

SUPPLY CHAIN MANAGEMENT DASHBOARD



OBJECTIVE -

- The objective of creating the supply chain dashboard is to provide a comprehensive view of the efficiency and effectiveness of our supply chain processes. By analyzing critical metrics such as lead times, order quantities, shipping costs by carrier and location, defect rates, and supplier performance, we can identify key bottlenecks and areas for improvement.
- This dashboard allows us to track performance over time, compare supplier efficiency, and assess the impact of transportation modes and shipping carriers on costs. By gaining these insights, we can make informed decisions to optimize logistics, reduce delays, lower costs, and improve overall supply chain reliability and responsiveness to customer demands. Ultimately, this enables better resource allocation and more strategic planning, ensuring smooth operations and increased profitability.

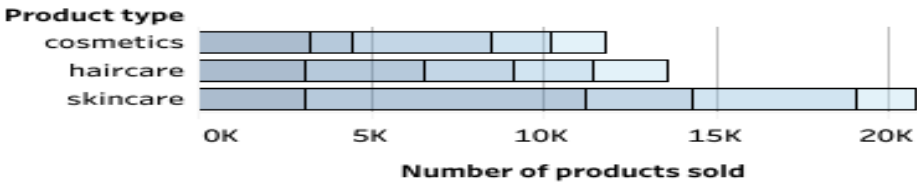


ANALYSIS OBJECTIVE-

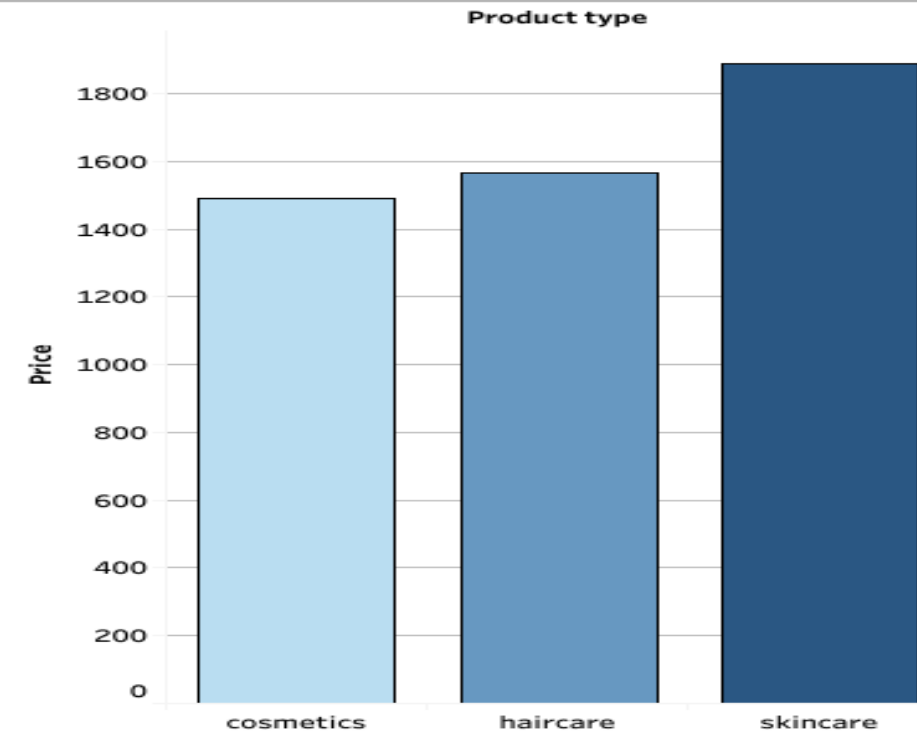
- Which Product Type generates the highest revenue?
- Are there any significant correlations between Lead times and Order quantities?
- How do Shipping costs vary by Shipping carrier and Location?
- Which suppliers have the most efficient manufacturing processes?
- What demographic group contributes the most to sales?

PRODUCT PERFORMANCE DASHBOARD

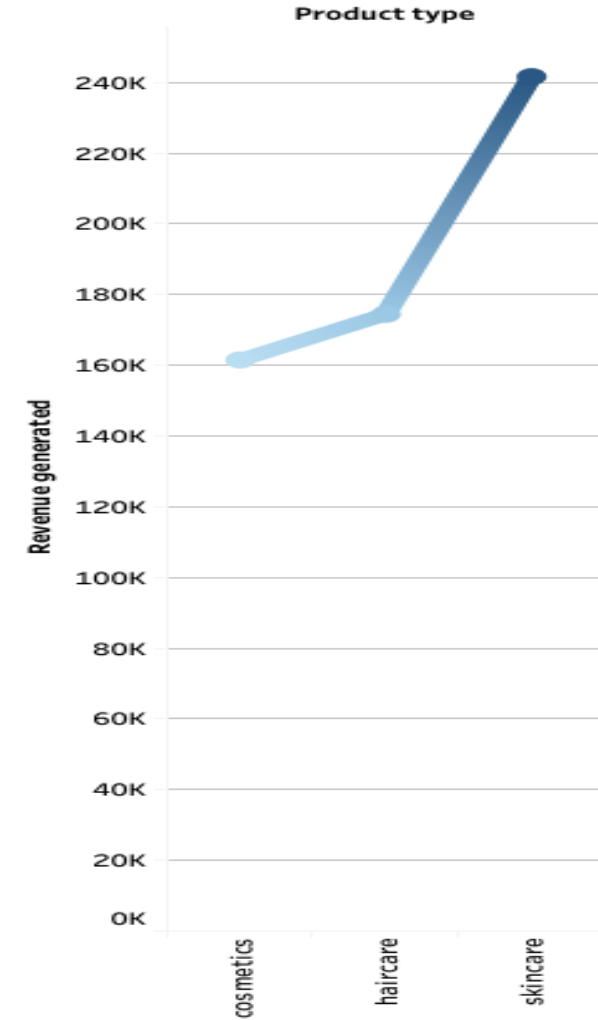
PRODUCT SALES



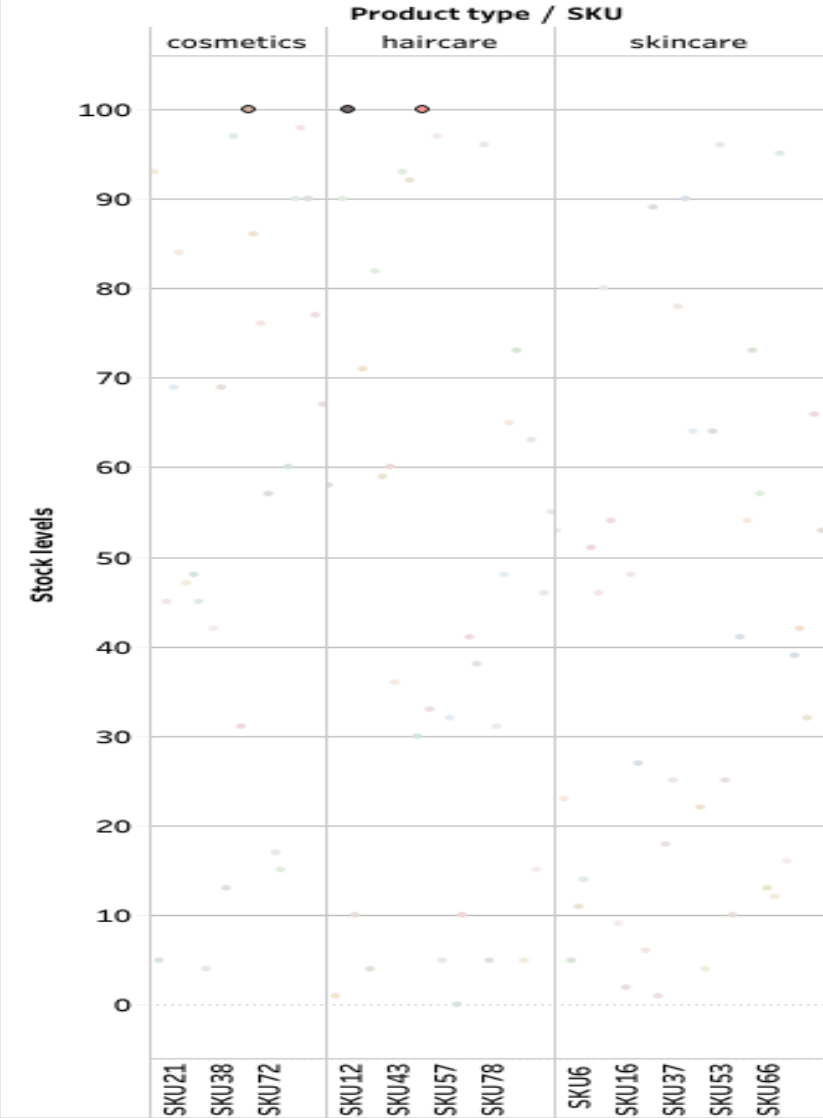
PRICE DISTRIBUTION



REVENUE ANALYSIS



STOCK LEVELS

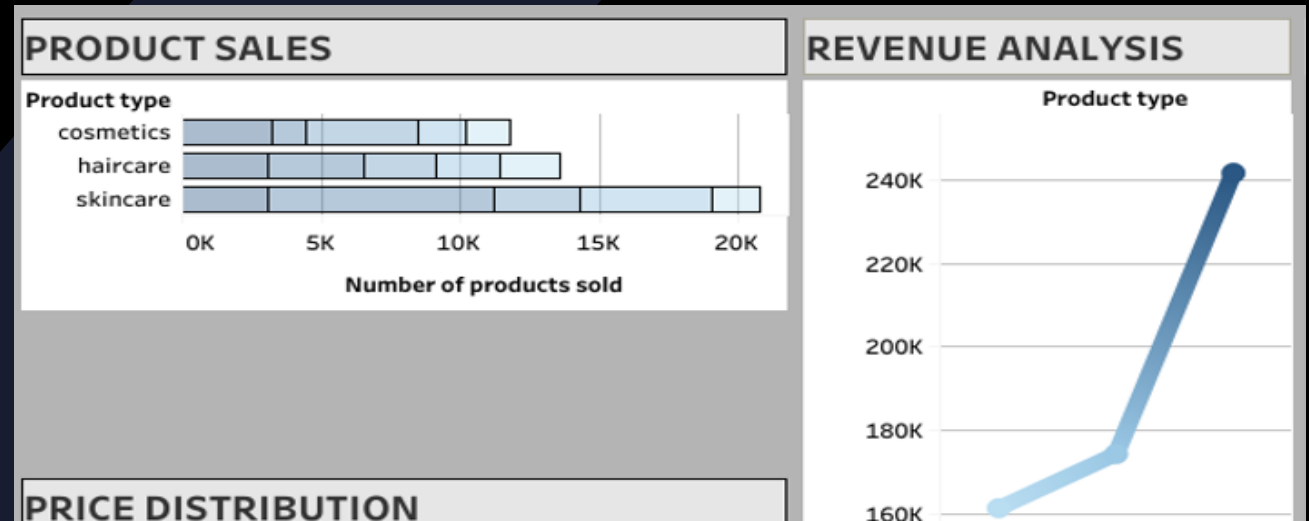


PRODUCT PERFORMANCE DASHBOARD OVERVIEW-

The Product Performance dashboard provides a snapshot of key metrics like sales ,revenue generated, stock levels, pricing according to the products, helping businesses monitor and evaluate how well a product is performing. It enables data-driven decisions to optimize product strategies and improve overall performance.

Analysis question-

➤ **Which Product Type generates the highest revenue?**

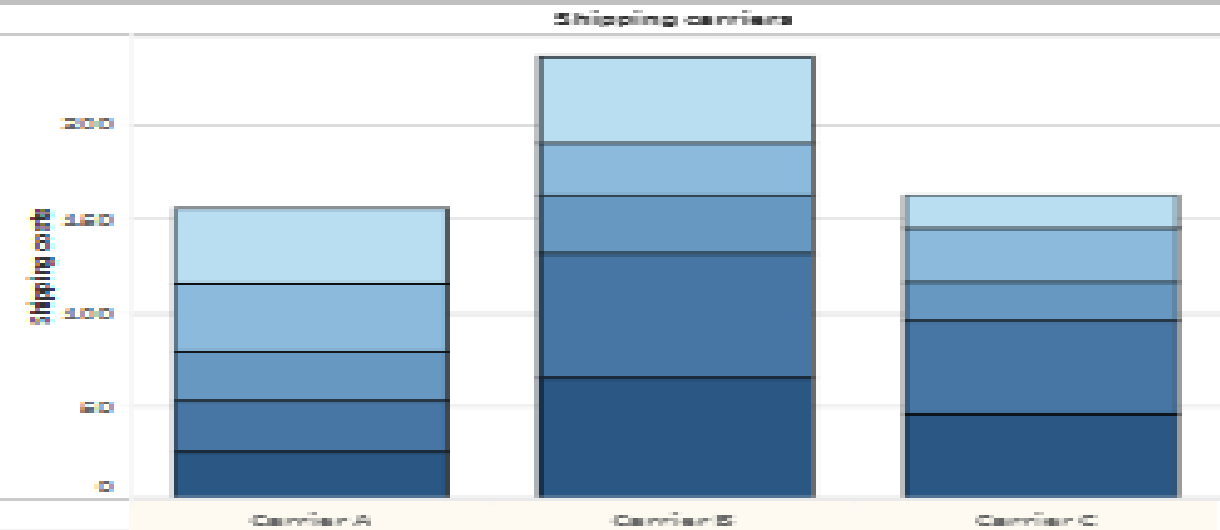


As the line chart showing the revenue analysis depicts that skincare is generating the highest revenue among product categories. This indicates strong market demand and highlights the effectiveness of current strategies. Leveraging this insight can guide future investments and focus to capitalize on this success.

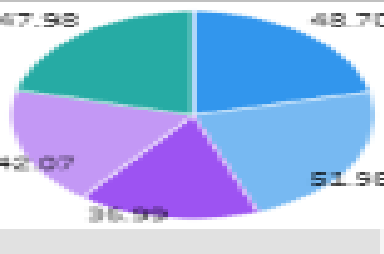
SUPPLY CHAIN EFFICIENCY DASHBOARD



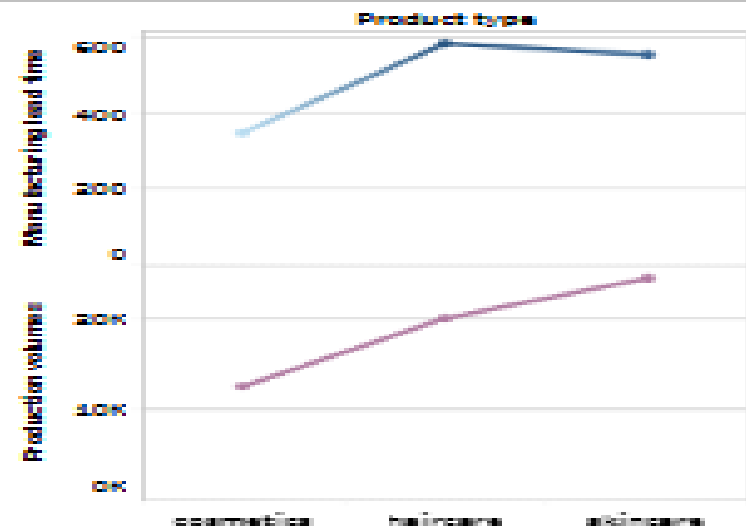
SHIPPING COSTS BY CARRIER



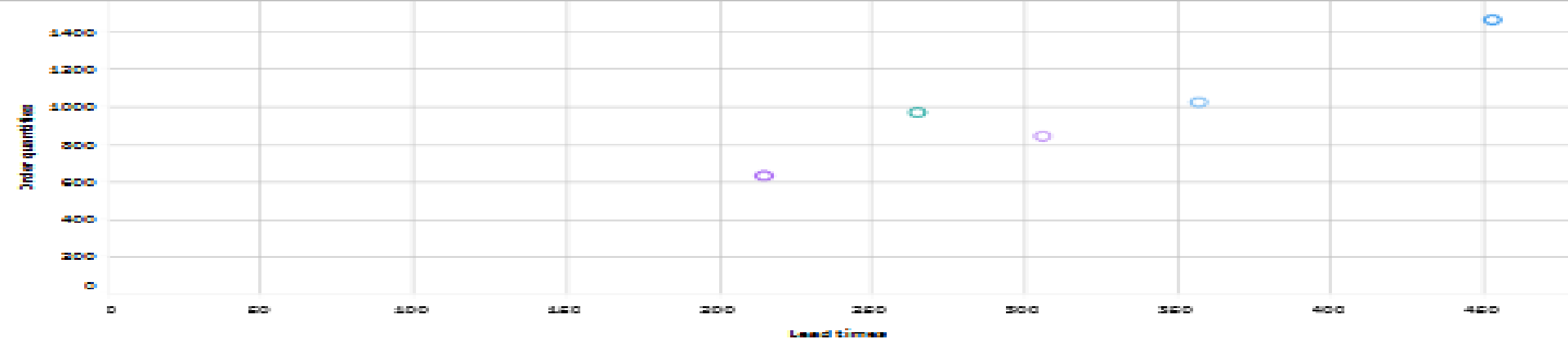
DEFECT RATES



MANUFACTURING EFFICIENCY



LEAD TIMES V/S ORDER QUANTITIES

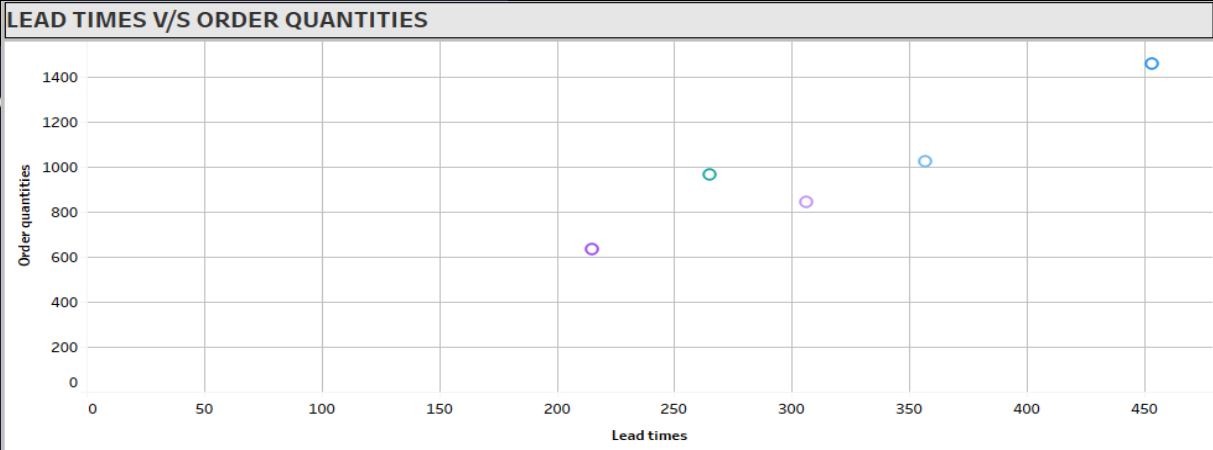


SUPPLY CHAIN EFFICIENCY DASHBOARD OVERVIEW-

The Supply Chain Efficiency dashboard helps identify inefficiencies in areas like lead times, shipping costs, and defect rates. It enables businesses to streamline operations, reduce costs, and enhance overall supply chain performance for improved productivity.

Analysis question-

- Are there any significant correlations between Lead times and Order quantities?



Supplier	Lead Times	Order Quantities
Supplier 1	453	1458
Supplier 2	357	1022
Supplier 3	215	632
Supplier 4	306	342
Supplier 5	265	968

- **Positive Correlation Identified:**

Based on the scatter plot and the calculated Pearson correlation coefficient of 0.72, there appears to be a **positive correlation** between lead times and order quantities. As order quantities increase, lead times also tend to increase, though the relationship is not perfectly linear.

- **Context:**

Supplier 1, with the highest order quantity of 1458, also has the longest lead time of 453, which supports the observed trend. Similarly, Supplier 4, with a much smaller order quantity of 342, has one of the shortest lead times (306).

Business Implication:

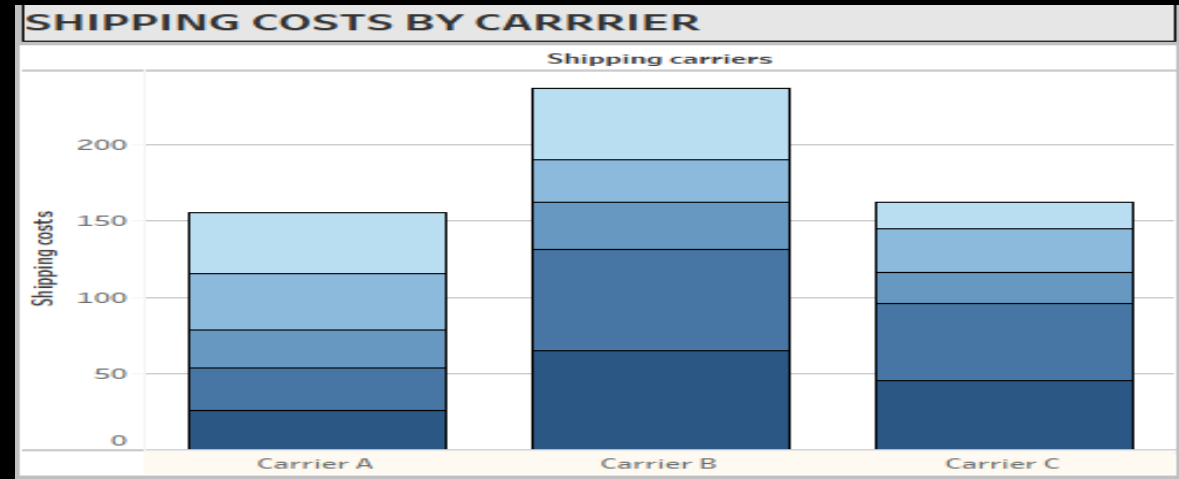
- This suggests that larger order quantities may be leading to longer lead times, potentially due to supply chain constraints or production limitations.
- To address this, we may consider optimizing processes for high-volume suppliers, such as improving production capacity or renegotiating supplier terms to reduce delays.

Actionable Insights:

- Monitor order volumes and lead times more closely to identify bottlenecks early.
 - Explore partnerships with suppliers who can scale efficiently for larger orders.
-

Analysis question-

- **How do Shipping costs vary by Shipping carrier and Location?**



Key Observations:

By observing the bar graph which is depicting the shipping costs by carrier, we can observe that -

- "Carrier B has the highest shipping costs, particularly in Locations like Bangalore"
- "Carrier A and C offers lower costs but shows some variability based on location."
- "Bangalore incurs higher shipping costs across all carriers, possibly due to its geographic distance from major hubs."
- **Business Implications:**
 - "Higher costs for Carrier B in certain regions may require negotiation or a switch to alternative carriers."
 - "We need to factor in location-based shipping costs when planning deliveries to optimize our shipping expenses."

Analysis question-

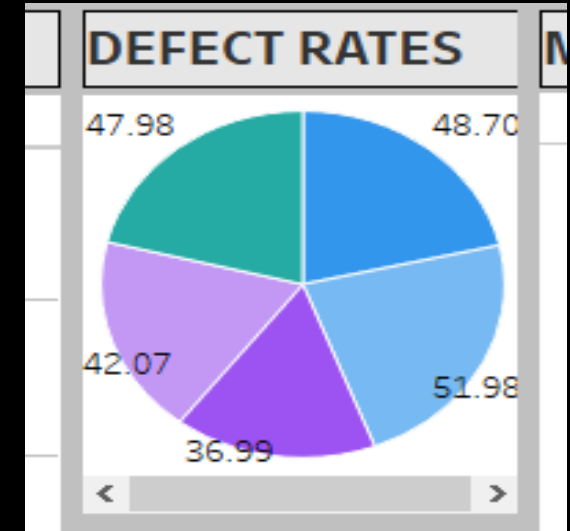
➤ **Which suppliers have the most efficient manufacturing processes?**

Key observations-

By observing the pie chart which is depicting the defect rates of the suppliers, we can state that-

Supplier 3 (with 36.99 defect rate) and supplier 4 (with 42.07 defect rate) are considered to have the most efficient manufacturing processes

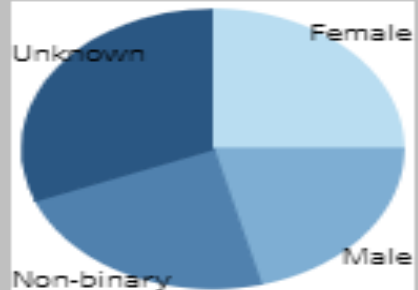
as compared to other suppliers as they both have a lower defect rates which suggest better manufacturing quality and efficiency.



CUSTOMER DEMOGARPHICS DASHBOARD



DEMOGRAPHIC BREAKDOWN



REVENUE BY DEMOGRAPHICS

Unknown
173,090

Male
126,634

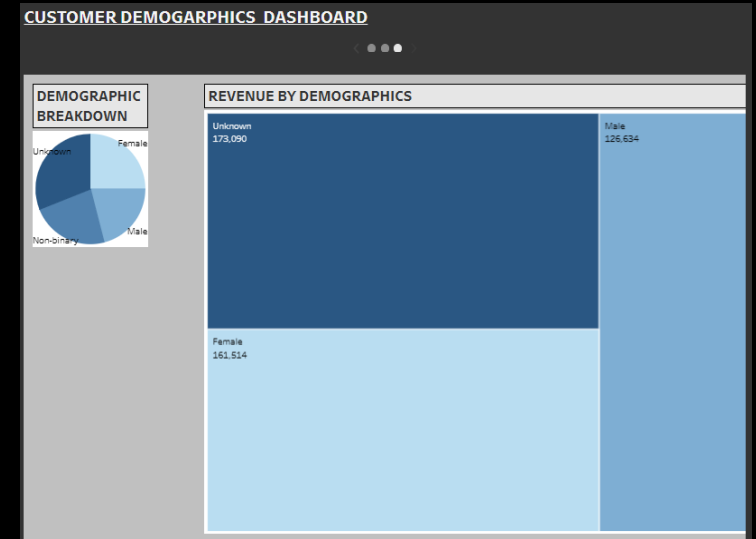
Female
161,514

CUSTOMER DEMOGRAPHICS DASHBOARD OVERVIEW-

The customer demographics dashboard helps us analyze the distribution of customers by age, gender, and other key segments. By understanding which demographic groups contribute the most to revenue, we can tailor our marketing strategies, improve customer targeting, and enhance overall customer engagement to drive business growth.

Analysis question-

What demographic group contributes the most to sales?



Key observations-

By observing the treemap which is depicting the revenue by demographics, we can state that-

The group of female is contributing the most to sales to the Company by generating 161,514 of revenue.