

Telecom Customers Churn

Requirements:

1- Validate and clean data

Data contain many blank cell want to fail it:

In Customer statuses :

1. Churn label has 5 blank

3 blanks has Customer status = Churned then fail with Yes in Churn label

2 blanks has Customer status = Stayed then fail with in Churn label

2. Churn Category and Churn Reason have 5174 blank cells

Based on Customer status find all 5174 cell not churn , then fail Churn Category =No Churn

Churn Reason = No Churned

In Customer demographics :

1. Under 30 has 5 blank and some cell has wrong value

set condition to fail true value

=IF(Age <30,"Yes","No")

2. Senior Citizen have 5 blank cells

To be Senior Citizen age is greater than or equal 65

set condition to fail true value

=IF(Age >=65,"Yes","No")

3. Dependents have 4 blank cells

Find if customer has any Number of Dependents then Dependents= Yes

set condition to fail true value

=IF(Number of Dependents>0,"Yes","No")

In Customer services :

1. Referred a Friend has 5 blank

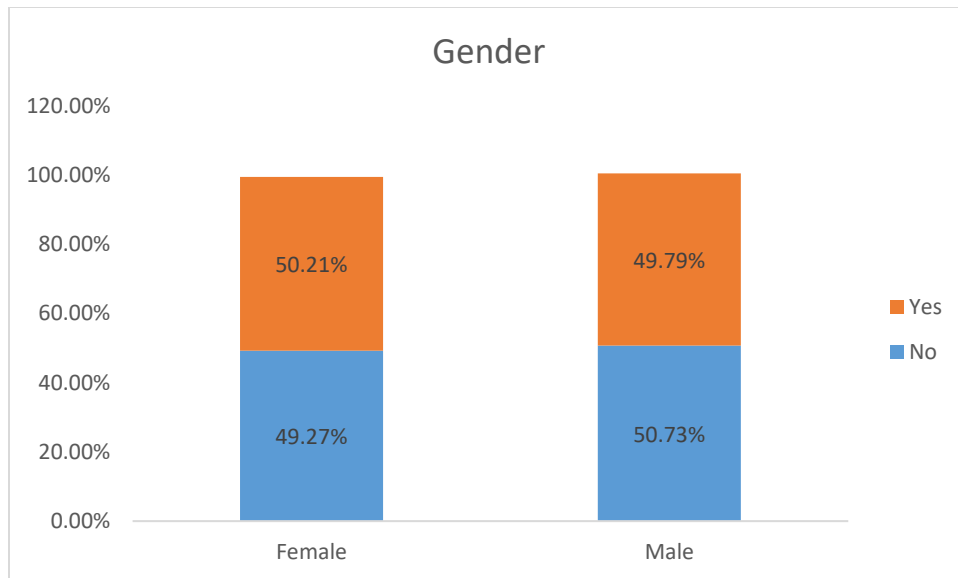
Based on value in Number of Referrals if it 0 then Referred a Friend = No

If >0 Then Referred a Friend = Yes

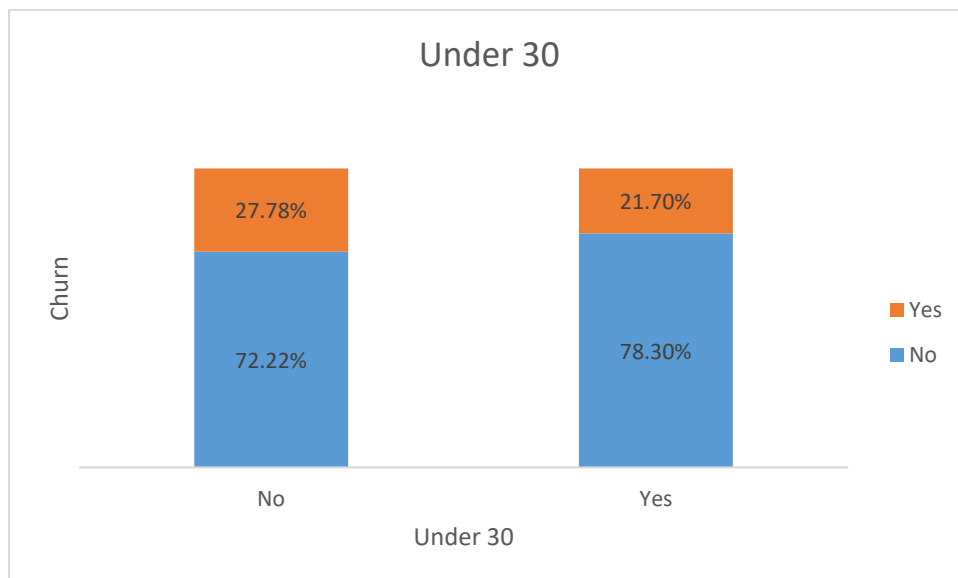
2- Manipulate data and communicate your insights

3- Design a Dashboard

4- What variables do you think significantly impact churn score? (consider using categorical data encoding)

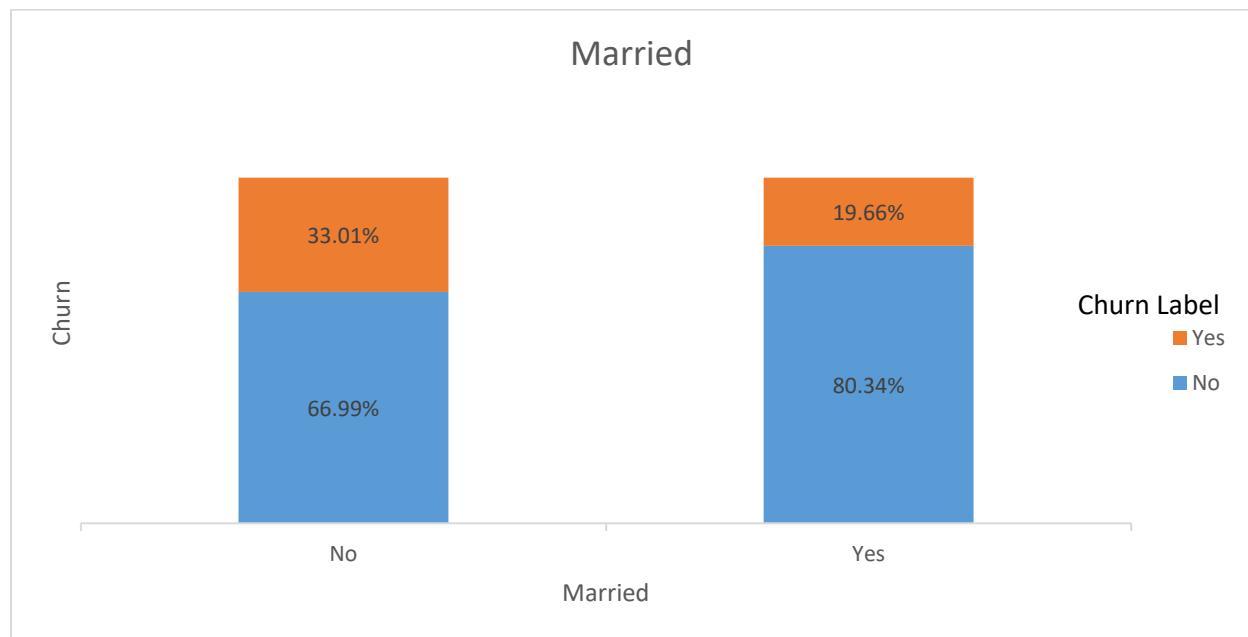


- There is an almost equal proportion of female (49.5%) and male (50.5%) customers. Both genders have similar churn rate at 50%, signifying that gender has little to no effect on leaving the telco service.
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A large portion of customers (80%) are represented by those not under the age of 30.

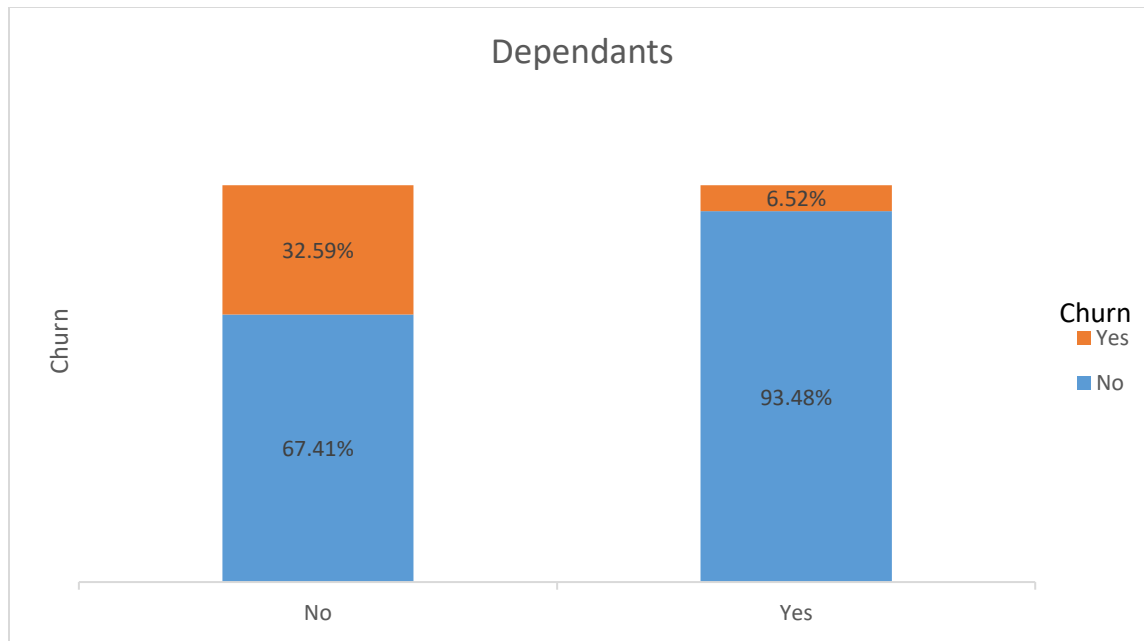
These old customers have churn rate that is 6% greater than customers under 30.



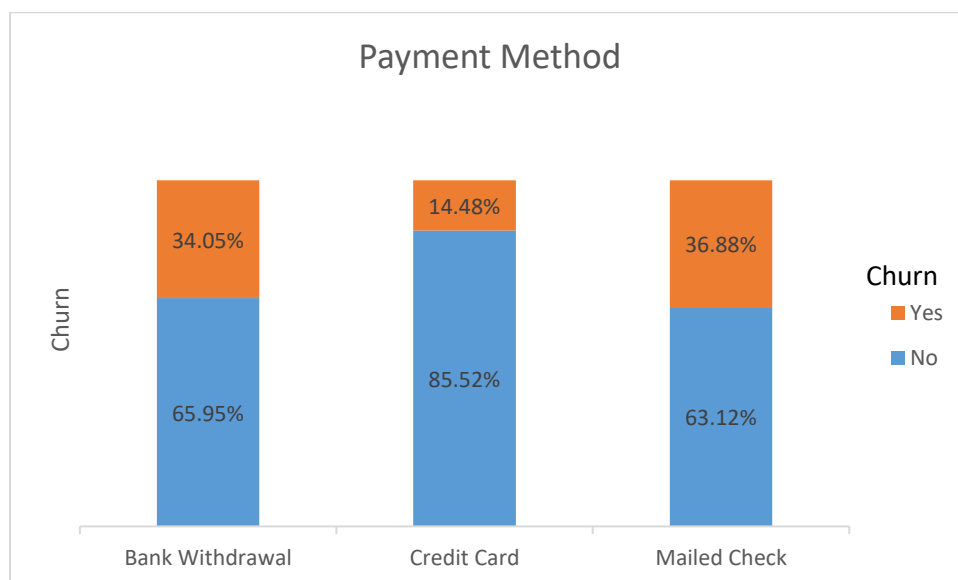
- About 51% customers are not married. These customers have 13% higher churn rate than married ones.
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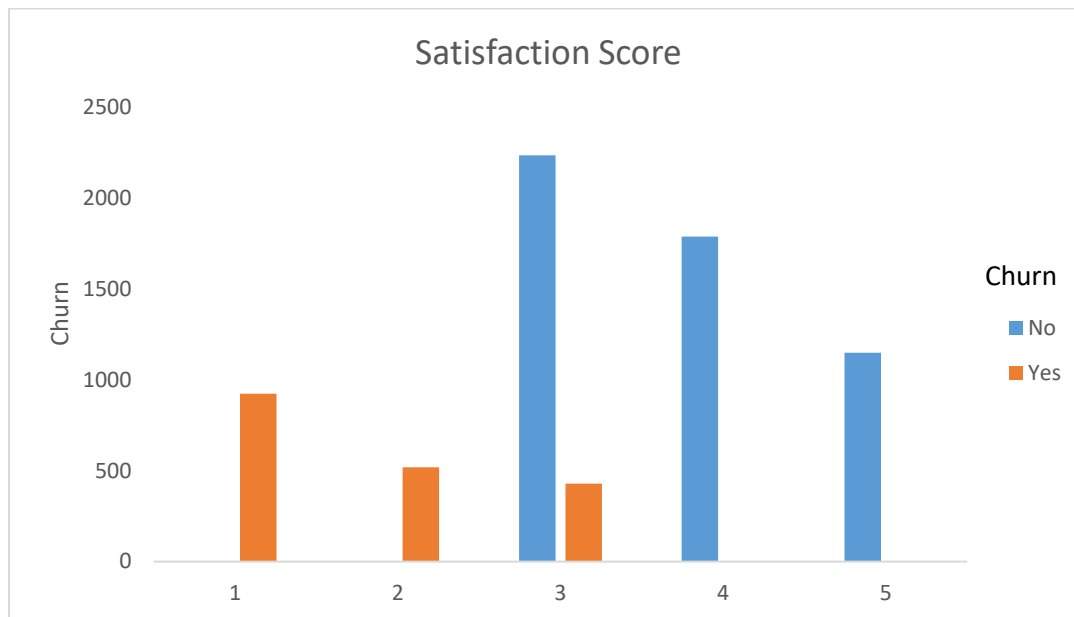
- More than 50% of customers who subscribed to *Offer E* have churned, almost twice as high as customers who do not subscribe to any offer.
 - We may have a problem in Offer E
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- Having dependants (e.g., children) reduce the likelihood of churn. There is only 6% churn among customers that have dependants, about 5 times lower than customers that do not
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- Customers who pay their services with mailed checks, which is the least popular option (only 5% of all customers), have higher churn rate than customers who chose other methods. The most preferred payment method is bank withdrawal (55% customers).
 - The Customer who pay their services with Credit Card , have lost churn rate
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- The chart above shows churn distribution by customer's satisfaction, from a score of 1 (Very Unsatisfied) to 5 (Very Satisfied). We see that customers who give a score of 1 and 2 have all churned. *Unhappy customers stop having business with you.*
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Encode:

No – 0

Yes – 1

Offers :

None --- 0

Offer A -- 1

Offer B --- 2

Offer C --- 3

Offer D --- 4

Offer E --- 5

Month-to-Month -- 0

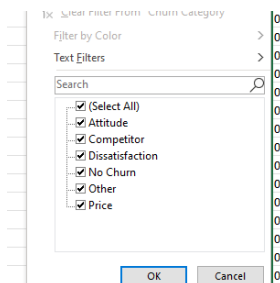
One Year ---1

Two Year – 2

Bank Withdrawal --- 0

Credit Card --- 1

Mailed Check – 2



No Churn -- 0

Attitude --- 1

Competitor – 2

Dissatisfaction – 3

Price – 4

Other – 5