

Performance Assessment of MAPNA Group Power Plants Using a Combined BSC - DEA Approach

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With economical development of organizations and firms, besides increasing of competition closeness, the importance of organizational efficiency increase day by day. Multi-directional determination of criteria which are involved in efficiency and recognizing the inter-relationship between them can result in strength of organizational processes and competitive advantage and consequently it has a remarkable effect on company's success. This research has focused on criteria which are involved in effectiveness of internal processes of MAPNA Group's Power Stations. In present research after studying existing theoretical fundamentals, we identified effective criteria on power stations based on expert experiences. Among these criteria 13 criteria in four vision of BSC possessing more importance have used. Based on 110 power plant experts' opinion, 7 criteria have been presented considering effectiveness, effect-acceptance and sum of both. In next step, these 7 criteria used as input and output of DEA to efficiency evaluation of 10 power station DMUs. Analysis of results presented 8 efficient units. Finally we used Anderson-Paterson method to rank efficient units and at the end we made some suggestions for non-efficient unit to improve their efficiency.

Keywords : Key words: Data Envelopment Analysis, Balance scored cards, DEMATEL technique, efficiency, Super-efficiency

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