ABSTRACT

MSME Mika is a home industry that produces robes. Based on historical data, Mika SMEs cannot meet consumer demand every month. Lack of capacity occurs in the sewing process as much as 0.5%. This is proof that Mika MSMEs have not been able to meet consumer demand. The production capacity of Mika SMEs was calculated using the Rough Cut Capacity Planning (RCCP) method with the Bill of Labor (BOL) approach. Alternative acquisitions were obtained to meet production capacity by adding three workers and subcontracting. The choice of an alternative to fulfill the capacity using the addition of three workers in the sewing process with an alternative usage cost of Rp.7,700,000.00/month. With the addition of three workers, MSME Mika can meet the demand and get a profit of Rp.262,300.000,00/month. In addition, with the help of process activity mapping (PAM) tools, an analysis of other problems was carried out as to why MSME Mika could not meet the demand. There is a waste of transportation which has the largest percentage value of 39.68%. The Mika UMKM layout was improved using the BLOCPLAN Algorithm by taking into account the largest R-score value for the selected layout. There are two kinds of alternative layout proposals, the second layout alternative is the selected proposal when compared to the first alternative. The second alternative layout can produce a displacement distance of 2080 meters/day with a time of 32 minutes/day. When compared to the existing conditions, MSME Mika has a transportation time of 117 minutes with a total displacement of 3630 meters/day for the production of 10 batches of robes per day.

Key words — ***Production Capacity, RCCP, BOLA, Facility Layout, BLOCPLAN Algorithm***