

# *Supclair*

## Clarity in Every Chain

---

In today's competitive business environment, efficient inventory management, supplier evaluation, and logistics optimization are critical for maintaining a seamless supply chain. This project aims to leverage data analytics and visualization tools to gain actionable insights into stock availability, sales performance, supplier efficiency, and transportation logistics.

**Sales Overview**

**Inventory and Costs**

**Supplier and  
Manufacturing I**

**Supplier and  
Manufacturing II**

**Insights**



\$577.6K

Total Revenue

\$58.21K

Total Costs

\$519.4K

Total Profit

46K

Total Sold Quantity

4922

Total Order Quantity

575

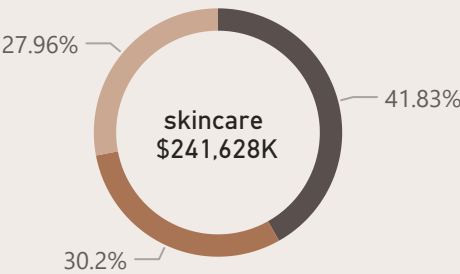
Total Shipments

\$12.5

Average Selling Price

Total Revenue by Product type

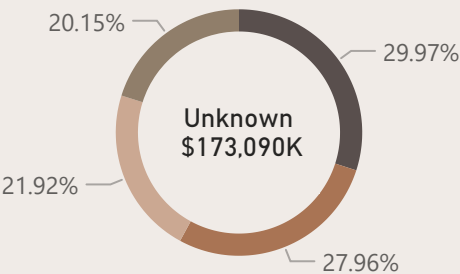
Which Product type makes the most Revenue?



Product type ● skincare ● haircare ● cosmetics

Total Revenue by Gender

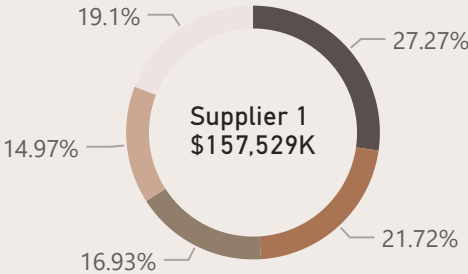
Which gender brings in the most revenue?



Gender ● Unknown ● Female ● Male ● Non-binary

Total Revenue by Supplier

Which supplier drives the most revenue?



Supplier ● Supplier 1 ● Supplier 2 ● Supplier 3 ● Supplier 4 ● Supplier 5

Price and No. of Products Sold Relationship

Does a Lower Price Guarantee Higher Sales?



Top 20 profitable Products?

Which products generate the highest profit?



\$577.6K

Total Revenue

\$58.21K

Total Costs

\$52.9K

General Costs

\$555

Total Shipping Costs

\$4.7K

Manufacturing Cost

48.40%

Stock Availability %

575

Total Shipments

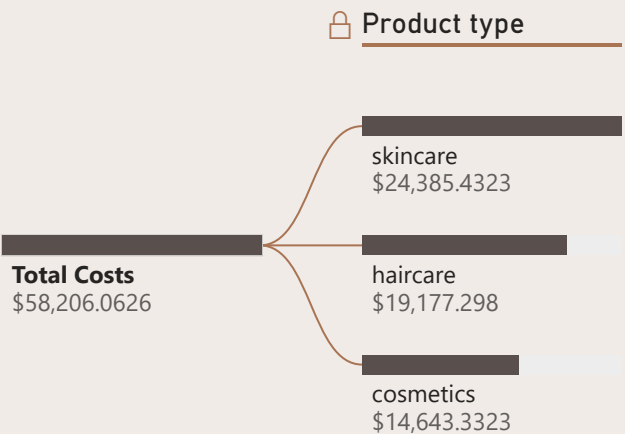
Products with Stock Availability less than 20%

Which products have critically low stock?

SKU	Stock Availability %	Total Order Quantity
SKU45	1.00%	52
SKU52	1.00%	11
SKU29	3.00%	67
SKU13	5.00%	48
SKU37	5.00%	21
SKU43	6.00%	85
SKU26	9.00%	48
SKU81	9.00%	8

Total Expenses by Product type

Which product type has the highest expense?



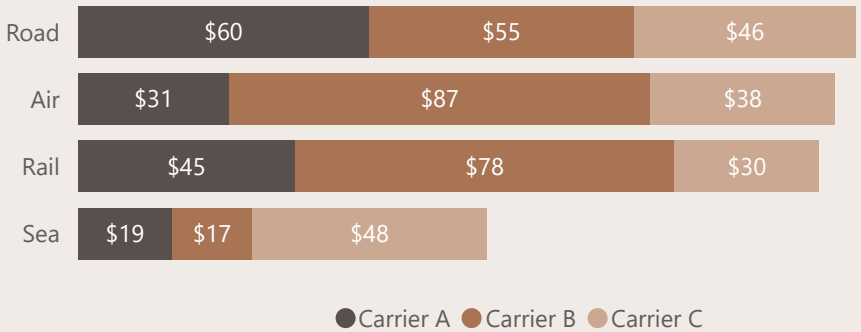
General costs by Products

Which product needs the highest investment?



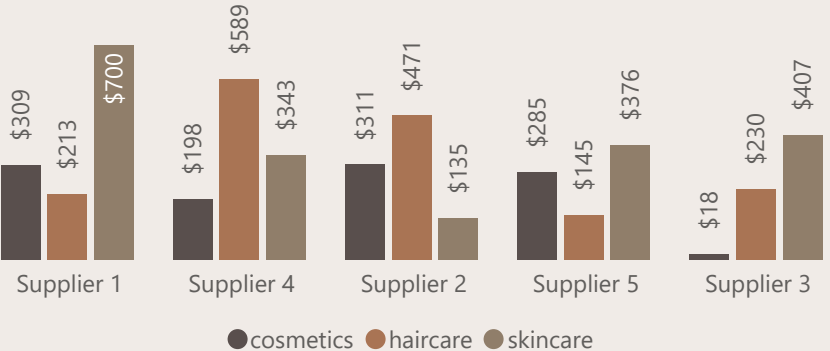
Shipping Costs by Shipping Carriers & Transportation Modes

Which transportation mode is the most expensive?



Manufacturing costs by Suppliers and their Products

Who's spending the most to bring beauty to life?



15.96

Average Order Lead time

17.08

Average Supplier Lead Time

14.77

Average Manufacturing Lead Time

36

High Defect Count

38.98%

Inspection Pass Rate %

38.45%

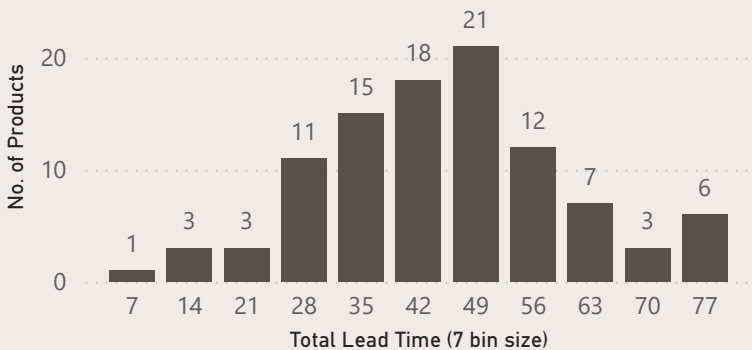
Manufacturing Efficiency

1.23K

Manufacturing Waste Rat...

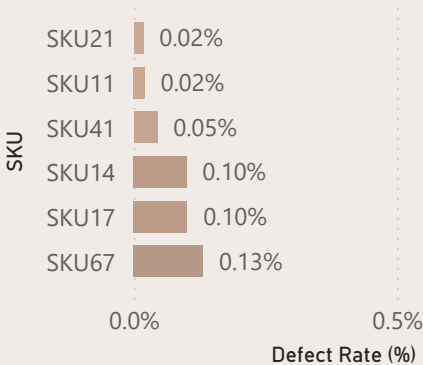
Total Lead Time Distribution

How often do different lead times occur?



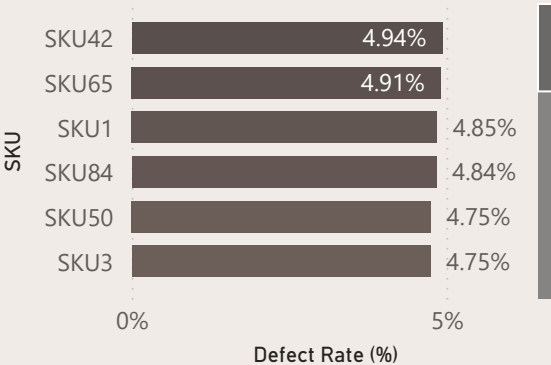
Least 20 SKU with Defect Rates

Which products have the fewest defects?



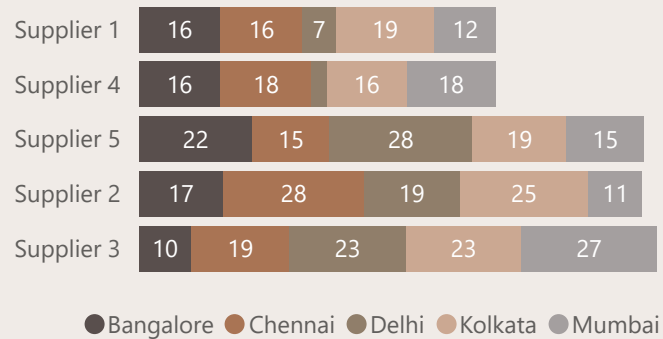
Hlghest 20 SKU with Defect Rates

Which products need quality improvements?



Average Supplier Lead Time by Supplier & Location

Which suppliers delivers the raw material needed the fastest?



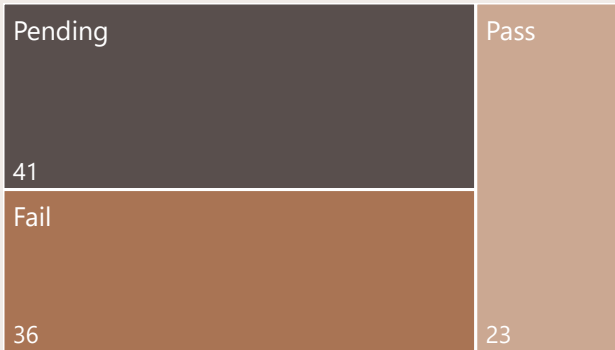
Supplier Performance

Which supplier helped us grow?

Supplier name	Supplier Performance
Supplier 1	● Acceptable
Supplier 2	✓ Good
Supplier 3	✗ Bad
Supplier 4	● Acceptable
Supplier 5	✓ Good

Products count by Inspection results

How many products passed or failed inspection?



15.96

Average Order Lead time

17.08

Average Supplier Lead Time

14.77

Average Manufacturing Lead Time

36

High Defect Count

38.98%

Inspection Pass Rate %

38.45%

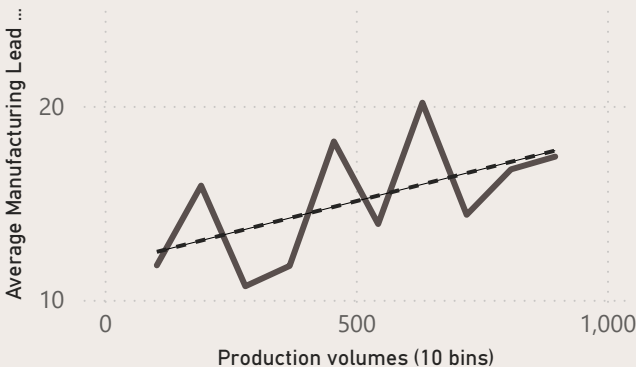
Manufacturing Efficiency

1.23K

Manufacturing Waste Rat...

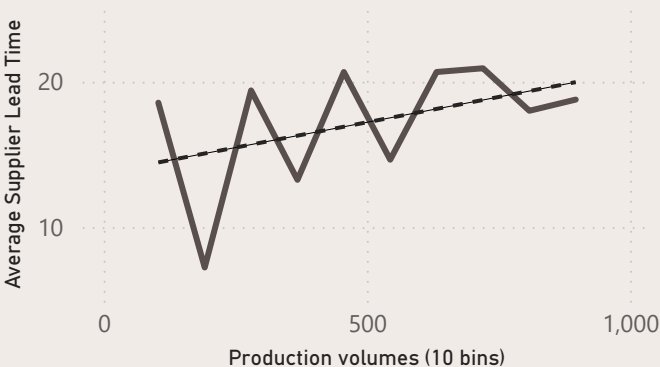
Manufac. Lead time vs. Production Volume

Does production size affect manufacturing speed?



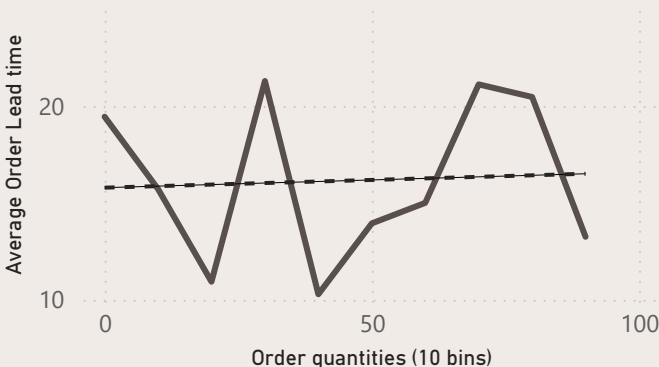
Suppler Lead time vs. Production Volume

Does production volume slow down suppliers?



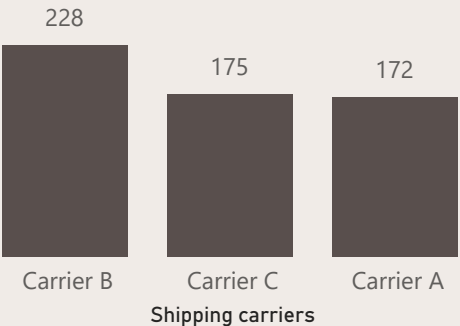
Order Lead time vs. Order quantities

Do bigger orders take longer?



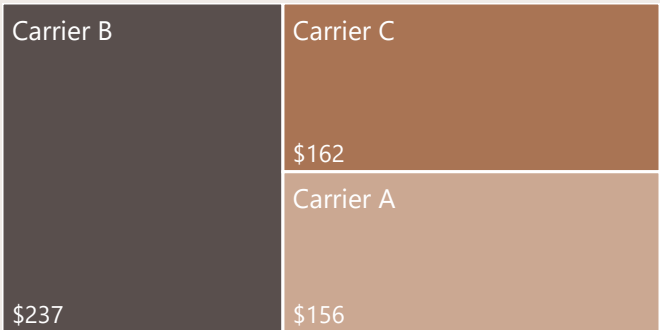
Total Shipments by Shipping carriers

Who Ships Most?



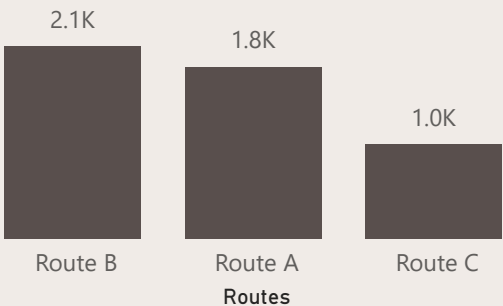
Total Shipping Costs by Shipping carriers

Who Costs Most to Ship?



Total Order Quantity by Routes

Which Route Has the Most Orders?



Analytics and Insights

- The gender category labeled as "Unknown" brings in the most revenue, contributing 29.97% of the total revenue, which amounts to \$173,090K. This is higher compared to other gender categories such as Female (27.96%), Male (21.92%), and Non-binary (20.15%).
- Skincare is the top revenue-generating product type, contributing 41.83% of the total revenue, amounting to \$241,628K. Haircare follows with 30.2%, while cosmetics account for 27.96% of total revenue.
- Top Products by Revenue: The highest revenue-generating products include SKU51, SKU38, SKU31, SKU90, and SKU2, each contributing around \$10K in sales. These products are likely higher-priced items or have a strong profit margin.
- Top Products by Quantity Sold: The most sold products in terms of units are SKU10 (996 units), SKU94 (987 units), and SKU9 (980 units). These products are in high demand, even if their revenue contribution may not be the highest.
- The price vs. No. of products sold scatter plot demonstrates no clear pattern between price fluctuations and sales, and this is supported by a correlation coefficient of 0.005739484 and an R-squared value of 0.0000329, both indicating a negligible correlation. This suggests that sales volume remains largely unaffected by price variations within the observed range.
- Stock availability is inconsistent across different suppliers and locations. Some suppliers, like Supplier 1, show high stock levels in Bangalore (86%) but significantly lower availability in other cities, such as Mumbai (29%). Similarly, Supplier 5 has a strong stock presence in Delhi (70%) but drops sharply in Mumbai (19%).
- The most common lead time is 35-55 days range. The distribution appears to be slightly right-skewed. This means that there's a tail extending towards the higher lead times. In addition, frequency of products decreases as we move away from the 42-49 day range in both directions.
- Supplier 4 has the shortest lead time specifically in Delhi with 3 days. While other suppliers have longer lead times, Supplier 1 is the next fastest, with a lead time of 7 days in Kolkata.
- The correlation coefficient of 0.1395 indicates a slightly positive relationship, suggesting that defect rates may increase marginally with longer lead times, but the connection is not strong. Furthermore, the R-squared value of 0.019465 suggests that only about 1.94% of the variability in defect rates is explained by changes in manufacturing lead time.