ABSTRACT

Procurement is a company activity in obtaining goods according to the specifications they need and meeting the criteria in the form of qualifications, requirements and regulatory rules related to the procurement of goods and services. PT X is a company affiliated with a state-owned enterprise operating in the sugar cane agro-industry sector that produces sweet soy sauce as their downstream product. In this object, researchers found a problem that the production of sweet soy sauce at PT X could not meet the needs of consumer demand due to the limited capacity of the sweet soy sauce cooking machine. Therefore, PT X procures a sweet soy sauce cooking machine with a limited tender auction system. The selection of supplier I (PT KM) and supplier II PT (TSE) which is a soy sauce production cooking machine supplier was selected using the Analytical Hierarchy Process (AHP) and Taguchi Loss Function methods. The results obtained from this study obtained that supplier II (PT TSE) is the best supplier with synthesis results weight of 0.747 or has a percentage of 74.7 as well as the results of Taguchi Loss Function calculations where supplier II fulfills all types of quality loss functions on each price subcriteria, namely on the price of the smaller better machine with a weight of 0.1228, the cost of insurance for the larger better machine with a weight of -0.0920, and the shipping cost of the smaller better with a weight value of 0.0294.

Keyword: *Procurement, Analytical Hierarchy Process (AHP), Taguchi Loss Function (TLF), Decition Making, Cooking Machine*