

ABSTRACT

PREDICTING MONTHLY SALES TARGET USING MACHINE LEARNING APPROACH, CASE STUDY AT DANONE INDONESIA

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The advancement of technology these days has been an impact on the industry. Aware of this, all business players should put the best strategy to win the market. Considering how essential tech plays a role, it is not surprising that the industry started shifting from manual methodology to automated. One of the things that can be automated is forecasting using machine learning. It could save much work, time, and effort to roll out plan the fast-moving demand products. Forecasting using machine learning itself is a popular methodology that many researchers use in their works.

This thesis presents a new approach to machine learning based on cloud platform. Leveraging cloud computing service, machine learning has extended its feature becomes Machine Learning as a Service (MLaaS) with its automated model and evaluations, making it easier for everyone to implement machine learning in their works. Through simple steps, the platforms will show the models, evaluation, and even the result.

This study aims to present on-time monthly sales predictions to the sales team in Danone Indonesia; hence, the target could be adjusted in each region before executing the strategy. This work is reflected up to the store level, and some external variables are not accounted. Future development works are needed to improve the prediction with some external factors that could improve the accuracy.

Keywords: Sales, Prediction, Predicting, Machine Learning, Cloud, Industry, Amazon SageMaker Canvas, IBM Machine Learning, Google AI Platform, Microsoft Azure Machine Learning, regression, time-series forecasting