Summary and scope

This project is an example of applied data analysis for decision-making. The methodology and analytical approach can be applied across different business areas (finance, operations, sales, human resources, technology, among others), as long as structured data is available. The main objective is to demonstrate the ability to transform raw data into actionable information, define relevant KPIs, and clearly communicate results.

Project objective

The analysis focuses on evaluating supplier performance using historical transactional data and indicators that allow comparison of behavior, variability, and efficiency. Beyond the specific use case, the project highlights skills in exploratory data analysis, KPI definition, data transformation, and analytical structuring for decision support.

Data and preparation

A structured CSV dataset containing transactional information was used. The process included data loading and validation, type conversion (dates and numeric values), basic cleaning to ensure consistency, and the creation of derived variables to support temporal and comparative analysis. This step was essential to ensure reliable results.

Analytical engineering

Based on the prepared data, a supplier-level KPI table was created to summarize large volumes of information into clear, comparable metrics. The analysis includes averages, totals, variability measures, transaction frequency, and time-based indicators. This design enables scalability and easy adaptation to other business contexts.

Results and business value

The resulting KPIs help identify patterns, compare performance across entities, and highlight potential optimization opportunities using structured analytical approaches that convert operational data into strategic insights and can be reused in different scenarios by adjusting only the data source and KPIs.