كلية الحوسبة والمعلوماتية |
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Module	05

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Solutions:

Showing the Factors for the Churn

Introduction

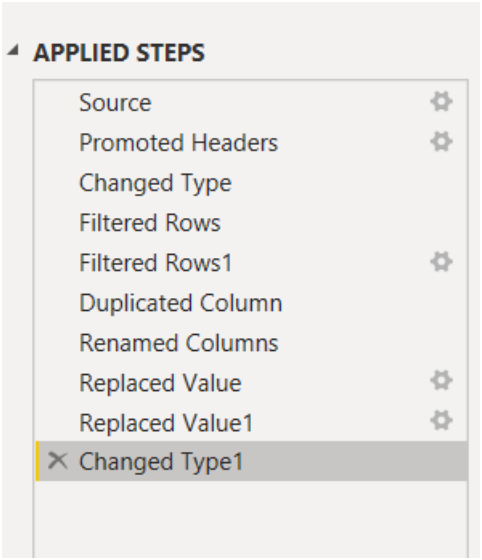
In this critical thinking, our mission is to create an MS Power BI dashboard file that visualizes the company's look-a-like user and factors that affect the user churn for the company. The dataset that will be used is the Telecom users dataset from Kaggle in the following link (https://www.kaggle.com/radmirzosimov/telecom-users-dataset). First mission is to import the dataset and convert in the Power BI if required. The second mission we will be creating a visualization that shows the look of the company (a typical user for the company). The last mission is to display the effects on a company's user churn.

Import the dataset into Power BI

We can see in figure 1 below the steps we took to make our data ready for visualization. After importing the dataset, the type of columns was checked since datasets sometimes may contain a wrong value, so the Power BI will import it as a text type instead of a number type.

Figure 1

Applied steps



One major change is creating "Churn #" column that will be used to appear the status of user churn. This new column is a duplicated column of Churn, but the values changed into 0 and 1; 0 for the No and 1 for Yes.

Company's look-a-like user Dashboard

The main part of the following dashboard is the customer ID. In figure 2, we can see a complete information dashboard for the customer. This dashboard is an impressive dashboard, by choosing a customer through Customer ID; all customer important information is viewed by the employee. A good feature was added to the dashboard using the new column we created before. Which is the Churn Status, a green circle color means the customer is willing to continue using the company services; while the red color means the customer no longer wants to use company services anymore as shown in figure 3.

Figure 2

Customer Dashboard

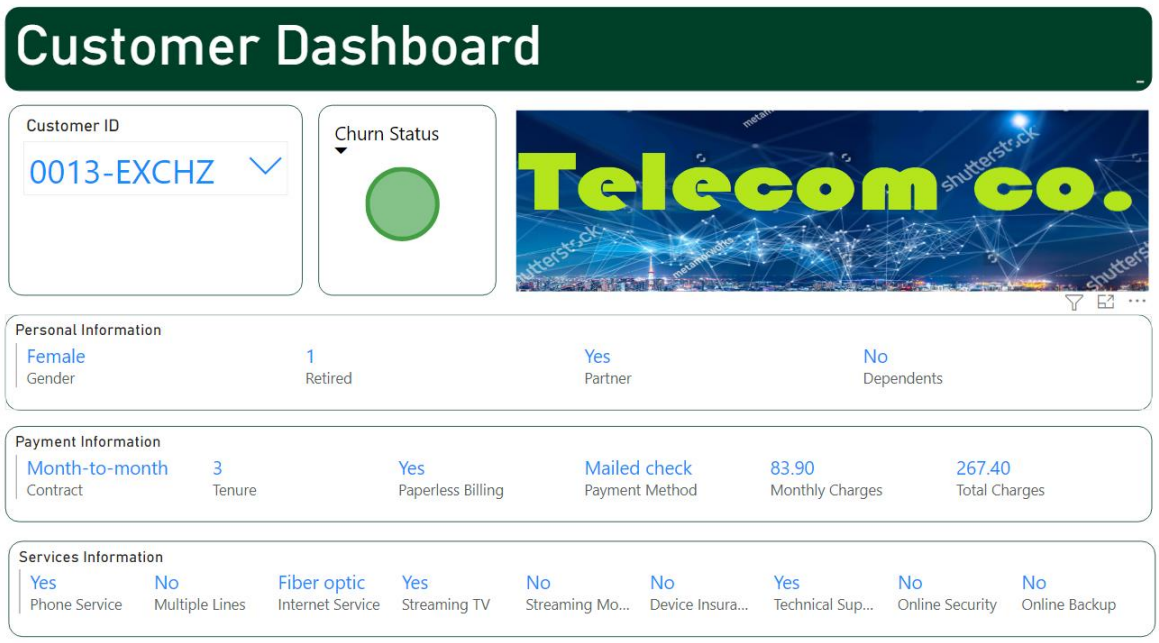
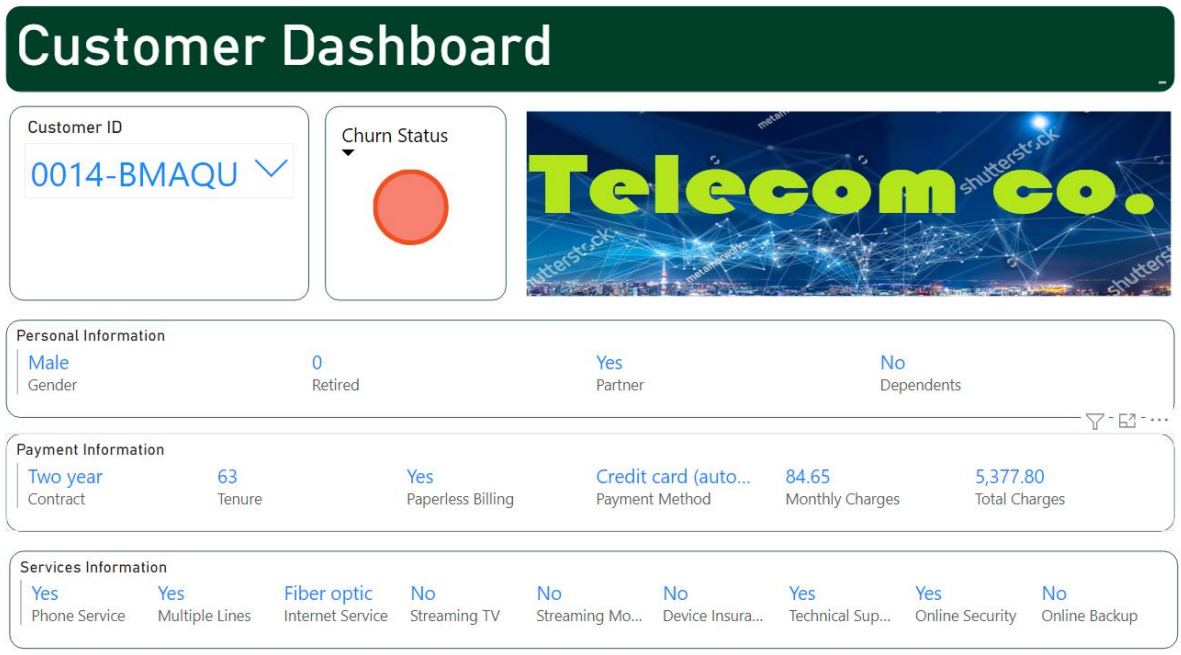


Figure 3

Customer Dashboard

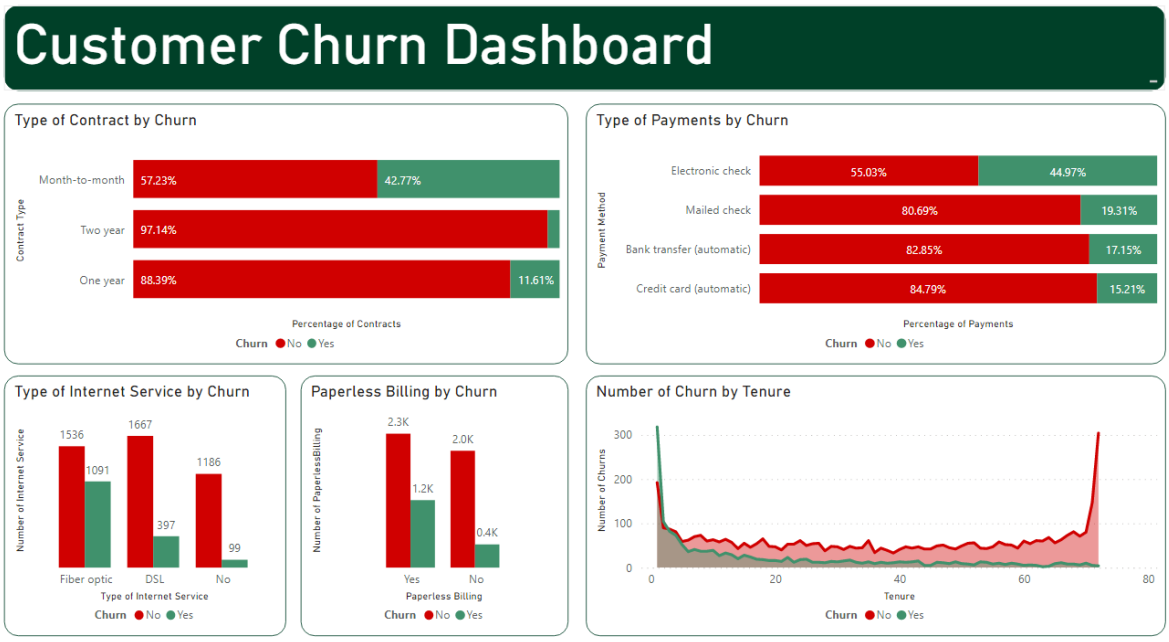


User Churn Dashboard

The User Churn dashboard in figure 4 views most factors that we can focus on why customers want to use the services of the company. Churn Yes value means the customer will continue with the company and No value means will leave the company.

Figure 3

Customer Dashboard



There are 5 factors that affect user churn, contact type, payment type, internet service, paperless billing and tenure. Clearly, we can see from the contract type that the user stands along with the company using the month to month contact type. The second factor is payment type, most of the customers prefer to pay electronic checks; that gives us insight into how the customer's company would like to pay for the services. The next factor is internet services, there are many customers using internet services more than other services, so only internet services were viewed in the dashboard since it is the most second service used. Fiber optic should be a focused service since many customers use it more than others. In the next factor paperless billing, customers whether they are willing to stay or leave the company; they prefer paperless billing. And the customers that want to stay with the company using paperless billing are triple times the customers that want to stay but they are not paperless billing. The last factor is tenure, which is how many months a person has been a client of the company. The chart viewed that most of the customers leaving after the period 5 , there are issues or something missing that make the customer leave the company. In contrast, the company are doing very well in acquiring new customers.

References

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