ABSTRACT

PT Pos Indonesia is one of the service and logistics companies included in the supply chain management business. There are several PT Pos Indonesia Outlets located in Surabaya that are engaged in this business. Surabaya City only has 225 active postal agent outlets out of 1,522 registered postal agent outlets. So that there is income in some areas causing a decrease in quality for Postal Agent products and services and many Outlets are not in accordance with company procedures.

The distance between PT Pos Indonesia Outlets to customer locations is too far compared to competitors. As a result, the main branch office of Surabaya City has problems evaluating the performance of the Postal Agent Outlet. Therefore, the company will increase the optimal location of Postal Agent Outlets in Surabaya City and Regency. To determine the new location of a feasible Postal Agent Outlet, there are several steps that must be taken. First, determine the optimal alternative locations of Postal Agent Outlets from eight areas in Surabaya City by considering quantitative and qualitative aspects.

The number of inactive outlets in the Surabaya area can be caused by several factors, one of which is the long distance to competitors. This can lead to several problems such as, Difficulty reaching customers because Outlets that are far from competitors will find it more difficult to attract customers. Price Competition Outlets that are far from competitors may have difficulty competing on price. This is because competitors who are in more strategic locations may be able to offer lower prices due to lower operational costs. Outlets that are far from competitors will find it difficult to promote. This is because they do not have access to the same media as competitors in more strategic locations. Lack of innovation due to not having access to the same latest technology as competitors in strategic locations.

The methods used in this research are feasibility analysis using Net Present Value, Payback Period, and IRR calculations, optimal location determination using the P-Median method with a Mixed Integer Linear Programming approach, and location determination based on multi-criteria using the Fuzzy Neutrosophic method. The results show that the location with the lowest location-competitor distance, declared feasible based on feasibility analysis, and the highest weight based on multi-criteria decision making is located in Surabaya City. If this decision is made, the company can reduce the possibility of closing Postal Agent Outlets in Region 5. The final step is a feasibility study that determines which Agent Outlets are worth building based on net present value (NPV), internal rate of return (IRR), and payback period (PBP).

Keyword: *Supply Chain Management, Feasibility Study, P-Median, Mixed Integer Linear Programming, Fuzzy Neutrosophic Multi-criteria.*