

Term Deposit Analysis

➤ Business challenge

1-why this is analysis important?

A) By analysis the customer demographic factors such as the marital status, education level, age range, and job type. This information can be used to identify which demographic groups are most receptive to the campaign and which groups may require additional target.

B) By analysis marketing campaign across different factors related to personal loan , housing loan , default and balance.the marketing team can make informed decisions about how to adjust their campaigns to improve subscription rates and better target their customers.

C) By analysis the metrics such as the subscription rate by contact type, outcome, duration range, and day of the month. By leveraging these metrics and analysis, marketers can make data-driven decisions to optimize their campaigns and improve their subscription rate.

2-what kind of problem we are trying to solve?

The problem the superscription rate comes from call center campaign is not satisfied, So we tray to improve it by trying to find pattern or trend to define which group of customers are interested to superscribe in the term deposit.

➤ Analysis Scope

1-Analysis base.

Analysis based on the call for each single customer.

2- Analysis inclusion and exclusion criteria.

customer demographic factors such as the marital status, education level, age range, and job type. marketing campaign across different factors related to personal loan , housing loan , default and balance. metrics such as the subscription rate by contact type, poutcome, duration range, and day of the month.

3-Analysis time frame

Campaign take only one year (2022)

4-Analysis data included.

- A) Customer marital status, education level, age range, and job type.
- B) personal loan , housing loan , default and balance.
- C) contact type, poutcome, duration range, and day of the month.

➤ Data Transformation:

1-Add new column "AGE RANGES" column, the age of each client would be categorized into different ranges.

2- Add new column "BALANCE RANGES" column, the average yearly balance of each client would be categorized into different ranges.

3-Add new column "DURATION RANGES" column, the duration of the last contact with each client would be categorized into different ranges.

4-Add new column "FIRST CALL" , the value would be "Yes" if the value of "pdays" is 0, indicating that this is the first contact with the client. Otherwise, the value would be "No".

5-Add new column "AGE INDEX" , the categorical age range for each client would be converted to an index value.

6-Add new column "BALANCE INDEX" , the categorical balance range for each client would be converted to an index value.

7-Add new column "DURATION INDEX", the categorical duration range for each client would be converted to an index value.

8-Add new column "MONTH INDEX" , the categorical month of the contact for each client would be converted to an index value.

9-Replaced Values in "Personal loan","Housing loan" and "Default " columns with "NO" if value is 0, and with "Yes" if value is 1.

10-Capitalize

DashBoard One

Customers

➤ Story

This dashboard provides an analysis of the subscription rate of a marketing campaign based on several demographic factors such as the subscription rate by marital status, education level, age range, and job type. This information can be used to identify which demographic groups are most receptive to the campaign and which groups may require additional target. The dashboard gives insights into which groups of customers are more likely to subscribe to the campaign, and how the subscription rate varies across different filters.

➤ Insights

1- The subscription rate is highest for Single compared to Married and divorced. This suggests that the marketing campaign may be more effective if it targets Singles or includes messaging that appeals to Singles .

2- The subscription rate is highest for individuals with a higher level of education. This suggests that the marketing campaign may be more effective if it targets individuals with higher education levels or includes messaging that appeals to this demographic.

3- The subscription rate is highest for individuals in certain age ranges, such as those in their 18 and 23. This suggests that the marketing campaign may be more effective if it targets these age groups or includes messaging that appeals to them.

4- The subscription rate varies by job type, with certain professions having a higher subscription rate than others.

5- The subscription rate is higher for clients who have not been contacted before, suggesting that follow-up communication may be less effective than initial outreach.

6- There are certain months such as Mar, Sept, Oct and Dec more conducive to marketing or advertising campaigns than others, possibly due to seasonal factors or other external events.

➤ Recommendations

1-Target Singles, Higher Education Levels and Certain Age Ranges (18-23) Make creating messaging or campaigns that specifically target this demographic. Use data analytics to identify the specific interests and preferences of single individuals and tailor the marketing campaign accordingly.

2-Focus on Initial Contact: consider focusing more on initial outreach and less on follow-up communication. Use data analytics to identify the most effective channels and messaging for initial outreach and optimize the marketing campaign accordingly.

3-Target High-Performing Months: consider running more aggressive campaigns during those months. Use data analytics to identify the external factors driving the higher subscription rates during those months and tailor the marketing campaign accordingly.

DashBoard Two

Interaction with Bank

➤ Story

This dashboard provides a comprehensive view of the subscription rate of a marketing campaign across different factors related to personal loan , housing loan , default and balance. The dashboard allows the user to see which factors are most strongly correlated with subscription rates, and to identify potential patterns or trends in customer behavior based on these factors. By analyzing this data, the marketing team can make informed decisions about how to adjust their campaigns to improve subscription rates and better target their customers.

➤ Insights

- 1- The subscription rate for personal loans is 66% and this is a high rate , this may suggest that these same individuals may also be interested in term deposits as a way to earn interest on their savings while minimizing risk.
- 2- the subscription rate for housing loans is high rate , this may indicate that there is a high level of interest among customers in applying for and taking out loans. The marketing team can leverage this interest in loans by promoting term deposits as a complementary product that can help customers save and earn interest on their money while they are paying off their housing loan.
- 3- The subscription rate by default is high and this is a negative impact on the subscription rate for term deposits. A high default rate suggests that a significant number of customers may not be able to repay their loans, which can lead to financial losses for the campaign .
- 4- The subscription rate is highest for customers with higher balances, this may suggest that the marketing campaigns should be targeted towards customers with higher balances.

➤ Recommendations

1-Leverage the high subscription rate for personal loans and housing loan , the marketing team can promote term deposits as a complementary product to personal loans. They can highlight the benefits of saving and earning interest on their savings while minimizing risk. The marketing team could also consider offering special rates or promotions for customers who take out both a personal loan and a term deposit.

2-Target customers who are less likely to default.

3-Target customers with higher balances and could also offer special rates or promotions for customers with higher balances.

DashBoard Three

Compiagn Calls

➤ Story

This dashboard provides a comprehensive view of a marketing campaign's subscription rate. It includes metrics such as the subscription rate by contact type, poutcome, duration range, and day of the month. The dashboard also allows users to filter the data by first call and month. By leveraging these metrics and filters, marketers can make data-driven decisions to optimize their campaigns and improve their subscription rate.

➤ Insights

1-Subscription rate by contact type: Based on this metric, marketers identify that "Cellular" channels are most effective in driving subscriptions.

2-Subscription rate by poutcome: By measuring the success rate of last campaigns, "16.36% from clients who subscribed last campaign also subscribed this campaign"

3-There is a positive correlation between the duration of the call and the subscription rate, as an increase in the call duration results in an increase in the subscription rate.

4-The subscription rate varies by day of the month, with certain days showing higher subscription rates compared to others.

➤ Recommendations

1-Focus on Cellular channels: As per the "Subscription rate by contact type" metric, Marketers can allocate more resources to these channels and optimize their outreach efforts to improve the subscription rate.

2-Target loyal customers: The "Subscription rate by poutcome" ,Marketers can target these loyal customers in future campaigns to improve the subscription rate and drive more sales.

3-Optimize call duration: The positive correlation between call duration and subscription rate suggests that longer calls may provide more opportunity for engagement and persuasion. Marketers can optimize their call scripts and train their staff to effectively engage with clients during calls to improve the subscription rate.

4-Identify favorable days of the month: The subscription rate varies by day of the month, and marketers can identify the days that show higher subscription rates. By targeting outreach efforts on these days, marketers can potentially improve the subscription rate and drive more sales.