

Mastering Demand Planning in the Bakery Industry – A Recipe for Success

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Demand planning is an important set of processes that enables companies to efficiently manage challenges with supply and demand. The act of demand planning is complex and it becomes increasingly difficult in the bakery industry due to seasonality and the sensitive nature of bakery ingredients. This thesis, on behalf of KåKå, develops an approach to master demand planning in the bakery industry.

The approach that has been developed to improve the demand planning process at KåKå requires a transformation of the current forecasting process. Primarily, products have to be categorized based on demand models to facilitate the choice of appropriate forecast methods. The demand model of a product can be evaluated based on three characteristics: demand variability, trend and seasonality. Secondly, forecast methods have to be selected to fit each product group to minimize the forecast error. One interesting finding in this thesis was that the simple forecast methods overperformed the complex and automated ones. By following this two-step approach and choosing simple models that are adapted to each product group, KåKå's forecast accuracy can be significantly improved. This will address their problems with distrust in the forecasts despite a lot of manual work and make it possible to decrease the volumes of discarded products.

In addition to the transformation of the forecasting process, product management within demand planning has to be improved at KåKå. A second product categorization is necessary to avoid management on product-level. This was obtained by performing an ABC-XYZ anal-

ysis based on two important characteristics, which were chosen to be shelf life and sales value in this case. By performing this analysis, the most critical product groups can be identified. This categorization will also help facilitate the discussions and decision making in demand planning while ensuring that focus and resources are put where needed. To simplify the product management and keep the groups updated, it is also necessary to perform regular reviews of the assortment.

By implementing the recommendations, KåKå will be able to improve the performance of their current demand planning process. The recommendations are specifically designed to tackle the current problems that they are facing. The main problems have been identified to be due to the use of inadequate forecast methods and unstructured product management that, combined, result in high levels of discarded products. Both forecasting and demand planning were seen to be negatively impacted by the lack of structured processes, a large product assortment and the lack of product management on a higher level. One explicit result of these problems is the poor forecast accuracy achieved. This result should be positively impacted by implementing the recommendations presented in this thesis.

While the recommendations were developed to fit KåKå, it is believed that the approach can be relevant for other companies experiencing similar problems. The processes for product categorization and forecast method identification follow a general approach, while the applied parameters are considered to be industry-specific.