

**Identifying Demand Determinants & Predictive
Model to Determine the Demand for Product X of
ABC Company**

Project Proposal – CMM 799

MSc Business Analytics

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Abstract

In the competitive business world demand becomes a vital driver for business. Demand acts as a signal which drives all business decisions. With the increase in importance of demand for business decisions, forecasting demand and identifying demand determinates plays a crucial role in business. Demand in layman terms is the willingness of consumers to purchase the product. This has been explained by different economist in different ways and have pointed out different factors which effect the purchasing decision. It is vital for business to predict the demand accurately as this will initiate all other business processes like ordering raw material, manufacturing, arranging storage, arranging distribution, route allocation etc. It is utmost essential for the company to identify the determinants which impact it's product in order to identify the demand drivers and cater to the market appropriately.

The study has followed an eclectic approach while not being restricted to a particular theory. The study is based on the sample period from 2013 to 2020 and uses monthly data. Further 2021 1st 3 months data will be used to compare the actual results against the model output results. The Exponential Smoothing Model and the ARIMA forecasting model has been used to arrive at a suitable predictive model while using 70% of data as training and 30% as testing data. It is also identified that the Time series regression model the best fit.

Key words: Demand, Exponential Smoothing, ARIMA Forecasting