

orangeTM

CUSTOMERS CHURN

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Business Context & Problem

BUSINESS CONTEXT

With numerous telecom operators in the market, it is challenging to keep up with competitors or understand the factors that drive consumers to switch to other providers. As a result, the telecommunications sector experiences a high churn rate that requires thorough analysis.

BUSINESS PROBLEM

What are the factors of churn in the telecommunications sector, and in particular at Orange? What actions can be taken to reduce it?



Our customers



Customers who have internet

People with a subscription to the Orange operator for an internet box.



Customers who have phone line(s) AND Internet

People with both a telephone line and an internet box with the Orange operator.



Customers who don't have a phone line

People who do not have a telephone line with the Orange operator

Our Recommendations

(Internet service)

General target characteristics

1. Improve and focus marketing campaigns on customers with low seniority. For example, offers on complementary services as tech support and security
2. If possible, limit the sale of contracts month by month
3. Focus on family offers as much as possible
4. Focus marketing campaigns on senior citizens
5. Focus marketing campaigns on people alone
6. Focus marketing campaigns on people paying by electronic checks

Now if you want to predict if a specific customer is going to churn or not, you can run our LightGBM model with the target customer inputs. Depending on the results and the marketing budget, the following 3 strategies are recommended to target churn-prone customers

If you want a good trade off between false negative and positive, you can set the threshold at 0.4. In this case, we can estimate that 50% of the customers with only internet service will churn soon. On these predictions, 50% are really about to churn. On the 50 other percents that are not detected for churn, 6% are really about to churn.

If you don't want to miss churn, you can fix the threshold to 0.3. In this case, you will have to target 67% of your customers, and of those, 43% will be susceptible to churns.

For a limited budget, and to be sure to target customers really likely to churn, the threshold should be set at least at 0.725. This represents 9% of the total customer base that only has internet service. We can estimate that among the remaining 90% of customers, 22% are susceptible to churn.



Our Recommendations

What we have observed is that people that have more chances to churn are people who have low total charges. Which means they don't have contracts with engagement.

The number of services impacts the churn. Customers that subscribed to many services are less likely to leave.

To limit the churn we need to focus on customers that have the less additional services and those who have month to month contracts. They should be targeted with marketing campaign to encourage them to subscribe to additional services

We should propose reduction on yearly contract or/and promote additional services to increase the subscription to additional options.



Our Recommendations

We have observed that the results are very close to the "both services database" so, for a cost efficiency we decided to develop the same marketing strategy than the previous campaign.

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