

Project Background

Zyntrixon Mart, established in **2020**, is a **United States-based e-commerce store** that specializes in selling **office supplies and furniture** through its **online platform** as well as **offline retail outlets**.

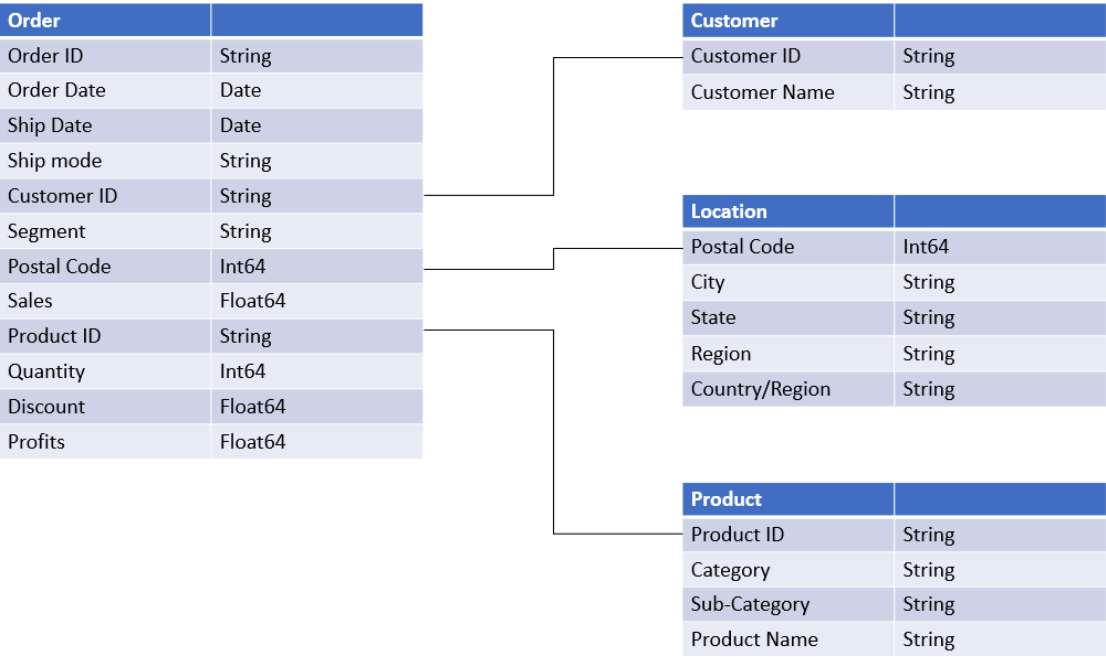
Insights and recommendations are provided on the following key areas:

- **Sales Trend Analysis** : Identify monthly and weekly patterns highlighting peak and low-performance Sales periods.
- **Product level Performance** : Revealed top and underperforming subcategories based on sales and profit metrics.
- **Weekly Trends Monitoring** : Detecting weekly fluctuation to support agile marketing and Sales Strategies.
- **Profitability Optimization Opportunities** : Highlighted Subcategories with strong Sales but low profits for margin improvement.

You can visit interactive Dashboard [here](#)

Data Structure and Initial Checks

Mart database structure can be seen below consist of four tables: Order, Customer, Location and Product with a total row count of 13,258 records.



Executive Summary

After launching in 2020, the company's sales dropped by 0.63% in 2021. However, key performance indicators showed strong year-over-year average growth: Quantity increased by 18%, Profit grew by 19%, and Sales rose by 23%. While much of this growth can be broadly attributed to, market's recovery toward post-pandemic normalcy, the following sections will explore additional contributing factors and highlight key opportunities for further improvement.

Below is the overview page from the Tableau dashboard and more examples are included throughout the report. The entire interaction dashboard can be downloaded [here](#)



Sales Trends:

- Beginning in 2020, sales saw a slight 0.63% decline in 2021, which marked the lowest point in the company's sales history. This drop resulted in a decrease in profits compared to previous year.
- However, key performance showed strong recovery and growth over the following years:
 - 2022 saw a 23% increase in sales YoY.
 - 2023 continues the positive trend, recording an average growth of 19% in profits and 18% in quantity sold.

While much of this growth can be attributed to the market's recovery post-pandemic, Other factors contributed as well, which will be explored further in the next section.

- The company's sales peaked twice during 2022 and 2023:
 - December 2022: Sales reached \$98,500, generating a profit of \$18.2K.
 - October 2023: Sales of \$86,700, generating a profit of \$15.9K.

Together, these two months accounted for approximately 34% of the total annual sales and \$34.1K in profit.

- The highest sales contributors were individual customers (\$1,12M in Sales), generating \$145K in profit, and corporate clients (\$725K in Sales), generating \$96.8K in profit.

Product-Level Performance:

→ Top Performing Subcategories:

- Electronics Accessories: +40% YoY sales growth, contributing \$32.5K in profit.
- Home Essentials: +30% YoY sales growth, contributing \$27.3K in profit.
- Personal Care: +28% YoY Sales growth, contributing \$24.8K in profit.

→ Underperforming Subcategories:

- Luxury Apparel: Sales declined by 15.3% YoY, leading to a \$3.9K drop in profits.
- Outdoor Equipment: Limited seasonal sales, generating only \$8.7K in total revenue.

The top 3 subcategories contributed over 48% of the total profit, while underperforming subcategories contributed only 6%.

Weekly Trends Monitoring:

Sales showed clear fluctuations across the week:

- Friday and Saturday Sales were 32% higher than weekly average.
- Tuesday and Wednesday sales were consistently 22% lower than weekend peak sales.

Additionally, payday weeks (end and beginning of the month) generated +28% more sales compared to mid-month weeks.

→ **Key opportunity:**

Mid-month campaigns could potentially recover an additional \$11.5K in lost sales per quarter.

Profitability Optimization Opportunities:

Several subcategories showed strong sales but lower-than-average profits:

- Gadgets: despite strong sales, profits margins were 6.2% lower than the overall company average, resulting in a \$5.6K potential margin loss.
- Grocery Staples: Strong sales volume, but 4.1% lower margin, affecting profitability by \$3.1K.

→ Strategic Actions:

- Bundle high-demand gadgets to improve profits margins.
- Increase private-label promotions in grocery to regain lost margin.

Recommendations Summary

→ Launch “**Weekend Super Sales**” Campaign (Friday-Sunday)

- **What:**
Offer exclusive discounts during peak weekend days to boost sales.
- **Why:**
Weekend sales are already 32% higher than mid-week; further promotions could boost weekend revenue by 15-20%.
- **Effects:**
 - **Positive:** increase revenue, faster inventory turnover.
 - **Negative:** Slight cannibalization of Thursday sales, but manageable with targeted discounts.

→ Introduce “**Midweek Boost**” Flash Campaign (Tuesday-Wednesday)

- **What:**
Run surprise midweek-only offers (e.g., buy-one-get-one, limited-time deals).
- **Why:**
Tuesday-Wednesday sales are consistently 22% lower than weekends.
- **Effects:**
 - **Positive:** Stabilize weekly revenue, reduce over-reliance on weekends.
 - **Negative:** Potential deal-hunters focusing only on midweek, but this can be mitigated with a variety of offers.

→ **Bundle Strategy** for Gadgets to **Preserve Margins**

- **What:**
Bundle popular gadgets with complementary products (e.g., accessories).
- **Why:**
Gadgets show strong sales but have 6.2% lower margins.
- **Effects:**
 - **Positive:** Increased average order value, better cross-selling, and preserved margins.
 - **Negative:** Risk of bundling unpopular items, but manageable by carefully selecting complementary products.

→ **Private Label Expansion** in Grocery Staples

- **What:**
Promote private-label grocery products to increase margins.
- **Why:**
Grocery items are generating 4.1% lower margins than other products.
- **Effects:**
 - **Positive:** Private-label goods offer 20-30% higher margins and build stronger customer loyalty.
 - **Negative:** Customer trust might take time to develop, but launching taste tests and satisfaction guarantees can help.

→ **Mid-Month Promotions** to Fill Sales Gaps

- **What:**
Launch small-scale promotions during the 2nd and 3rd weeks of the month to smooth sales fluctuations.
- **Why:**
Mid-month sales see a -19% dip compared to payday weeks.
- **Effects:**
 - **Positive:** Smoother revenue flow, more balanced operational demands.
 - **Negative:** Additional marketing spend, but effective if done cost-effectively.

Summary of Projected Impact

- **Revenue Growth:** +7% to +9% in the next two quarters.
- **Profit Margin Improvement:** +4% to +5%.
- **Customer Retention:** +5% increase by stabilizing weekly buying patterns.

