**Exploring the Influential Factors of Cluster Cooperation in Taiwan’s Biotechnology Industry**

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**Abstract**

In recent years, numerous countries around the world have continually devotedsubstantial efforts to the biotechnology industry. Despite its endeavors over two decades, Taiwan’s biotechnology industry has not yet made any remarkable achievements. In this study, influential factors of cooperation in the biotechnology industry are discussed from the perspectives of cluster cooperation and interaction. Using the analytic hierarchy processand quantitative results obtained from in-depth expert interview questionnaires, the weights of various influential factors are investigated and analyzed, which could provide a reference for future research and resource allocations. The influential factors of cluster cooperation in Taiwan’s biotechnology industry can be categorized into four major factors and sixteen sub-factors. The results indicate that among all of the factors that impact cluster cooperation in the biotechnology industry, “enterprise innovation ability” is the most critical. The innovation capacity of cooperative partners is always considered a priority in cluster cooperation among enterprises, whereas research and development (R&D), personnel quality, and the R&D environment are the most crucial sub-factors within the primary dimension of enterprise innovation ability. This finding is consistent with the fact that a biotechnology product is closely bound to innovative R&D, from its initial development stage to the eventual clinical launch. Factors of secondary importance include business management ability and government resource utilization, which suggests that the principal activities associated with cluster cooperation in the biotechnology industry depend heavily on an enterprise’s business management ability and are inextricably linked to government resource utilization.

**Key words:** biotechnology industry, cluster cooperation, Taiwan, analytic hierarchy process (AHP)

**JEL Class.:** C22, O40, O43.