Demand Forecasting to Reduce Dead Stock and Loss Sales: A Case Study of the Wholesale Electric Equipment and Part Company

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Abstract : The purpose of this study is to forecast product demands and develop appropriate and adequate procurement plans to meet customer needs and reduce costs. When the product exceeds customer demands or does not move, it requires the company to support insufficient storage spaces. Moreover, some items, when stored for a long period of time, cause deterioration to dead stock. A case study of the wholesale company of electronic equipment and components, which has uncertain customer demands, is considered. The actual purchasing orders of customers are not equal to the forecast provided by the customers. In some cases, customers have higher product demands, resulting in the product being insufficient to meet the customer's needs. However, some customers have lower demands for products than estimates, causing insufficient storage spaces and dead stock. This study aims to reduce the loss of sales opportunities and the number of remaining goods in the warehouse, citing 30 product samples of the company's most popular products. The data were collected during the duration of the study from January to October 2022. The methods used to forecast are simple moving averages, weighted moving average, and exponential smoothing methods. The economic ordering quantity and reorder point are used to calculate to meet customer needs and track results. The research results are very beneficial to the company. The company can reduce the loss of sales opportunities by 20% so that the company has enough products to meet customer needs and can reduce unused products by up to 10% dead stock. This enables the company to order products more accurately, increasing profits and storage space.

Keywords : demand forecast, reorder point, lost sale, dead stock
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