

ABSTRACT

In making the optimal route for effective and efficient distribution, there are several factors that can influence, namely: the use of time and cost in the process of distributing postal goods. This study aims to find the optimal route for the distribution of regional IV postal goods in Jakarta at the Post Distribution Distribution Center (PDC). With the optimal route that is expected to minimize costs and time, so as to increase company revenue can also increase customer satisfaction due to timely delivery of goods. It is known that in creating the optimal route one can use ArcGIS software.

ArcGIS is a software package consisting of Geographic Information System (GIS) software products purchased by Esri. ArcGIS is a tool that makes it possible to do data analysis and compile geographical knowledge to prepare relationships, prepare predictions, and make good decisions (Esri Indonesia).

By using ArcGIS, this study produces several optimal route choices, each of which has advantages and disadvantages is the amount of time and different costs for each optimal route choice. The optimal route obtained from the analysis process in ArcGIS can be deduced from the time and cost factors which are inversely proportional, where the time spent is less than the high cost factor, and vice versa. With this statement, the results of this study which consists of several optimal route choices can be material for decision making and alternative routes that can be used by drivers when operating.

Keywords: distribution, optimization, logistics, ArcGIS.