

Case Study: Analyzing Customer Churn in Excel

Description

Are you ready to apply your Excel skills to a fictitious dataset? For subscription-based businesses, reducing customer churn is a top priority. In this Excel case study, you'll investigate a dataset from an example telecom company Databel and analyze their churn rates.

Analyzing churn doesn't just mean knowing the churn rate: it's also about figuring out why customers are churning at the rate they are and how to reduce churn. You'll answer these questions by creating calculated columns and fields, building PivotTables, and creating an eye-catching dashboard.

1. Exploratory analysis

a. Data preparation

Before you do any analysis, the first step is to ensure that your data is prepared. First, we'll verify the data with a simple check - in this exercise you'll put your data in a table format and then investigate whether there are any duplicate rows in our customer level data.

In this case study, you'll be working with two different datasets in the following worksheets: `Databel - Aggregate` and `Databel - Customer`. For first task we'll focus on our customer level data before working with aggregate data later in the case study. The aggregate views are based on data in `Databel - Customer`.

b. Calculating churn

It will be extremely useful to have a measure that calculates churn before deep-diving into the analysis. There is a column called Churn Label that indicates "Yes" or "No", but this column isn't the easiest to work with.

You'll convert this column to a binomial column indicating if the customer churned or not. You need to use that to calculate the churn rate.

c. Investigating churn reasons

The logical next step is to investigate the different reasons why customers churned. Your job is to create a column chart listing the different reasons why customers churn.

d. Digging deeper into churn categories

Churn Reasons are grouped together in the Churn Category column. It's your job to identify which churn category is accounting for the highest proportion of churn and understand which priority we should tackle first based on the churn reason.

2. Investigating churn patterns

a. Analyzing demographics

You are tasked with analyzing the different demographic fields from the dataset. You'll be using your Excel skills to create a new field to analyze the data with and create your first calculated field in a PivotTable.

b. Age groups

You found a great insight that senior citizens churn more often. This suggests that it might be a good idea to analyze the customer age in general. Your job is to create different age **bins** and make a combo chart visualizing the number of customers per bracket and their respective churn rates.

c. Unlimited plan

Databel has a hypothesis that people who are not on an unlimited data plan are more likely to churn. Your task is to investigate how the `Unlimited Data Plan` influences the churn rate.

d. International calls

The analysis requirement given by Databel includes a request to analyze the relationship between customers' international activity and churn. They are curious about the behavior of customers who call internationally, and if paying for an international plan influences their loyalty.

e. Contract type

Databel also wants to improve its customer service since there have been some reported issues. Your job is to investigate two important topics related to customers: the contract type, and how many months a person is a customer.

Creating a cohesive story

a. Overview - Adding KPIs

Now that we've created a series of visuals and pivot tables, we need to collate this information to provide the best insights possible to address any key concerns around churn.

In this exercise, we'll start by preparing our dashboard sheet to display key information such as total customers, number of churned customers and churn rate.

b. Overview - Adding churn reasons

We've added the first key data points in our overview page. Now let's add some context into why our customers are churning with a particular focus on customers who churn as a result of our competitors activities.

c. Overview - Adding demographics

Now let's provide some context into the demographics of our churned customers to help the business understand what customers we need to prioritize our retention efforts.

d. Overview - Adding consumption

We now need to add the finishing touches by including our consumption data.