ABSTRACT

PT Dwi Indah *is a manufacturing company which is produced plastic. Established in* 1956, *in the beginning the company started with supplying office equipments. The activity of production located in a factory nearby Gunung Putri. In* 1995, *the company started a new business specialized in roll printing using letter press and flexograph with extra technology in paper digital converting machine, print, thermal transfer ribbon, and film.*

PT Dwi Indah *has* 2 *main division, core paper division and plastic division. In both divisions, there is a backtracking and crosstracking. Backtracking and crosstracking in the production process will impact to increasing the total moment of movement material. It also will increase the production cost of* PT Dwi Indah. *To solve the problem that occurs at* PT Dwi Indah, *will be used* BLOCPLAN *algorithm.* BLOCPLAN *algorithm works by build and changing the layout with parameter of minimum total distance by switching of each workstation. And then the proposed layout resulted by* BLOCPLAN *algorithm will be compared with existing layout.*

In this research, the proposed layout can reduce total moment of material movement until 2.739,1 *meter/day and* 55% *of efficiency compared with existing layout. It can be concluded that* BLOCPLAN *algorithm can be used to minimize the total moment of movement material on the production floor at* PT Dwi Indah.

Keywords: *Layout*, BLOCPLAN *Algorithm, Moment of Movement Material, Facilities*