

The Study of Applying ANP to The Selection of The Best Supplier's Relationship

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ABSTRACT

In the competitive global market, the market share of potted component industry in Taiwan is 1.32% of the global share. Improving the competitiveness is the essential requirement for companies in the globalized market. Therefore, business owners would concentrate on core competitive products, and outsource other products for manufacturing to reduce inventory and cost. Supplier evaluation concerns many factors, and no single factor is suitable for all industries. The factors concerning the evaluation of suppliers' overall competency and professional ability include the quality, delivery, cost, service, and RoHS, in order to maintain a long-term relationship. The research results showed that the "collaborative relationship" has the highest weighted score, and is the best supplier relation model. The contributions of this research are as follow: 1. Using ANP to analyze and select the best supplier relation model in the potted component industry in Taiwan. 2. Using questionnaire survey and application of ANP network architecture could convert qualitative questions into quantitative data for statistical analysis, and could shorten the decision-making time and improving the accuracy of decisions. 3. Providing ANP method to the industry to find optimal solution when facing different factors and criteria.

Keywords : collaboration, supplier, ANP

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