THE IMPACTS OF ALB IN APPAREL SUPPLY CHAIN

Shibbir Ahmad, Mst. Nasima Bagum, C.A. Anam Rashed, Al-Amin B. Khalil, and M. Iqbal

Department of Industrial and Production Engineering
Shah Jalal University of Science and Technology, Sylhet, BANGLADESH.

ABSTRACT

An assembly line is a manufacturing process consisting of various tasks in which interchangeable parts are added to a product in a sequential manner at a station to produce a finished product. This paper presents and applies mathematical formulae of line balancing, to determine product flow status across supply chain of apparel industries. Precedence diagram portrayed actual situation of sewing line and model developed defining workstation in balancing mode to make the supply chain smooth. Outcome showed that ALB greatly effects on overall supply chain. While unbalanced sewing line, delivery date cannot be met, resulting in, leads to air shipment. Finally, in order to saving air shipment and make the delivery on time, this paper demonstrated how the ALB and better efficiency can be used as planning and control path for managing apparel supply chain.

Keywords: Assembly line balancing (ALB), Apparel supply chain, profitability