



LA REDOUTE

*ON A TOUS UNE RAISON
D'AIMER LA REDOUTE*

Presented to: Team 11

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INTRODUCTION

In the ever-evolving landscape of the retail industry, understanding the intricate dynamics that govern an organization's performance is essential for strategic decision-making. This report delves into the comprehensive examination of La Redoute, a prominent player in the retail domain, to discover the underlying patterns and structures that contribute to its 4-month performance. Our investigation is grounded in the analysis of four original datasets each presenting a different aspect of **La Redoute's operational landscape**.

To navigate the complexity of these datasets and uncover interactive relationships, we have innovatively created intermediary tables. These tables serve as conduits, facilitating connections between the primary datasets by utilizing medium unique variables. We aim to identify the inner characteristics of La Redoute, extracting meaningful insights that can guide the formulation of **strategic recommendations**. By establishing mutual interactive relations through shared variables across these datasets, we endeavour to provide an instructive understanding of how La Redoute faced the challenges and opportunities presented by distinct months and periods. We have integrated the **analytical findings** derived from the data with **specific sales and discount information** obtained from the shopping information platform.

This combination has yielded reliable insights into the evolving sales characteristics and trends over time. The application of these discoveries is advantageous for La Redoute to increase its brand's adaptability and responsiveness to market dynamics, offering valuable insights that can inform strategic decisions. Besides, the findings of this report offer valuable perspectives for stakeholders, enabling them to make informed decisions that align with La Redoute's **strategic objectives and foster sustainable growth** in an ever-evolving retail landscape.

DATA PREPARATION

Getting data

The data for this project comes from 4 sources, Website Data, Search Engine Ad Data, Product Data, and Publication data. The sources were added to a folder and loaded one after another for convenience¹. The loading process involved Get Data>CSV>Select File and then transform data. The data was not loaded directly due to the huge volume involved in it, so we needed to clean and transform it before processing the data.

Profiling Data

Transforming the data from the data source helped us get an understanding of the overview of the data. We identified that all the data present in the Website, SEA and Publication source were identified as integers (Except Date which was identified as Date). We found multiple instances of missing values and null values which required fixing. The following observations were made on the general profile of the data:

- `donnees_publi` : Contained 284,533,642 rows and 10 columns. It had 1 Date column and 9 Numeric columns. Transformation and loading showed 180 errors for missing values in the 'COLOR' column.
- `donnees_sea`: Contained 4,530,320 rows and 6 columns. It had 1 Date and 5 Numeric columns. Errors Included the value of click being 0 and the value for Cost and Value for the same being non-zero.

- `donnees_produit`: Contained 3,138,527 rows and 5 columns. This table was a dimension table as it contained unique values. No error was detected.
- `donnees_site`: Contained 12,092,061 rows and 8 columns. It had 1 Date and 7 Numeric columns. Errors included null values for `NB_ADD_TO_CART`, `NB_PDT_ORDERED`, and `VALUE`.

Data Cleaning and Renaming

Before cleaning we identified that all the values related to sales had errors in them as the original CSVs had “,” to indicate the decimal separator which was ignored during the data transformation. This required attention as it could lead to future errors in interpretation. We also changed variable names to ensure consistency.

- Publication Data: (Appendix 1.4)
 - We changed the name of the table from “`donnees_publi`” to “Publication” to increase user visibility and understanding.
 - “`OFFER_ID`”, “`NUM_ID_PDT`”, “`COLOR`”, “`SIZE`”, “`BASE_PRICE`”, “`DISCOUNT_PRIX`”, “`BRAND_ID`”, and “`VENDOR_ID`” were renamed as “Offer ID”, “Product ID”, “Colour”, “Size”, “Base Price”, “Discount Price”, “Brand ID”, and “Vendor ID”.
 - Data types of Offer ID, Product Type, Color, Size, Brand ID and Vendor ID were changed to Text to improve analysis.
 - Base Price and Discount Price were divided by 100 to revert the error caused by the transformation.
 - The null values for `COLOR` were replaced by 0.
- SEA Data: (Appendix 1.3)
 - We changed the name of the table from “`donnees_sea`” to “SEA”
 - “`OFFER_ID`”, “`IMPRESSIONS`”, “`CLICKS`”, “`COST`”, and “`VALUE`” were renamed to “Offer ID”, “Impressions”, “Clicks”, “Cost of clicks”, and “Gross Value of clicks”.
 - We ran a transformation to check if number of clicks was 0 then change the value of Cost and Value to 0 as well.

- Product Data: (Appendix 1.1)
 - We changed the name fo the table from “donnees_produit” to “Product Data”
 - “NUM_ID_PDT”, “SUBFAMILY_REP_CODE”, “FAMILY_REP_CODE”, “MEG A_FAMILY_REP_CODE”, and “UNIVERSE CODE” were renamed to “Product ID”, “Subfamily ID”, “Family ID”, “Mega Family ID”, and “Universe ID”
- Website Data: (Appendix 1.2)
 - We changed the name of the table from “donnees_site” to “Website Data”.
 - “NUM_ID_PDT”, “NB_VIEWS”, “NB_ADD_TO_CART”, “TOP_ADD_TO_CAR T”, “NB_PDT_ORDERED”, “TOP_ORDER” and “VALUE” were renamed as “Product ID”, “Views”, “No. of Products added to cart”, “Add to Cart Y/N”, “No. of Product Ordered”, “Product Ordered Y/N” and “Gross Value”
 - Null values in Views No. of Products added to Cart, No. of Product ordered and Value were replaced by 0.

DATA MODELLING

Data Modeling

We perform data modelling to establish connections between variables and tables. This makes cross-referencing variables and performing comparative analysis easier. For this, we also create new columns, measures and tables that serve as connectors taking into account the connection type and cardinality. We identified 3 common identifiers among the tables and another derived identifier which enabled us to form connections between the tables. The new custom tables are: (Appendix 2.1)

- UNQDTS: Uses Unique Dates as connection variable between columns
- UNQORD- Created by running Distinct on the SEA table to get distinct Offer IDs to connect Publication and SEA table
- UNQPID- Created to check only the product IDs that were present in the Publication Table and check their sales on the Website.
- UNQKEY- Used to create a key by dividing the Gross Value in the Website to create the Selling Price and contacting it with the Product ID to create a unique key to check which Offers and Product IDs published by La Redoute sold during the analysis period.

Cardinality

Understanding the connections was important in establishing cardinality and connections between the tables. We created One-to-Many and Many-to-One connections between the tables to help us analyse the data. We chose to follow the Star Schema for our model design with the Publication as the Fact Table. The main connections to the Fact table are:

- Publishing and UNQDTS: Many-to-one, single-direction
- Publishing and UNQORD: Many-to-one, both direction
- Publishing and PID: Many-to-one, single direction
- Publishing and UNQKEY: Many-to-one, both direction

New Columns and Tables

We created multiple columns to improve the performance of analysis and reduce load while moving across data. These columns are mostly derived columns. According to the tables they are:

- **Publishing Data**
 - Discount: Calculates the discount offered by an offer ID on a product
 - Discount Rate: Calculates the discount rate offered
 - Discount Category: Categorises the discount rate for better analysis, 0 is assigned if the discount offered is 0 or the discounted price is more than the base price.
 - Key: Calculated to provide a unique variable by concatenating Product ID and Discount Price.
- **SEA data**
 - Conversion rate: Calculated for conversion rate between impressions and clicks on offer IDs
 - Corrected value: Corrects Value tab when the Clicks are 0 and is used for all subsequent calculations
 - Net Value: Calculated by deducting Cost from the Value

- **Website data**

- Selling Price: Created by dividing the Gross Value by the number of products ordered
- Order Per View: Calculates the number of Orders per View
- Key: Created by concatenating the Selling price and Product ID

- **UNQKEY**

- INSite: Checks if the Published Offer for a Product has been sold or not

- **Dates**

- Date type: Checks if the day is weekday or weekend
- Weekday: Check which day of the week it is
- Week: Check which week of the year it is

Hierarchies

Two hierarchies are present in our mode. One is for the Product which runs as

- Product ID>Subfamily ID>Family ID>Mega Family ID>Universe ID

Another is with dates, which breaks the Date down by Year, Trimester, Month and Day. (Appendix 2.2 & 2.3)

DAX MEASUREMENTS

We created DAX Measures to assist in calculating static values and conversion rates. They provide an excellent way to optimise our dashboard. Here is an overview of our DAX measures (Refer to Appendix 3.1- 3.18):

- **Publication Data**

- **Discount & Discount Rate:** Calculates "Discount" by subtracting "DISCOUNT_PRICE" from "BASE_PRICE," and "Discount Rate" as the percentage ratio of "Discount" to "BASE_PRICE."
- **Discount Category:** Introduces the "Discount Category" variable using the SWITCH function to categorize data based on calculated "Discount Rate," inherently considering the temporal context.
- **Key:** Creates a unique identifier ("Key") by concatenating 'NUM_ID_PDT' and 'DISCOUNT_PRICE,' facilitating comprehensive data understanding.

- **SEA DATA**

- **Conversion Rate:** Computes "Conversion Rate" by evaluating the ratio of 'Clicks' to 'IMPRESSIONS,' handling cases where 'IMPRESSIONS' is zero or negative.
- **Corrected Value:** Calculates "Conversion Rate" considering a conditional check for meaningful results, offering insights into advertising strategy efficiency.
- **Net Value:** Derives "Net Value" metric representing net financial impact considering corrected values and associated costs, showcasing the use of the CALCULATE function.

Overall Conversion Rate: Calculates "Overall Conversion Rate" by dividing the sum of 'Clicks' by the sum of 'IMPRESSIONS,' formatted as a percentage.

- **Site:**

- **Key:** Uses concatenation to generate a unique identifier ("Key") for each record, facilitating connections and associations between records.
- **Order_Per_View:** Computes "Order_Per_View" ratio, considering 'NB_VIEWS' greater than zero, providing insights into user engagement and conversion.
- **Selling Price:** Utilizes IF function for conditional logic in calculating selling prices, representing the price per ordered product and considering semi-additive measures.

- **UNQDTS:** Creates a new table "UNQDTS" with unique dates from 'SEA' dataset using SELECTCOLUMNS and DISTINCT functions.

- **DQTETYPE:** Assign day type category ("Weekday" or "Weekend") to each date in "UNQDTS" based on WEEKDAY and IF functions.
- **Week:** Extracts week numbers from dates in "UNQDTS" using the WEEKNUM function, providing a time-based variable for granular exploration.
- **Weekday:** Introduces "Weekday" variable, displaying full weekday names for each date in "UNQDTS," enhancing dataset readability.

- **UNQKEY:** Creates a new table "UNQKEY" with unique values from the "Key" column in 'donnees_publi' using SELECTCOLUMNS and DISTINCT functions.

- **InSITE:** Filters and extracts distinct values, creating a refined dataset using SELECTCOLUMNS and DISTINCT functions.

- **UNQORD:** Introduces "UNQORD" variable, creating a new table with unique values from "OFFER_ID" column in 'SEA' dataset.

- **UNQPID:** Constructs "UNQPID" variable, creating a new table with exclusive values from "OFFER_ID" column in 'donnees_sea,' facilitating potential integration and analysis in Power BI.

VISUALIZATION

Our aim with visualization was to understand the data and create meaningful descriptive and predictive analysis. This was done using 5 main pages of data:

Overview (Appendix 1.6)

A dashboard presents la Redoute's basic information and data of products, discounts, and offers from February 1, 2022, to May 31, 2022.

Card:

1. Starting data and ending date: Use the card to present the starting data and ending date with earliest and latest
2. Count the number of offers, products ordered, mega family and calculate average discount rate

Funnel:

1. Mega family tree: The funnel allows the viewer to see the mega-family categorization, with the width of the funnel reflecting the number and percentages in each mega family type

Bar chart:

1. Number of products by discount categories: viewers can clearly see the types of discounts, and compare data. 17.3 M products have no discount, The most common discount rate is 25%.
2. Discount price vs base price: It helps to allow the viewer to discover the distribution of products' two prices and easier to see the overall trends: The two variables essentially conform to a linear regression with a slope of approximately 1.1. legends help the viewer to clearly see the difference between the three clusters: cluster 2 customers tend to have a higher priced product, followed by cluster3, and cluster1 lastly

Scatter:

1. Discount price vs base price: It helps to allow the viewer to discover the distribution of products' two prices and easier to see the overall trends, legends help the viewer to see the difference between the three clusters.

Donut chart

1. Product color: It allows viewers to easily see the distribution of product color and make comparisons: The most used color is 1000
2. Product size: It allows viewers to easily see the distribution of product size and make comparison: Most size is 1000-1004

Website (Appendix 1.7)

A dashboard illustrates the customers' behaviours on La Redoute website

Slicers:

1. Month: Viewers can select the data in a specific period by clicking the bottom
2. Product published and sold: Viewers can select the data on whether the products are published and sold by clicking the bottom

Card:

1. Count or sum the number of views, add to chart, products ordered, total sales values
2. to present the most popular mage family, and product, and present the first-order

Line and stacked column chart

1. Distribution of products ordered and viewed: Viewers can see the trend in the number of products ordered and views over time: March and May are peak periods, and April is the trough. At the same time, viewers can see a positive correlation between the number of products and the number of views.
2. Distribution of Products added to cart and viewed: Viewers can see the trend in the number of products and views over time

Scatter

1. Analysing Product ordered vs Selling Price: It helps to allow the viewer to discover the distribution of the selling price of the product ordered, and easier to see the overall trends

SEA (Appendix 1.8)

A dashboard illustrates the campaigns of La Redoute

Slicers:

1. Month: Viewers can select the data in a specific period by clicking the bottom
2. Top 10 most valued offers: it shows the most profitable offers and viewers can click each offer ID to see the details
3. Top 10 clicked product: it shows the most popular product and viewers can click each product ID to see the details

Card:

1. Sum the number of impressions and clicks
2. Show the net values, overall conversion rate, most clicked mega family, most seen mega family, best conversion rate mega family, offer with best conversion rate

Donut chart:

1. Impression and clicks: It allows viewers easily see the distribution of Impression and clicks
2. Cost and value: It allows viewers to easily see the distribution of cost and value

Line and stacked column chart

1. Average clicks and impressions on Weekdays and Weekends: Viewers can see the difference in average clicks and impressions between weekdays and weekends
2. Clicks and impressions by weekdays: Viewers can see the change and trend of clicks and impressions each weekday

Line chart

1. Average conversion rate by week: Viewers can see the change and trend of conversion rate over weeks

Analysis (Appendix 1.9)

A dashboard shows the conjoint analysis of the website and sea

Slicer

1. Month: Viewers can select the data in a specific period by clicking the bottom

Line chart

- Average conversion rate by week: Viewers can see the change and trend of conversion rate over weeks

Line and stacked column chart

- 1.No. of Products Clicked and Ordered: Viewers can see the change and trend of clicks and the number of products ordered by time, also viewers can observe the relationship between two variables.

Scatter

- 1.Clicks and number of products ordered: Viewers can discover the distribution of clicks and number of products ordered, as well can see the overall trends.
- 2.No. of impressions vs No of views: Viewers can observe the distribution of impressions and views and the overall trends.

Bar chart

- 1.No. of products ordered and clicks by type of day: Viewers can see the difference in clicks and number of products ordered between weekdays and weekends
- 2.Clicks and No. of products ordered across the week: Viewers can see the change and trend of clicks and products ordered each weekday

Donut chart

- 1.Comparing clicks and if the product was ordered: we can make a comparison between the clicks and products ordered to observe customer purchase behaviour

Sales (Appendix 1.10)

A dashboard illustrates the impact of discounting and branding on sales

Card:

- 1.Show the most ordered, viewed, and most clicked brand

Slicer:

- 1.Month: Viewers can select the data in a specific period by clicking the bottom
- 2.Discount clusters: it shows the value and number of products ordered, the viewer can click each cluster to see the details
- 3.Colour and size: The viewer can click each colour or size to see the details

Stacked column chart

- 1.Sales generated by discount category: Viewers can see the distribution of discount categories and compare the sales generated by each category

Line and stacked column chart

- 1.Product ordered and viewed per mega family: Viewers can compare the number of products ordered and views of each mega family, and can see the relationship between two variables
- 2.No. Of products and clicks by brand ID: Viewers can compare the number of product clicks and views of each brand ID, and can see the relationship between two variables



PERFORMANCE OPTIMIZATION

To construct this report for La Redoute, we also focused on optimizing performance at every stage. As we navigated the complexity of data modeling, measures, relationships, and visuals, our focus remained on highlighting efficiency and responsiveness for an improved User Experience. (Refer to Appendix 4.1-4.7)


Optimizing Data Model Performance was in every step in our approach. We identified and addressed poorly performing measures, relationships, and visuals. This needed examination and refinement of DAX expressions to ensure optimal performance.

The process also included a concerted effort to reduce cardinality levels, a crucial factor in performance optimization. We decided to minimize the number of distinct values in key columns, reducing the complexity of relationships and improving query response times.

As we delved into Performance Optimization/Tuning, we looked for all the ways applicable to the model to improve efficiency. We acknowledged that with a large data model, accessing reports could take more time to update, potentially compromising the user experience. So we chose to follow the next points to process:

- **Ensure the Use of Correct Data Types:** We meticulously verified and standardized data types to promote efficient data processing.
- **Delete Unnecessary Rows and Columns:** Redundant data was systematically removed to streamline the model and minimize unnecessary computational load.
- **Avoid Repeated Values:** We focused on eliminating duplications and promoting a leaner, more efficient data model.
- **Replace Numeric Columns with Measures:** Numeric columns were transformed into measures where applicable, optimizing calculations.
- **Analyze Model Metadata:** A comprehensive analysis of model metadata guided our decisions, ensuring a data model aligned with optimal performance.
- **Summarize Data Where Possible:** Summarization of data, where feasible, contributed to reduced complexity and improved query response times.

We recognized that the bigger the model, the higher the risk of encountering low performance. With these efforts we mitigated risks, delivering a Power BI report that is more efficient and focused on performance.



CONCLUSION

Our aim with this project was to provide relevant insights to La Redoute by utilizing the data they provided and analysing it from the standpoint of both a data analyst and a business analyst. We managed to draw relevant conclusions through our integration of graphical information and calculated measures to reflect on our findings. Our key findings were:

- We identified 3 buying personas of the majority of La Redoute products. First, customers that look for 20-30% discounts. Second, customers that buy products at nearly base price or minimal discount and 3rd customers that do not care much about discounts and are willing to buy products that are above the base price. A deeper look into this behaviour can help La Redoute position itself based on its products.
- Analysing the SEA and Website data yielded that when La Redoute runs massive campaigns on its website, there is an influx of purchases and products ordered. In-depth analysis is required to judge the profitability of such campaigns and increase in overall visibility of La Redoute. Another thing to analyse will be the cooldown period required between each campaign.

We believe with better analytical tools and equipment, the analysis can be expanded over to be a more industry-wide analysis to compare vendors and their pricing strategies so La Redoute can identify threats and opportunities in their marketing strategies

APPENDIX

```
let
Source = Csv.Document(File.Contents("C:\Users\980236\Downloads\Files_EDMUC (2)\donnees_produits.csv"),[Delimiter=";", Columns=6, Encoding=1252, QuoteStyle=QuoteStyle.None]),
#Promoted Headers = Table.PromoteHeaders(Source, [PromoteAllScalars=True]),
#Changed Type = Table.TransformColumnTypes(#Promoted Headers,{{"FAMILY_REP_CODE", type text}, {"FAMILY_REP_CODE", type text}, {"MEGA_FAMILY_REP_CODE", type text}, {"UNIVERSE_CODE", type text}, {"MAP_ID_POT", Int64.Type}},
#Renamed Columns = Table.RenameColumns(#Changed Type,{{"SUBFAMILY_REP_CODE", "Subfamily Code"}, {"FAMILY_REP_CODE", "Family Code"}, {"MEGA_FAMILY_REP_CODE", "Mega Family Code"}, {"UNIVERSE_CODE", "Universe Code"}, {"MAP_ID_POT", "Product ID"}})
in
#Renamed Columns
```

1.1 Advanced Editor for Product Data

```
let
Source = Csv.Document(File.Contents("C:\Users\980236\Downloads\Files_EDMUC (2)\donnees_site.csv"),[Delimiter=";", Columns=8, Encoding=1252, QuoteStyle=QuoteStyle.None]),
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#Replaced Value1 = Table.ReplaceValue(#Changed Type, null, 0, Replacer.ReplaceValue, {"NB_ADD_TO_CART"}),
#Replaced Value2 = Table.ReplaceValue(#Replaced Value1, null, 0, Replacer.ReplaceValue, {"NB_POT_ORDERED"}),
#Replaced Value3 = Table.ReplaceValue(#Replaced Value2, null, 0, Replacer.ReplaceValue, {"VALUE"}),
#Divided Column = Table.TransformColumns(#Replaced Value3,{{"VALUE", each _ / 100, type number}}),
#Renamed Columns = Table.RenameColumns(#Divided Column,{{"MAP_ID_POT", "Product ID"}, {"NB_ADD_TO_CART", "No. of Products Added to Cart"}, {"NB_POT_ORDERED", "No. of Products Ordered"}, {"TOP_ADD_TO_CART", "Check Added to Cart Y/N"}, {"TOP_ORDER", "Check Ordered Y/N"}),
in
#Renamed Columns
```

1.2 Advanced Editor for Website Data

```
let
Source = Csv.Document(File.Contents("C:\Users\980236\Downloads\Files_EDMUC (2)\donnees_see.csv"),[Delimiter=";", Columns=6, Encoding=1252, QuoteStyle=QuoteStyle.None]),
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#Changed Type = Table.TransformColumnTypes(#Promoted Headers,{{"DATE", type date}, {"IMPRESSIONS", Int64.Type}, {"CLICKS", Int64.Type}, {"COST", Int64.Type}, {"VALUE", Int64.Type}, {"OFFER_ID", Int64.Type}},
#Replaced Value1 = Table.ReplaceValue(#Changed Type, null, 0, Replacer.ReplaceValue, {"IMPRESSIONS"}),
#Replaced Value2 = Table.ReplaceValue(#Replaced Value1, null, 0, Replacer.ReplaceValue, {"CLICKS"}),
#Replaced Value3 = Table.ReplaceValue(#Replaced Value2, null, 0, Replacer.ReplaceValue, {"VALUE"}),
#Renamed Columns = Table.RenameColumns(#Replaced Value3,{{"CLICKS", "Clicks"}},
#Divided Column = Table.TransformColumns(#Renamed Columns,{{"VALUE", each _ / 100, type number}}),
#Divided Column1 = Table.TransformColumns(#Divided Column,{{"COST", each _ / 100, type number}}),
#Renamed Column1 = Table.RenameColumns(#Divided Column1,{{"IMPRESSIONS", "Impressions"}, {"COST", "Cost"}, {"VALUE", "Gross Value"}, {"OFFER_ID", "Offer ID"}),
in
#Renamed Column1
```

1.3 Advanced Editor for SEA Data

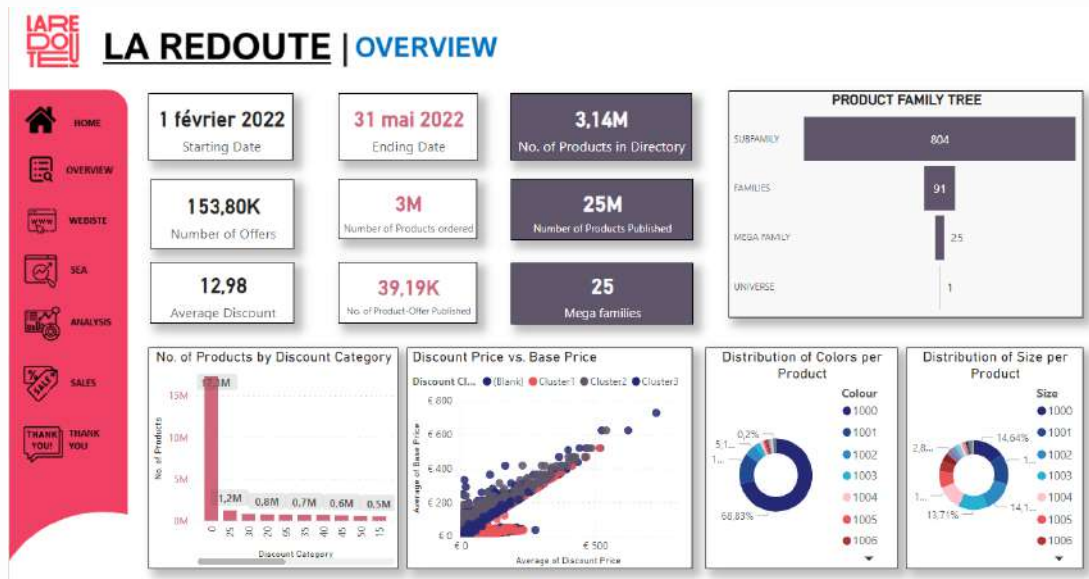
```
let
Source = Csv.Document(File.Contents("C:\Users\980236\Downloads\Files_EDMUC (2)\donnees_publicite.csv"),[Delimiter=";", Columns=10, Encoding=1252, QuoteStyle=QuoteStyle.None]),
#Promoted Headers = Table.PromoteHeaders(Source, [PromoteAllScalars=True]),
#Changed Type = Table.TransformColumnTypes(#Promoted Headers,{{"DISCOUNT_PRICE", Int64.Type}, {"OFFER_ID", Int64.Type}, {"DATE", type date}, {"COLOR", Int64.Type}, {"SIZE", Int64.Type}, {"BASE_PRICE", Int64.Type}, {"DISCOUNT_PRICE", Int64.Type}, {"TOP_ID", Int64.Type}, {"VENDOR_ID", Int64.Type}},
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#Divided Column = Table.TransformColumns(#Renamed Columns,{{"BASE_PRICE", each _ / 100, type number}},
#Divided Column1 = Table.TransformColumns(#Divided Column,{{"DISCOUNT_PRICE", each _ / 100, type number}},
#Renamed Column1 = Table.RenameColumns(#Divided Column1,{{"BASE_PRICE", "Base Price"}, {"MAP_ID_POT", "Product ID"}, {"DISCOUNT_PRICE", "Discount Price"}, {"MAP_ID_POT", "Product ID"}, {"OFFER_ID", "Offer ID"}, {"SIZE", "Size"}, {"VENDOR_ID", "Vendor ID"}),
in
#Renamed Column1
```

1.4 Advanced Editor for Publication Data

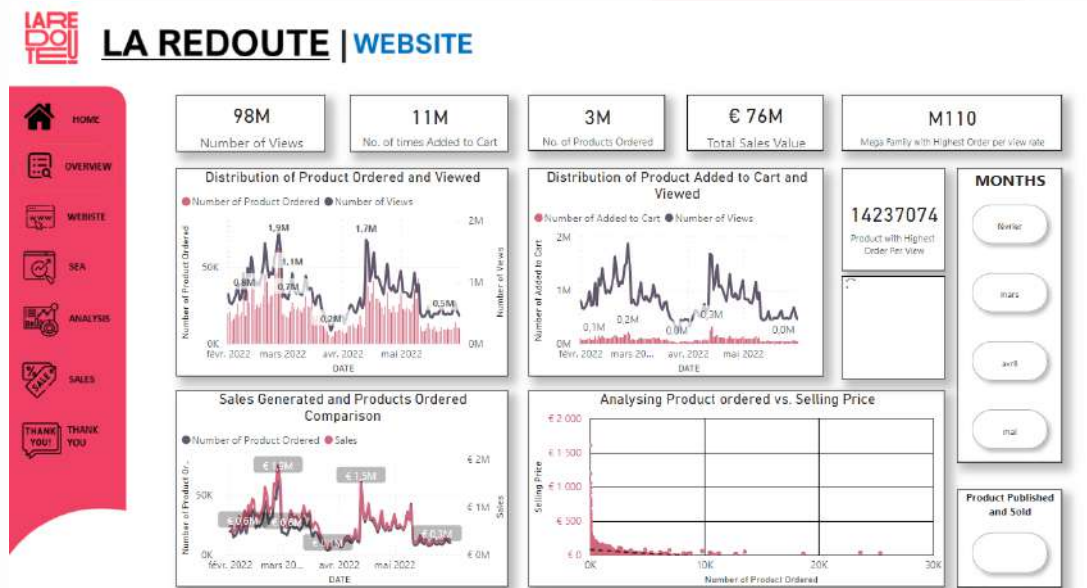


1.5 Homepage

APPENDIX

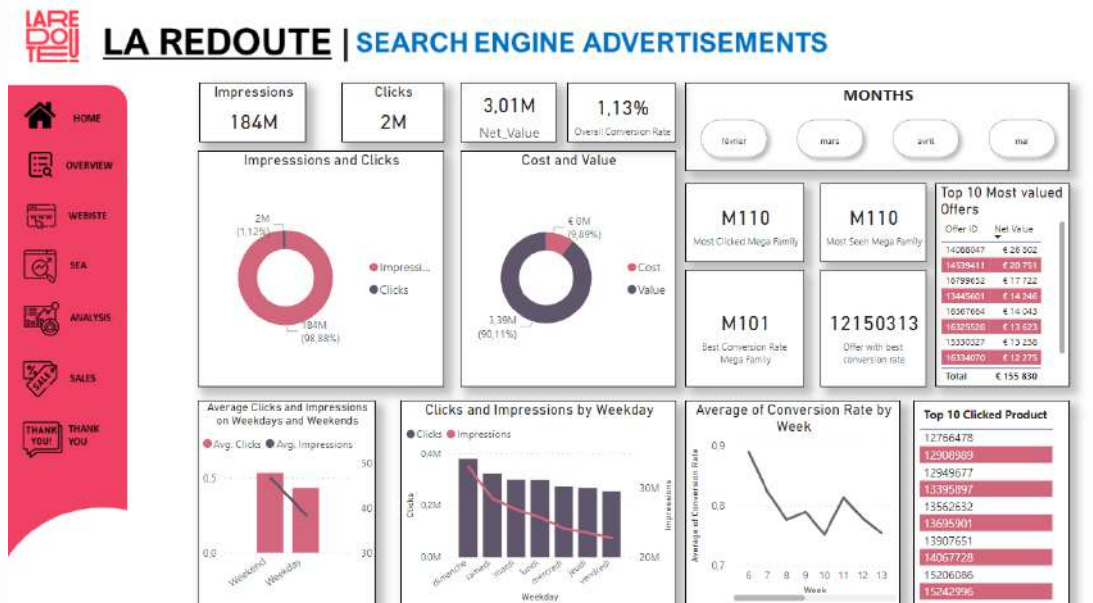


1.6 Overview

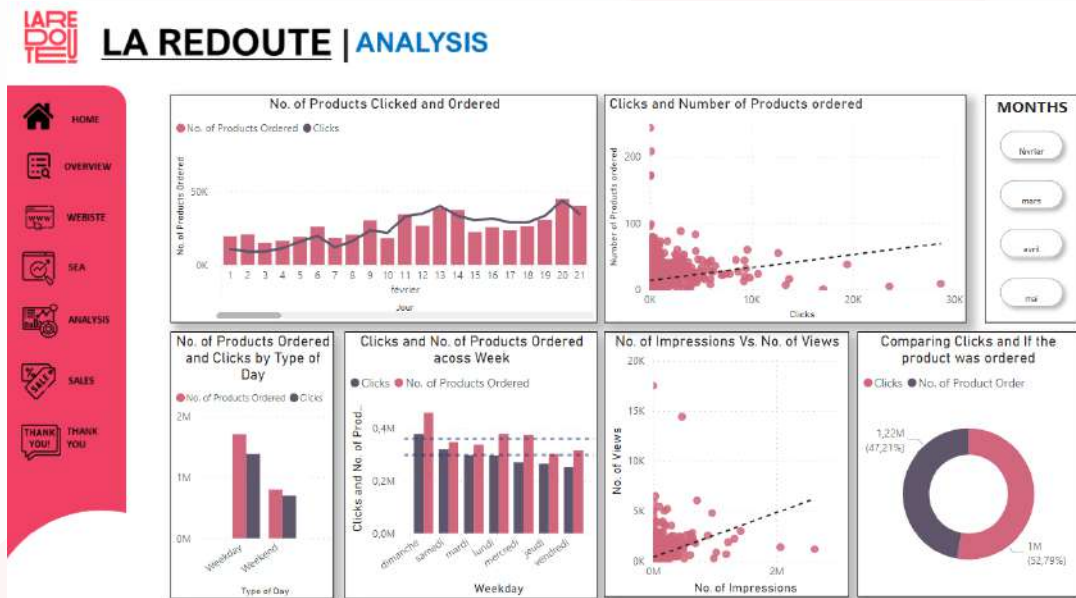


1.7 Website

APPENDIX

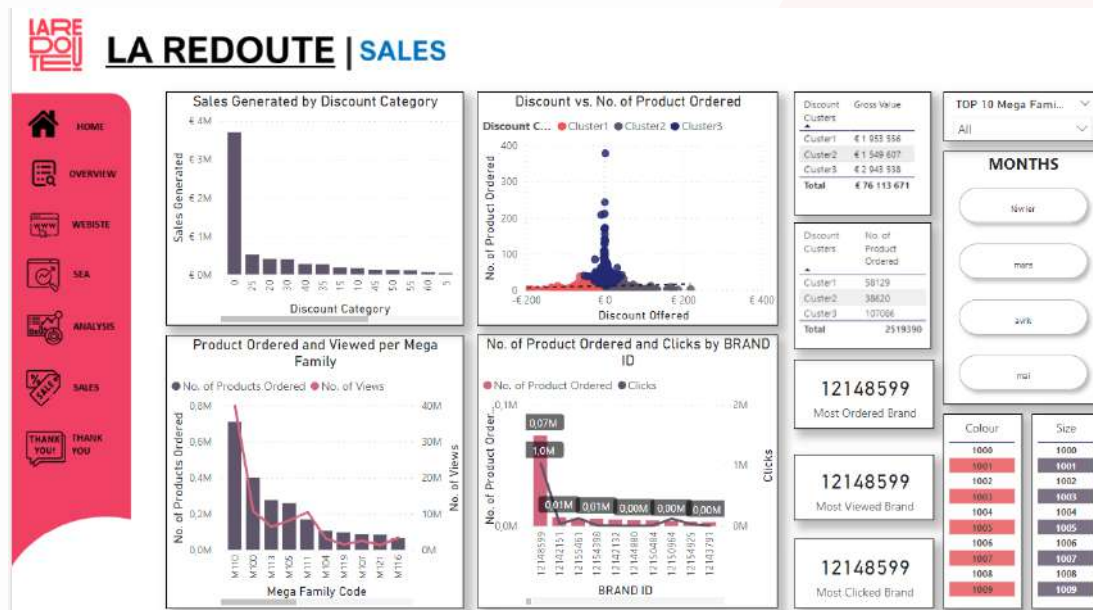


1.8 SEA

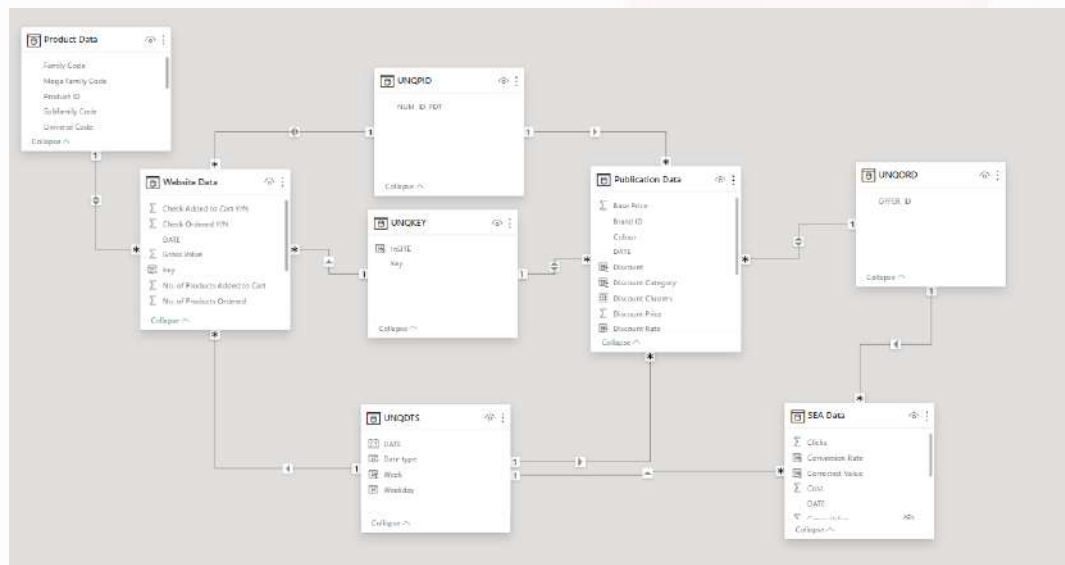


1.9 Analysis

APPENDIX

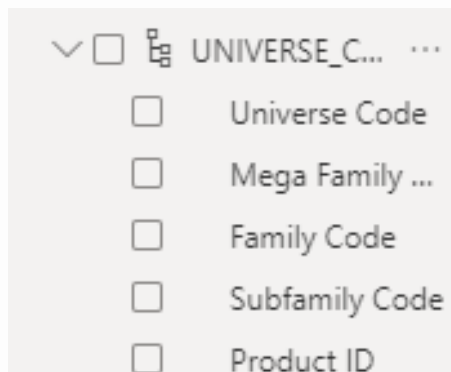


1.10 Sales

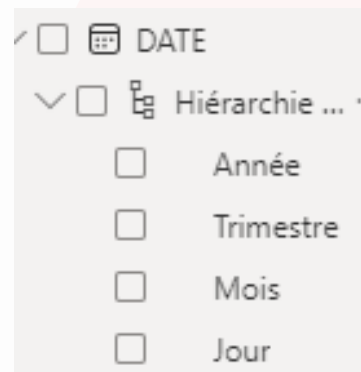


2.1 Model Schema

APPENDIX



2.2 Universe Hierarchy



2.3 Date Hierarchy

Discount = 'Publication Data'[Base Price] - 'Publication Data'[Discount Price]

3.1 Discount DAX

```
1 Discount Category =
2 SWITCH(
3     TRUE(),
4     'Publication Data'[Discount Rate] <= 0, 0,
5     'Publication Data'[Discount Rate] <= 2, 1,
6     'Publication Data'[Discount Rate] <= 7, 5,
7     'Publication Data'[Discount Rate] <= 12, 10,
8     'Publication Data'[Discount Rate] <= 17, 15,
9     'Publication Data'[Discount Rate] <= 22, 20,
10    'Publication Data'[Discount Rate] <= 27, 25,
11    'Publication Data'[Discount Rate] <= 32, 30,
12    'Publication Data'[Discount Rate] <= 37, 35,
13    'Publication Data'[Discount Rate] <= 42, 40,
14    'Publication Data'[Discount Rate] <= 47, 45,
15    'Publication Data'[Discount Rate] <= 52, 50,
16    'Publication Data'[Discount Rate] <= 57, 55,
17    'Publication Data'[Discount Rate] <= 62, 60,
18    'Publication Data'[Discount Rate] <= 67, 65,
19    'Publication Data'[Discount Rate] <= 72, 70,
20    'Publication Data'[Discount Rate] <= 77, 75,
21    'Publication Data'[Discount Rate] <= 82, 80,
22    'Publication Data'[Discount Rate] <= 87, 85,
23    'Publication Data'[Discount Rate] <= 92, 90,
24    'Publication Data'[Discount Rate] <= 97, 95,
25    TRUE(), 100
26 )
```

3.2 Discount
Category

APPENDIX

```
Discount Rate = ('Publication Data'[Discount]/'Publication Data'[Base Price])*100
```

3.3 Discount Rate

```
Key = 'Publication Data'[Product ID]&"_"&'Publication Data'[Discount Price]
```

3.4 Key

```
Conversion Rate = IF(('SEA Data'[Impressions]<=0),0,([Clicks]/[Impressions])*100)
```

3.5 Conversion Rate

```
Corrected_Value = IF('SEA Data'[Clicks] = 0, 0 , 'SEA Data'[Gross_Value])
```

3.6 Corrected Value

```
Net Value = 'SEA Data'[Corrected_Value] - 'SEA Data'[Cost]
```

3.7 Net Value

```
Net_Value = CALCULATE(SUM('SEA Data'[Net Value]))
```

3.8 New Value

```
Overall Conversion Rate = FORMAT(CALCULATE(DIVIDE(SUM('SEA Data'[Clicks]),SUM('SEA Data'[Impressions]))),"0.00%")
```

3.9 Overall Conversion Rate

```
Date type = IF(WEEKDAY(UNQDTS[DATE],2)<6,"Weekday","Weekend")
```

3.10 Date Type

```
Week = WEEKNUM(UNQDTS[DATE],1)
```

3.11 Week

```
Weekday = FORMAT(UNQDTS[DATE],"DDDD")
```

3.12 Weekday

```
InSITE = IF(COUNTROWS(FILTER('Website Data', 'Website Data'[Key]=UNQKEY[Key]))>0,1,0)
```

3.13 InSITE

```
UNQDTS = SELECTCOLUMNS(DISTINCT('SEA Data'[DATE]),"DATE" , 'SEA Data'[DATE])
```

3.14 UNQDTS

```
UNQKEY = SELECTCOLUMNS(DISTINCT('Publication Data'[Key]),"Key" , 'Publication Data'[Key])
```

3.15 UNQKEY

```
UNQORD = SELECTCOLUMNS(DISTINCT('SEA Data'[Offer ID]),"Offer_ID" , 'SEA Data'[Offer ID])
```

3.16 UNQORD

```
UNQPID = SELECTCOLUMNS(DISTINCT('Publication Data'[Product ID]),"NUM_ID_PDT" , 'Publication Data'[Product ID])
```

3.16 UNQPID

```
Key = 'Website Data'[Product ID]&"_"&'Website Data'[Selling Price]
```

3.17 KEY

APPENDIX

Key = 'Website Data'[Product ID]&"_"&'Website Data'[Selling Price]

3.16 Key

Order_Per_View = If(('Website Data'[Views]<=0),0,('Website Data'[No. of Products Ordered]/'Website Data'[Views]))

3.17 Order Per View

Selling Price = If(('Website Data'[No. of Products Ordered]<=0),0,('Website Data'[Gross Value]/'Website Data'[No. of Products Ordered]))

3.18 Selling Price

🔄 Refreshed visual	-
⊕ Image	14
⊕ Shape	14
⊕ Shape	13
⊕ Image	13

4. 1 Performance Analysis:
Homepage

📄 Changed page	-
⊕ PRODUCT FAMILY TREE	470
⊕ Card	239
⊕ Card	240
⊕ Card	240
⊕ Shape	122
⊕ Card	241
⊕ Card	241
⊕ Card	166
⊕ Shape	122
⊕ Shape	121
⊕ Card	239
⊕ Card	240
⊕ Card	240
⊕ Shape	119
⊕ No. of Products by Discount Category	465
⊕ Distribution of Colors per Product	462
⊕ Distribution of Size per Product	462
⊕ Shape	118
⊕ Shape	117
⊕ Discount Price vs. Base Price	433

4. 2 Performance Analysis:
Overview

APPENDIX

Changed page	-
Shape	166
Card	264
Card	205
Card	265
Card	265
Card	266
Shape	164
Distribution of Product Ordered and Viewed	486
Distribution of Product Added to Cart and Vi...	485
Card	267
Shape	162
Card	267
Shape	161
Shape	161
Sales Generated and Products Ordered Com...	483
Shape	160
Product Published and Sold	513
MONTHS	491
Analysing Product ordered vs. Selling Price	439

4. 3 Performance Analysis: Website

Changed page	-
Impressions	303
Clicks	304
Card	305
Card	260
Shape	209
Shape	209
Impresssions and Clicks	358
Cost and Value	360
Card	304
Card	304
Shape	207
Card	305
Card	305
Shape	206
Shape	205
Average Clicks and Impressions on Weekday...	360
Clicks and Impressions by Weekday	359
Average of Conversion Rate by Week	359
Shape	204
MONTHS	213
Table	349
Top 10 Most valued Offers	341

4. 4 Performance Analysis: SEA

APPENDIX


Changed page	-
Shape	164
No. of Products Clicked and Ordered	382
Shape	162
Shape	162
Shape	162
No. of Products Ordered and Clicks by Type ...	221
Clicks and No. of Products Ordered across We...	380
Comparing Clicks and If the product was ord...	375
Shape	160
Shape	159
MONTHS	188
Clicks and Number of Products ordered	338
No. of Impressions Vs. No. of Views	511

4. 5 Performance Analysis: Analysis

Changed page	-
Sales Generated by Discount Category	297
Slicer	234
Shape	234
Shape	234
Shape	233
Shape	230
Shape	230
No. of Product Ordered and Clicks by BRAN...	391
Product Ordered and Viewed per Mega Family	390
Card	335
Shape	228
Card	336
Card	337
MONTHS	240
Discount vs. No. of Product Ordered	669
Table	879
Table	884
Table	866
Table	850

4. 6 Performance Analysis: Sales

APPENDIX

 <i>Changed page</i>	-
+ Shape	190
+ Shape	189
+ Shape	189
+ Shape	189
+ Shape	189
+ Shape	189
+ Shape	188
+ Text box	127
+ Text box	132
+ Text box	132
+ Shape	187
+ Shape	186
+ Shape	186
+ Shape	186
+ Text box	132
+ Text box	132

4. 7 Performance Analysis:
Thank You page