### **Marketing Campaign Analysis**

### **Problem & background**

Marketing campaign data of 2,240 customers of Maven Marketing, including customer profiles, product preferences, campaign successes/failures, and channel performance.  
Recommended Analysis

1. Are there any null values or outliers? How will you handle them?
2. What factors are significantly related to the number of web purchases?
3. Which marketing campaign was the most successful?
4. What does the average customer look like?
5. Which products are performing best?
6. Which channels are underperforming?

### **Solution**

### We have two CSV files containing datasets. After reviewing the data dictionary, we have determined that we can utilize pivot tables to answer the given questions. However, in order to arrive at the correct answers, we need to experiment with pivot tables using different columns.

### **Methodology & Project scope**

### ● The initial and most important step in analysis is to comprehend the dataset.

### ● Transform the CSV file into an Excel file for conducting the analysis.

### **Goals & KPIs**

The primary goal of the project is to uncover the accurate answers that align with the business requirements. The key performance indicator (KPI) for the project will involve validating the data by cross-referencing it with the insights obtained.

### **Concepts Used**

We are using Microsoft Excel 365 for this analysis so following concept we will be use.

* **Advance Filter**
* **Pivot Table**
* **Box and whisker Plot**
* **Charts**
* **Subtotal**
* **Table**

### **Conclusion**

### During the analysis, we were able to address the following questions raised by the business:

### 1. Are there any null values or outliers? How will you handle them?

### Yes, there were null values and outliers in the data. The number of null values was minimal, so we imputed them with the mean value. To identify outliers, we used the Quartile method. We found that the "Year\_Birth" and "salary" columns contained insignificant values. We decided to remove entire rows that had outliers using an advanced filter, considering the small number of affected data points that would not significantly impact other data.

### 2. What factors are significantly related to the number of web purchases?

### Based on our analysis, we found that factors such as education, marital status, number of web visits, and country were significantly related to the number of web purchases.

### 3. Which marketing campaign was the most successful?

### The response campaign was identified as the most successful. Additionally, we found that Spain played the most significant role in its success.

### 4. What does the average customer look like?

### On average, the typical customer is from Spain, aged between 36 and 45 years old, married, with earnings between $31,730 and $46,730. They have completed their graduation.

### 5. Which products are performing best?

### We observed that the highest amount spent was on wines, totaling $680,000, with a 51% contribution. Hence, we can conclude that wines are the best-performing products.

### 6. Which channels are underperforming?

### The number of deal purchases appears to be underperforming, with a total of $5,170, accounting for only 15.62% of all channels.

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### **Project owner**

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