

Identification and ranking factors affecting adoption of Radio Frequency Identification (RFID) technology in public libraries

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Abstract

Purpose: This research seeks to identify and rank factors affecting RFID's adoption and is based on the theory of diffusion of innovation in public libraries.

Methodology: 13 variables in three categories, namely technical, organizational, and environmental were examined. A questionnaire with 30 questions was designed and distributed among 320 librarians in 68 public libraries in the cities of Shiraz and Kerman. Respondents were selected by simple random sampling. 193 completed questionnaires were returned. SPSS and LISREL were used for descriptive and inferential statistical analysis (t-test, structural equation model and TOPSIS).

Findings: All identified factors have some effect on the use of RFID technology. Also all identified affecting factors of RFID adoption have correlation as an overall structure. The model is suitable in terms of fitness indexes. Ultimately, factors ranking revealed that the most important one is the cost.

Originality/Value: The findings indicate the necessity of carefully considering adoption of the technology. What we found what needs to be considered to prevent the failure of the project and waste of funds.

Keywords: Radio Frequency Identification, Diffusion of Innovation Theory, RFID Adoption, Public Libraries.