Sustainability Analysis and Development Strategy for Green House Hydroponic Cultivation Businesses Several Cities in East Java

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ABSTRACT

The aim of this research is to analyze the sustainability and leverage factors of green house hydroponic cultivation businesses using Multidimensional Scaling (MDS) analysis which is viewed from various aspects of sustainability such as ecological dimensions, economic dimensions, social dimensions, technological dimensions and institutional dimensions and aims to analyze priority strategy in efforts to develop green house hydroponic cultivation using the Analytical Hierarchy Process (AHP). This research was conducted in several cities in East Java. The results of the Multidimensional Scaling (MDS) analysis show that the sustainability index in the ecological dimension is 59.59, sustainability in the economic dimension is 60.04, sustainability in the social dimension is 47.63, sustainability in the technological dimension is 59.31, and sustainability in the institutional dimension is 48.72. The most dominant factors that are attributes of sustainability levers are the level of waste management, sales price stability, community conflict, the level of application of modern technology and partnership patterns. The results of the Analytical Hierarchy Process (AHP) analysis show that the priority strategy that can be implemented is the implementation of a partnership pattern with the highest value of 0.445.

Keywords: MDS, AHP, Hydroponics, Green House.