

IDEATION PHASE
LITERATURE SURVEY

DATE	OCTOBER 18,2022
TEAM ID	PNT2022TMID24620
PROJECT NAME	AI Powered Food Demand Forecasting

DemandEst - AI powered Food Demand Forecaster

TITLE: Demand Forecasting for production planning in a food company

AUTHOR: Nathalia Barbosa , Kelly Alonso Costa

YEAR: Jan-2015

Food demand in beverage industry

The food products have a factor that limits the maintenance of stocks, the short perishability. These products have a period in which they keep their characteristics and should be consumed before being considered unsuitable for consuming. Thus, it is suggested for future works that the short perishability of products must be taken into account when evaluating the results obtained by the quantitative methods. To make possible not only plan the production to satisfy the forecasted demand, but also contribute to minimize the loss of products due to its short perishability and consequently, improving the profitability of the company.

TITLE: Reducing fresh fish waste while ensuring fish availability.

AUTHOR: Vera Lucia Migueis , Joao Pereira

YEAR: May – 2022

In recent years, retailers have used advanced methods of collecting data to gain more information about their customers and their buying behavior. This data collection has promoted a huge opportunity for improving operations. Thus, retailers have concentrated on developing more accurate forecasting models that help them make decisions that are more data-driven and less intuition-based.

TITLE: Flexible Demand Forecasting in Intelligent Food Supply Chain Management.

AUTHOR: Srimathi Ravisankar, Kanimozhi Mahendran, Srilakshmi Arulmurugan, M.R. Sumalatha

YEAR: 2022

In the Food industry, Big data analytics concepts and techniques are being used in the food business for inventory optimization, which combines historical data with predictive techniques to improve supply chain management techniques. Demand forecasting, food tracing, and information exchange for suppliers, warehouses, and restaurants to connect with one another are the three modules covered in this paper that deal with managing the food supply chain. In this paper, a novel algorithm for the demand forecasting module is proposed. It combines an outlier detection method with the Light GBM Regressor, which manages the target, and the SARIMA Algorithm, which handles data seasonality. This paper also suggests a Food Tracing System (Find my Food) that employs the Nakamoto Consensus method for network participants to agree on issues such as traditional data invisibility, data manipulation, and sensitive information exposure, as well as an information sharing module between supply chain entities using a database where they can share about food quality issues, share information about stock and requirement details of the ingredients needed for pre-production. This method of incorporating an information sharing module into the supply chain.