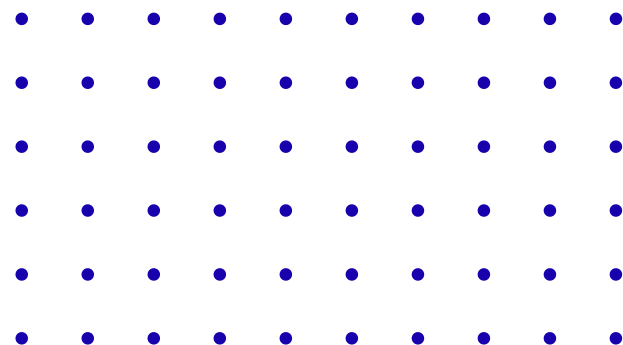


# Supply Chain Dataset Analysis

Visual Forecasting & Insights Dashboard



# 💡 Business Challenge

## The Problem:

- Delayed shipments 🚚
- Stock shortages 📦
- Unclear supplier performance ⚙️

## Our Goal:

- Turn complex supply chain data → clear, actionable insights

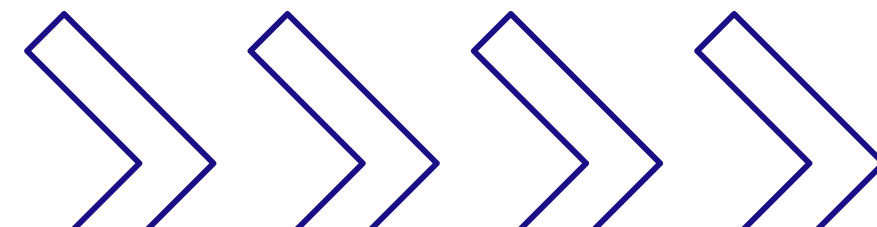


# ⚙️ Snapshot of the Data

## Dataset Scope:

- 10K+ transactions
- 5 suppliers, 7 product categories
- Revenue, stock, defect, and delivery metrics

**Tools:** Power BI | Python | SQL





## Performance KPIs

**Top Revenue**

2.29M



**Products Sold**

46K



**Avg Lead Time**

17 days



**Avg Defect Rate**

0%



# Revenue & Sales Insights

## Top Revenue Categories



### Top Revenue by Product Category

skincare

1.1M

hairecare

0.6M

cosmetics

0.6M

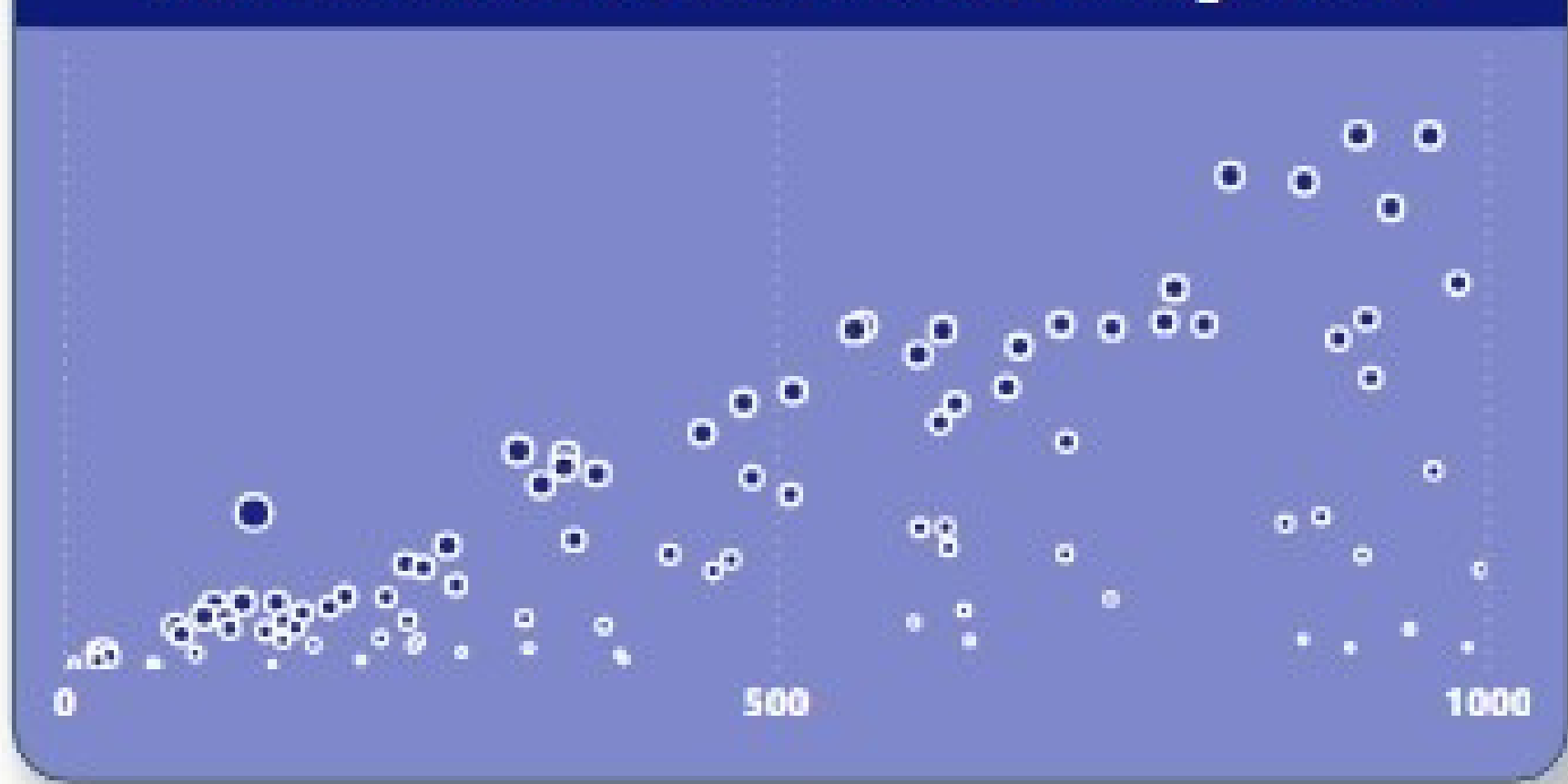
# Revenue & Sales Insights

## Low Margin Items

High volume,  
low revenue SKUs.



## Sales Volume vs Revenue by SKU



# Revenue & Sales Insights

Leadership can be found in many forms: through strong communication, reliability, creativity, or a willingness to help others. Leaders are not just the loudest voices—they are those who inspire progress and take action for the greater good.



# ⚙ Supplier & Quality Insights

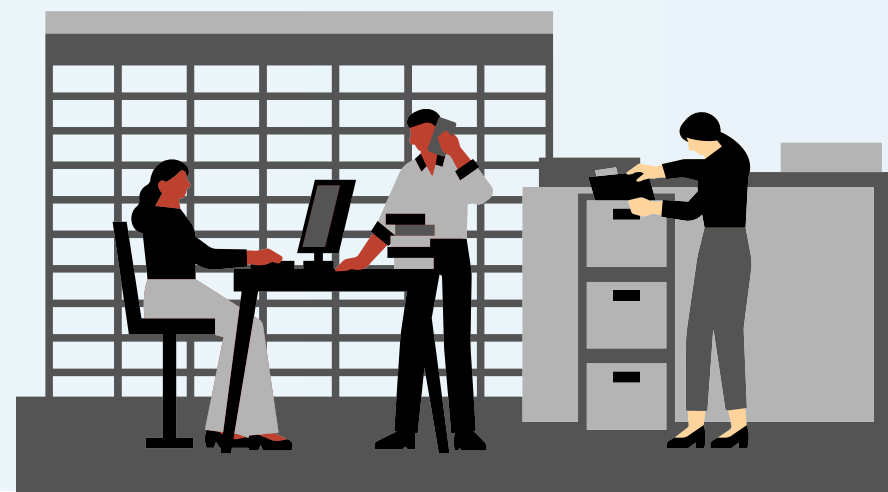
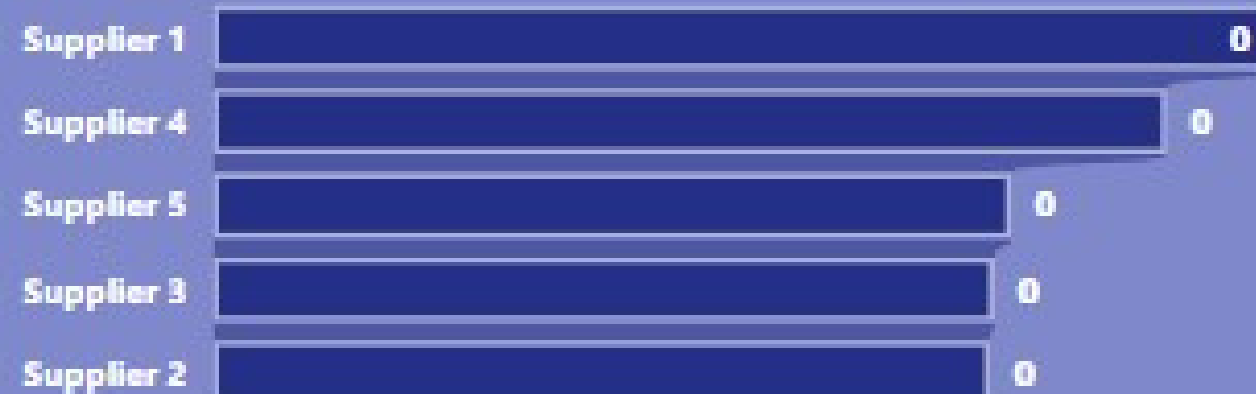
## Supplier Analysis:

- Supplier 3 → best lead time & lowest defect rate
- Supplier 5 → slow delivery, higher defects

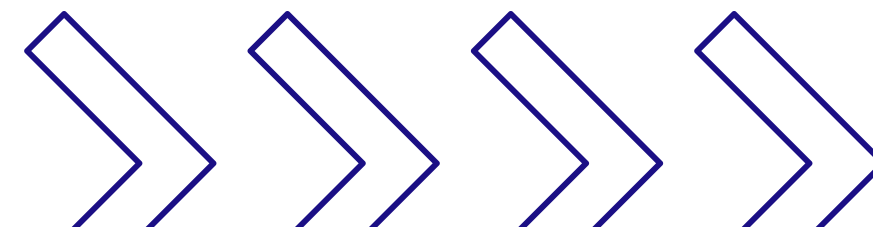
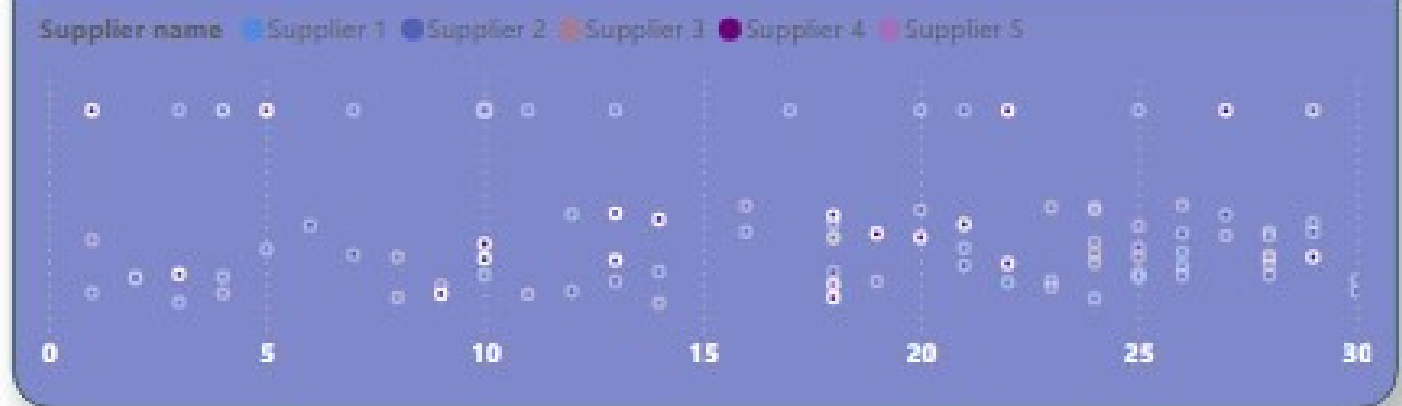
## Lead Time vs Defect Rate:

Negative correlation — faster suppliers = fewer defects.

### Average Defect Rate by Supplier name



### Supplier Performance – Lead Time vs Defect Rate

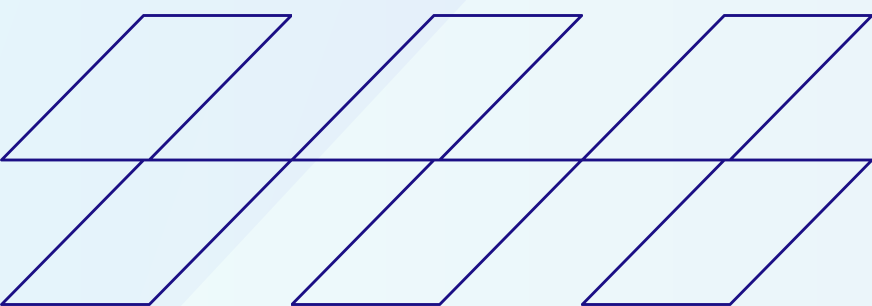




# Inventory & Logistics

Stock Violations:  
Frequent in fast-moving SKUs  
Need dynamic restocking system

Shipping Cost Insights:  
Fast delivery costs +25% more  
Optimize cost-speed balance



# Forecasting Insights

Revenue Forecast:

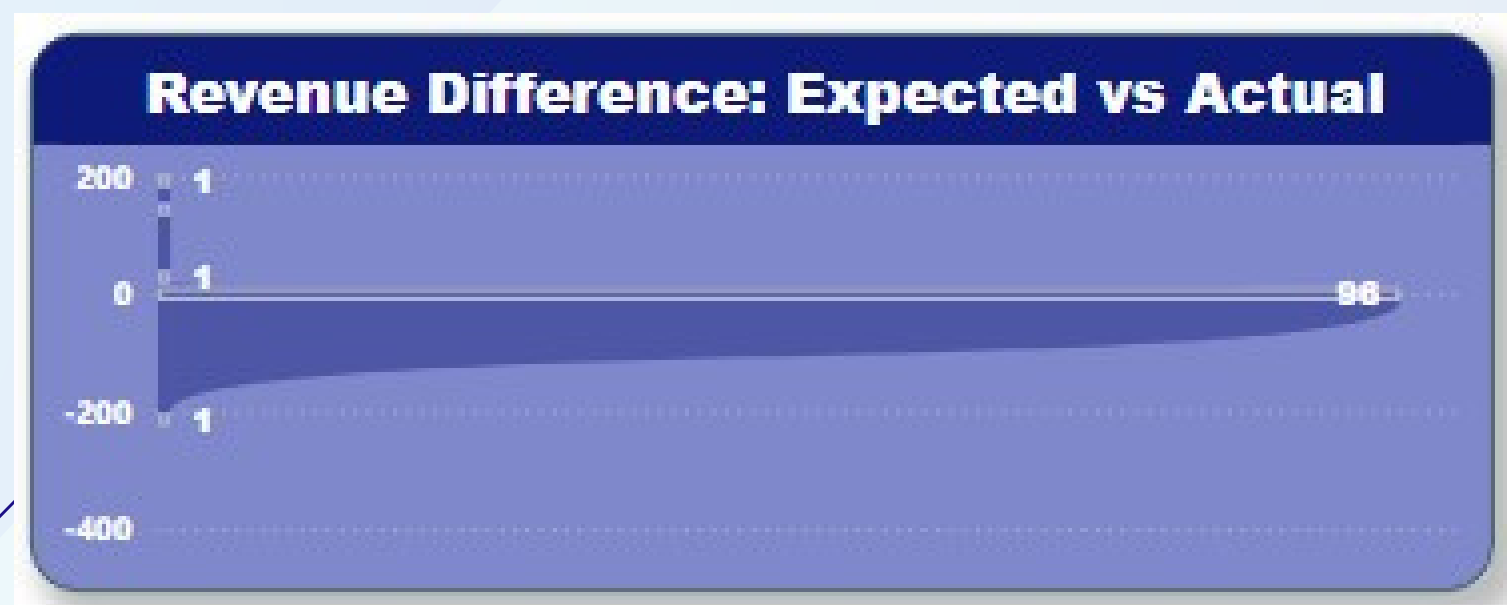
Gradual increase next quarter 

Stock Forecast:

Risk of shortage if demand continues rising.

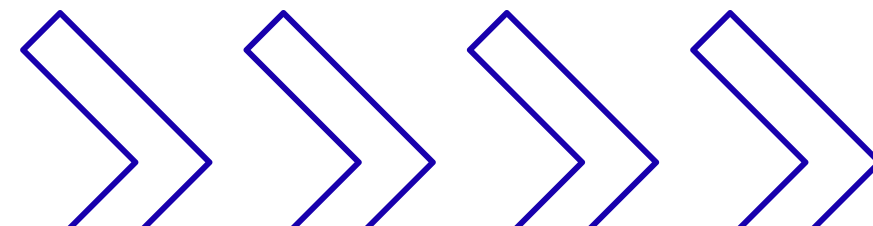
Supplier Trend:

Lead time improving slightly, defect stable.



## Strategic Recommendations

- Automate dashboards for real-time tracking.
- Prioritize top suppliers with low defect rates.
- Optimize stock based on forecast demand.
- Review pricing of low-margin items.
- Reduce high shipping cost routes



# Thank You

Questions & Discussion



## Team Members:

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- Ahmed El-Sayed Ahmed Fouda
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