

ABSTRACT

Lack amount of receiving raw material each year on PT Sunan Rubber affect the total production of the Standard International Rubber 20 which reduces the revenue of the company. This problem was influenced by a long service time in receiving material. Service time in receiving raw materials in PT Sunan Rubber influenced by the amount of worker and weighing stations that we can see by the average time waiting to be served. This final report aims to produce effective capacity of the receiving area on PT Sunan Rubber by reducing the waiting time for supplier . The simulation model was built using the modeling software Promodel 7.5 with FIFO queuing theory . The amount of raw material received in modeling real systems are 11,527 with suppliers who successfully served are 53 trucks / supplier, with utilization for the dock location of 76.57% , disassembly 48.08 % , and weighing at 12 , 52 % . resources 's utilization for the Wrecker obtained by 67.02% , weigher 77.93% , weigh note man 33.26% , verifiers 45.46% , and compilers 75.54% , waiting time / average time waiting is over 52,14 minutes and generating revenue for the company as many as Rp2.997.020.000. Then , with the implementation of the proposed simulation model , the results system capable of receiving 14 361 pieces of raw material and capable of serving 72 trucks/supplier utilization for dock locations at 98.58% , disassembly location 3.72% , and weighing station 21.60% utilization for the worker for the wrecker is 86.86% , weigher 93.43% , weigh note man 50.01% , verifier 56.84% and compilers 93.19%. Waiting time/average waiting time is obtained for 34 minutes and the revenue generated by the proposed model was Rp3,733,860,000 . The company is able to receive additional revenue of Rp736.840.000 with the proposed system .

Key Word: *Utilization, Average Time Waiting, Simulation*