ABSTRACT

PD Bahtera Prabot is a company that produces a variety of furniture, with two types of products, standard products such as school furniture and nonstandard products such as home furniture. The standard products that becomes the object of this study are student chair, elementary school student's desk, junior and senior high school student's desk and the teacher's desk. To fulfill high demand requires high resources. Resources shortage made work stations experiencing bottlenecks in the production system. To meet the shortage of resource, alternative resources outside of regular resources can be used. A mistake in allocating resources will make the throughput, the company's profits, declines. Optimized constraint and alternative approach to compliance is calculated by Theory Of Constraint (TOC).

The resources that becomes the constraint in this research is the labor in each work station. Exploitation constraint by setting the number of workers at the work station can no longer be done because it will move the layout and constraint. From 12 of the forecast period, the condition of bottlenecks occur at most stations. The resources that becomes the bottlenecks can not meet the need of the production hour. As a result, there are some products that can not be produced. The results from maximizing throughput, the variable that becomes slack is the student and the teacher's desk chair with a total throughput of Rp 819,148,490. Products that can not be met by regular resource met using alternative resources, such as: hours over time, manpower out sourcing, out sourcing of products, the addition of regular employment and labor combined with the addition of hours over time.Throughput optimal combination obtained from alternative additional manpower and hours over time of Rp 1,056,763,100.

Keywords: constraints, bottlenecks, resource, optimal throughput, Theory Of Constraint