A Feasibility Study on the Enterprises Adopting the Radio Frequency Identification(RFID)

陳識全、陳振東、楊豐兆

E-mail: 9511067@mail.dyu.edu.tw

ABSTRACT

By using the non-contact Radio Frequency Identification (RFID) technology, the living environment and digital content will produce the great change in our life. Under this situation, the trace and management of information or product will become easier and accuracy. Enterprises have to fact a more complex environment to compete with other business today. With the special characteristic of RFID, the business managers can solve the problems that result from the slow reaction to customers and inefficiency in operation process. However, enterprises or organization need to take a risk evaluation to assess the feasibility when they try to deploy a new information technology in the operation process. In this study, a multi-level Linguistic evaluation model is proposed to evaluate the feasibility of applying RFID technology for business or organization. The proposed model is based on 2-tuples fuzzy linguistic variable algorithm. By using fuzzy linguistic model with integrated linguistic value, the feasibility of deployment of RFID can be measured by a linguistic value. Based on the proposed model, an evaluation system is developed to analyze a practical problem in this study.

Keywords : RFID, Feasibility evaluation, Fuzzy set theory, Multi-level Linguistic variable.

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