

PERENCANAAN PENJADWALAN DISTRIBUSI BAHAN BAKU DI WAROENG SPESIAL SAMBAL “SS” AREA YOGYAKARTA

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ABSTRAK

Industri jasa makanan dan minuman merupakan industri yang populer seiring dengan berkembangnya gaya hidup praktis. Tantangan yang dihadapi adalah mengatur aliran bahan, menjaga kualitas serta mencermati jumlah persediaan bahan baku. Waroeng Spesial Sambal "SS" sebagai salah satu pelaku industri jasa makanan dan minuman memiliki permasalahan dalam menyediakan bahan baku sebelum jam buka warung untuk menghindari *stockout*. Hal ini dikarenakan sistem perencanaan penjadwalan distribusi bahan baku masih dilakukan secara manual dan menunggu informasi bahan sisa dari setiap cabang.

Penelitian ini menggunakan Metode *Distribution Requirement Planning* (DRP) sebagai metode usulan untuk mengatasi masalah yang dihadapi Waroeng Spesial Sambal "SS" tersebut. Metode *forecasting* yang digunakan adalah *Exponential Smoothing* dengan konstanta penghalusan 0,5, dan metode untuk *Lot Sizing* adalah *Wagner-Whitin*. Perhitungan baik peramalan maupun *lot-sizing* dilakukan dengan bantuan *software* POM-QM (*Quantitative Methods, Production and Operations Management*).

Berdasarkan hasil penerapan metode DRP untuk penjadwalan distribusi 5 bahan baku di 6 cabang Waroeng Spesial Sambal “SS” Yogyakarta, terjadi penghematan total biaya distribusi sebesar Rp. 629.571,- atau 49,91%. Hasil tersebut memberikan kesimpulan bahwa metode DRP dinilai memiliki performa yang baik dan berpotensi untuk diterapkan di Waroeng Spesial Sambal "SS".

Kata kunci: *Distribution Requirement Planning, forecasting, lot-sizing, Wagner-Whitin, Quantitative Methods, Production and Operations Management*

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DISTRIBUTION PLANNING OF RAW MATERIALS AT WAROENG SPESIAL SAMBAL “SS” YOGYAKARTA AREA

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ABSTRACT

Food and beverage industries are the kind of industries that bloom rapidly in this fast-paced era. These industries faced difficulties in their operation, such as managing the flow of raw material’s input and output, keeping the raw material’s quality at its finest, and balancing between the stock and demand to prevent stockout. Waroeng Spesial Sambal “SS”, as a considerable player in this industry, also troubled by common issues of logistics management, such as the inability to fulfill demands of their top products and high distribution cost. Distribution planning method that’s been used by Waroeng Spesial Sambal “SS” is ‘manual method’, where they set one-day target and wait for the information of inventory in-hand data from every outlets to make an order receipt.

Distribution Requirement Planning is a new method that’s being used at this paper to solve the distribution issues of Waroeng Spesial Sambal “SS”, with Exponential Smoothing method for the forecasting, and Wagner-Whitin for the lot-sizing problem. The calculation of forecasting and lot-sizing is done by POM-QM software (Quantitative Methods, Production and Operations Management).

The implementation of Distribution Requirement Planning (DRP) method to calculate distribution schedule of 5 raw materials in 6 outlets resulted in 49,91% or Rp. 629.571 reduction of the total distribution cost. In conclusion, the DRP method could provide positive impact in the distribution department of Waroeng Spesial Sambal “SS”.

*Key words: Distribution Requirement Planning, forecasting, lot-sizing, Wagner
Whitin, Quantitative Methods, Production and Operations Management*

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