Group 65 – Project description

Project 23 - Furni Inv S.A.S.

Furni Inv S.A.S. is a small to midsize furniture shop, dedicated mostly to household goods crafted from wood and cloth. It has over 10 physical stores in different locations across the country and currently requires an analytical tool that capitalizes on growth opportunities by optimizing the stock to sales ratio to increase revenue.

Although the wide diversity of products offered allows the client to attract several different customer types and sell most of the crafted stock, at some level the different locations have new catalogs’ management related issues; this is, require a logical analytical tool to maximize future sells while having the least required stock available.

In our proposal we consider that the issue on hand can be resolved with an adequate forecasting prediction model(s) that considers the impact of the Inventory, Portfolio and Production variables. Being able to get the right forecasting model will avoid excess inventory and diminish storage costs to the company, while at the same time keeping enough product for customers to purchase.

To provide a consistent solution, we consider important to gather information that accurately represents the current and past stock movements and related sales distributions over time, in conjunction with the economical context and the unique industry appropriation of *Furni Inv S.A.S*. in relation to the whole industry. All to be able to correctly interrelate possible market movements and significant sale appropriation of the company to accomplish the desired goal.

In doing so we observed that an external market data set would help understand the company’s context. For this we have collected a plausible important data set from the Ministry of Industry and Commerce that provides economic data about the furniture sector amongst other industries in Colombia over the past 5 years. We have also found another significant data set that could have a present impact and that will have to be considered for the predictive model: the Covid -19 influence in the real estate sector and customer trends. Likewise, it is important to know the clients’ purchasing trends, demographic data, and product preferences based on style, type, id, size, color and regular pr ice.

For the specific situation of the company, we reviewed the importance of some additional store and sales information such as: location, time series of furniture sales, records of different furniture models assigned with same id, sales quantities, final price and stores’ names. While doing this we found out that the company is missing stock historical data for each furniture ID, which would significantly improve the solution to be provided.