Multifactor performance measure model with an application to Semiconductor industry Performance

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Abstract: - The research described in this paper contains four parts. The first part is to present an empirical investigation where financial index is considered to measure the semiconductor industry performance. The second part is to examine the effects of financial index on outputs. The technique of Data Envelopment Analysis is utilized to derive the efficiency. The service part utilized the referral of clustering analysis to view the relatively efficient enterprises, and then they are used to be the references and frequencies of improving the efficiencies of the relatively inefficient enterprises. Finally, The Slack Variable Analysis was used to find out the improper resources allocation and utilization of the enterprise.

With regards to the existence of the enterprise, the effectiveness of operating performance possesses a critical factor. The quantifying formula analysis of DEA can obtain a more impartial and objective result of the performance evaluation, and then this result are used to analyze the competitiveness of the enterprise, so as to adjust its operating strategies, strengthen its internal management; as a result the continuously operating objective can be reached.

Keywords: - Semiconductor industry, DEA, performance