APPLICATION FOR DETERMINING REORDER POINT (ROP) AND ECONOMIC ORDER QUANTITY (EOQ) ON ABC HOSPITAL

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ABSTRACT

Based on research that has been done previously obtained a description of the logistics system at the ABC Hospital. Currently, management is still done manually. If inventory runs out, the units will report to the logistics department, and then logistics department will order it to the supplier. This resulted in the logistics department's workload is high. Moreover, because of the many items that must be managed makes it difficult to monitor what items should be ordered. In addition, inventory management becomes unoptimal because there is no calculation of exactly when and how much the inventory must be ordered and how much the ordering. So that inventory sometimes has stockout, that can decreased the level of service. To overcome this, we need a system that can automatically manage inventories.

The system will be equipped with ROP and EOQ calculation and reporting. ROP method will calculate the level of inventory which must be reorder by considering the reorder level of consumption items and the time it takes to get the item, and the EOQ will calculate the quantity of ordering the inventory. Meanwhile reporting feature is used to see in detail the transactions demand and sales and stock of inventory at a certain time. In addition to these three features will be calculated the level of safety stock or safety stock to cope with uncertainty in delivery or use of drugs.
The Results of the ROP and Safety Stock calculation is used to provide alerts to the logistics on the condition if the reordering must be done. While the EOQ calculation results will be used to determine the amount inventory that reorder. In addition to alerts, the system can also produce reports on request of goods, ordering goods, and stocks of goods specified period which is useful for the logistics department to manage its business processes.

Keywords: ROP (Reorder Point), Safety Stock, Inventory, Report