Churn Data Prediction in Telecom Industry

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Agenda

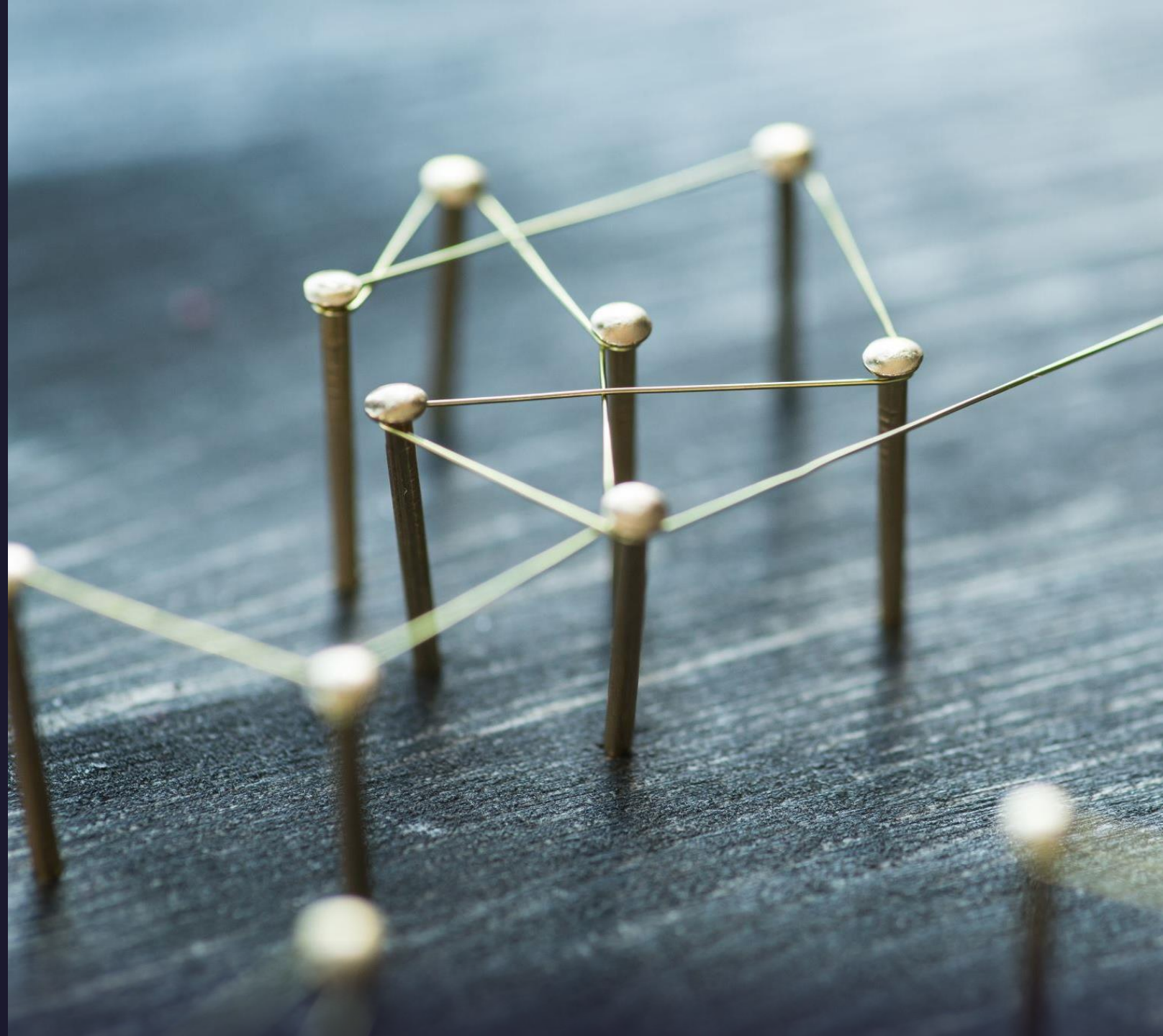
- Problem
- Objective
- Overview of data
- Techniques
- Result
- Conclusion

Problem:

- ABC Wireless network, has asked to develop a model based on customer churn with the aim of classifying the key factors from their existing customer data that impacts customer exit from the network

Objective

- Building a model which can predict the customers who are more likely to churn based on the data given by ABC wireless Network.



Overview of Data

Demographics

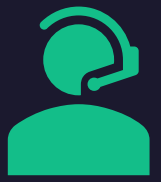
State

Account length

Area code

International plan

Voice-mail plan



Calling Behaviour

Number of messages, number of calls to customer service

Total day minutes, Total day calls, Total day charge

Total evening minutes, Total evening calls ,Total evening charges

Total night minutes, Total night calls ,Total night charges

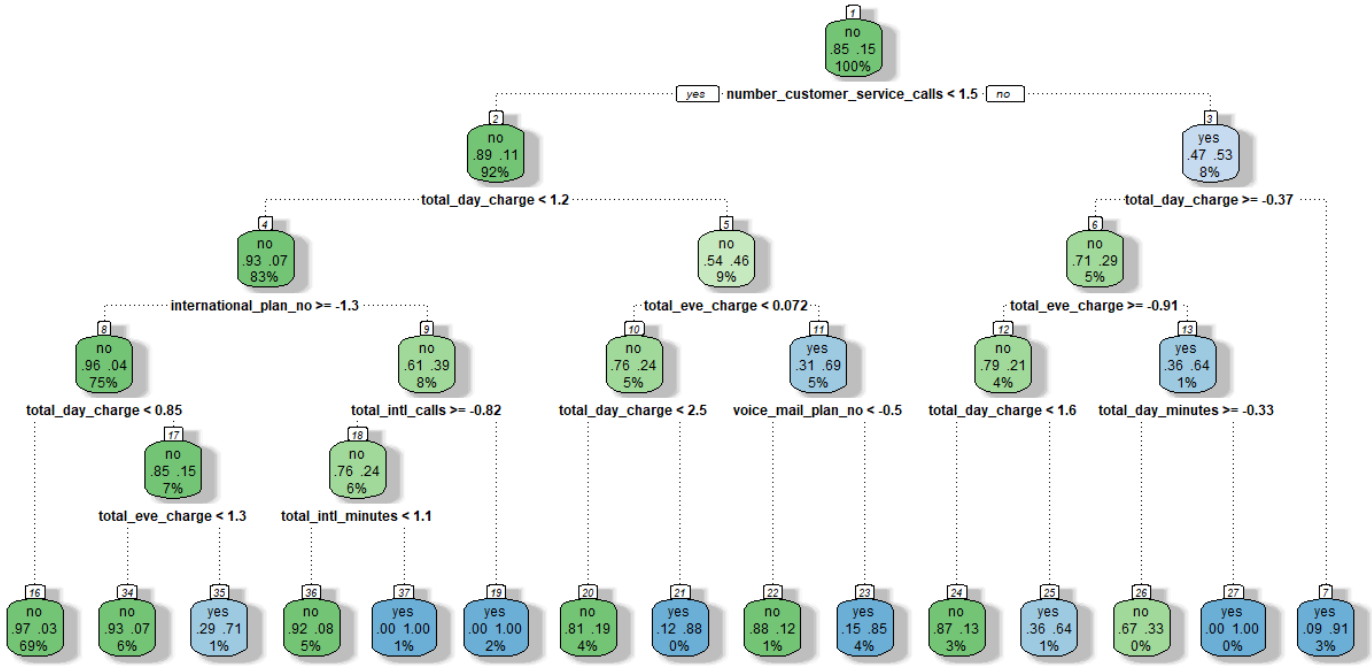
Total International minutes, Total International calls,Total International charges

Technique used

What Technique: we are following the Decision tree as our Model.

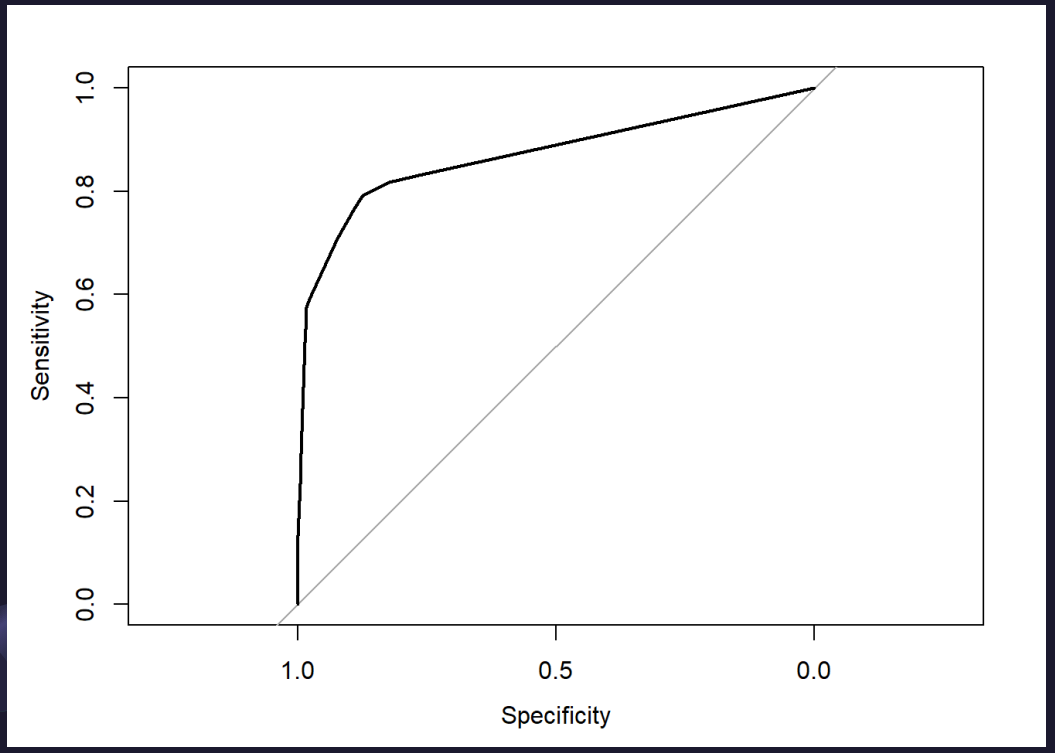
Why: We believe that to illustrate the influence of numerous variables and their significance in forecasting the result of the target variable, so we will go with Decision Tree approach.

Decision Tree



Result

- AUC of Model =0.87



- Confusion Matrix:

Confusion Matrix and Statistics

Prediction	Reference	
	no	yes
no	700	51
yes	12	69

Conclusion

We used the decision Tree classifier as our model and found out the AUC and Accuracy.

As we took the 25 % test data, we are having 1600 customers in test data and we can perform the forecast future churn on them.

the findings are

1453 customers are not ready to move out of ABC wireless network.

147 customers moving from ABC wireless to another network.

Thank you