



Case Study

Databricks Enabled AI Transformation Roadmap for Leading Jewellery Retailer.

Client Overview

A fast-scaling jewellery retailer implemented a Databricks-enabled AI Transformation Roadmap to unify its fragmented data landscape. By integrating Agentic AI and predictive modeling, the organization modernized its design intelligence, customer personalization, and supply chain agility. The result is a connected "Intelligence Layer" that protects margins while driving significant growth in customer lifetime value.

The Challenge?

The retailer managed ~20,000 designs and an extensive national footprint, yet operated on disconnected legacy systems. This caused:



Financial Blind Spots

No real-time visibility into margin erosion or SKU profitability.



Inventory Inefficiency

Reactive replenishment cycles and high aged-stock accumulation.



Missed Personalization

Inability to leverage SKU attributes and customer behavior for targeted marketing.

Solution Delivered

Data & Architecture Modernization The foundation of the transformation is a Databricks Delta Lakehouse that serves as a connected neural layer across the enterprise.



Customer Intelligence (Design DNA)

Using vision embeddings to build taste vectors, enabling hyper-personalization at the SKU level.



Predictive Merchandising

Leveraging demand forecasting models to optimize gold procurement and safety stock.



Multi-Agent AI Enablement

Deploying Agentic AI for dynamic pricing, margin governance, and automated audits.

The Architecture

Stages	1 Align	2 Apply	3 Advance	4 Accelerate	5 Affirm
Description	Strategic Clarity	Prioritization	POC Execution	AI Roadmap + Institutionalize	Value Realization
Key Themes	<ul style="list-style-type: none"> Conduct leadership workshops to define AI north star – strategic goals (safety, cost, schedule, etc.) and governance structure. Frame 2–3 strategic objectives for pilot phase. 	<ul style="list-style-type: none"> Create an indicative use case portfolio. Prioritize 2–3 use cases balancing feasibility & impact. 	<ul style="list-style-type: none"> Map dependencies (data, infra, approvals). Execute at least 1–MVP (out of 3) connecting structured + unstructured data via Agentic AI workflows. 	<ul style="list-style-type: none"> Define enterprise AI roadmap informed by pilot outcomes. Scale successful pilots.. Create internal AI CoE framework. 	<ul style="list-style-type: none"> Define baseline KPIs and post-pilot measurement approach. Publish success case to reinforce adoption momentum.

The Catalyst-5A™ model offers a clear, stepwise approach – from aligning leadership priorities to realizing value at scale – ensuring Novel Jewels AI journey remains business-anchored and outcome-driven.

The Impact

40% reduction

in design cycle times.

18–22% increase

in Average Order Value (AOV).

14–20% reduction

in aged stock.

10–15% improvement

in repeat purchase rates.

**Real-time Margin
Tracking**

Proactive protection against gold
price volatility.

Outcome

This transformation has turned data into a strategic asset. By moving from intuition to AI-driven intelligence, the retailer has established a scalable growth engine that ensures operational agility and a superior customer experience.



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