

A Fuzzy ANP-based Approach to Evaluate Medical Organizational Performance

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Abstract

The conventional accreditation policy of Taiwanese hospitals involves helping promote and executing national healthcare quality policies, certifying healthcare quality, supervising the management of health care organizations, pursuing a harmonious relationship between care providers and patients, and enhancing national healthcare quality. However, the quality indicators in use by Department of Health, Executive Yuan, Taiwan (DOH) cannot indicate overall organization performance of each hospital and assess hospital operating crisis. Therefore, this research proposes an evaluation model using fuzzy analytic network process (FANP). The analytic hierarchy process (AHP) and analytic network process (ANP) cannot adequately resolve the inherent uncertainty and imprecision associated with the mapping of a decision maker's perception to exact numbers. In many cases the preference model of the human decision maker is uncertain, and it is relatively difficult for the decision maker to provide exact numerical values for the comparison ratios. Importantly, the proposed model can provide Taiwan's hospital accreditation policy a reference material, making it highly applicable for academic and government purposes.

Keywords: Organizational Performance, Fuzzy, Fuzzy Analytic Network Process (FANP), Analytic Network Process (ANP), Hospitals.