Supplier Performance, Risk & Strategic Sourcing

A Power BI-ready procurement case study linking delivery, quality, supplier risk and RFQ economics.

SUPPLY CHAIN & PROCUREMENT PORTFOLIO

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Portfolio note: This case uses realistic fictional data. It demonstrates my approach to structuring a business problem, defining measures and turning analysis into actions. No employer-confidential information is included.

PROJECT 1

Business question

A manufacturing procurement team was reviewing suppliers in separate files: delivery performance in one report, quality issues in another, and sourcing savings in an RFQ tracker. That made it difficult to see which suppliers needed immediate attention and where a sourcing event could create value.

My objective

I structured one analytical model that connects supplier master data, monthly performance and RFQ bids. The goal was to give a category manager a practical view of risk, performance and commercial opportunity - not just another supplier scorecard.

24	$74.70M	83.4%	12,559
SUPPLIERS	ANNUAL SPEND	ON-TIME DELIVERY	DEFECT PPM

Data model

• DimSupplier: supplier profile, category, criticality, spend, audit score and risk factors.

• FactPerformance: monthly PO lines, receipts, on-time lines, rejected units, expedite cost and responsiveness.

• FactRFQ: baseline price, bids, awarded price, freight, tooling and modeled savings.

• Targets: business thresholds for OTD, defect PPM, risk score and savings rate.

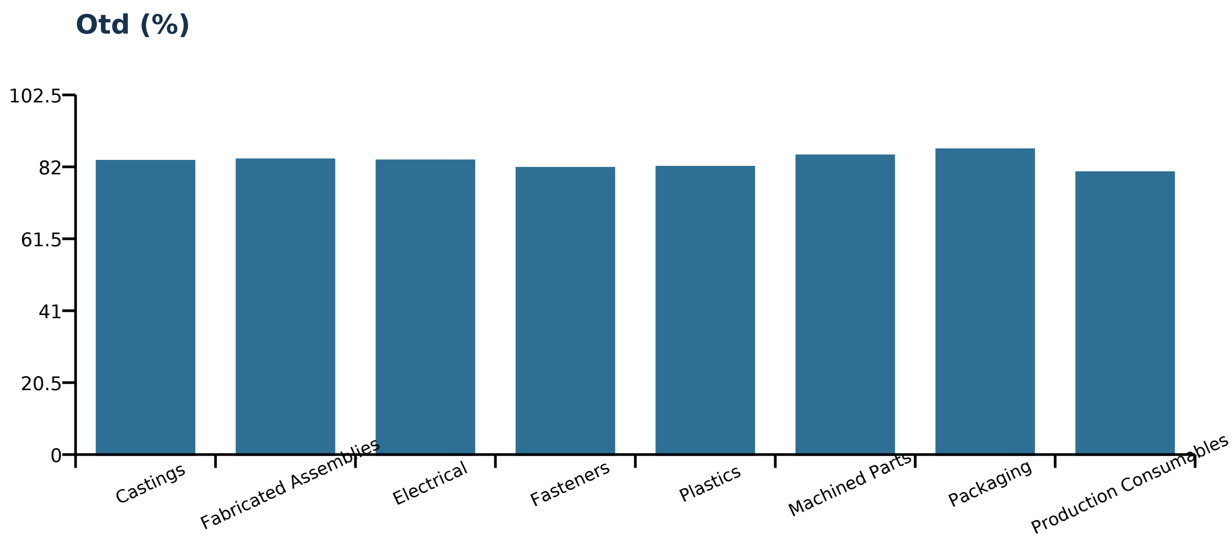
Tools and methods

Power BI model design, Power Query-ready tables, DAX measure definitions, supplier segmentation, weighted quality calculations, total-landed-cost comparison and exception analysis.

FINDINGS

What the data showed

83.4%	12,559	3	$1.16M
OTD VS. 95% TARGET	WEIGHTED DEFECT PPM	HIGH-RISK SUPPLIERS	MODELED NET SAVINGS



Three points stood out

• Overall OTD was 83.4%, so the supplier base was below the 95% target even though some categories performed better than others.

• Production Consumables had the lowest category OTD at 80.3%; Production Consumables had the highest defect rate at 16,058 PPM.

• The risk model flagged 3 suppliers for focused review. MetroFab Systems had the highest average risk score and approximately $4.19M in annual spend exposure.

• Awarded RFQ scenarios produced $1.16M in modeled net savings, equal to 3.6% of the comparable baseline spend after freight and tooling.

> I would treat the savings figure as a sourcing pipeline opportunity until supplier capacity, quality and contract terms are validated.

FROM ANALYSIS TO EXECUTION

Recommended actions and dashboard design

Action plan

• Start a 30-60-90 day recovery plan for the three highest-risk suppliers, with owners for delivery, quality and capacity actions.

• Review single-source, high-criticality suppliers first; qualify a backup source where exposure is not acceptable.

• Use total landed cost and risk-adjusted award criteria instead of comparing quoted unit price alone.

• Create a weekly exception view for OTD below target, rising PPM, open corrective actions and expedite cost.

• Move modeled RFQ savings through validation, negotiation and contract approval before reporting them as realized savings.

Suggested Power BI pages

Report page	What it answers	Recommended visuals
Executive overview	Where are performance and risk off target?	KPI cards, monthly OTD trend, category heat map
Supplier scorecard	Which suppliers need intervention?	Supplier table, risk scatter, drill-through profile
Sourcing pipeline	Where is commercial value available?	RFQ waterfall, landed-cost comparison, savings by category

LinkedIn project description

Built a procurement analytics case study using a fictional manufacturing dataset covering 24 suppliers, monthly delivery and quality performance, supplier risk factors and RFQ bid economics. I structured a Power BI-ready model and defined DAX measures for OTD, weighted defect PPM, risk exposure and net sourcing savings. The analysis highlighted three high-risk suppliers and identified a $1.16M modeled sourcing opportunity after freight and tooling. All data is simulated and contains no employer-confidential information.

Skills demonstrated: Supplier performance management | Strategic sourcing | Risk segmentation | RFQ analysis | Power BI | DAX | Procurement analytics