Analytics Case Study

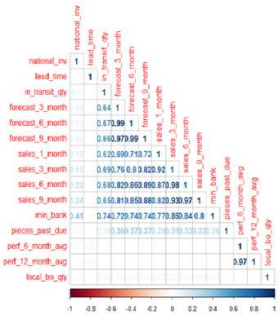
Case Study 12 – How a manager used Analytics to identify backorder.

Industry – Supply Chain

We follow DCOVA and I methodology to solve the problem. To Understand this methodology, check this whitepaper - https://pexitics.com/download/dcova-i-whitepaper/?wpdmdl=2970

Business Problem – Backorder is a common supply chain issue. The manager wants to streamline the inventory management so that the supply of products which usually go into backorder is managed in a better way. The manager has historical data of the products which has information on the sales figure, forecasted figure, inventory level and a flag stating if the product has gone into backorder or not. Using this historical data she wishes to identify if the product will go into backorder or not so as to improve the inventory management.

The manager approaches the analytics team with the problem and shares the data and the details. The analytics team gets the data and then **explores** the data to **treat the data for missing values, outliers and correlations**. The team comes out with visualization. One of the visualization is shown below -



This chart shows the correlation amongst all the numeric variable.

The analytics team then does **statistical analysis to** predict the "backorder" based on the historical data. The team uses different algorithm for Classification to predict the backorder and based on different parameters comes out with the best classification method to be used. Using this, the manager would be able to stream line the supply and inventory management.

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