Pengembangan Model Peramalan Penggunaan Bahan Baku di Industri Kehutanan pada Masa Pandemi COVID-19 = The Development of Forecasting Model for The Use of Raw Materials in The Forestry Industry During The COVID-19 Pandemic

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Abstrak

Sejak terjadinya pandemi COVID-19 di Indonesia pada Februari 2020 yang masih terus berlanjut hingga saat ini telah menyebabkan dampak yang dirasakan oleh berbagai sektor di Indonesia salah satunya adalah sektor logistik. Hal ini disebabkan oleh ketidakstabilan kurs mata uang dan juga ditutupnya berbagai border lintas negara yang tentunya menurunkan produktivitas proses logistik. Kebijakan dan regulasi yang dibuat tiap pemerintah negara, salah satunya protokol kesehatan menambah kompleksitas tersendiri pada operasional logistik yang berimplikasi pada kelangkaan barang. Terjadi lonjakan kebutuhan yang secara drastis ditambah terhambatnya supply menyebabkan kelangkaan terjadi. Ketidakstabilan proses supply demand ditambah keterlambatan pengiriman yang marak terjadi membuat naiknya probabilitas terjadinya kesalahan peramalan. Penelitian ini dilakukan untuk mencari metode yang paling efektif untuk melakukan peramalan kebutuhan bahan baku selama pandemi COVID-19 pada industri kehutanan melalui tiga model, yaitu decision tree, convolutional neural network (CNN), dan linear regression.
.....Since the occurrence of the COVID-19 pandemic in Indonesia in February 2020, which continues to this day, it has caused an impact that is felt by various sectors in Indonesia, one of which is the logistics sector. This is due to the volatility of currency exchange rates and also the closure of various cross-border borders which of course reduces the productivity of the logistics process. Policies and regulations made by each state government, one of which is the health protocol, adds its own complexity to logistics operations which has implications for the scarcity of goods. There was a drastic surge in demand coupled with a supply bottleneck causing shortages to occur. The instability of the supply-demand process plus the frequent delays in delivery have increased the probability of forecasting errors. This research was conducted to find the most effective method for forecasting raw material needs during the COVID-19 pandemic in the forestry industry through three models, namely decision tree, convolutional neural network (CNN), and linear regression.