

ABSTRACT

Tarie Bali is an UMKM engaged in the women's fashion industry located in Denpasar City. The best-selling product owned by UMKM Tarie Bali is women's sandals with the Valine brand. However, compared to other products produced and marketed by UMKM Tarie Bali, this sandal product has a fairly low Net Profit Margin (NPM). Through interviews, UMKM Tarie Bali's owner also explained that in producing and marketing sandal products, the costs incurred in the procurement process for raw materials are quite high. According to the owner, among the raw materials for making sandals, synthetic fabric is the raw material that has the highest procurement cost. This raw material also has the most choice of suppliers and the selection is still changing. Even in the selection there are no fixed criteria. Meanwhile, in general, the selection of suppliers requires the right criteria to determine the best supplier. The problems that occur in UMKM Tarie Bali can be modeled into Multi-Criteria Decision Making (MCDM). Then, based on the consideration of solving the supplier selection problem at UMKM Tarie Bali, this can be solved using the AHP and TOPSIS methods. The AHP calculation is used to determine the weight of the criteria and sub-criteria, while the ranking of available alternative ideal solutions is carried out using the TOPSIS method. Based on the calculations that have been carried out with the combination of the two methods, it was found that the best alternative from the available alternatives is Supplier K. Furthermore, in applying this calculation for further use by UMKM Tarie Bali, a Supplier Selection System is made which have functions to assist supplier selection subjectively and objectively based on AHP and TOPSIS methods.

Keywords – *Supplier, NPM, MCDM, AHP, TOPSIS*