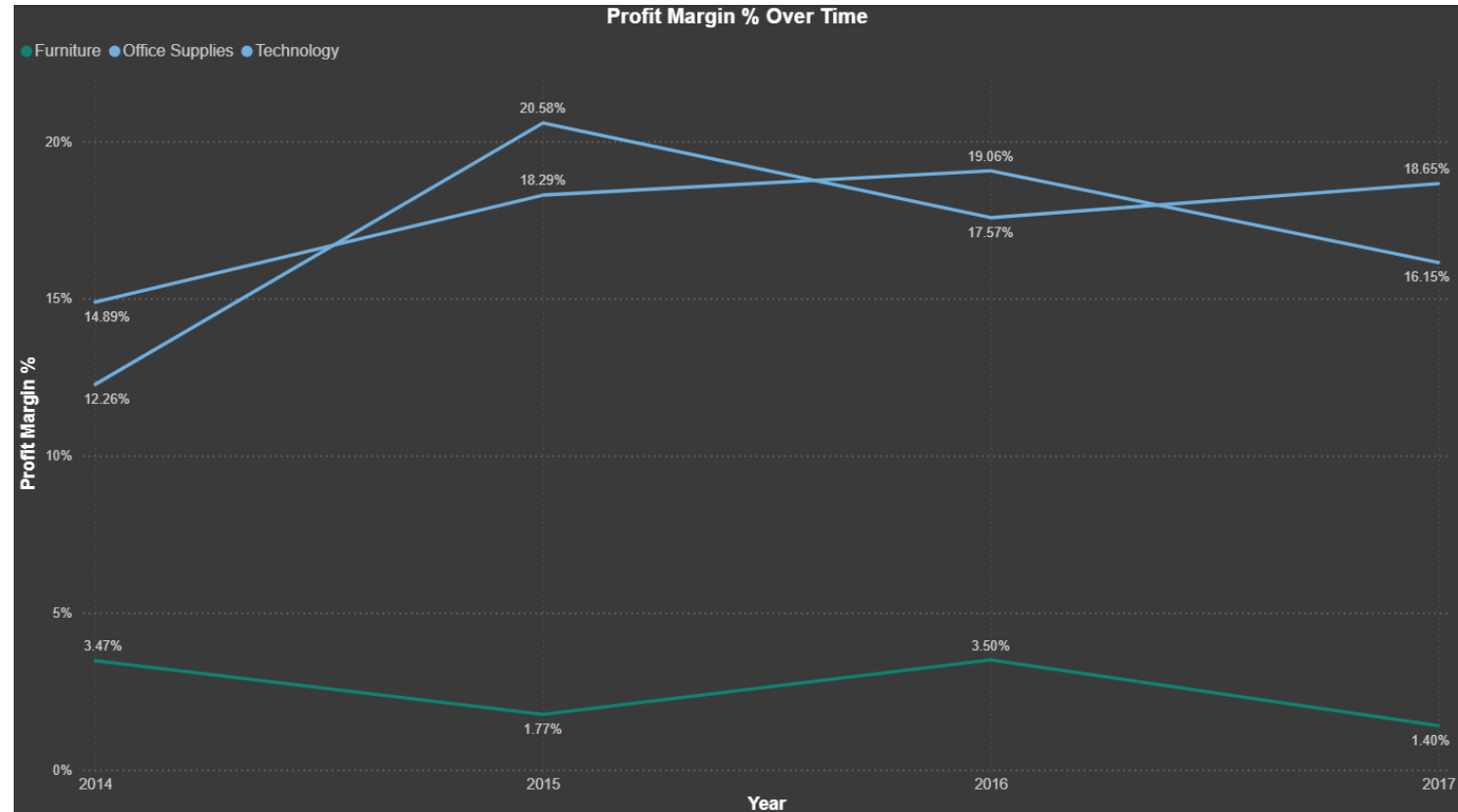
- While the **Technology** and **Office Supplies** categories maintain healthy profit margins of **17.40%** and **17.04%** respectively, the **Furniture** category significantly underperforms with a narrow **2.49%** margin despite generating **\$0.74M** in sales.



While total sales across all customers reached **\$2,297,200.86** with a **12.47%** overall profit margin, the most valuable customers achieved significantly higher individual margins exceeding **41%**, led by Jenna Caffey at **47.53%**.

Most Valuable Customers			
Customer Name	Total Sales	Total Profit	Profit Margin %
Jenna Caffey	\$1,058.11	\$502.92	47.53%
Tamara Chand	\$19,052.22	\$8,981.32	47.14%
Raymond Buch	\$15,117.34	\$6,976.10	46.15%
Steven Roelle	\$4,345.89	\$1,990.42	45.80%
Bobby Odegard	\$130.83	\$59.45	45.44%
Hunter Lopez	\$12,873.30	\$5,622.43	43.68%
Andy Reiter	\$6,608.45	\$2,884.62	43.65%
Christopher Martinez	\$8,954.02	\$3,899.89	43.55%
Ivan Gibson	\$744.57	\$320.50	43.04%
Roy Skaria	\$22.33	\$9.58	42.92%
Nathan Mautz	\$6,459.34	\$2,751.68	42.60%
Nora Pelletier	\$1,228.70	\$514.50	41.87%
Total	\$2,297,200.86	\$286,397.02	12.47%

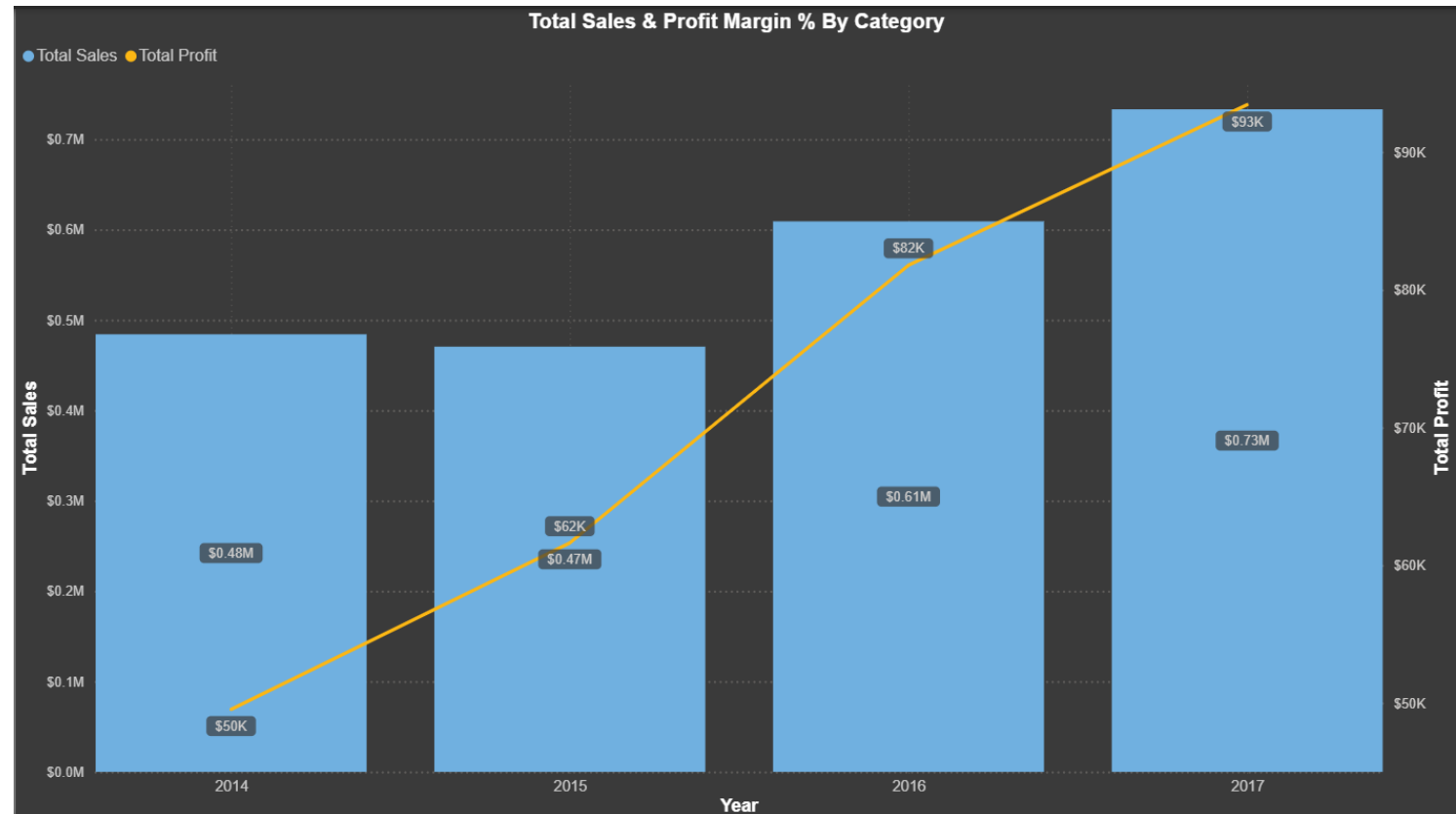
Profit margins for **Technology** and **Office Supplies** remained consistently high and stable over time, while **Furniture** consistently lagged with the lowest and most volatile profitability.





Growth, Trends & Seasonality.

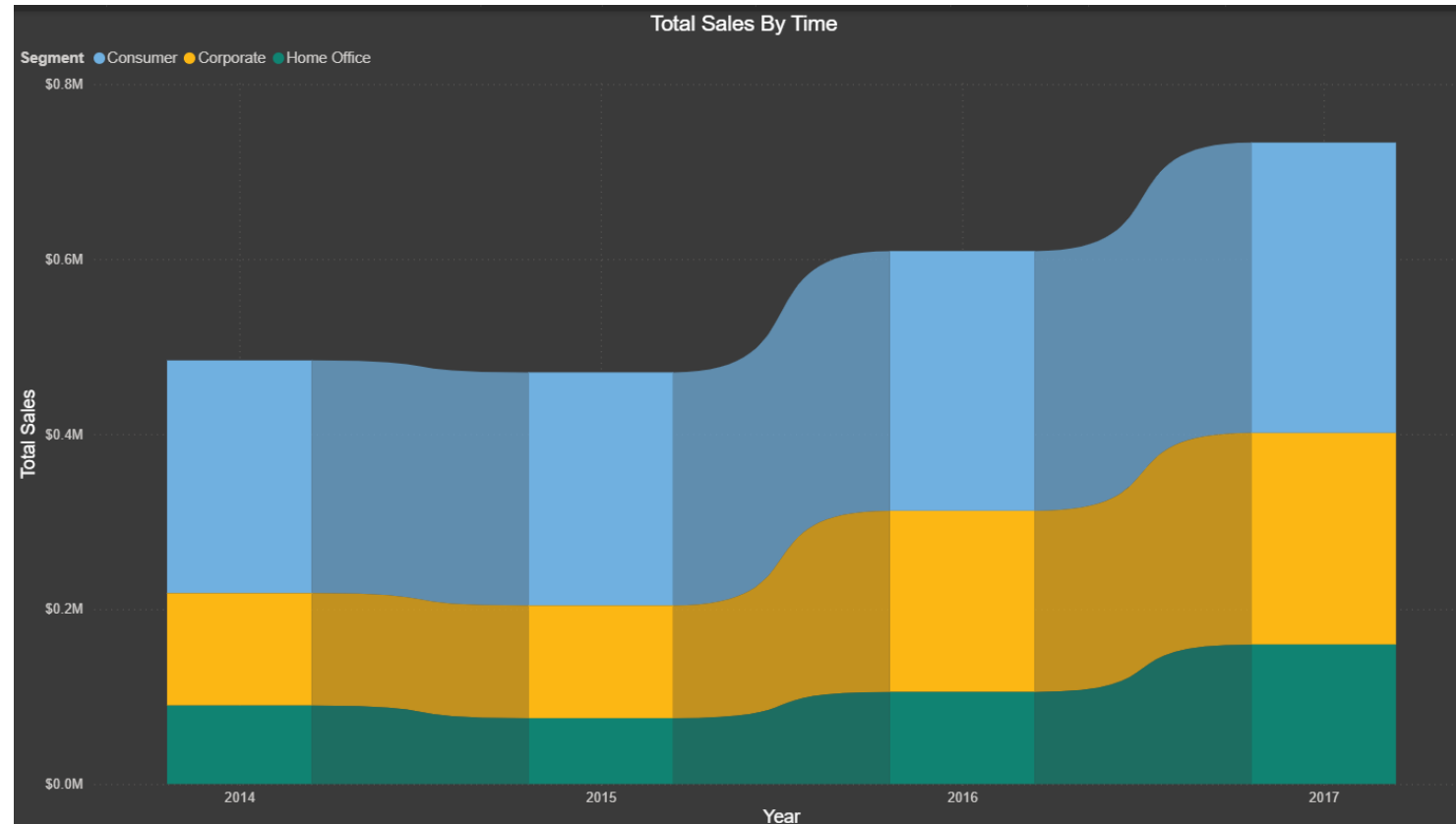
Annual total sales and profit both peaked in 2017 at **\$0.73M** and **\$93K** respectively, following a period of consistent year-over-year growth that began in 2015.



Monthly sales exhibit a seasonal trend with peaks consistently occurring in September and November, culminating in a four-year total of **\$2.30M** by the end of 2017.

Total Sales By Month					
Month Name	2014	2015	2016	2017	Total
January	\$14,236.90	\$18,174.08	\$18,542.49	\$43,971.37	\$94,924.84
February	\$4,519.89	\$11,951.41	\$22,978.82	\$20,301.13	\$59,751.25
March	\$55,691.01	\$38,726.25	\$51,715.88	\$58,872.35	\$205,005.49
April	\$28,295.35	\$34,195.21	\$38,750.04	\$36,521.54	\$137,762.13
May	\$23,648.29	\$30,131.69	\$56,987.73	\$44,261.11	\$155,028.81
June	\$34,595.13	\$24,797.29	\$40,344.53	\$52,981.73	\$152,718.68
July	\$33,946.39	\$28,765.33	\$39,261.96	\$45,264.42	\$147,238.10
August	\$27,909.47	\$36,898.33	\$31,115.37	\$63,120.89	\$159,044.06
September	\$81,777.35	\$64,595.92	\$73,410.02	\$87,866.65	\$307,649.95
October	\$31,453.39	\$31,404.92	\$59,687.75	\$77,776.92	\$200,322.98
November	\$78,628.72	\$75,972.56	\$79,411.97	\$118,447.83	\$352,461.07
December	\$69,545.62	\$74,919.52	\$96,999.04	\$83,829.32	\$325,293.50
Total	\$484,247.50	\$470,532.51	\$609,205.60	\$733,215.26	\$2,297,200.86

- Across all customer segments, total sales remained relatively flat between 2014 and 2015 before beginning a period of steady year-over-year growth through 2017.



Conclusion

Strategic Insights.

1

Category Profitability

Drain: While the overall business is healthy, the **Furniture** category is a significant "leaky bucket," yielding a razor-thin **2.49% margin**.

2

Top-Tier Customer

Value: A elite group of "Champion" customers, including **Tamara Chand** and **Raymond Buch**, generate highly profitable orders with margins exceeding **45%**.

3

Logistics

Bottlenecks: Analysis of **Avg Ship Days** identifies specific regions where shipping speed is currently a bottleneck, potentially impacting customer retention.

Strategic Insights.

4

Growth vs. Target Gap: Current **Sales Growth is 20.36%**, which, while positive, is currently underperforming against the ambitious **30.00% annual goal**.

5

Seasonal Revenue Spikes: The business experiences intense seasonality, with **November (\$118K)** and **December (\$83K)** consistently serving as the highest revenue-generating months.

6

Segment Dominance: The **Consumer segment** remains the primary driver of volume, maintaining the largest share of total sales across all fiscal years.

Recommendations

Recommendations Summary

1

Product Bundling

Strategy: Bundle low-margin **Furniture** items with high-margin

Technology

accessories to stabilize category profitability and increase average order value

2

VIP Loyalty Program:

Launch a **Loyalty Program** tailored for "Champion" customers to ensure long-term retention of these high-margin revenue streams.

3

Regional Logistics Optimization:

Prioritize supply chain investments in the **West region** to reduce shipping delays and improve the "Avg Ship Days" metric.

Recommendations Summary

4

Pricing Adjustments:

Evaluate and adjust pricing for consistently unprofitable customers, such as **Thais Sissman (-68.60% margin)**, to prevent further profit erosion.

5

Q4 Inventory

Readiness: Increase inventory levels and marketing spend starting in **October** to fully capitalize on the proven Q4 holiday surge.

6

Growth Acceleration

Plan: Implement targeted promotional campaigns for the **Corporate segment** to bridge the 10% gap between current sales growth and the 30% organizational goal.



Thank You!

- **Omer Metwally | Aspiring Data Analyst**
- Tools Used:
 - Excel
 - Power Bi
 - Power Query
 - DAX
 - AI-Powered Visuals, Interactive Reporting Tools
- Last Updated: **16.th January 2026**