

ABSTRACT

To continued development of existing stores in Indonesia, both new stores in operation serving the community and large retail stores which already exist in each of the provinces and cities in Indonesia. Average of goods sold is the basic needs of the people like foods. But the issue is each store has a different form of sales from product they owned. That's needed for the system to determine how many products will be re-order to make a stock savings in the warehouse for a specified period ahead, so the product does not over-stock or out of stock, which will affect store sales and reduce profit to the store.

This system was made to determine how much product need to order to avoid over-stock or out of stock, so that the benefits of the store can be maximized. To determine how much orders needed, the data is obtained from stores that meet predetermined criteria, and then the data applied to Fuzzy Algorithms to obtain results which are expected to read actual circumstances that occur in the field. This system will be integration in cashierless smartshop that will be made. Which the store can be a prototype for future modern stores where consumers make self-service and self-checkout payment system independently and did not use cash, it is like development of future era when cash money does not need anymore.

Application of this system showed a number that shows as the recommended number of orders processed using Fuzzy Algorithm. The results are shown in accordance with the rules given in the system. But the level of system accuracy is still less than optimal, this is because the design is still based on estimates and the possibility of the algorithm used. For the future there is expected to further research with different algorithms to be compared with this decision support system that has created.

Keywords: fuzzy, algorithm, stock, order, cashierless, smartshop