Performance Analysis for FMCG Company

Team Members

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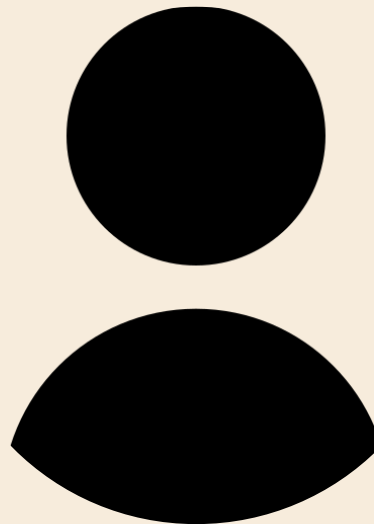
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Team Members

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The Company and Its Challenges

FMCG Company specializes in fast-moving consumer goods which are sold quickly and relatively cheaply like detergent, soup, shower gel etc.

Before entering the next quarter, the company needs to analyze its sales performance, outlets, and employees to identify strengths and areas for improvement.

Key Business Questions

Outlet

1. Which outlets were the most successful and which needed support the most?
2. Which outlet received the most visits?

Product

1. Which products generate the highest sales?
2. Are there products that are returned at a high rate?
3. Which category generated the highest sales?

Key Business Questions

Person

1. Who are the employees who achieved the highest sales? Are there employees who do not achieve the target?

2. Which employee did not meet their target?

Date

1. Do certain days or seasons affect sales?

2. On which day were the highest sales recorded?

3. On which day did the most visits occur?

Our Analysis Journey

Collect & EDA

Modeling

Visualization

1 **2** **3** **4** **5**

Cleaning

Analysis
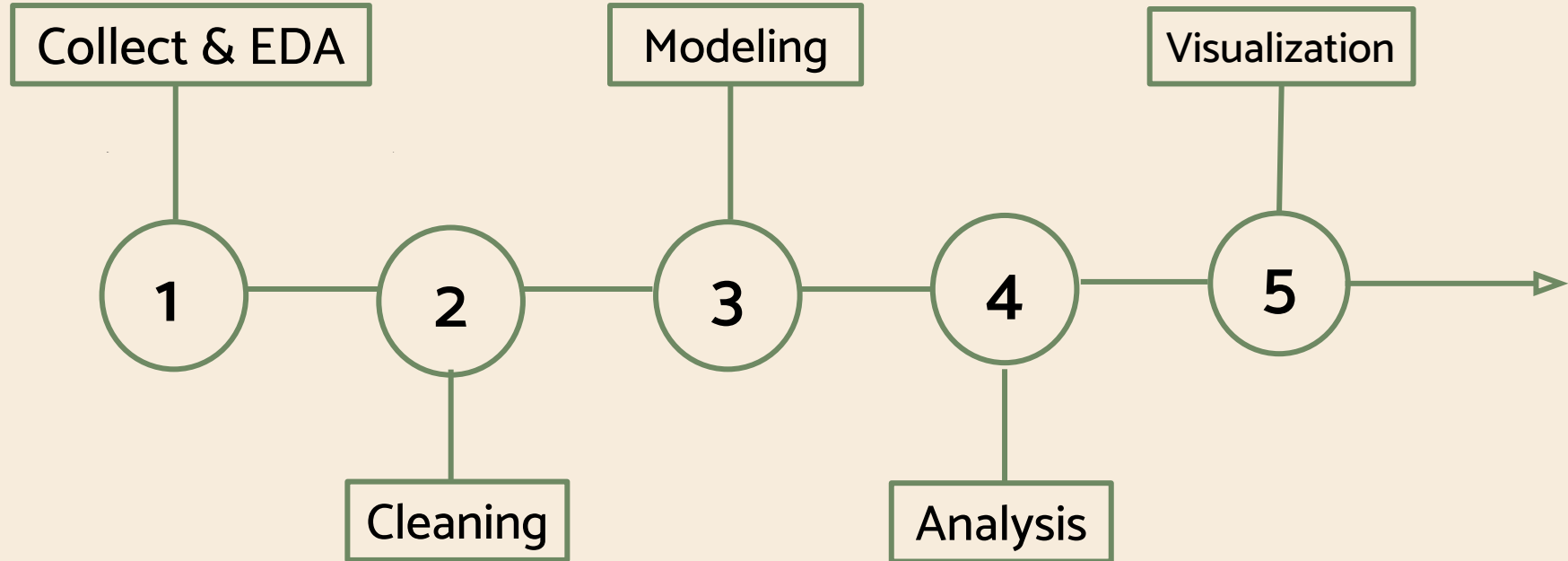
Tables:

- **Sales:** This table captures details of all sales transactions, including the product sold, quantity, and total sale amount.
- **Visits:** This table records the visits made by sales reps to outlets, including timing and sales data.
- **Outlets:** This table stores details about various retail outlets and the salespeople responsible for them.

Exploratory Data Analysis EDA

- **Warehouse:** This table stores information about the distribution centers or warehouses used for storing and shipping goods.
- **Sales Person:** This table lists salespeople and their relevant information, including their operational areas and the distributor they work for.
- **Targets April 2021:** This table tracks each sales rep's target and their actual sales performance for April 2021.
- **Product:** This table lists the available products, their categorization, and their price details.

Data Issues
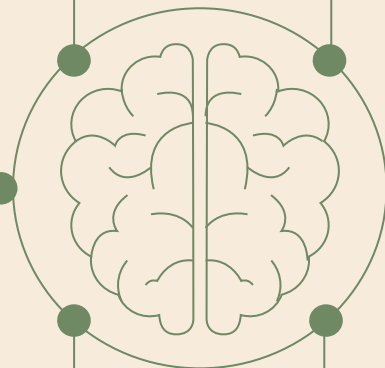
Negative Quantities

Inconsistent Outlet Type

Missing Employee Names

Variable Data Type for Visit Start Time

Outlets without Proper Names

Null Values & Unnecessary col in Product table

Cleaning

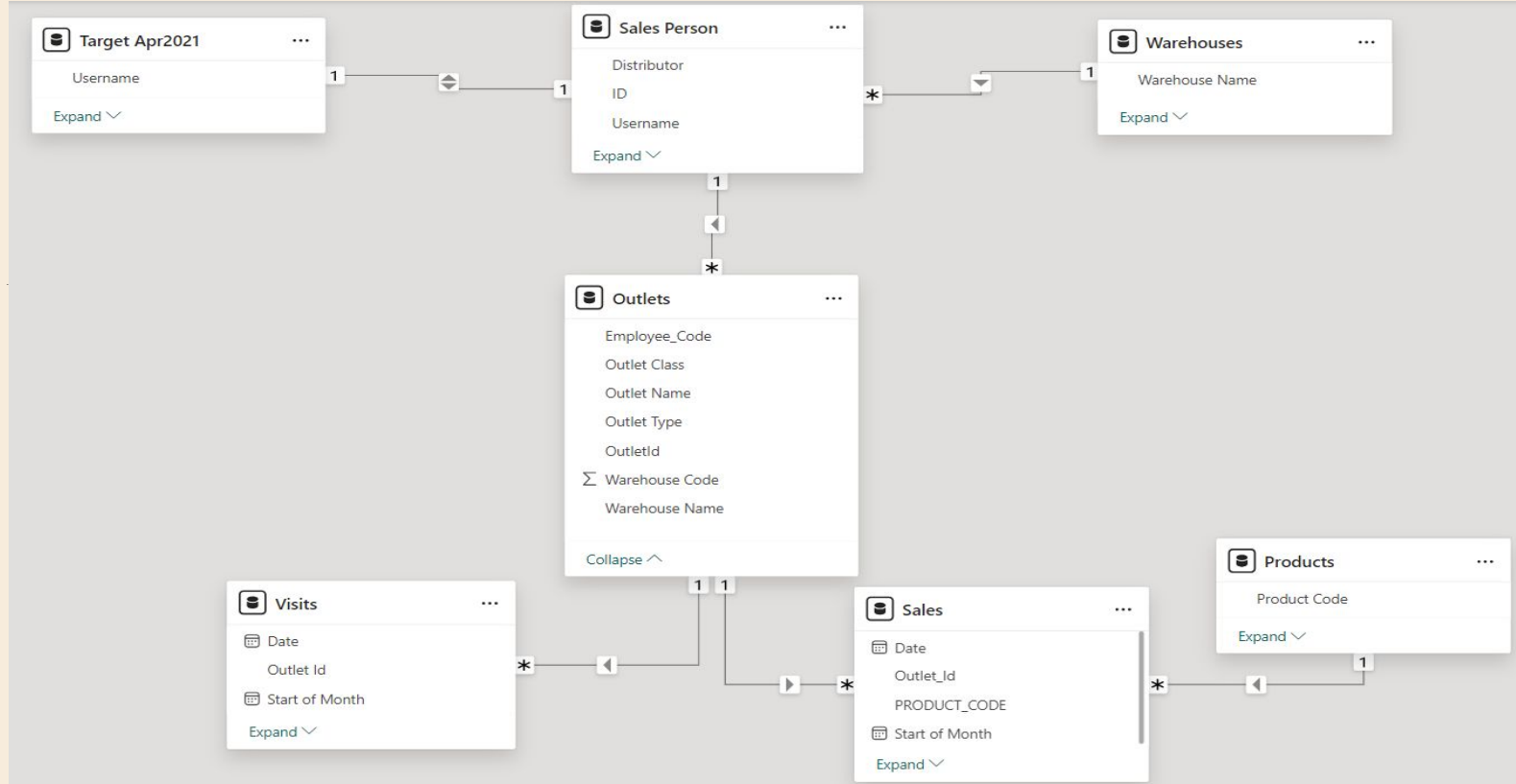Collaborated with the Sales and Operations

Standardized the type

Coordinated with the Human Resources Team

Correct Data Type

Relevant teams to ensure all outlets are accurately named.

Remove NULL values & Unnecessary col

Modeling

Explain the data Model

In this project, instead of following a specific schema like Star or Snowflake, we focused on how the business process works and structured our data model accordingly.

We began by understanding the flow of operations:

- The **company's warehouses** stock a variety of products.
- **Sales representatives** are assigned targets and are responsible for collecting products from these warehouses.
- They then deliver the products during their **visits to outlets** across different regions.

Based on this business process, we structured our data to reflect these relationships:

- We linked **warehouse stock** with the **sales representatives**, and their **visits** were connected to the **outlets**.
- This approach allowed us to model the data in a way that closely mirrors the real-world processes of the business, ensuring better insights and accurate analysis.

Analysis

_Measures	Targets
Average	☐ Previous Month Revenue
☐ Avarage Revenue	☐ Previous Year Returns
☐ Average Sales Per Visit	☐ Target AC Apr 2021
☐ Avg Visit Time	☐ Target Sales Apr 2021
General	**Time Intelligence**
☐ AC Apr 2021	☐ MTDRevenue
☐ Sales Apr 2021	☐ YTDRevenue
Percentage	**Totals**
☐ Growth Rate	☐ Number of Employees
☐ Positive Visits %	☐ Positive_Visits
☐ Return Rate %	☐ Total Outlets
☐ Sales %	☐ Total Quantity
	☐ Total Returns
	☐ Total Revenue
	☐ Total Visits

Visualization

Dashboard Design

Total Outlets	Total visit	Average Sales Per Visit	Avg visit time

- top 10 outlet by no of visits
  bar chart
- outlet type by sales
  pie chart
- Visit status
  pie
- outlet class by no of outlets
  tree map
- top 1 outlet by sales
  card
- top 1 outlet by return rate
  card
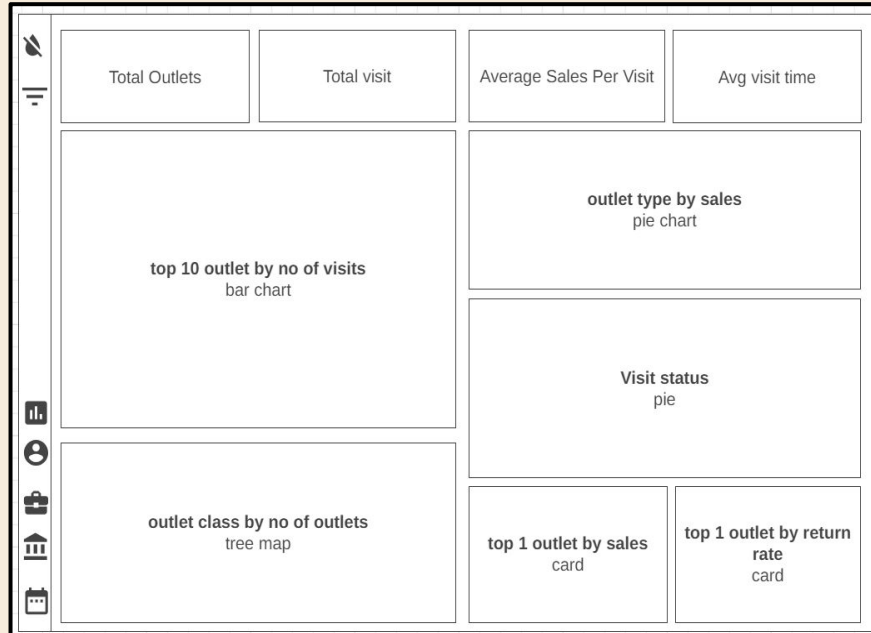
Dashboard Implementation

Total Outlets	Total Visits	AVG Sale Per Visit	AVG Visit Time (M)
5166	220K	1.17K	3.32

Top 10 Outlets by Visits

Outlet	Visits
منظفات	4365
عباد الرحمن	1405
مكه	623
بقاله	592
المصطفي	583
البركه	561
خبر زمان	511
الحرمين	455
الرحمه	442
الياسمين	425

Outlet Type by Revenue

230.02M (89.73%)   26.34M (10.27%)

Outlet Type
- تجزئة
- جملة

Visit Status

219K (99.6%)   1K (0.4%)

Visit Status
- Negative
- Positive

Outlet Class by No of outlets

تجزئة - بقالة   تجزئة - منظفات
جملة - غذائى   ...جملة - م
3250   1352   339   225

Best Selling Outlet

ماركت حسن

Highest Returns Outlet

محمد الصعيدى

Insights

Product Insights

- **Product with Highest Returns:**
  - Soap 115gm - blue 4 pcs 4 EGP Discount.
- **Top Revenue-Generating Product:**
  - Detergent 1L discounted 10%t: Contributed 69 million.
- **Most Frequently Ordered Product:**
  - Soap 60gm - blue.

Category Insights

- **Highest Sales Category:**
  - Detergents: 66.9% of total sales.
- **Best Performing Month for Detergents:**
  - February: 24.2 million in sales.t.
- **Lowest Sales Month for Detergents:**
  - May: Only 3.6 million.

Outlet Performance

- **Most Visited Outlet:**
  - المنظفات 4365 visits.
- Outlet Type:
  - 89% of total sales come from retail outlets.
- **Top-Selling Outlet:**
  - ماركت حسن.
- **Outlet with Highest Returns:**
  - محمد الصعيدي.

Employee Performance

- **Top Target Achiever:**
  - Mohamed Hussein: Exceeded his target by 822%.
- **Highest Sales Performer:**
  - Amged: Achieved 26.1 million in sales.

AC Target is achieved for all salespersons although the financial target is not met for 2 persons

Daily Performance

- **Day with Highest Sales:**
  - Monday: Total sales of 47 million.
- **Day with Most Visits:**
  - Wednesday.
- **Best Month for Sales:**
  - March 2020: 28 million in revenue.

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