

ABSTRACT

Productivity improvement is very important for every industry because it is able to increase capacity and reduce cost. This study aims to improve the efficiency of the production of plastic products by a Plastic Spoon Manufacturer. The study employs Takt time and time and motion technique.

From an investigation of the production process and interviews with supervisors, it was found that the production line did not flow smoothly, and the labor used more or less time than the production time schedule. Most production was at a slow rate, whose effect was to increase working time and labor cost. As the layout of the production line did not allow workers to move easily, workers soon felt tired, causing them to work more slowly. As a consequence of this, production could not meet customer demand. Hence, some potential customers decided to order the products from other companies.

To improve the operation of the production line, the researcher uses Takt time to balance the production line in the packing section. The Operator Balance Chart is employed to show the improvement channel by visually showing the Takt time and cycle time of each operation. Takt time and cycle time in each operation are compared, and the target manpower is specified. The elimination of waste is used to achieve line balancing. The researcher uses time and motion technique to improve production efficiency by applying a wage incentive scheme. Performance and labor cost are compared before and after the improvement to find the solution to the problem.