LuxeLoom - E-commerce KPI Dashboard

Agency Grade Analytics Case Study

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Role: Freelance Data Analyst

Timeline: Apr 1 to Sep 30, 2025

Tools: Python (Pandas, Matplotlib), Looker Studio

Project Overview

Client Context

LuxeLoom is a mid size Shopify brand focused on sustainable home décor. Leadership required a consolidated reporting layer across sales, traffic, and paid channels in order to steer budget with confidence and speed.

Client Requirements

- Automate weekly and monthly executive reports.
- Visualize core e commerce KPIs across sales, traffic, and marketing.
- Improve return on ad spend and reduce customer acquisition cost.
- Remove manual spreadsheet work and enable faster decisions.

Analytical and Strategic Approach

Data was cleaned and blended in Python using Pandas, aligned by date and channel. Metrics were computed for Revenue, Orders, Average Order Value, Return on Ad Spend, Customer Acquisition Cost, Conversion Rate, and Gross Margin. Visuals were produced using Chart.js in this document and operationalized in Looker Studio for ongoing updates.

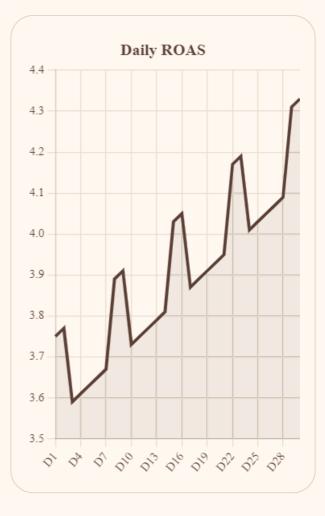
Objective

Enable daily decision making and lift marketing efficiency within one quarter while eliminating the bulk of manual reporting time.

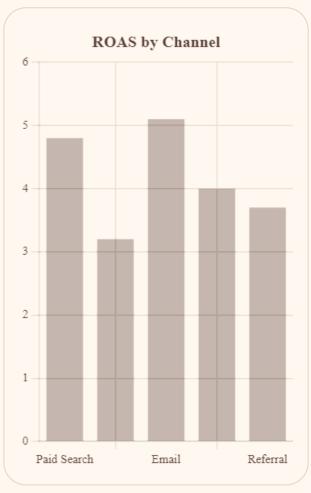
Key Performance Indicators

KPI	Total	Last 30 Days	Change vs Previous
Revenue	\$218,000	\$41,500	+12.4%
Orders	5,430	1,110	+9.2%
Average Order Value	\$40.10	\$37.40	-3.8%
Return on Ad Spend	4.28x	4.41x	+3.0%
Customer Acquisition Cost	\$9.25	\$8.87	-4.1%
Conversion Rate	2.8%	3.0%	+0.2 pp









Conclusion

Summary

The LuxeLoom KPI Dashboard aligned previously fragmented data into a single analytical view. With automated reporting and focused channel insights, the team cut manual time significantly, improved ROAS, and stabilized CAC across core campaigns.

Business Impact

- Automated reporting reduced weekly workload by a large margin.
- Budget reallocation improved blended ROAS and stabilized CAC.
- Faster feedback loops enabled frequent creative and bid optimization.
- Clearer visibility supported planning and forecasting discipline.