ABSTRACT

The sustainable development concept is a new development paradigm that is adopted by mostly industries. This concept considers three integrated dimensions namely economic dimensions, environment and social dimensions which are took into account for measuring the performance of the economic development, environmental management as well as the social community development. In order to realize this paradigm as well as to be implementable framework in industrial activities, we previously needs to develop the indicator that represent the sustainable concepts.

This research concerns to develop the sustainable indicators and then we implement it to the problem of Sidoarjo developments where we could find many prospectives industries growing fastly. As buffer zone area to East Java-Province, Sidoarjo has many competitive advantages that supports the previously industries development. Unfortunately, the industrial growth in this area reflect the environmental impacts and social destruction.

Considering the industrial development strategic planning, this research proposes eight alternatives industries. This alternatives will be evaluated based on the comprehensive of judgement criteria. Strategic alternatives industries will be reevaluated with ELECTRE III method as one of multi criteria decision making approach. There are five quantitative criteria and nine qualitative criteria which will be further evaluated their sustainability in the future.

Using the ELECTRE III method concludes that kerupuk udang industry is the best industry, subsequently we measure it how sustainability is. Based on the total impact assessment and AHP approach, this research concludes that kerupuk udang industry is a sustainable industry because of the positive impact of this industry is larger than the negative impact.

Keywords: Sustainable Development, Multi Criteria Decision Making, ELECTRE III, Total Impact Assessment, Analytical Hierarchy Process (AHP)