

Financial Performance Analysis by Market

AdventureWorks · SQL Analysis Project, 2026

Territorial profitability analysis in SQL to prioritize marketing investment. Revenue, gross profit, margin, and ROI were calculated by country, validated with quality-control checks, and synthesized into an executive report.

Business Question

Which markets generate the most revenue for AdventureWorks, and which are actually most profitable once marketing spend is factored in?

Methodology

- 1. Data extraction and cleaning with SQL (JOINS, views, types, NULLs).
- 2. KPI calculation: revenue, gross profit, margin, and ROI by country.
- 3. Validation and quality assurance (QA) of totals and margins.
- 4. Synthesis into an executive report using the Context → Finding → Implication methodology.

SELECT

```
p.country,
p.territory_key,
SUM(p.revenue)::integer AS revenue,
SUM(p.cost)::integer AS cost,
COALESCE(SUM(c.campaign_cost), 0)::integer AS campaign_cost,

-- Calculate gross_profit = sum(p.revenue)::integer - sum(p.cost)::integer
sum(p.revenue)::integer - sum (p.cost)::integer AS gross_profit,
-- margin_pct = (Revenue - Cost) / Revenue * 100
((sum(p.revenue) - sum (p.cost))*100.0)/nullif(sum(p.revenue),0) AS margin_pct,
-- roi_pct = Sum(Revenue - Cost) / CampaignCost * 100, using nullif to avoid divide-by-zero
-- margin_pct = (Revenue - Cost) / Revenue * 100
((sum(p.revenue)-sum(p.cost))*100.0)/nullif(SUM(c.campaign_cost),0) AS roi_pct

FROM country_revenue_cost AS p
LEFT JOIN country_campaigns AS c
ON p.territory_key = c.territory_key
GROUP BY
p.country,
p.territory_key
ORDER BY
p.territory_key, revenue, cost;
```

SQL script sample (step 1 and 2): the final query combines this and other prior views.

Key Finding (Context → Finding → Implication)

Context

AdventureWorks wanted to prioritize its marketing investment by market.

Finding

The United States leads in ROI (+75.75%) and Canada in margin (44.76%); the United Kingdom, with the highest campaign spend, has the lowest ROI (22.05%).

Implication

Prioritize investment in the US and Canada; rethink marketing channels in the United Kingdom.

Visualization

