Power BI – Retail Project

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Project Context

Contoso is an international company in the Retail sector that markets a wide range of products in a variety of categories.

In **2 hours** a follow-up meeting is scheduled with the Sales Director to get updated information on the company's commercial activity.

In this environment, you are part of the BI & Analytics team, specialized in developing Data Analytics and Business Intelligence solutions. For the meeting with the management team, you have been entrusted with the task of creating a Dashboard proposal to present the company's sales information.

Among other tools, the BI & Analytics team is specialized in the use of Power BI, so you have been asked to develop your proposal using this tool.

The DBA has generated the following extractions from the DWH used in production by the company for you to use in the Scorecard development environment.

Spanish.dbo.FactSales.xlsx

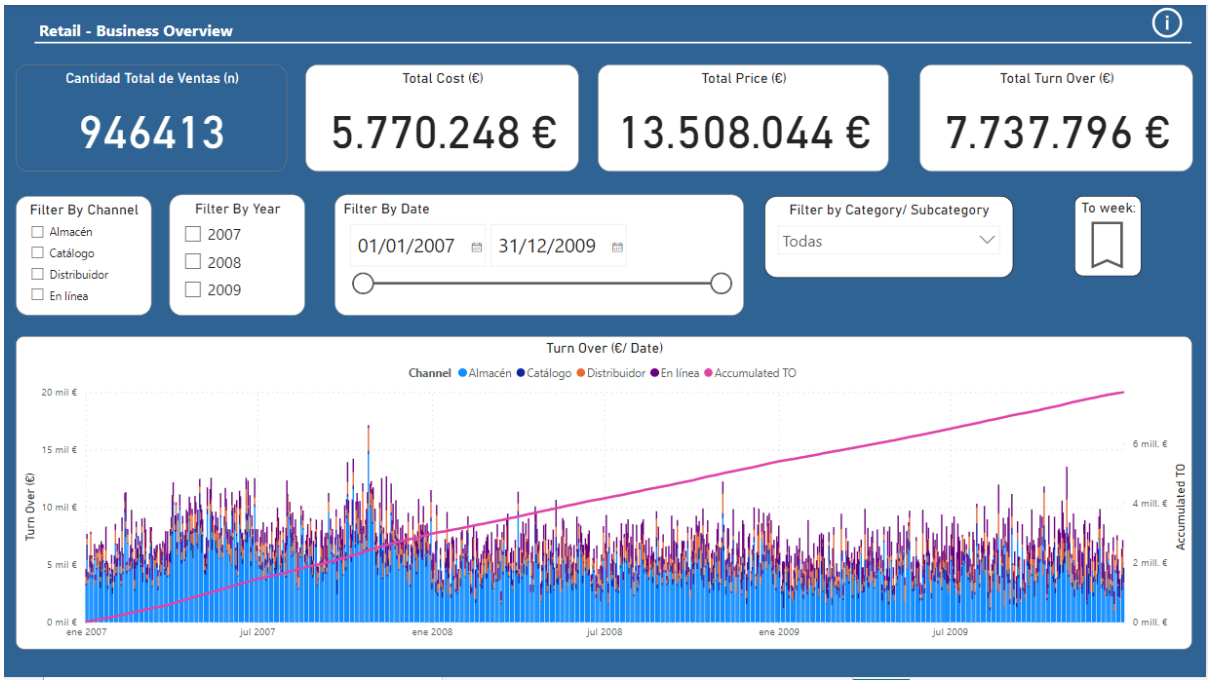
Spanish.dbo.DimStore.xlsx

Spanish.dbo.DimChannel.csv

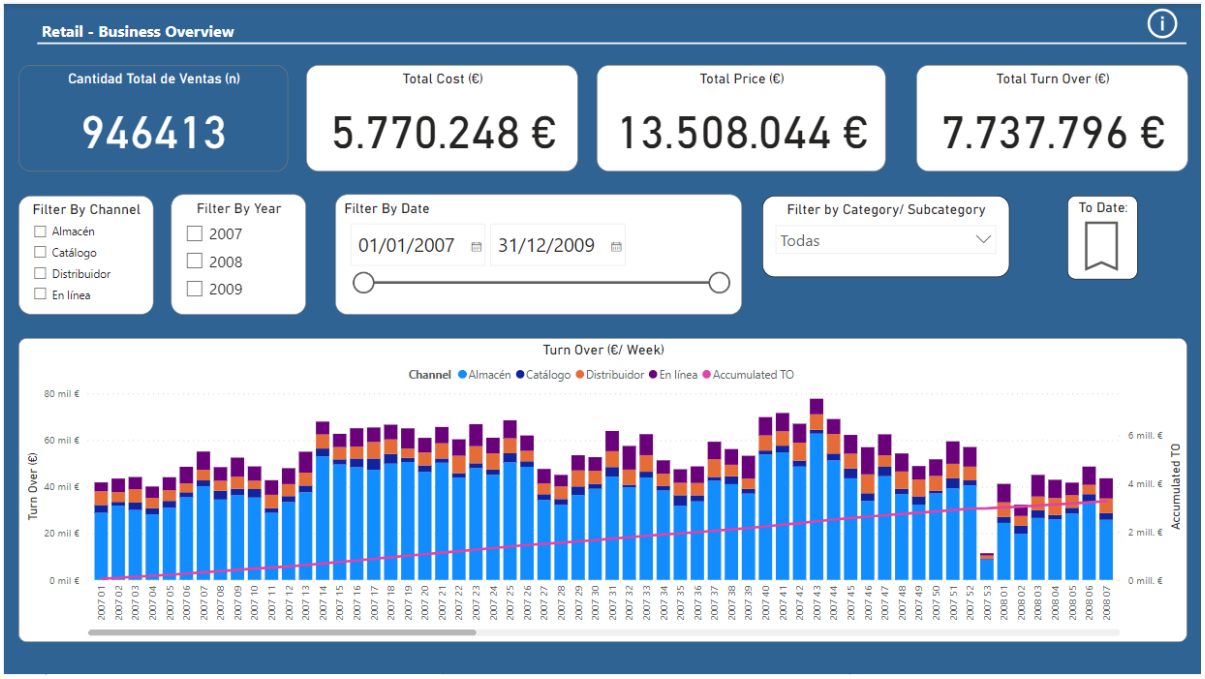
Requirements:

- Contoso is an international company in the Retail sector that Present the data of No. of sales made, as well as sales segmented by: channel, product, color of the product
- Present the data of total revenues and costs, as well as their segmentation by: channel, product
- Present the direct profit data segmented by: product, manufacturer
- Present sales, revenue and cost data on a daily and weekly basis by day of sale, for the entire period available.
- Present data on percentage change in revenue compared to the previous month, for sales made as of April 14, 2008.
- Present cumulative sales, revenue and cost data for the entire period available.

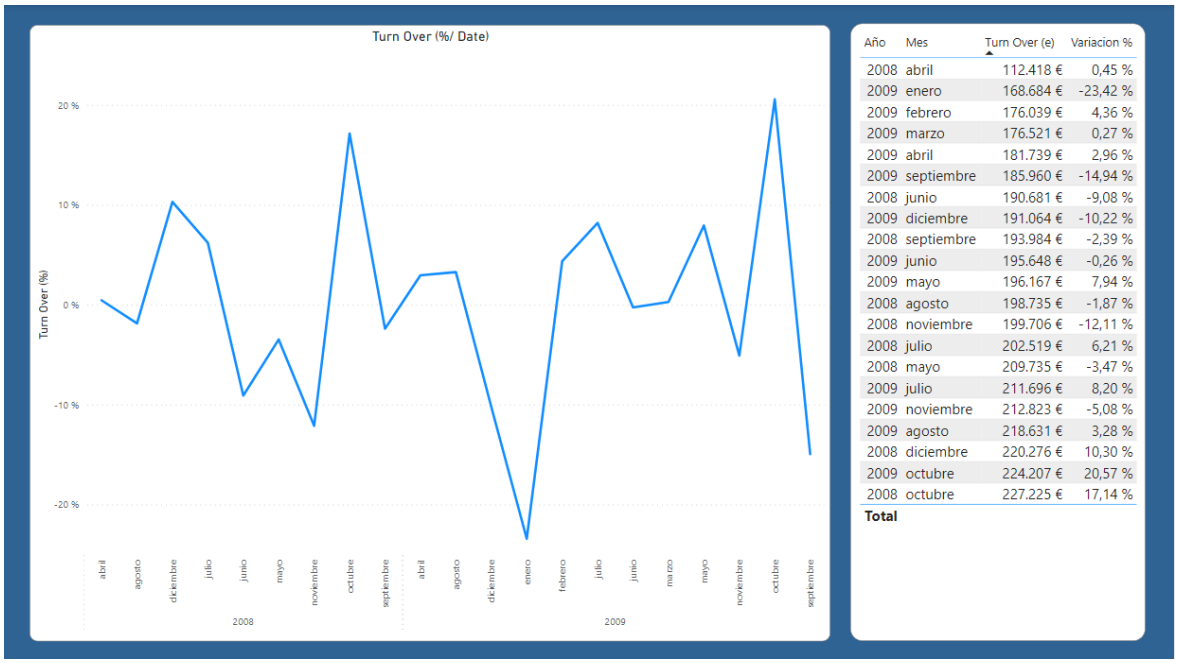
Slide 1: Retail Business - Overview



Button to Accumulated Week:



Second Slide: Turn Over rate (%)



Año	Mes	Turn Over (e)	Variacion %
2008	abril	112.418 €	0,45 %
2009	enero	168.684 €	-23,42 %
2009	febrero	176.039 €	4,36 %
2009	marzo	176.521 €	0,27 %
2009	abril	181.739 €	2,96 %
2009	septiembre	185.960 €	-14,94 %
2008	junio	190.681 €	-9,08 %
2009	diciembre	191.064 €	-10,22 %
2008	septiembre	193.984 €	-2,39 %
2009	junio	195.648 €	-0,26 %
2009	mayo	196.167 €	7,94 %
2008	agosto	198.735 €	-1,87 %
2008	noviembre	199.706 €	-12,11 %
2008	julio	202.519 €	6,21 %
2008	mayo	209.735 €	-3,47 %
2009	julio	211.696 €	8,20 %
2009	noviembre	212.823 €	-5,08 %
2009	agosto	218.631 €	3,28 %
2008	diciembre	220.276 €	10,30 %
2009	octubre	224.207 €	20,57 %
2008	octubre	227.225 €	17,14 %
Total			

DAX formulas are developed in a clear style, including annotations to help understand their operation and facilitate knowledge transfer.

- Accumulated Total Turn Over

```
AcCcumulated Total TO_Daily =

// Cálculo de Turn Over acumulado a lo largo de un eje DATE.
// IF: Si el valor no SUM es mayor menor a 0, devuelva dato BLANK.
// CALCULATE: SUMA todos los valores (ALL) de 'Control Horario' agrupándolo por 'Day'

IF(
    CALCULATE([turnOver],
        FILTER(ALL('DB-FACTS'),
        'DB-FACTS'[DateKey] <=MAX ('DB-FACTS'[DateKey])))
        > 0,
    CALCULATE([turnOver],
        FILTER(ALL('DB-FACTS'),
        'DB-FACTS'[DateKey] <=MAX ('DB-FACTS'[DateKey]))
        ),

    blank()
    )
```

- Turn Over (%) monthly period comparison

```
Variacion % =

// Calcula la variación entre TO de este periodo y MES pasado

VAR Coste_pasado =

CALCULATE([turnOver], DATEADD('Date_calendar'[Date], -1, MONTH))

RETURN
    DIVIDE(([turnOver]- Coste_pasado), Coste_pasado)
```

In Powerquery the syntax is as close as possible to the SQL syntax to facilitate the localization of functions to developers and to facilitate, as in DAX, the transfer of knowledge.

Finally, metrics are also developed to ensure data reliability when performing transformations, so that developers can make changes and calculations comparing results from the QA table and the original one. Its loading is not enabled, so it does not affect performance.