

A Novel Approach for Strategic Partner Selection in the Vietnamese Logistics Industry Using a Two-Stage Non-Parametric Model

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ABSTRACT

The selection of an appropriate strategic alliance plays a crucial role in determining the effectiveness and success of numerous enterprises. In the global logistics industry, strategic alliances have experienced significant growth and achieved considerable success. However, in Vietnam, logistics companies continue to operate independently, lacking the necessary connectivity. Hence, this research aims to propose an effective approach utilizing Data Envelopment Analysis (DEA) to assist in selecting suitable alliance partners. Additionally, the Resampling method is employed to forecast future effectiveness. The study utilizes actual public financial data from 30 logistics companies in Vietnam over a span of 10 consecutive years (2013-2022). The target decision-making unit (DMU) in this analysis is Gemadept Corporation. The findings indicate that among simulated 29 scenarios, Hai An Transport & Stevedoring JSC (DMU6), Petrovietnam Transportation Corporation (DMU18), South Logistics Joint Stock Company (DMU21), Transimex Corporation (DMU23), Vietnam Container Shipping Joint Stock Corporation (DMU28), and West Coach Station Joint Stock Company (DMU30) are feasible alliance partners for Gemadept Corporation, contributing to enhanced long-term operational efficiency. Moreover, the research results not only demonstrate the effectiveness level from the target company's perspective but also consider it from the partner company's viewpoint. The implications of this research will yield additional knowledge and contribute to the development of the global logistics industry as a whole, with specific benefits for the logistics sector in Vietnam.

Keywords: efficiency; strategic alliance; Data Envelopment Analysis; Resampling; Trend; Super SBM