

ANALISIS PENGENDALIAN BAHAN BAKU TEBU DAN PERAMALAN PRODUKSI GULA PADA PG. MADUKISMO YOGYAKARTA

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ABSTRAK

Tujuan penelitian ini adalah (1) menganalisis pengendalian bahan baku PG. Madukismo tahun 2017. (2) menganalisis peramalan produksi gula di PG. Madukismo tahun 2018 – 2020 (3) menghitung kesalahan peramalan produksi gula di PG. Madukismo tahun 2018 – 2020 dengan metode MAD, MSE dan MAPE. Metode penelitian metode deskriptif, metode pelaksanaan penelitian studi kasus. Analisis varians guna menganalisis pengendalian bahan baku PG Madukismo, analisis trend guna menganalisis peramalan produksi gula PG madukismo pada tahun 2018 – 2020 dan MSE, MAPE, MAD guna menganalisis kesalahan peramalan produksi gula. Hasil dari penelitian ini yaitu: (1) pengendalian bahan baku varian biaya bahan baku tahun 2017 menguntungkan. Varian kuantitas bahan baku 2017 menguntungkan. (2) peramalan produksi gula di PG. Madukismo tahun 2018 sebesar 24380,7 Ton, tahun 2019 sebesar 21943,2 Ton tahun 2020 sebesar 192164 Ton. (3) kesalahan peramalan *trend quadratic* yaitu MAPE sebesar 9, MAD sebesar 2625, dan MSE sebesar 10576766.

Kata Kunci: Pengendalian bahan baku, Peramalan Produksi, PG Madukismo

**ANALYSIS CONTROL OF RAW MATERIALS OF SUGAR CANE AND
FORECASTING SUGAR PRODUCTION at PG MADUKISMO
SPECIAL DISTRICT OF YOGYAKARTA**

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ABSTRACT

The purposes of this study are (1) to analyze control of raw material PG. Madukismo in 2017. (2) to analyze forecasting sugar production PG. Madukismo in 2018 - 2020 (3) to calculate errors forecasting sugar production PG. Madukismo in 2018 - 2020 with MAD, MSE and MAPE methods. The research used was descriptive method, the implementation research used was case study. Analysis variance was used to analyze the control system of raw materials for PG Madukismo, trend analysis was used to analyze forecasting sugar production PG Madukismo in 2018 - 2020 and MSE, MAPE, MAD used to analyze the errors forecasting sugar production. The results of this study are: (1) The control of raw material in cost variance analysis in 2017 was favorable. The quantity variants analysis of raw material in 2017 was favorable. (2) Forecasting sugar production at PG. Madukismo in 2018 is 24380,7 tons, in 2019 is 21943,2 tons, in 2020 is 192164 tons. (3) Quadratic trend forecasting errors of MAPE is 9, MAD is 2625, and MSE is 10576766.

Keyword : Control of raw materials, Production Forecasting, PG. Madukismo