

## **An Application of Fuzzy Analytical Network Process to Select a New Production Base: An AEC Perspective**

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**Abstract :** By the end of 2015, the Association of Southeast Asian Nations (ASEAN) countries proclaim to transform into the next stage of an economic era by having a single market and production base called ASEAN Economic Community (AEC). One objective of the AEC is to establish ASEAN as a single market and one production base making ASEAN highly competitive economic region and competitive with new mechanisms. As a result, it will open more opportunities to enterprises in both trade and investment, which offering a competitive market of US\$ 2.6 trillion and over 622 million people. Location decision plays a key role in achieving corporate competitiveness. Hence, it may be necessary for enterprises to redesign their supply chains via enlarging a new production base which has low labor cost, high labor skill and numerous of labor available. This strategy will help companies especially for apparel industry in order to maintain a competitive position in the global market. Therefore, in this paper a generic model for location selection decision for Thai apparel industry using Fuzzy Analytical Network Process (FANP) is proposed. Myanmar, Vietnam and Cambodia are referred for alternative location decision from interviewing expert persons in this industry who have planned to enlarge their businesses in AEC countries. The contribution of this paper lies in proposing an approach model that is more practical and trustworthy to top management in making a decision on location selection.

**Keywords :** apparel industry, ASEAN Economic Community (AEC), Fuzzy Analytical Network Process (FANP), location decision

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