Integrating Objective Measurement and Subjective Judgment to Predict and Manage Risk in an Environmental Impact Assessme

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ABSTRACT

ABSTRACT During the preparation of environmental impact assessment statements or reports, the editor cares most two things: forecast of the review result and risk management for that possible result. The former study by the same research group used Case-Based Reasoning (CBR) and Fussy Reasoning to predict the probability of review result, and then it adopted the Important Performance Analysis (IPA) to exercises a risk analysis of the review conclusion of environmental factors. However, that study primarily used objective measurement to evaluate the significance of environmental influence and forecast the review result. There still have small part of risk forecast which are inaccurate in the former forecast system, although the accuracy rate reaches 96.7%. In fact, EIA statements or reports are examined by the form of committee. Definitely speaking, the significance of environmental impact depends on both objective information and subjective judgment. Therefore, adopting objective measurement to examine the risk forecast is the major reason to cause the inaccurate result. Furthermore, this research provides some solutions as follows: 1. This paper will find the significance criteria (subjective judgment) which can influence the review rsult. 2. This paper uses Fussy Reasoning method to combine the objective measurement with subjective judgment and then evaluates the significance of environmental impact. 3. This paper will adopt a Data mining technique (Classification tree) to forecast and manage the possible review result, which makes the previous research by 96.7 percent validation rate increase to 100%.. Key words: Environmental impact assessment, fussy reasoning, subjective judgment, significance, data mining.

Keywords : Environmental impact assessment ; fussy reasoning ; subjective judgment ; significance ; data mining

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