Summary

Retail Business Performance & Profitability Analysis

Business Context

This project analyzes retail transaction data to understand **why revenue performance does not consistently translate into strong profitability**.
The analysis focuses on identifying **profit drivers and leakage points** across customer segments, products, cost structure, and delivery operations using SQL-based business logic.

Analytical Approach

All insights were derived using **structured SQL analysis** on a centralized transactional fact table joined with product and customer dimension tables.
Key performance indicators (KPIs), aggregations, and segment-level comparisons were calculated directly in SQL to ensure accuracy, traceability, and business relevance.

Key Findings

1. Revenue vs Profitability Mismatch

SQL aggregation of total revenue, cost, and profit revealed that **high overall revenue does not guarantee strong profitability**.
Profit margins vary significantly across transactions, indicating inefficiencies in pricing, cost control, or product mix.

Implication:
Business performance must be evaluated using **profit and margin**, not revenue alone.

---

2. Customer Segment Contribution

Customer-level grouping shows that **Gold and Silver customer segments contribute a disproportionately high share of total profit** compared to their population size.
Higher-tier customers consistently deliver better margin efficiency.

Implication:
Customer quality drives profitability more than customer volume.

---

3. Product Sales Concentration

Joining order data with the product master revealed that **a small subset of products accounts for the majority of total revenue**.
Conversely, several products show consistently low sales contribution.

Implication:
The business exhibits strong sales concentration, increasing dependency on a limited product set.

---

4. Product-Level Profitability Gaps

Product-level profit and margin calculations highlight that **some high-revenue products generate low margins**, while certain moderate-volume products deliver stronger profitability.

Implication:
High sales volume does not equate to high business value; pricing and cost structure must be reviewed at the product level.

---

5. Cost and Unit Economics Impact

Analysis of unit cost versus selling price shows **narrow margin buffers** for several products.
Small cost increases can significantly reduce profit at scale.

Implication:
Cost control and supplier pricing play a critical role in protecting margins.

---

6. Delivery Performance and Profit

Orders grouped by delivery speed demonstrate that **faster deliveries contribute higher total profit**, while slower deliveries are associated with lower profitability.

Implication:
Operational efficiency directly impacts financial outcomes, not just customer experience.

Business Recommendations

- Shift decision-making focus from **revenue growth to margin optimization**
- Prioritize retention and engagement of **high-value customer segments**
- Optimize product portfolio by supporting **high-margin products** and reassessing underperforming ones
- Strengthen cost monitoring and supplier negotiation to improve unit economics
- Improve delivery performance for profitable products and customers to maximize returns

---

Conclusion

This SQL-driven analysis demonstrates that **profitability is influenced by a combination of customer value, product strategy, cost efficiency, and operational execution**.
By aligning business decisions with margin-focused insights rather than pure sales metrics, the organization can achieve more **sustainable and scalable growth**.