

Productivity in Print Production

What is productivity?

PRODUCTIVITY is measured by the amount of output produced in production process compared with amount of input provided. Every printers wish to upgrade their productivity in order to compete in the market. High productivity meant the printers can match the customer requirement by delivering it in the shortest period and on time. In the actual printing production scenario, it fails to achieve according to the theory. The productivity of the printing machine cannot reach at the maximum speed then it should become a main issue to the management to solve it.

Several factors influence the productivity of the printing machine if it cannot reach at the maximum capacity. For example, the customers do not really understand the processes and activities in print production, the non productive activities during the printing operation, last minute changes to job scheduling and effect from the quality of the paper.

Printing industry is a part of information industry. Meanwhile, the information that we need to convey to the customer and readers must be up-to-date before it enters the market. Job starts with scheduling where printing industry, the planner will calculate the production time and load the job based on the publication schedule. Usually the technique applied to establish production scheduling is based on backward and overlapping technique. The problem occur when the publisher or designer delay the finishing works because they want to publish the latest news, wait for conformation from advertising agency, last minute reduce or add the pagination or circulation amount. This situation can make machine capacity that was planned and scheduled cannot be used effectively. However, in business "the customer is always right". Thus the printers will try their best to fulfill the entire requirement needed by the customer.


In the printing processes, customer and supplier also involve in the production chain. In order to reduce the printing costs, publisher will supply their own paper for printing. Customer or supplier will supply the paper to the printer based on production schedule agreed by both parties. Sometimes customer and supplier work in tight schedule, which cause the material delay supplied to the printer. The printer must ready to rearrange the job due to late receive of the printing materials. That is why, it is important to the printer and planner to prepare the proper and flexible production schedule in order to reduce the downtime and increase productivity.

In printing make ready is the main issue to the management. Make ready must be done for every job change. The objective of make ready is to get the "o.k sheet" and fulfill customer requirement. The non productive activities related in the make ready time should be monitor and reduce, for instance changing plate, paper sizes and paper caliper. Usually time taken to do a make ready is about 20 - 30 minutes. The printing process that uses the printing plate, the make ready time is longer than the non impact printing. The longer time taken to do the make ready, not only waste the time but it also waste paper. Normally, printer will allocate 500 sheets to print both sides printing in 4 colors job, if the paper uses above this quantity, management should rectify the problems and solve it immediately. 20 - 30 years ago, most of machine operations were done by hand. Today the latest machine equipped with the automation and computerize features can help printer get the maximum output, reduce the make ready time, paper wastage, improve print

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quality and enhance the motivation level of the employees.

Grade and quality of paper also influence the productivity of printing machine. For example paper dusts that need press's operator stop the machine and clean the plate and blanket cylinder. The frequency in cleaning the blanket is depending on the paper and ink. Nowadays, modern printing machine equipped with auto blanket wash which help to reduce time stopping the machine for blanket cleaning purposes.

All the factor mention above must be face and overcome seriously by the management. They should take into consideration the machine capacity which not used optimally by proper planning management. Thus, the management should monitor this situation closely, if not company will be facing with reduction of profit and worst is loss of customer. The company is unable to compete with other printer in the market. 

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