

PROCUREMENT SPEND & RISK ANALYSIS

PROJECT BY :- PARINEETA

*TOOLS USED :- EXCEL (FOR PREPROCESSING), POWER BI (FOR DATA
VISUALIZATION)*

PAGES :-

- PAGE1 – SUPPLIER PERFORMANCE OVERVIEW*
- PAGE2 – SPEND AND PROCUREMENT INSIGHTS*

PROJECT OVERVIEW

- *BACKGROUND:- Organizations spend millions on procurement every year. Inefficiencies in supplier performance and spend allocation can lead to significant risks and losses.*
- *OBJECTIVE:- To analyze procurement spend, monitor supplier performance, and identify high – risk areas using dashboards*



1

Data collection :- Generated Procurement data With Generative AI tools in excel with 3,000 rows including supplier details, purchase orders and incidents

2

Data Preprocessing :- Removed null values, duplicates, and formatted columns. Added new calculated fields like Order value & Risk Flags.

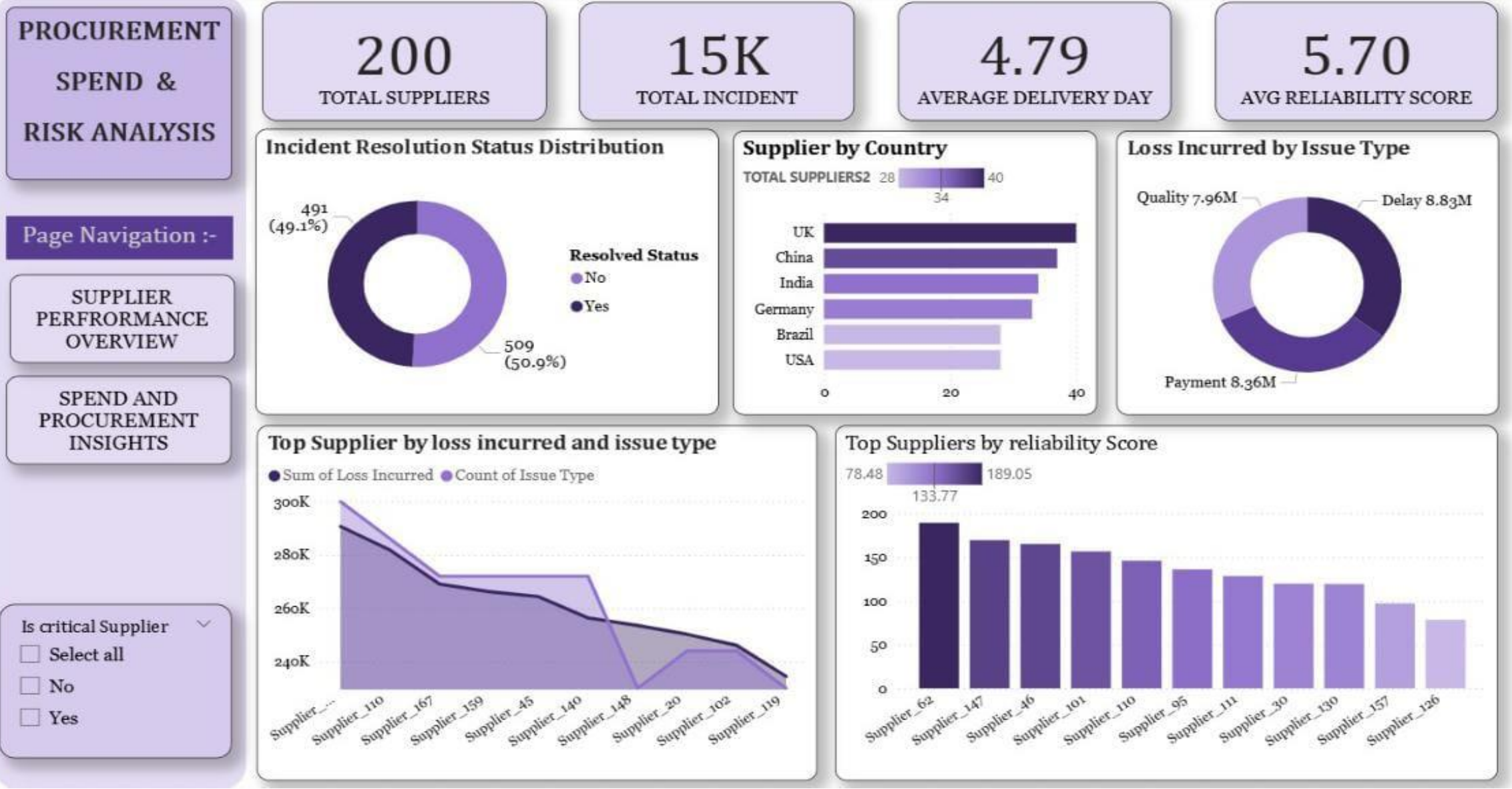
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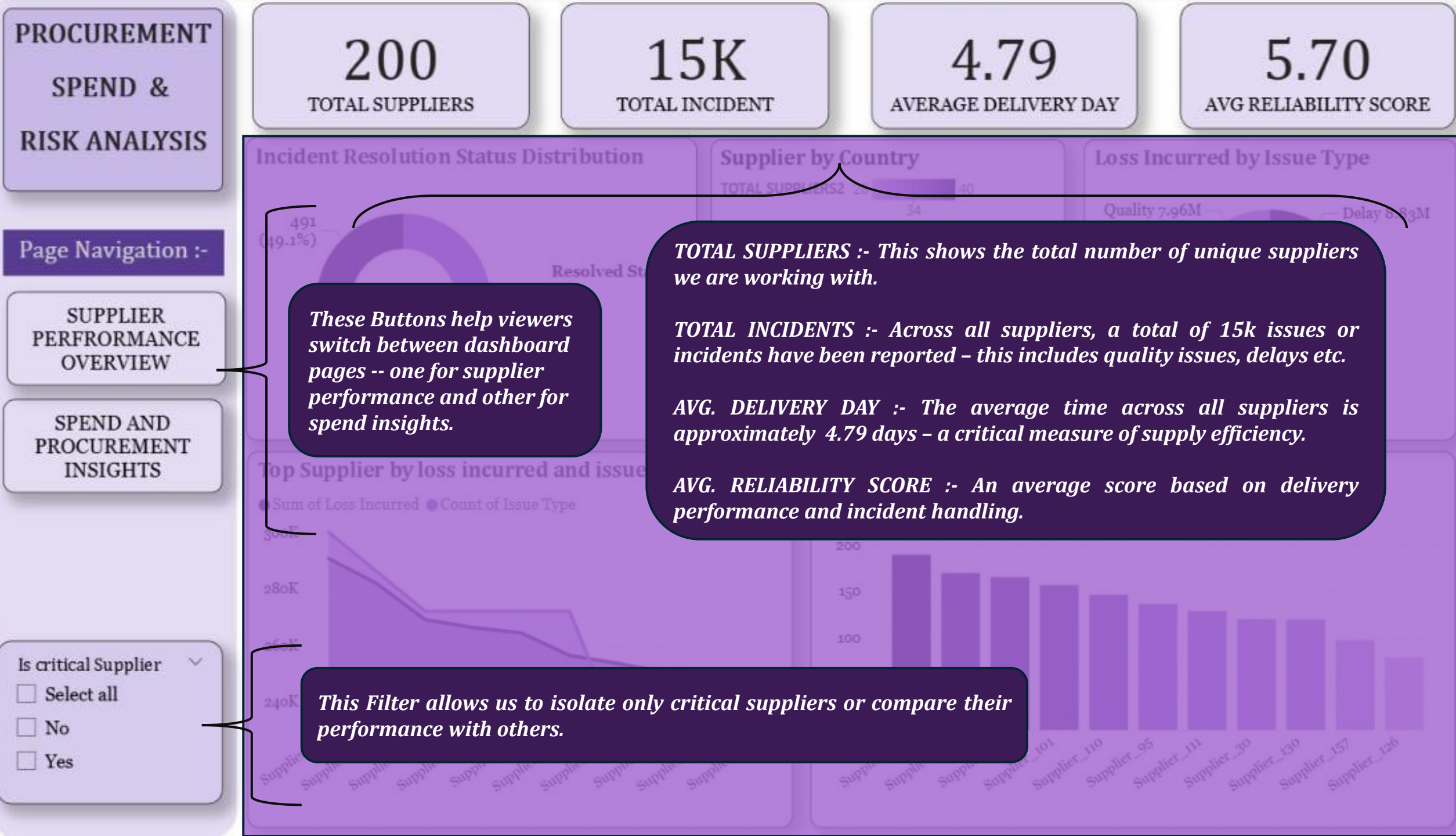
Dashboard Creation :- Imported cleaned data into Power BI Created 2 dashboards with visuals – supplier performance and send insights

4

Insights & Analysis:- Analyzed high- risk suppliers , loss reasons, country wise supplier Strength, and purchase trends. Recommended actions.

DASHBOARD PAGE 1 :- SUPPLIER PERFORMANCE OVERVIEW





PROCUREMENT
SPEND &
RISK ANALYSIS

Page Navigation :-

SUPPLIER
PERFORMANCE
OVERVIEW

SPEND AND
PROCUREMENT
INSIGHTS

Is critical Supplier

☐ Select all

☐ No

☐ Yes

200

TOTAL SUPPLIERS

15K

TOTAL INCIDENT

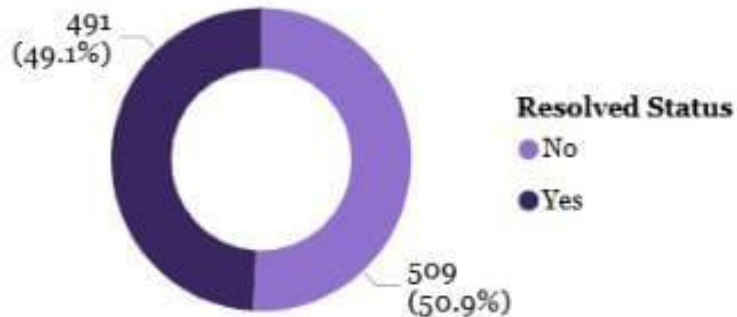
4.79

AVERAGE DELIVERY DAY

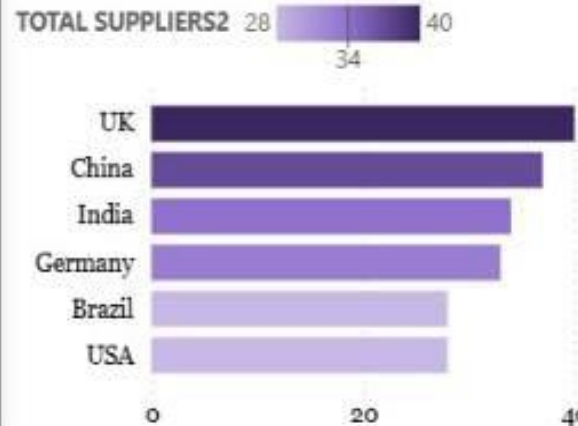
5.70

AVG RELIABILITY SCORE

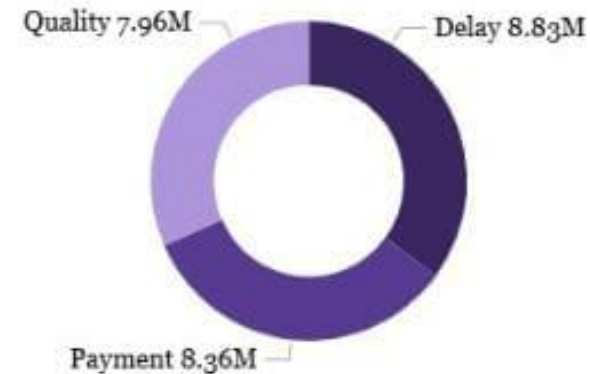
Incident Resolution Status Distribution



Supplier by Country

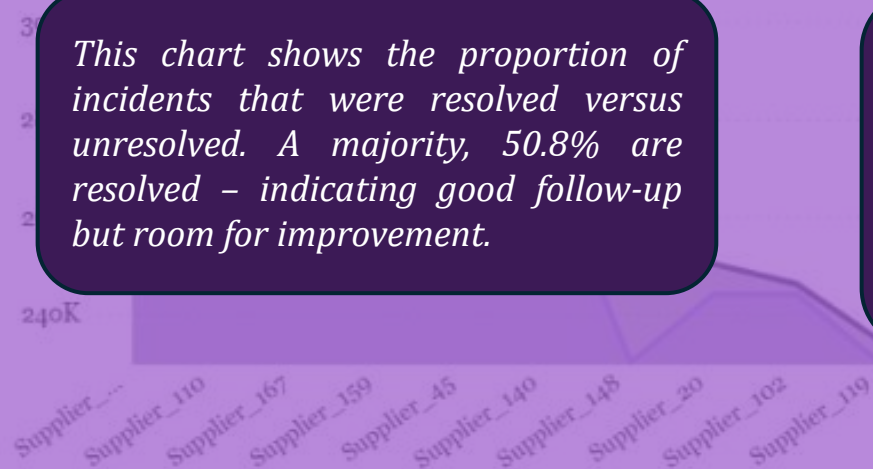


Loss Incurred by Issue Type



Top Supplier by loss incurred and issue type

Sum of Loss Incurred Count of Issue Type



This chart shows the proportion of incidents that were resolved versus unresolved. A majority, 50.8% are resolved – indicating good follow-up but room for improvement.

Top Suppliers by reliability Score



Here, we break down suppliers by country. The UK and China are our largest supplier bases, followed by India and Germany – this helps us assess regional dependency

This chart helps identify which types of issues are causing the most financial losses– enabling better risk mitigation strategies.

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SUPPLIER
PERFORMANCE
OVERVIEW

SPEND AND
PROCUREMENT
INSIGHTS

Is critical Supplier

☐ Select all

☐ No

☐ Yes

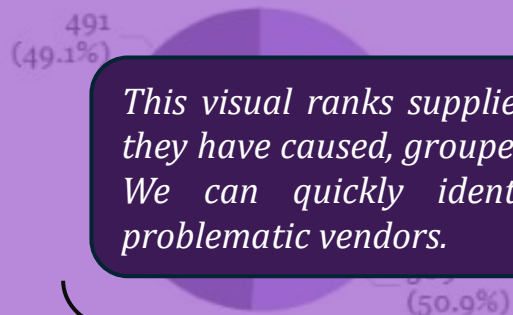
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TOTAL SUPPLIERS

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AVG RELIABILITY SCORE

Incident Resolution Status Distribution



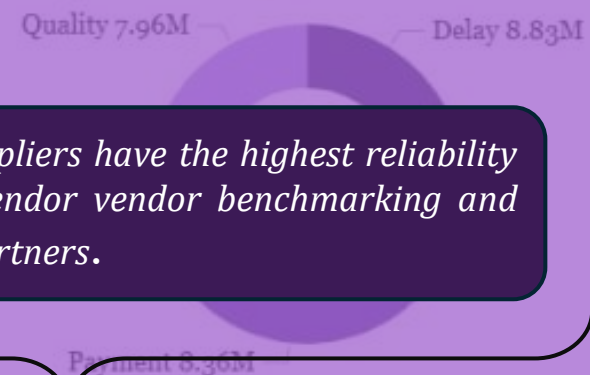
This visual ranks suppliers by how loss they have caused, grouped by issue type. We can quickly identify the most problematic vendors.

Supplier by Country

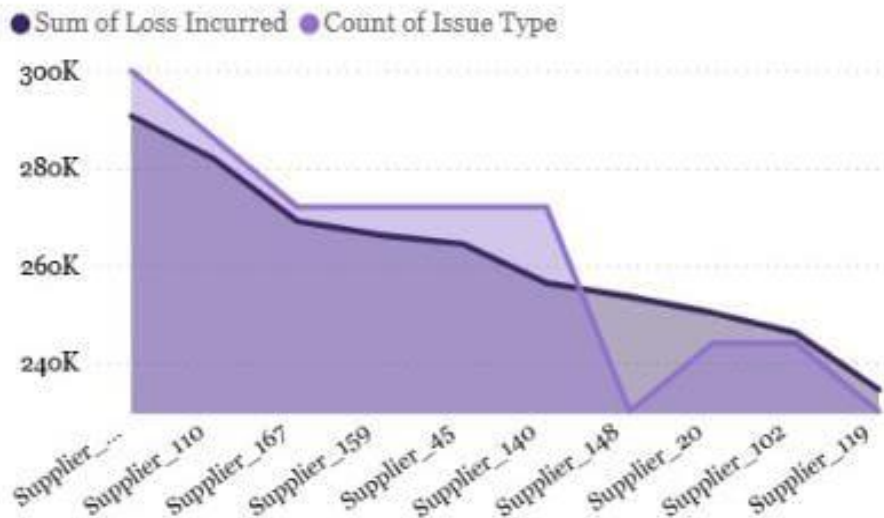


This shows which suppliers have the highest reliability scores – useful for vendor vendor benchmarking and choosing preferred partners.

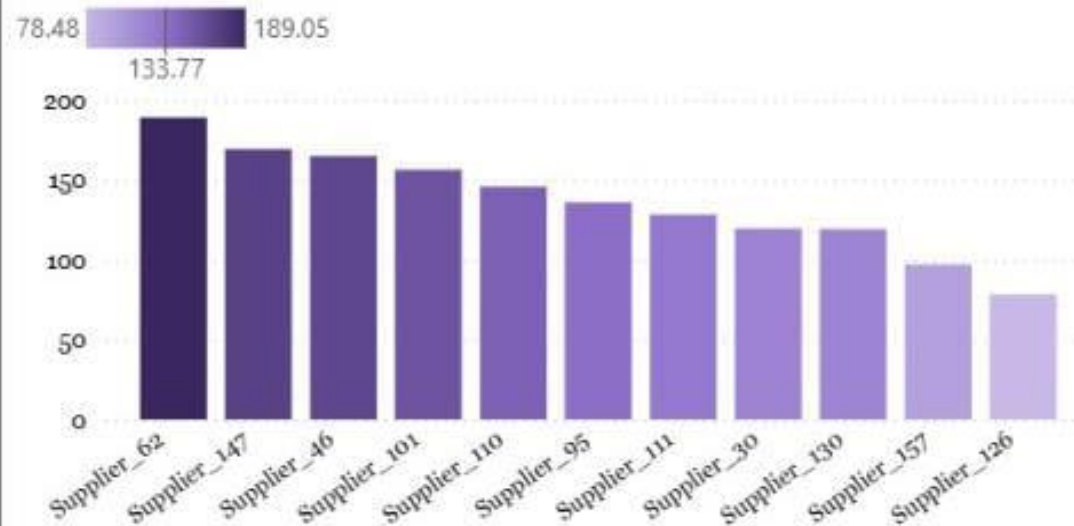
Loss Incurred by Issue Type



Top Supplier by loss incurred and issue type



Top Suppliers by reliability Score



Strategic Insights from Supplier performance dashboard

- ❖ Managing a network of 200 suppliers across key regions (UK, China, India), highlighting the need for strong global coordination.
- ❖ Over 15,000 incidents recorded, indicating significant risk exposure in the procurement process.
- ❖ Average delivery time of 4.79 days reflects operational efficiency, though consistency must be ensured.
- ❖ An average reliability score of 5.70 suggests scope for performance enhancement among key suppliers.
- ❖ Only 50.8% of incidents are resolved, underscoring the need for stronger issue resolution mechanisms.
- ❖ Quality defects and delivery delays are the primary contributors to financial loss.
- ❖ Certain suppliers consistently incur high losses and should be reviewed for continued partnership.
- ❖ Reliable suppliers have been identified, supporting more strategic supplier relationship management.
- ❖ The “Critical Suppliers” filter enables targeted decision-making and prioritization for essential vendors

DASHBOARD PAGE 2 :- SPEND AND PROCUREMENT INSIGHTS

PROCUREMENT

SPEND & RISK ANALYSIS

Page Navigation :-

SUPPLIER PERFORMANCE OVERVIEW

SPEND AND PROCUREMENT INSIGHTS

Purchase Category

Select all

Consulting

HR Services

IT Services

Logistics

Marketing

Raw Material

157.50M

TOTAL PURCHASE AMOUNT

1594

HIGH LEVEL ORDERS

Region

All

Purchase Date

01-01-2023

31-12-2024

Top Suppliers by purchase spend

Sum of Purchase Amount

1.16M

1.25M

1.34M

High-risk Suppliers summary

Supplier Name	Severity	Loss Incurred	Issue Type	Resolved
Supplier_1	High	13,605.89	Delay	No
Supplier_101	High	10,969.26	Delay	Yes
Supplier_101	High	42,510.78	Delay	Yes
Supplier_101	High	47,136.69	Quality	Yes
Supplier_105	High	14,998.76	Delay	No
Supplier_105	High	5,232.35	Quality	No
Supplier_107	High	10,062.36	Quality	No
Supplier_107	High	22,058.89	Quality	Yes
Supplier_108	High	42,985.74	Delay	No
Supplier_108	High	9,847.42	Payment	Yes
Supplier_109	High	9,180.00	Payment	No
Supplier_109	High	32,029.87	Payment	No

Monthly Purchase trend (YoY)

Purchase year

2023

2024

Purchase distribution by Order Value

37.99M (24.12%)

119.51M (75.88%)

High value order

YES

NO

PROCUREMENT
SPEND &
RISK ANALYSIS

157.50M

TOTAL PURCHASE AMOUNT

1594

HIGH LEVEL ORDERS

Region

All

Purchase Date

01-01-2023

31-12-2024

Page Navigation :-

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PERFORMANCE
OVERVIEW

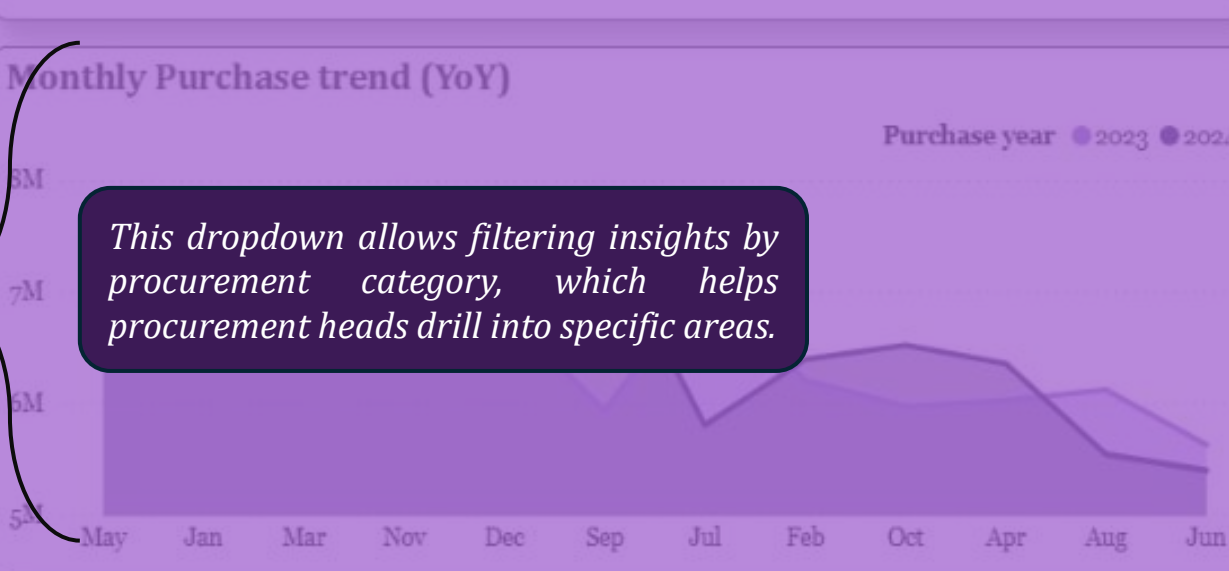
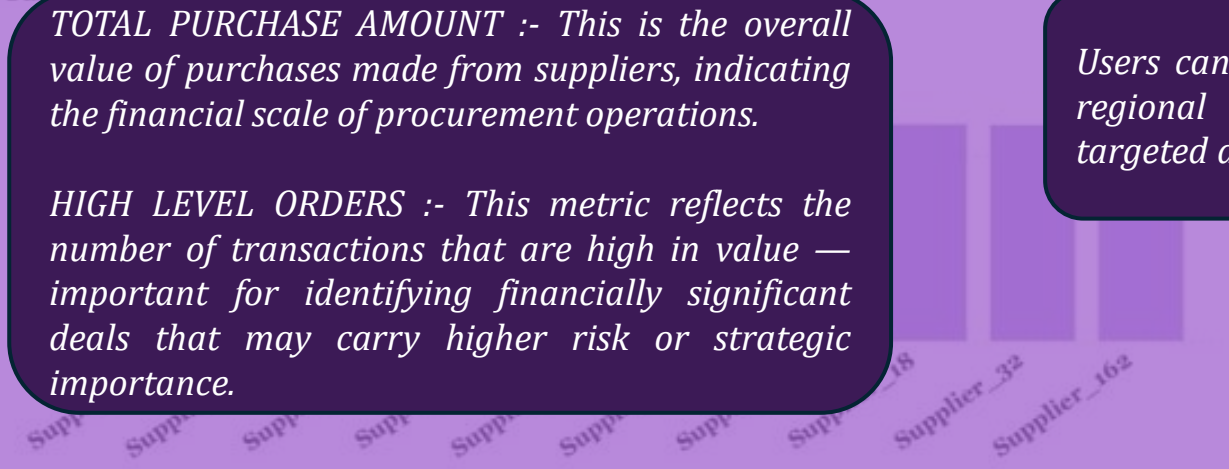
SPEND AND
PROCUREMENT
INSIGHTS

Purchase Category

- ☐ Select all
- ☐ Consulting
- ☐ HR Services
- ☐ IT Services
- ☐ Logistics
- ☐ Marketing
- ☐ Raw Material

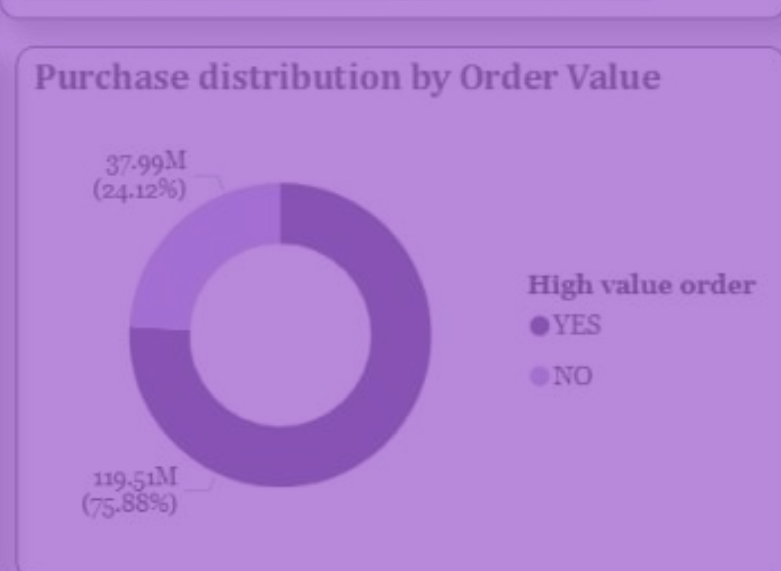
Top Suppliers by purchase spend

Sum of Purchase Amount: 157.50M



High risk suppliers summary

Supplier Name	Severity	Loss Incurred	Issue Type	Resolved
Supplier_107	High	10,062.36	Quality	No
Supplier_107	High	22,058.89	Quality	Yes
Supplier_108	High	42,985.74	Delay	No
Supplier_108	High	9,847.42	Payment	Yes
Supplier_109	High	9,180.00	Payment	No
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TOTAL PURCHASE AMOUNT :- This is the overall value of purchases made from suppliers, indicating the financial scale of procurement operations.

HIGH LEVEL ORDERS :- This metric reflects the number of transactions that are high in value — important for identifying financially significant deals that may carry higher risk or strategic importance.

Users can filter data by region or time period, helping regional managers or procurement analysts make targeted decisions.

This dropdown allows filtering insights by procurement category, which helps procurement heads drill into specific areas.

TOTAL PURCHASE AMOUNT

HIGH LEVEL ORDERS

All

31-12-2024

SUPPLIER PERFORMANCE OVERVIEW

SPEND AND PROCUREMENT INSIGHTS

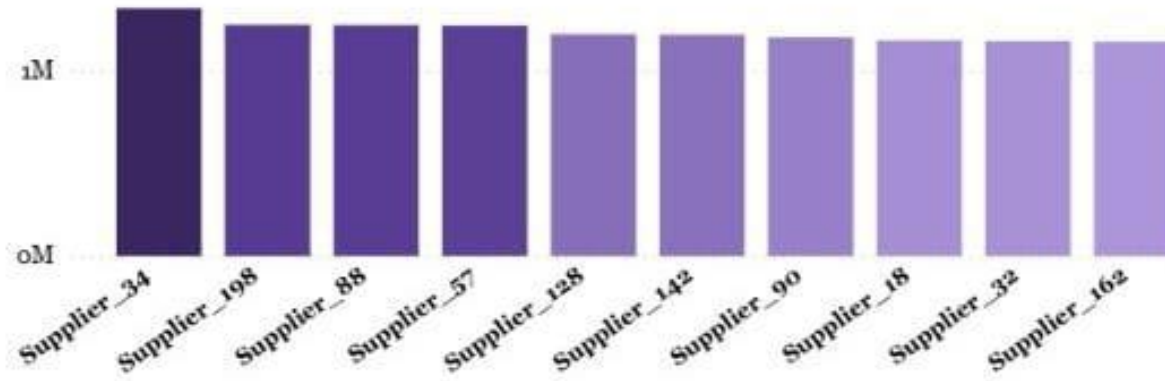
Purchase Category

- ☐ Select all
- ☐ Consulting
- ☐ HR Services
- ☐ IT Services
- ☐ Logistics
- ☐ Marketing
- ☐ Raw Material

Top Suppliers by purchase spend

Sum of Purchase Amount 1.16M 1.34M

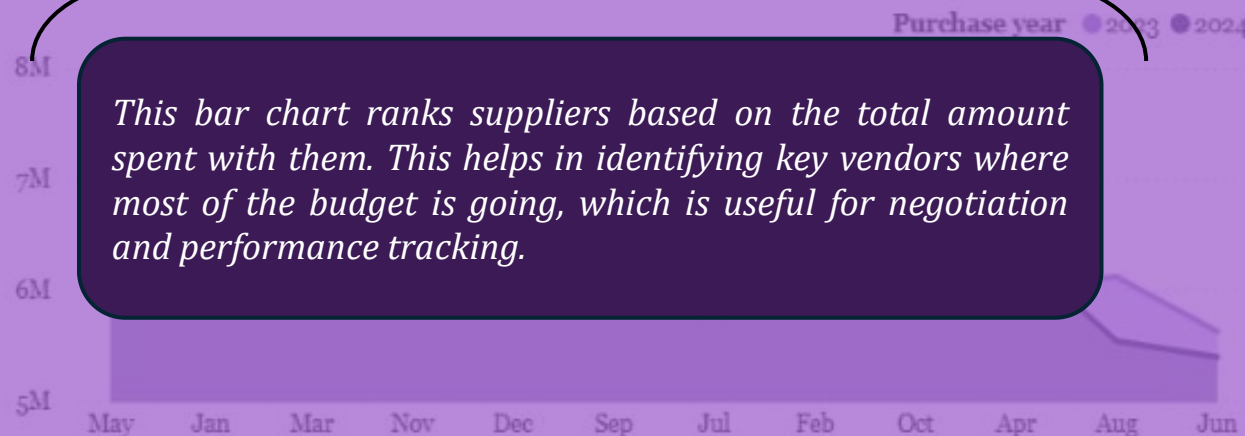
1.25M



High-risk Suppliers summary

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Monthly Purchase trend (YoY)



Purchase distribution by Order Value



PROCUREMENT
SPEND &
RISK ANALYSIS

157.50M
TOTAL PURCHASE AMOUNT

1594
HIGH LEVEL ORDERS

Region
All

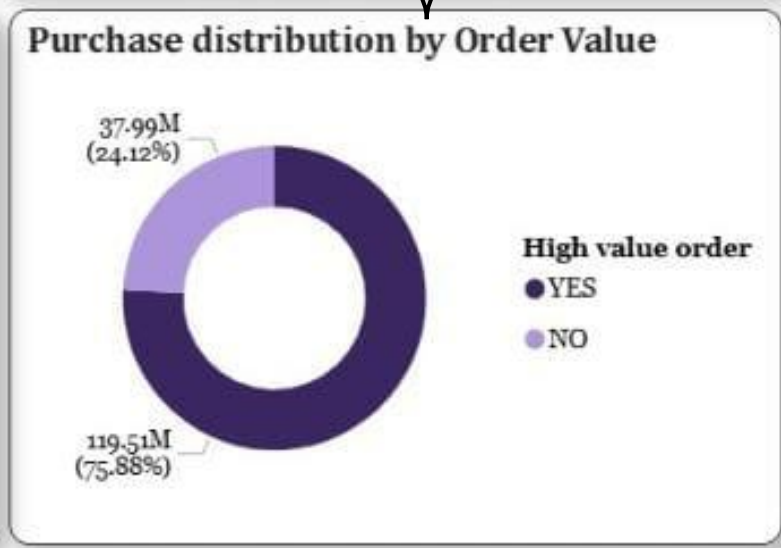
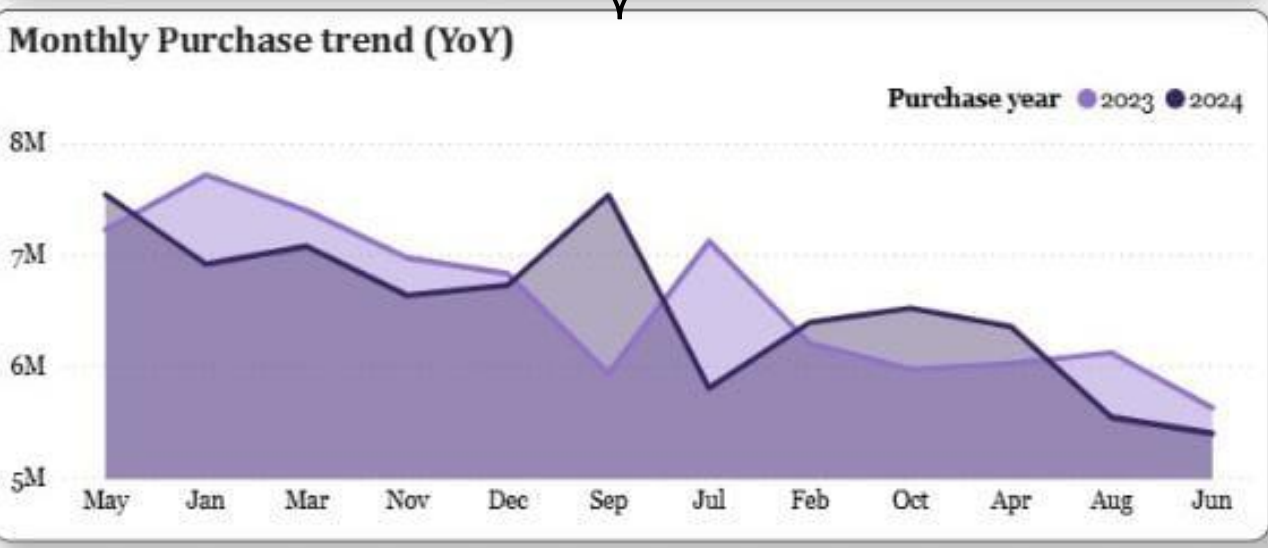
Purchase Date
01-01-2023 31-12-2024



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This visual shows how much of the total purchase amount comes from high-value orders. It highlights risk concentration — with ~76% of procurement tied to large transactions, we may be more vulnerable to vendor disruption.



- Purchase Category
- Select all
 - Consulting
 - HR Services
 - IT Services
 - Logistics
 - Marketing
 - Raw Material

Strategic Insights from Spend and procurement dashboard

- ❖ Total Purchase Amount stands at 157.50M, highlighting the scale of procurement activities across suppliers.
- ❖ There are 1594 High Value Orders, signaling strategic transactions that may carry higher financial or operational risk.
- ❖ The Top Suppliers by Purchase Spend bar chart helps identify the vendors with the highest procurement value — crucial for negotiation leverage and vendor relationship management.
- ❖ The Monthly Purchase Trend (YoY) line chart shows purchasing patterns over two years (2023 & 2024). A visible drop in mid-2024 may indicate seasonal trends, budget constraints, or supplier issues.
- ❖ The Purchase Distribution by Order Value donut chart shows that 76% of orders are high value, which increases the risk exposure and financial dependency on select vendors.
- ❖ The High-Risk Suppliers Table summarizes vendors with high severity incidents, large financial losses, and unresolved issues:
- ❖ Helps risk mitigation by flagging suppliers repeatedly causing delays, quality issues, or payment problems.
- ❖ Some suppliers (e.g., Supplier_101, Supplier_109) appear multiple times, signaling consistent underperformance.
- ❖ Filters on Region, Purchase Date, and Category enable targeted views for category managers or regional heads to make focused decisions.

Recommendations

- ✓ **Prioritize High-Risk Suppliers for Review**

Focus on suppliers with high severity incidents and unresolved issues to minimize future disruptions and financial loss.

- ✓ **Strengthen Supplier Contracts with Top Spenders**

Negotiate better terms with suppliers receiving the highest purchase amounts to secure pricing and ensure consistent delivery.

- ✓ **Reduce Dependency on Specific Regions**

Diversify supplier base across countries like the UK and China to reduce risk from geopolitical or supply chain disruptions.

- ✓ **Monitor High-Value Orders Closely**

Implement stricter controls and tracking mechanisms for large transactions, which represent 76%+ of total spend.

Recommendations

- ✓ **Address Quality & Delay-Related Losses**

Since quality and delivery issues contribute the most to financial loss, initiate corrective action plans with frequently flagged suppliers.

- ✓ **Reward High Reliability Suppliers**

Continue engaging and potentially expand business with vendors having high reliability scores — they ensure supply chain stability.

- ✓ **Review Monthly Procurement Trends**

Analyze monthly fluctuations to align procurement strategy with demand cycles, optimize ordering, and avoid overstocking.

- ✓ **Invest in Data-Driven Supplier Performance Management**

Use these dashboards regularly to drive performance reviews, risk assessments, and strategic sourcing decisions.