

Factors leading to churn

solution to Step Up - BT career challenge

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Let's explore how type of contract affects churn.

- .55% of all customers are on a month-to-month contract
- .The proportion of churn for customers on a month-to-month contract is 43%
- .Conversely, among all churning customers, 89% is on a month-to-month contract, while 9% is on a one-year contract.

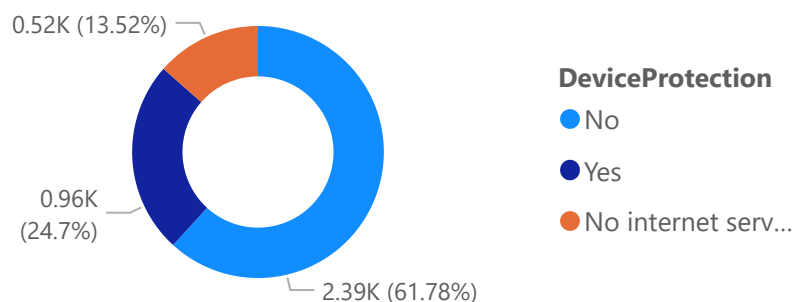
55.11%

customers have a month-to-month contract

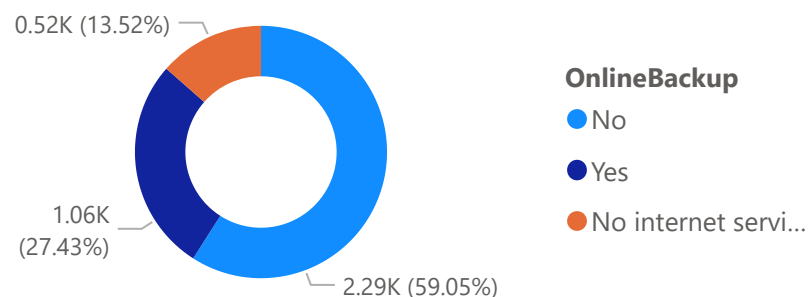
So there is an association between contract type and churn.

Let's look at the features of customers with a month-to-month contract.

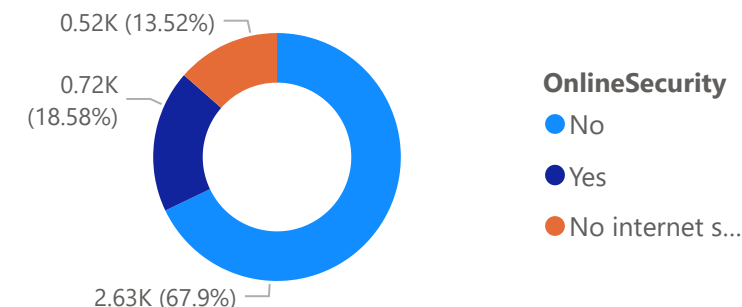
Count of customerID by DeviceProtection



Count of customerID by OnlineBackup



Count of customerID by OnlineSecurity



A majority of these customers do not use our services, like device protection, online backup and online security.

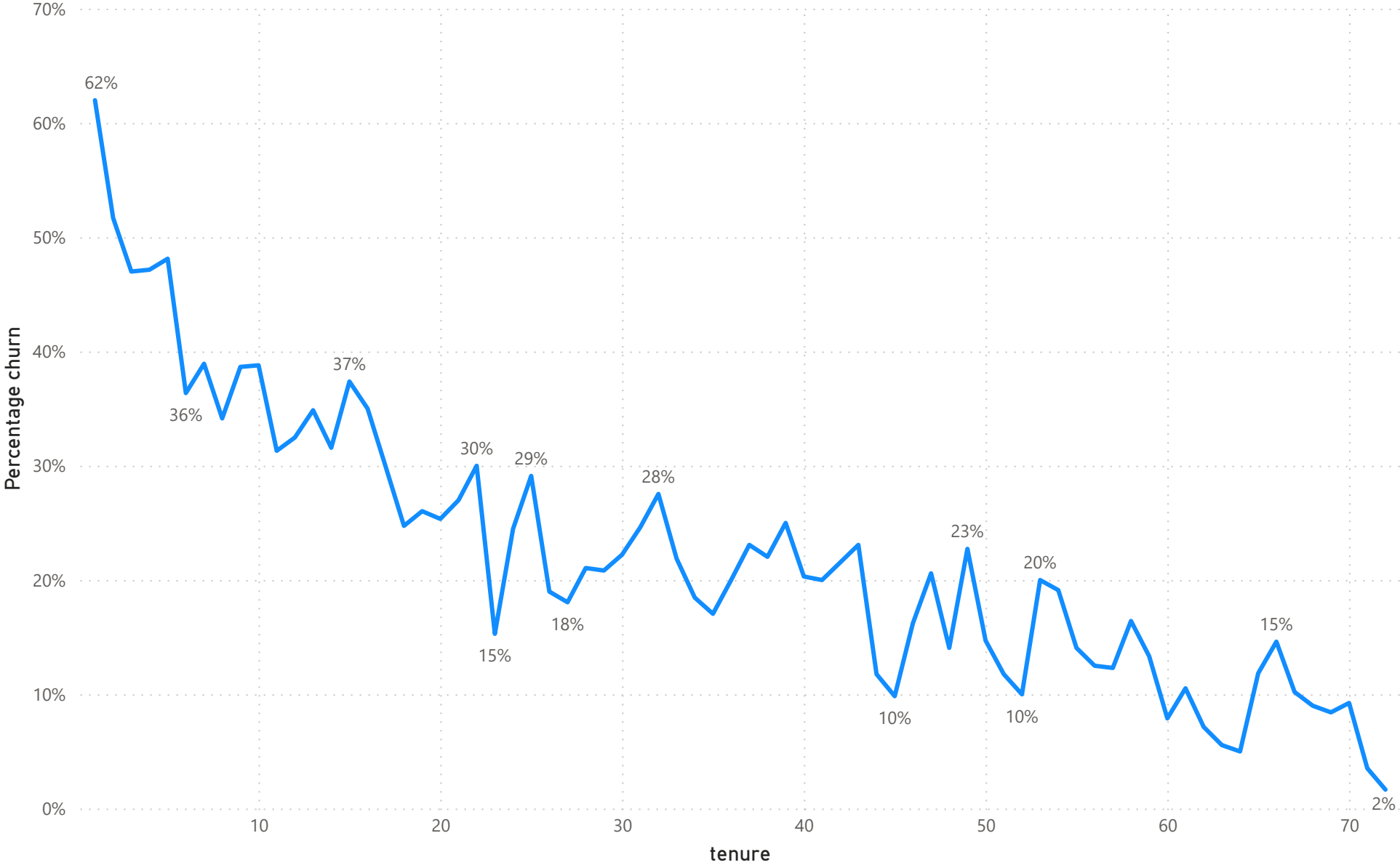
Recommendations:

- .Create an e-mail marketing campaign targeting customers on month-to-month contracts, advertising the benefits of set-term contracts.
- .Offer free trials of services to encourage these customers to use them.

Likelihood of churn decreases with tenure. Additionally, churn is very high, nearing 50%, for customers with tenures of 1 to 5 months. What insights can we find about these customers?

tenure	No	Yes	Total
1	38.01%	61.99%	100.00%
2	48.32%	51.68%	100.00%
3	53.00%	47.00%	100.00%
4	52.84%	47.16%	100.00%
5	51.88%	48.12%	100.00%
6	63.64%	36.36%	100.00%
7	61.07%	38.93%	100.00%
8	65.85%	34.15%	100.00%
9	61.34%	38.66%	100.00%
10	61.21%	38.79%	100.00%
11	68.69%	31.31%	100.00%
12	67.52%	32.48%	100.00%
13	65.14%	34.86%	100.00%
14	68.42%	31.58%	100.00%
15	62.63%	37.37%	100.00%
16	65.00%	35.00%	100.00%
17	70.11%	29.89%	100.00%
18	75.26%	24.74%	100.00%
19	73.97%	26.03%	100.00%
20	74.65%	25.35%	100.00%
21	73.02%	26.98%	100.00%
22	70.00%	30.00%	100.00%
23	84.71%	15.29%	100.00%
24	75.53%	24.47%	100.00%
25	70.89%	29.11%	100.00%
26	81.01%	18.99%	100.00%
27	81.94%	18.06%	100.00%
28	78.95%	21.05%	100.00%
29	70.17%	29.83%	100.00%
Total	73.42%	26.58%	100.00%

Percentage churn by tenure



We will explore features of customers with tenures of less than 6 months.

Among these customers, the proportion of churn is 54.71%.

They are overwhelmingly single and child-free.

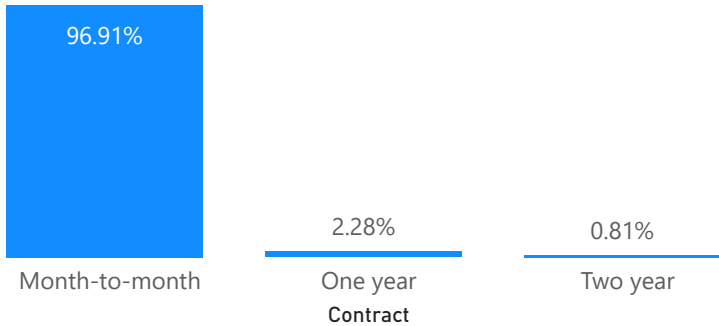
This group contains

19.34%

of all customers

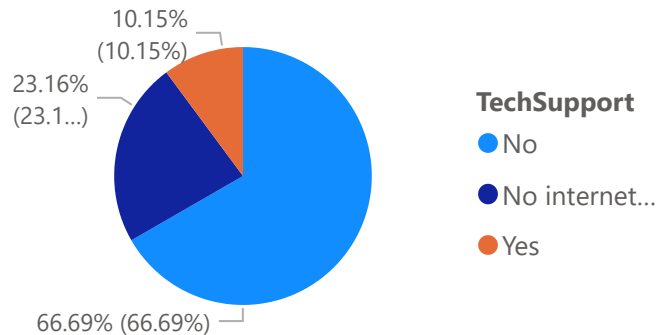
Almost 97% of customers who churn within 6 months have a month-to-month contract.

%GT Count of customerID by Contract

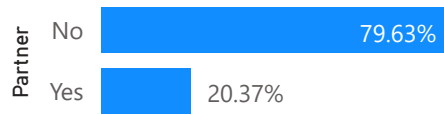


Only 10% of these customers use Tech Support, in comparison with 30% of all customers.

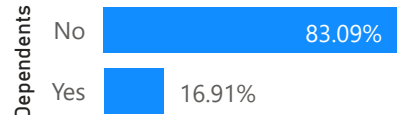
%GT Count of customerID by TechSupport



%GT Count of customerID by Partner



%GT Count of customerID by Dependents



47% of these customers pay by electronic check and 37% pay by mailed check.

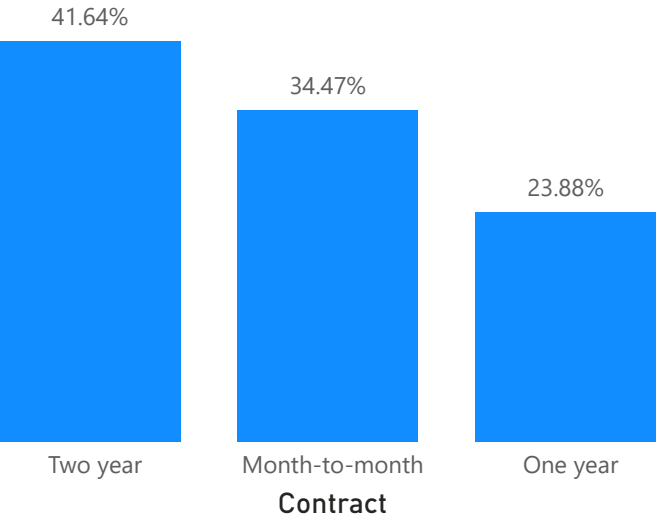
Recommendations

- Since we know that having a set-term contract decreases churn, we can offer promotions to new customers encouraging them to sign-up for a contract.
- Implement a small discount for using automatic payments.
- Prepare a starter pack that explains in detail how to access tech support.

Churn is very low among customers with no internet service (7% compared with 27% for all customers). How can we keep these customers happy?

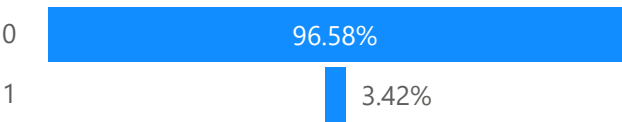
This group constitutes
21.62%
of our customers

%GT Count of customerID by Contract



Despite many of these customers having a month-to-month contract, they aren't likely to churn.

%GT Count of customerID by SeniorCitizen



These customers tend *not* to be senior citizens.

21.08
Average of MonthlyCharges

The average monthly charge for customers with no internet service is 21 pounds.

- Recommendations:
- . While customers with no internet service have on average much lower charges than customers that do have internet service, they are a substantial group of customers.
 - . The recommendation is to keep phone service charges low to keep these customers happy.