

OPTIMALISASI PRODUKSI KAYU GERGAJIAN DI KESATUAN BISNIS MANDIRI INDUSTRI KAYU GRESIK

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Abstrak

Kesatuan Bisnis Mandiri Industri Kayu (KBM IK) Gresik memproduksi beberapa macam sortimen kayu gergajian lebih dari 10 sortimen. Diduga sortimen kayu gergajian yang diproduksi belum optimal berdasarkan realisasi saat ini. Jenis sortimen yang diproduksi pada tahun 2018 antara lain *Decking*, *Flooring*, *Longstrip*, *Housing Componen*, *Parket Block*, *Jeblosan*, *Reng*, *Parket Stock*, *Finger Joint Laminating*, dan *List*. Oleh karena sortimen yang diproduksi atas dasar pesanan konsumen, maka KBM IK Gresik tidak memproduksi sesuai dengan kaidah-kaidah efisiensi dan efektivitas untuk mendapatkan pendapatan maksimum. Penelitian ini bertujuan untuk menemukan diversifikasi sortimen kayu gergajian untuk menghasilkan pendapatan maksimum pada KBM IK Gresik. Metode yang digunakan dalam penelitian ini adalah programasi garis/*linear programming* dengan menggunakan kendala bahan baku, biaya produksi per sortimen dan permintaan per sortimen. Penelitian yang mengambil data satu tahun perioda produksi yaitu tahun 2018 menghasilkan informasi sebagai berikut: (1) Pendapatan maksimum sebesar Rp 41.716.185.477,- yang mengalami kenaikan sebesar 2,31% dari pendapatan realisasi, (2) Sortimen kayu gergajian yang diproduksi yaitu *Decking* 2,00%; *Flooring* 56,83%; *Longstrip* 3,14%; *Housing Componen* 0,02%; *Parket Block* 6,45%; *Jeblosan* 4,29%; *Reng* 12,91%; *Parket Stock* 5,98% dan *Finger Joint Laminating* 9,37%. (3) Analisis pasca optimal dengan mengubah kendala permintaan *Parket Block* menghasilkan pendapatan sebesar Rp 43.554.353.518,- dengan jenis sortimen yang dihasilkan *Decking* 2,16%; *Flooring* 60,11%; *Longstrip* 3,38%; *Housing Componen* 0,02%; *Parket Block* 19,82%; *Jeblosan* 4,61% dan *Reng* 9,90%.

Kata kunci: kayu gergajian, *linear programming*, dan optimalisasi

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OPTIMIZATION OF SAWN TIMBER PRODUCTION AT KESATUAN BISNIS MANDIRI INDUSTRI KAYU GRESIK

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Abstract

Kesatuan Bisnis Mandiri Industri Kayu (KBM IK) Gresik produces 10 kinds of sawn timber assortments. Based on the current realization data, it is assumed that the sort of sawn timber produced is not optimal. Some assortments produced in 2018 included the following: Decking, Flooring, Longstrip, Housing Component, Parquet Block, Jeblosan, Reng, Parquet Stock, Finger Joint Laminating, and List. Because sawn timber assortments were produced based on consumers' orders, the KBM IK Gresik did not produce in accordance to the rules of efficiency and effectiveness to obtain maximum income. This study aims to find diversified sawn timber products that are able to generate maximum income at KBM IK Gresik. The method used in this research was *Programasi Garis* or Linear Programming addressing on constraints namely industrial raw materials, production costs per sortimen produced and consumer demand. The research, that took one year data of production, that is, in 2018, produced information as follows: (1) Maximum income of Rp 41.716.185.477 which increased by 2,31% from the realization income; (2) Sawn timber assortments produced were Decking 2,00%; Flooring 56,83%; Longstrip 3,14%; Housing Component 0,02%; Parquet Block 6,45%; Jeblosan 4,29%; Reng 12,91%; Parquet Stock 5,98% and Finger Joint Laminating 9,37%. (3) Post-optimal analysis by changing the demand constraints generated revenue of Rp. 43.554.353.518 with the type of assortments produced include Decking 2,16%; Flooring 60,11%; Longstrip 3,38%; Housing Components 0,02%; Parquet Block 19,82%; Jeblosan 4,61% and Reng 9,90%.

Keywords: sawn timber, linear programming, and optimization

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