

ABSTRACT

Human resource is the most important factor in a company. The right amount of human resource will increase the company's productivity. That is why human resource determination is very important to do. The surplus of human resource or the adverse will inflict the financial loss to the company.

The objective of this research is to know about the factors which influence human resource planning and to determine the optimum amount of human resource in TEMPE GILING "MURNI" PEDRO Company which located in Ketanggungan, Yogyakarta. In this research two methods are used, time study and approachment of modeling and simulating system with STELLA (system Thinking, Experiential Learning Laboratory with Animation) software.

Human resource determination is started by forecasting products demand, determining labor productivity and working man hours. The research shows that the labor productivity is 90.84 pack/working man hours, the product demand for the next 12 months are 401636 packs with working man hours 4488 man hours. Based on the data from the system a model is made by using the approachment modeling and simulating system with STELLA application program.

Simulation results show that the optimum amount of human resources are 32 persons and two scenarios are made to describe the possibilities in the future. First scenario describing the amount of human resources in the second year are still 32 persons and with the added working hours from 5 hours/day to 7 hours/day in the second scenario the company only needs 23 persons to fulfill the mass demand of the product.

Key words: Human resource, Time study, Dynamic system, STELLA.