Case Studies

A4E OOD

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NEDELYA

Overview

Pastry-Coffee chain of 32 location in Bulgaria and 10 in Romania and online sales. Produce and deliver only fresh cakes (not frozen) from factory in Sofia for the both countries. The shelf time of the cakes is 3 days.

The Need

Nedelya was planning fast expansion in new market and one of the showstopper factors to scale was speed to hire experienced location managers. Also Nedelya was looking for a solution that helps to centralized the decisions of the supply-demand management and to have same quality performance for all locations.

The Solution

A4E implemented system in a way it directly controls their cake factory making the decisions how much and with what assortment to be produced and delivered to every individual location. A4E forecasting/decisioning service take into account various factors like historic sales, weather forecast, special days, etc. and this is done to the individual level of each location. The system is communicating with the ERP receiving the historic sales every evening. Afterwards that data is enriched and forecast model for each location is built. The decisioning engine is using the forecast applying clients defined business rules and constraints and final decision is generated. The decision is automatically loaded into the Factory module of the ERP and the cakes are produced over the night and distributed.

The Result

The service is capable to keep any clients defined waste and in that particular implementation the monetary waste is less than 1.5% for Bulgaria and around 2% for the market of Romania where the transportation takes 1 day of the shelf time.

The client feedback is that the system is around twice more precise compared with experienced managers. One very important benefit is the complete lack of catastrophic events (the managers do between 3 to 6 per year). Also, the consistent results and the availability the parameters to be fully controlled from the central are considered as a high benefit.

EBAG

Overview

eBag.bg is 100% online store that is delivering goods directly to clients. It is similar to online version of Billa. It has central warehouse where the goods are received from suppliers, stored and dispatched to clients via own logistics operation. The inventory is with 15000 SKUs and has all variety of good from bread (2 days shelf time), fresh meat and fish (3-5 days shelf time), thought cheeses and milk (14-30 days shelf time) to alcohol and toilet paper (infinite days shelf time).

The Need

The growth of the business is significant (10-20% monthly). The CEO was looking for a solution that will help him to be less dependent on the amount of the personnel and its quality. Instead of the classic model of human buyers for each category of goods he was looking automation of the decisions.

The solution: A4E implemented system in a way it directly produces order details for each category and products into the inventory. A4E forecasting/decisioning service take into account various factors like historic sales, weather forecast, special days, etc. and more important the promotions that impacts the sales significantly. The system is communicating with the ERP receiving the historic sales every evening. Afterwards that data is enriched and forecast model. The decisioning engine is using the forecast applying clients defined business rules and constraints and final decision is generated. The decision is automatically transferred into the Ordering module of the ERP and the next day orders are generated and executed.

The Result

The service was implemented for 4 months and even during the initial tuning period shows quality that was better than the human controlled process. Especially the system eliminated significantly the stock-outs with even slightly better monetary waste. The total monetary waste is targeted to be not more than 0.6%

SPORT DEPOT

Overview

Sport Depot (Sport 2000) is managing 24 stores (14 towns) in Bulgaria, one central warehouse, 1 in Greece and online sales in Bulgaria, Greece, Macedonia and Romania. The cycle of orders into the apparel business is for 1 year ahead. So this November you order to your suppliers the goods that shall be delivered for the next autumn/winter season – 11-17 months ahead.

The Need

Sport Depot was looking to put more precision about the orders they do. Especially important was to have very good precision for the orders for each store accounting the store specifics since the shipment of the goods is directly to the stores reducing the transportation costs. Very important as well was the proper fit of the supply to the real customer demands and changes of the preferences.

The Solution

Executed twice per year (both collections) the service has two phases. Into the first it is combining the pure machine forecast with the one the Sport Depot executed themselves and as well apply some business specifics like discount for quantity etc. This process results into the overall numbers for the next year. Afterwards automated process prepares the right distribution for each of the stores and the reserve into the central warehouse. The result that contains characteristics like store, brand, gender (male, female, kids), price range, sporting activity, size, color, etc. goes to the buyers' team to be executed.

The Result

After the first year of execution when comparing the human prepared forecasts and the machine one the forecasts of the A4E service where about 15% more accurate. The service is not intended to be fully automated since there are business specifics that vary and can't be strictly defined. Also the final selection of a particular item from the new collection is still a human decision.