

## Abstract

*Any large company would have a partner company to help their business be more successful. Therefore, choosing a good partner companies is become essential. Partner companies selection was included in part of the Supply Chain Management (SCM), which generally do the management for all types of activities within a company. In the selection of partner companies, usually there are several criteria that must be assessed. Each criteria has a weight which is used for assessment. Sometimes, the judgment is given and then processed by the system issuing the result are less appropriate to the real situation. These event can be avoided by determining the appropriate weight of the criteria for assessment. Because weight of each criteria become one of the most important factor in choosing a partner company. One method to optimize the weighting of criteria is to use an optimization algorithm such as Harmony Search (HS). Harmony Search algorithm is a metaheuristic algorithm based on the phenomenon of improvised musical tone of the musical instrument to achieve a harmony. HS algorithm consist of several stages which is harmony memory consideration, pitch adjustment, and random selection to be applied to the partner companies selection.*

**Keywords:** *selection of partner companies, Supply Chain Management, metaheuristic, Harmony Search*