



Sales and Delivery Analysis Report





Maz Company recorded sales and delivery data from Jan 2014 to Nov 2017, aiming to analyze sales performance over time and identify key factors affecting delivery times and product return rates to optimizing operations and increasing revenue.

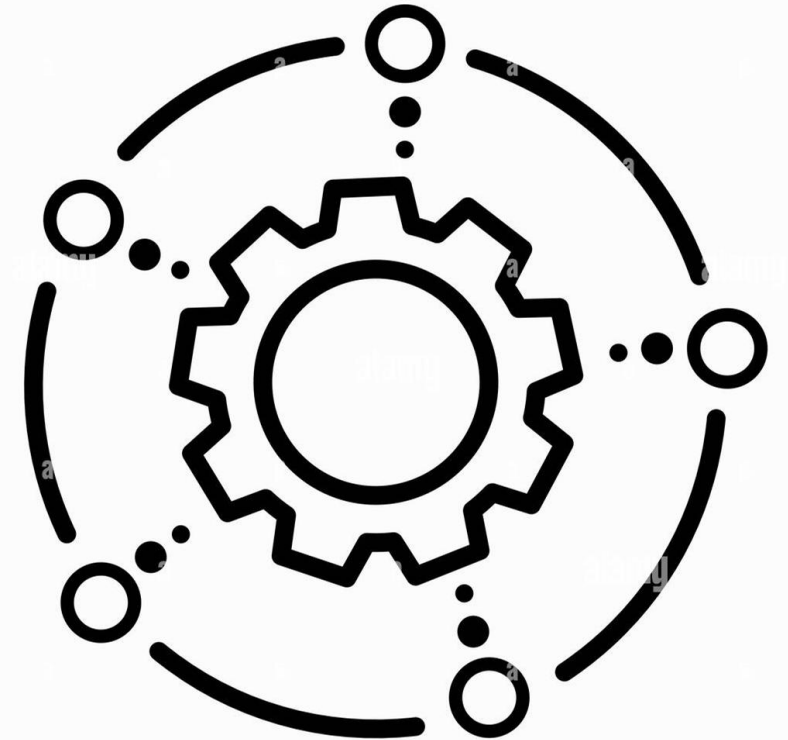
Performance Analysis and Influencing Factors

- Influencing factors analysis: revenue, profit, delivery times, product return rate.
- Performance metrics: revenue, profitability.

Optimization operational strategies

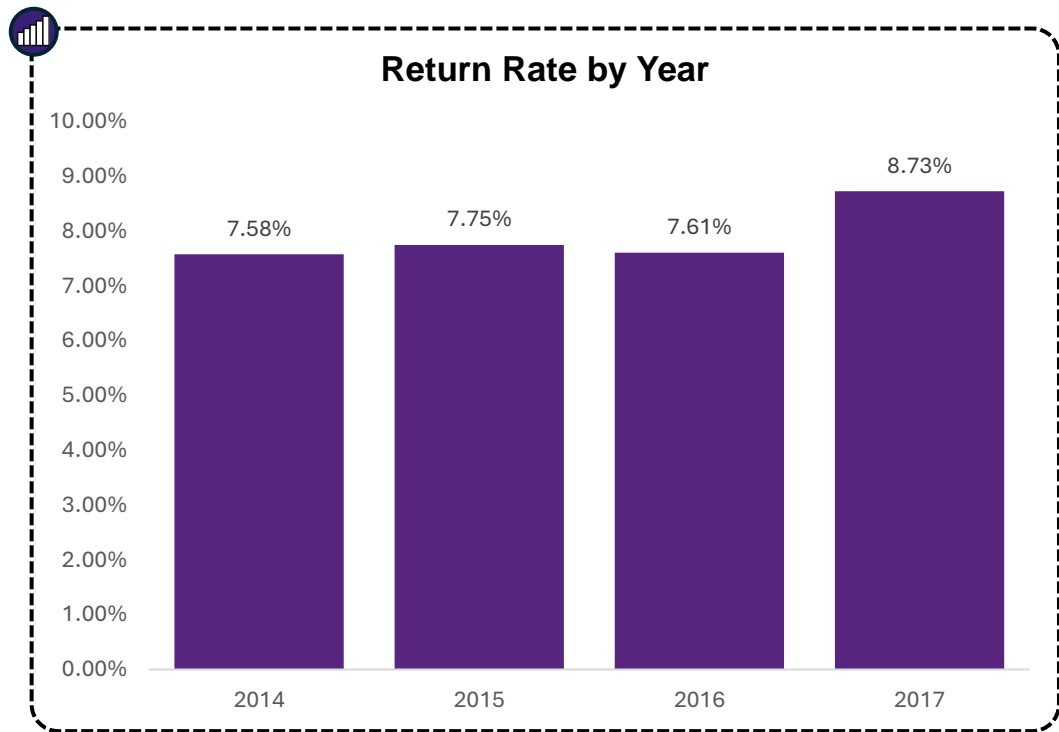
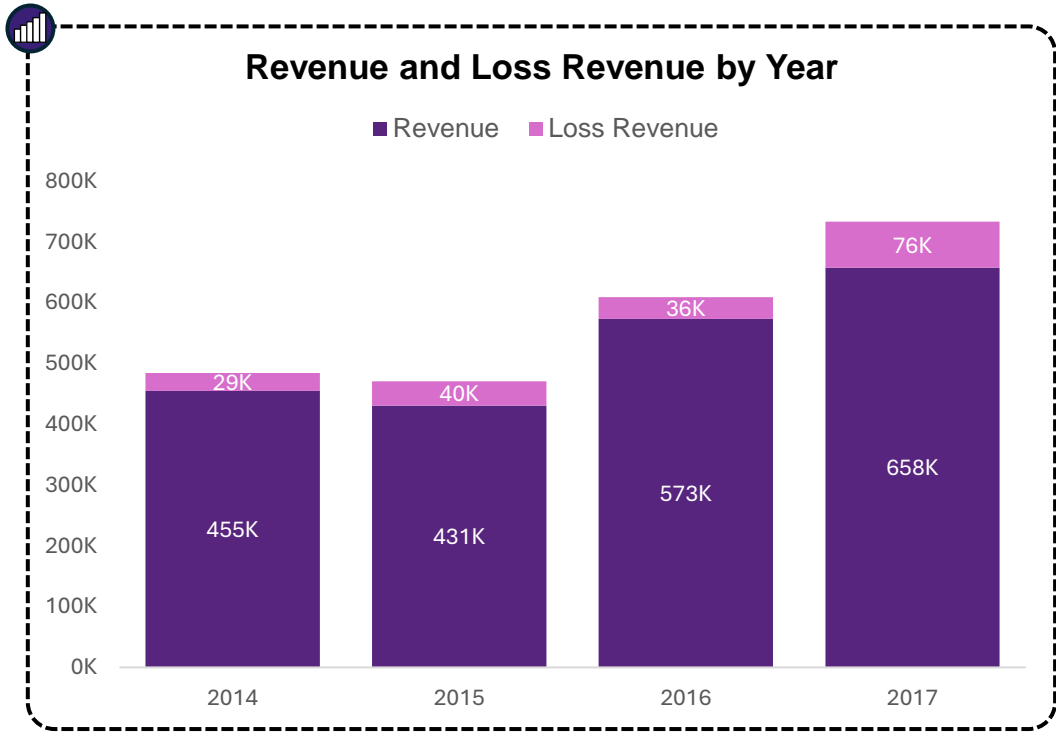
Analysis Framework

1. Exploring Factors Influencing Operations
2. Analyzing Sales Performance
3. Key Takeout and Recommendation



A high return rate has negatively impacted revenue performance

“The annual return rate, ranging from 7% to 8%, has contributed to a **revenue decline of approximately 6% to 12%** each year

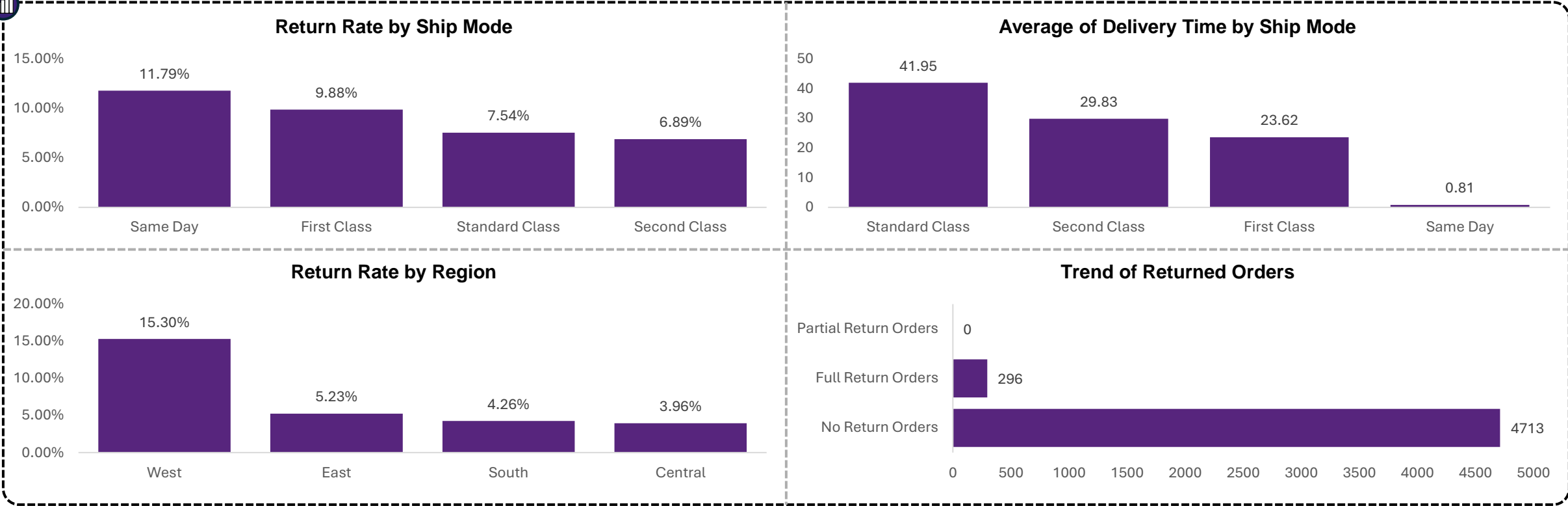


Exploring Factors Influencing Operations | Return Rate

The return rate appears to be **unaffected by either product category**, but is primarily **influenced by delivery time and region**.



All returned orders involved the **return of every item within the order**. As a result, the return rate is not influenced by specific product types. Notably, the delivery methods with the highest return rates are Same Day and First Class, despite their contrasting average delivery times — 0.81 days for Same Day and 23.62 days for First Class.



Although Same Day delivery offers fast shipping, the high return rate may indicate potential **issues with quality control**. Meanwhile, the high return rate for First Class deliveries may result from delivery times being **longer than customers expect** from this service.

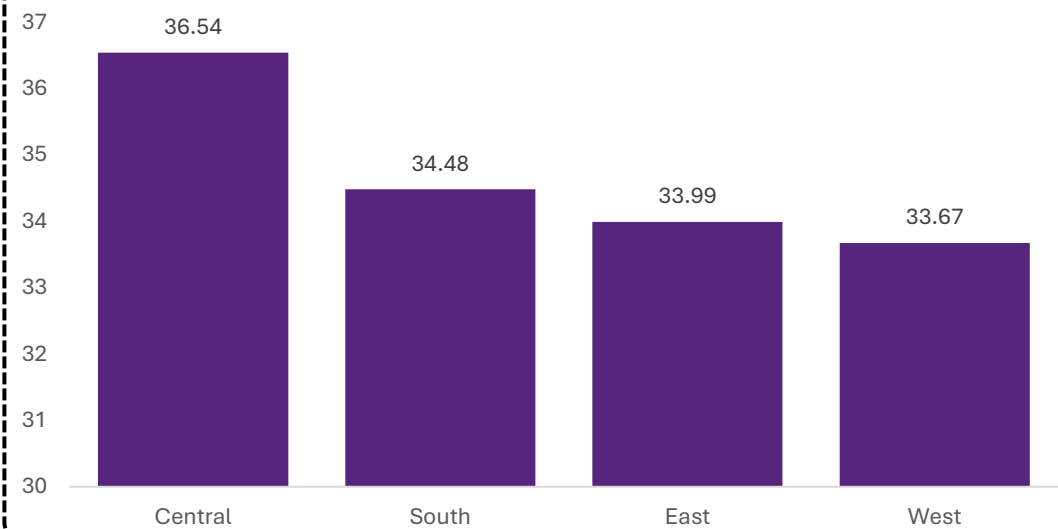
Delivery time is **not affected** by either **product category** or **region**.



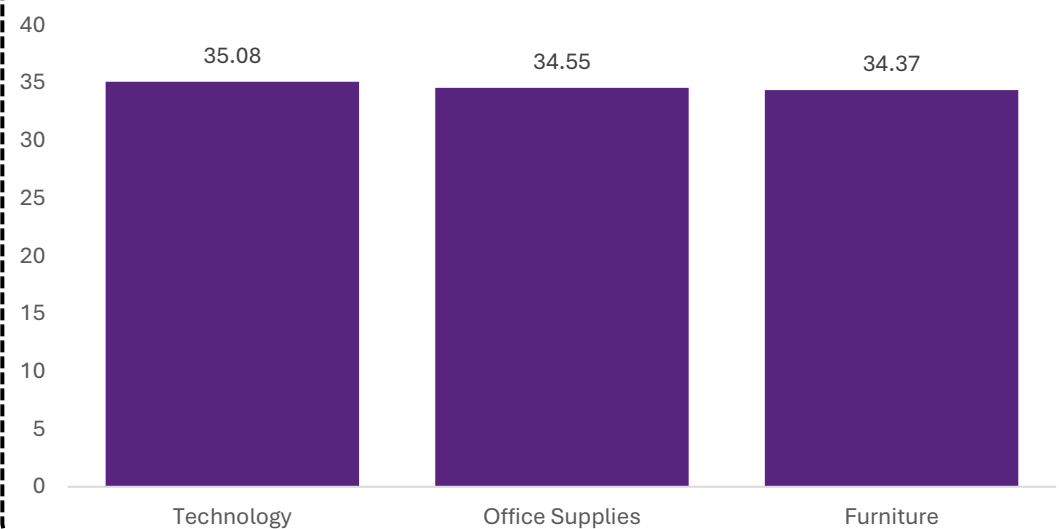
Delivery times across **regions** do not vary significantly, **ranging from 33 to 36 days**. Similarly, the average delivery time across **product categories** is consistent, at **approximately 35 days**.



Average of Delivery Time by Region



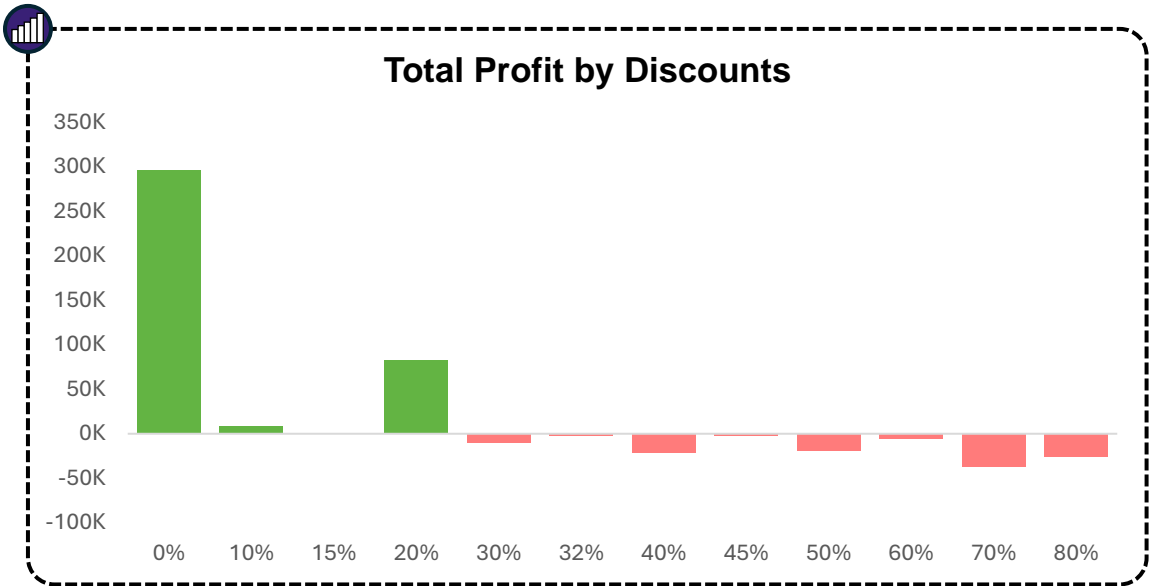
Average of Delivery Time by Product Category



The delivery time does not differ significantly across products or regions, which may be attributed to a **complex supply chain, or special shipping processes**.

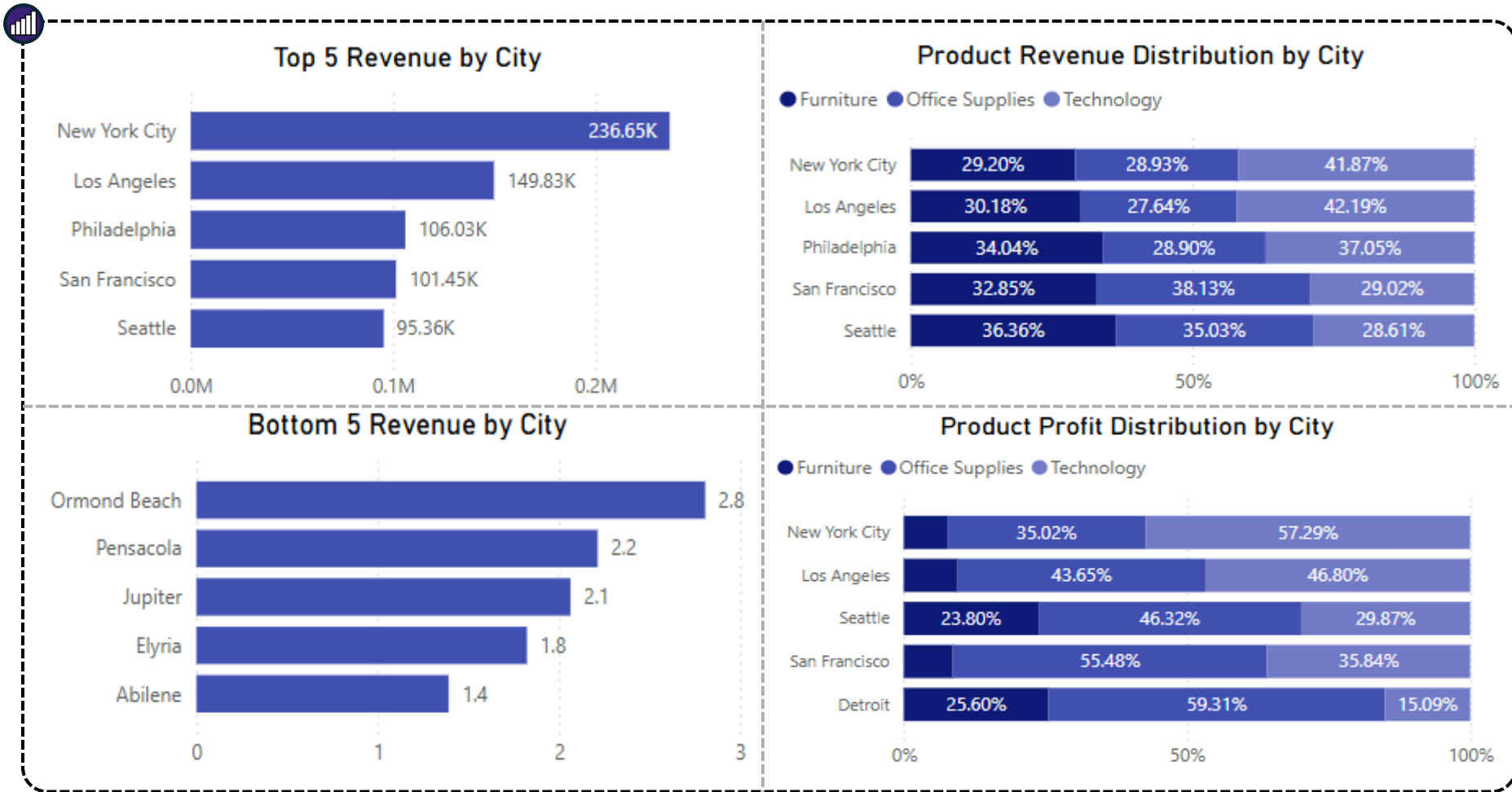
Discounts directly affect profitability.

When the **discount exceeds 20%**, the number of products generating **positive profit drops significantly**, with **almost no positive profit** observed at higher discount levels. Additionally, total profit from discounts of 20% and above consistently **falls into negative territory**.



It is necessary to **re-evaluate the current pricing strategy** in order to secure greater profitability.

“The **Top 5 cities by revenue** are New York, Los Angeles, Philadelphia, San Francisco, and Seattle. Profits in these cities primarily come from **Office Supplies and Technology products**. In contrast, cities with the **lowest revenue** include Ormond Beach, Pensacola, Jupiter, Elyria, and Abilene.

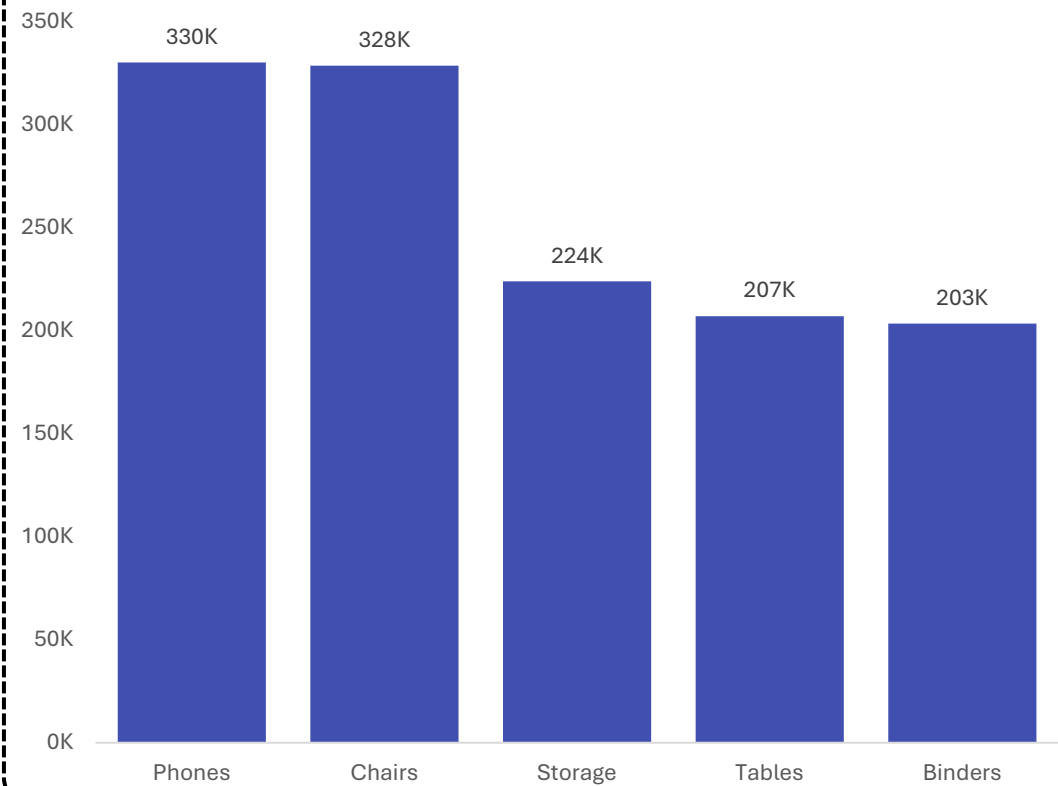




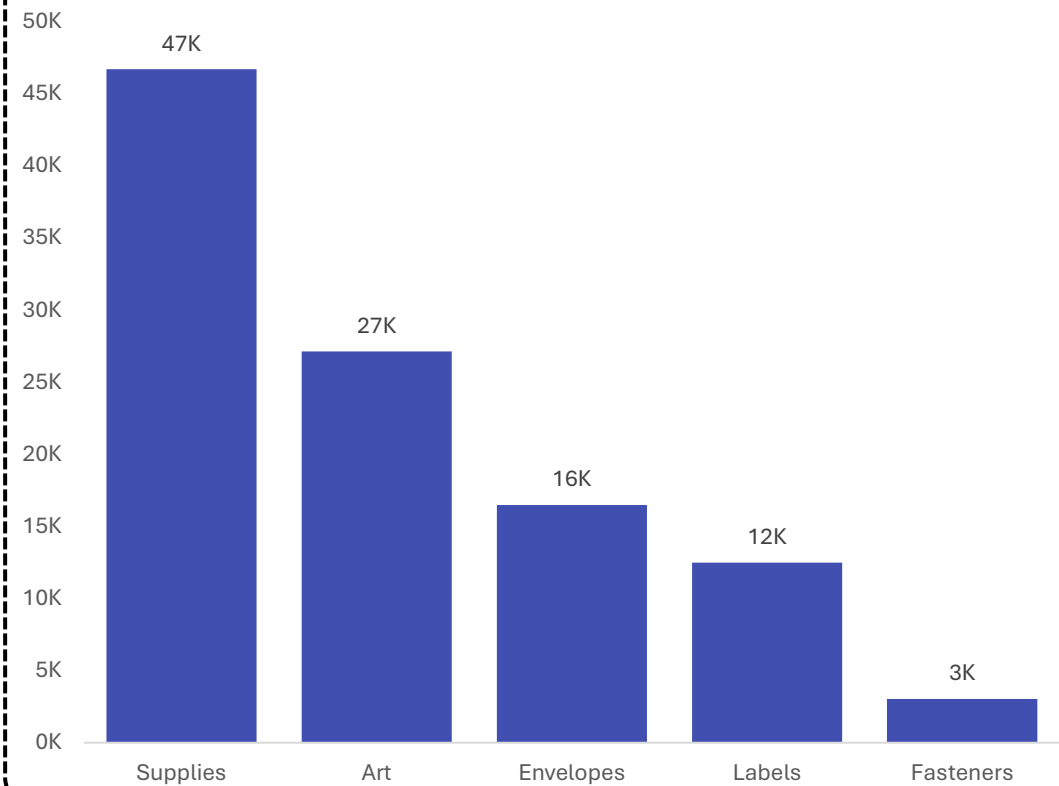
The **Top 5 products by sales** are **Phones, Chairs, Storage, Tables, and Binders**, each generating over \$200K in revenue. On the other hand, the products with the **lowest sales** are **Supplies (\$47K), Art (\$27K), Envelopes (\$16K), Labels (\$12K), and Fasteners (\$3K)**.



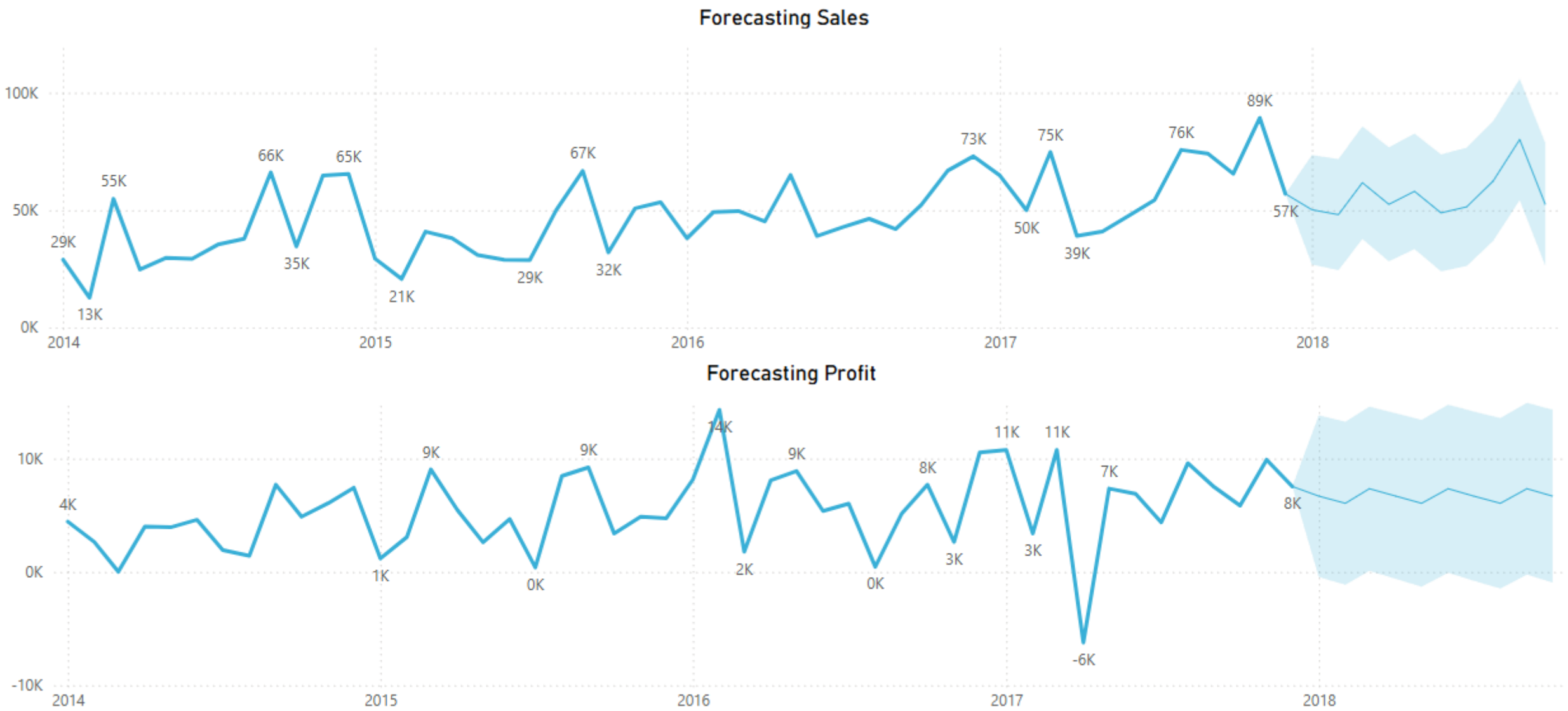
Top 5 Sales by Products



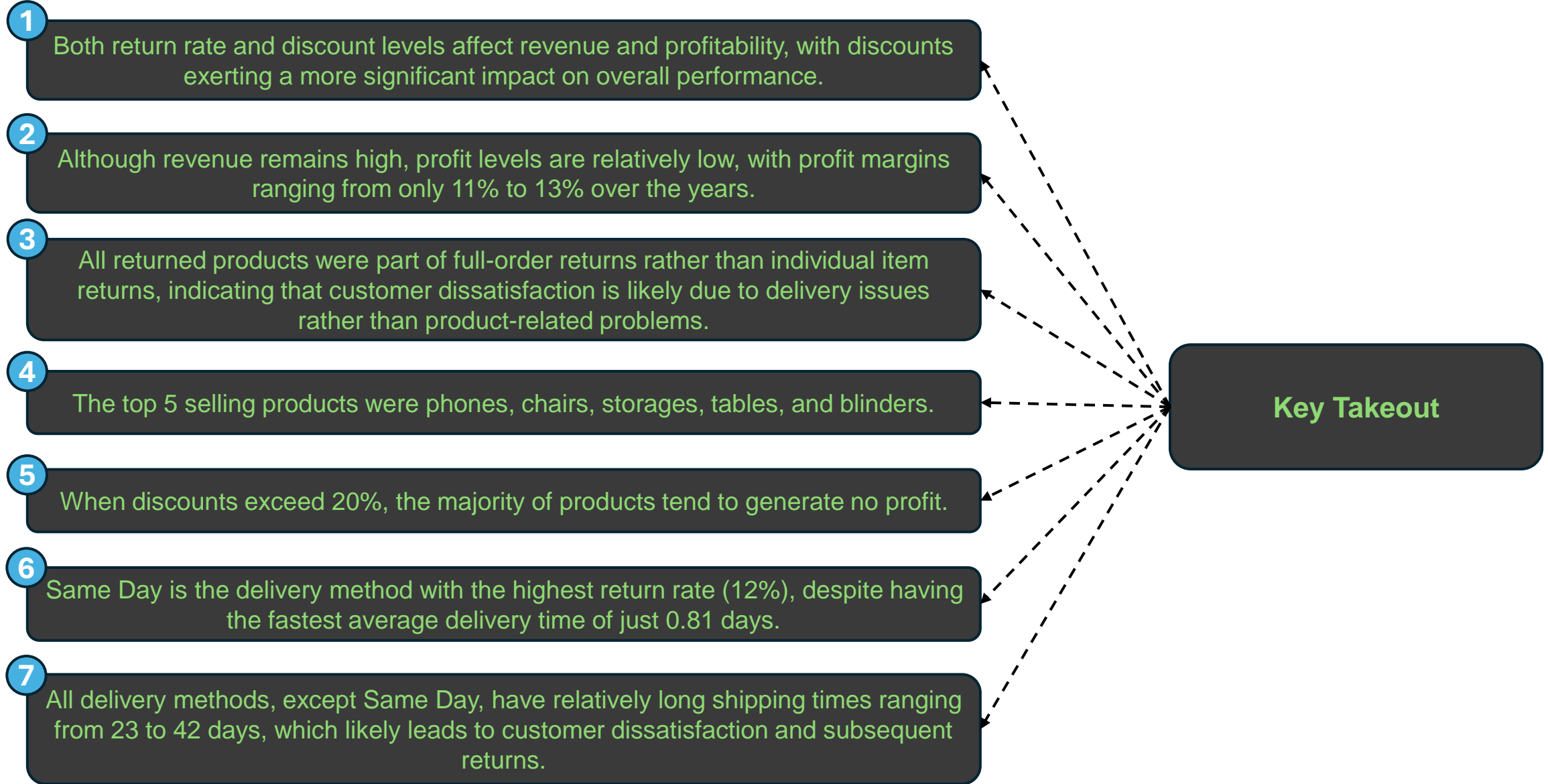
Bottom Sales by Products



Analyzing Sales Performance | **Forecasting**



Key Takeout and Recommendations| **Key Takeout**



Recommendations

1

The discount policy needs to be re-evaluated.

2

There is a need to optimize the product return policy, pricing strategy, and cost of goods sold.

3

The quality control process should be reviewed for all products, especially those delivered via the Same Day shipping method.

4

It is necessary to optimize both delivery methods and logistics processes in order to reduce overall shipping time.