🧠 Project Storytelling

Objective 🎯 :

To identify and segment customers by profitability using financial metrics such as Gross Margin, Customer Lifetime Value (CLV),and Customer Acquisition Cost(CAC).

The goal is to help management focus resources on high-value customers while reducing the cost of serving unprofitable segments.

🔗 QUERY 1 – Gross Profit and Margin by Customer

-Our first analysis revealed the foundation of profitability- comparing revenue vs cost across customers. From this,we discovered that 20% of customers contribute nearly 70% of total gross profit,confirming a effect in our customer base. Some customers had consistent high revenue but thin margins- signaling price discounting or rising cost pressures.

This finding prompted management to review pricing strategies and supplier negotiations for those low-margin accounts.

🔗 QUERY 2 – Total Support Cost per Customer

-Support cost analysis uncovered an overlooked expense – after sale maintenance and warranty claims. While customer satisfaction was high, these services consumed 8 – 12% of gross profits for accounts.

We found that certain customers , despite strong sales, became loss-making after including support expenses. This insight led to an internal audit on services efficiency and maintenance contract restructuring .

🔗 Query 3 – Customer Profitability Segmentation

-Combining revenue ,cost ,support, and CAC , we segmented customers into four profitability tiers.
. High : Strategic clients with strong margins and high retention
. Moderate : Steady contributors, potential for upselling
. Low : Break-even customers requiring engagement review

.Unprofitable : negative net profit after the acquisition and services costs

🔗 QUERY 4 – Top 10 Customers by Lifetime Value(CLV)

-Our lifetime value analysis highlighted customers who consistently generated profit over multiple periods.
Top clients not only bought frequently but maintained sustainable margins over time, signaling strong loyalty and stable relationships.This insight led the company to design a Loyalty Retention Program, rewarding high CLV customers with special pricing and exclusive offers.

🔗 QUERY 5 – Estimated CLV with Retention and Margin Assumptions

-We expected the CLV model using ssumptions on retention rate and transaction frequency .This predictive layer showed how small improvements in retention could increase CLV by 35%.
The storytelling emphasized that retention is more profitable than acquisition ,shifting focus toward customer experience investments instead of aggressive and spending.

🔗 QUERY 6 – CAC Ratio and Payback

-Analyzing the ratio of CLV to CAC revealed which customers recovered their acquisition cost – and which didn't.
We found that nearly 25% of customers had a CLV/CAC ratio below 1,meaning they were net negative .
These were mainly acquired through expensive online campaigns, promoting a review of marketing efficiency and channel ROI.

🔗 QUERY 7 – Profitability by Region and Industry

Regional and industry segment unveiled strong geographical contrasts. The Ashanti and Greater Accra regions led in total profit, while Volta and Northern regions showed high cost-to-revenue ratios. In industry terms ,Construction and Mining clients had higher margins compared to Retail, where intense price competition eroded profits.

This guided management to focus growth efforts in high-margin regions and sectors.

🔗 QUERY 8 – Customer Retention(Cohort Analysis)
Retention cohorts visualised how long customers remained active after the acquisition .We observed that customer churn spikes after 6 months, especially for those acquired via discount-driven campaigns. This pattern indicated that initial deals attracted price-sensitive buyers with low loyalty. It helped the company develop retention campaigns like periodic engagement emails and loyalty discounts to improve lifetime value.

🔗 QUERY 9 – Unprofitable Products (Low Margin)
A product-level margin analysis revealed that 15% of SKUs had gross margins below 10%, some even negative after the costs.
Most underperforming products were older SKUs launched before 2022,signaling outdated pricing structures .
The finance and operations team used this insight to review supplier contracts, renegotiate prices, and phase out loss-making items.

🔗 QUERY 10 – Monthly Revenue ,Cost and Profit Trends
Finally ,we transformed the transactional data into a time series view of profitability. The trend showed steady revenue growth 2023 onward but profit volatility due to seasonal maintenance costs and price fluctuations. This insight helped forecast cash flow needs and guided management to smooth cost structures and align promotional cycles with demand.