SELF ASSESMENT DASHBOARD

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Introduction

Thank you for the opportunity. The goal was to create a clear, fast dashboard that business users can slice by time, product, and geography to answer the core questions in the brief. I used a star-schema model with Sales as the fact and Date, Product, Customer, Store as dimensions. Visual styling follows a single accent #9C26C1 for consistency and accessibility.

Data & Sources

- I initially tried to locate open public data (ONS, GOV.UK, World Bank). The main challenge: available files were short and often single-sheet CSVs with all fields in one table no reliable keys to build relationships.
- To meet the brief realistically, I used a multi-table retail dataset from Kaggle, ensuring use is GDPR-compliant (no personal identifiable information beyond synthetic IDs).
- Dataset Provided (8 worksheets)
    - Customer – Customer demographic and account information.
    - Date – Date dimension table with calendar details.
    - Product – Product master data.
    - Sales – Sales summary data.
    - Store – Store information including location and region.

Methodology

- Power Query: Typed dates & numerics; minor clean-up only.
- Model (Star Schema):
    - Fact: Sales (line level).
    - Dimensions: Date, Product, Customer, Store.
    - One-to-many, single-direction relationships from each dimension → Sales.
    - Some tables/fields were not connected on purpose (e.g., certain Orders/OrderRows attributes) because the same fields already existed in Sales, and linking would create duplicate filter paths/ambiguity without adding value.
- Formatting: Currency set on measures; % with 1–2 decimals; slicer panel (Year, Fiscal FY-Quarter, Brand/Category/Product, Country, Continent). Theme accent #9C26C1.

Questions Covered (as requested)

1. Create a filter menu which will allow end users to slice through the data
2. Top performing stores by revenue
3. Brand, Category & Product by revenue
4. Total sales revenue from 2022–2024 including a monthly and yearly breakdown
5. Continent & Country breakdown by revenue and year
6. Quarterly revenue breakdown from FY22 Q1 to FY24 Q1
7. Margin & Margin % breakdown for Product and Store

These cover the most common decision needs: time, product mix, geography, store performance, and profitability.

Measures, Logic & Thinking

- FX handling: Convert line amounts to a single base using the provided ExchangeRate.
- Core measures:

Total Revenue =
SUMX(Sales, DIVIDE(Sales[NetPrice], Sales[ExchangeRate]))

Total Cost =
SUMX(Sales, DIVIDE(Sales[UnitCost], Sales[ExchangeRate]))

Margin = [Total Revenue] - [Total Cost]
Margin % = DIVIDE([Margin], [Total Revenue])

- Time intelligence (built on the marked date[Date]):

Total Revenue MTD = TOTALMTD([Total Revenue], 'date'[Date])
Total Revenue QTD = TOTALQTD([Total Revenue], 'date'[Date])
Total Revenue YTD = TOTALYTD([Total Revenue], 'date'[Date])

Fiscal columns used (built on the existing Date table)

Fiscal Quarter =
VAR M = MONTH('date'[Date])
VAR Q = INT(MOD(M - 7, 12) / 3) + 1 -- adjust 7 if FY starts in July
RETURN "Q" & Q

Fiscal Year =
VAR Y = YEAR('date'[Date])
RETURN "FY" & RIGHT(Y + IF(MONTH('date'[Date]) >= 4, 1, 0), 2) -- example with April FY

Fiscal Year-Quarter = 'date'[Fiscal Year] & " " & 'date'[Fiscal Quarter]

Rolling windows (available but not used on page)

If needed later for trend pages:

-- Rolling 12 months (R12M)
Total Revenue R12M :=
CALCULATE([Total Revenue],
DATESINPERIOD('date'[Date], MAX('date'[Date]), -12, MONTH))

-- Rolling 3 months (R3M)
Total Revenue R3M :=
CALCULATE([Total Revenue],
DATESINPERIOD('date'[Date], MAX('date'[Date]), -3, MONTH))

If you specifically want strict YTD/MTD (calendar-to-date), the TOTALYTD/TOTALMTD measures above already provide that.

What Each Chart Represents

- Filter menu: Year, Fiscal Year-Quarter, Brand/Category/Product, Country, Continent for contextual slicing.
- Top Stores (bar): Identifies highest revenue stores; supports cross-filtering to other visuals.
- Brand → Category → Product (matrix): Drill path to see revenue and profitability mix.
- 2022–2024 totals (card + year column + month combo): High-level trend and seasonality; quickly isolates YoY movement.
- Continent & Country by Year (matrix): Geographic performance and mix shift.
- Quarterly Revenue FY22 Q1 → FY24 Q1 (column): Fiscal view using existing fiscal fields; sorted by fiscal sequence.
- Margin & Margin% (two matrices): Profit and profitability by Product and by Store to target actions.

Assumptions & Limitations

- Currency shown in a single base for comparison; exchange rates taken from the dataset.
- No PII; IDs are synthetic, GDPR compliant.
- Data represents the provided snapshot; no external refresh connected.
- Some header/line attributes from Orders/OrderRows were not modeled separately because equivalent fields already exist in Sales.