

ABSTRAK

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ANALISA PERAMALAN PENJUALAN UNTUK MENENTUKAN KELAYAKAN KAPASITAS PRODUKSI PADA PERUSAHAAN INDUSTRI READY-TO-DRINK DENGAN PENDEKATAN ROUGH CUT CAPACITY PLANNING

(xviii + 140 halaman: 6 gambar; 27 tabel; 10 lampiran)

Penelitian ini menguji pengaruh inflasi, hari besar, kurs dolar, dan biaya pemasaran terhadap volume penjualan produk *ready to drink* PT XYZ. Berdasarkan hasil analisis ditemukan bahwa hari besar dan biaya pemasaran merupakan faktor yang berpengaruh signifikan terhadap peningkatan penjualan. Hari besar cenderung mendorong lonjakan permintaan secara musiman, sementara biaya pemasaran menjadi elemen penting dalam memperluas jangkauan pasar dan menarik konsumen. Penelitian ini juga mengevaluasi kebutuhan kapasitas berdasarkan hasil peramalan penjualan dengan menggunakan metode Rough-Cut Capacity Planning (RCCP) dan membandingkan dua strategi peningkatan kapasitas, yaitu lembur dan penambahan tenaga kerja. Pengukuran waktu standar dilakukan untuk setiap proses produksi sebagai dasar perhitungan kapasitas. Peramalan permintaan dilakukan dengan lima metode: Moving Average, Exponential Smoothing, Linear Trend, Multiplicative Decomposition, dan Additive Decomposition, di mana metode terbaik adalah Multiplicative Decomposition dengan nilai MAPE sebesar 3,424%. Hasil peramalan untuk tahun 2025 hingga 2027 menunjukkan bahwa beberapa work center mengalami kekurangan kapasitas, yaitu filling, quality check, cooling, menyusun kardus, memasukkan cup ke kardus, dan proses lakban. Setelah dilakukan analisis biaya, strategi penambahan tenaga kerja dipilih karena lebih ekonomis, dengan total biaya sebesar Rp23.089.950.000 (2025), Rp34.774.920.000 (2026), dan Rp39.259.926.000 (2027), serta menghasilkan ROI sebesar 21,47%, 23,83%, dan 23,78%.

Kata Kunci : Volume Penjualan, Faktor Ekonomi, Kapasitas produksi, *Stop Watch Time Study*, *Forecasting*, *Master Production Schedule*, *Rough Cut Capacity Planning*, *Return on Investment*

ABSTRACT

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SALES FORECASTING ANALYSIS TO DETERMINE THE FEASIBILITY OF PRODUCTION CAPACITY IN READY-TO-DRINK INDUSTRY COMPANIES USING THE ROUGH CUT CAPACITY PLANNING APPROACH

(xviii + 140 pages: 6 figures; 27 tables; 10 appendices)

This study examines the effects of inflation, holidays, the dollar exchange rate, and marketing costs on the sales volume of PT XYZ's ready-to-drink products. Based on the analysis, it was found that holidays and marketing costs are factors that significantly influence sales increases. Holidays tend to drive seasonal spikes in demand, while marketing costs are an important element in expanding market reach and attracting consumers. This study also evaluates capacity requirements based on sales forecasting results using the Rough-Cut Capacity Planning (RCCP) method and compares two capacity increase strategies: overtime and additional labor. Standard time measurements are carried out for each production process as the basis for capacity calculations. Demand forecasting is carried out using five methods: Moving Average, Exponential Smoothing, Linear Trend, Multiplicative Decomposition, and Additive Decomposition, where the best method is Multiplicative Decomposition with a MAPE value of 3.424%. The forecast results for 2025 to 2027 indicate that several work centers experience capacity shortages, namely filling, quality check, cooling, stacking boxes, inserting cups into boxes, and the duct tape process. After conducting a cost analysis, the strategy of adding workers was chosen because it was more economical, with a total cost of Rp23,089,950,000 (2025), Rp34,774,920,000 (2026), and Rp39,259,926,000 (2027), and produced an ROI of 21.47%, 23.83%, and 23.78%.

Keywords: Sales Volume, Economic Factors, Production Capacity, Stop Watch Time Study, Forecasting, Master Production Schedule, Rough Cut Capacity Planning, Return on Investment