

## Developing and Validating a Service Robot Systems Success Model

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### *Abstract*

**Purpose of the study:** The hospitality industry, facing a notable labor pool shortage in recent years, has turned towards robotic technology to simplify service processes. Responding to the proliferation of AI-based service robots in the hospitality and service sectors, this study aims to develop and validate a service robot systems success model based on previous information systems success models.

**Methodology:** Data collected from Taiwanese respondents are used to validate the research model using the partial least square approach.

**Main Findings:** The results indicate that perceived value is influenced by information quality, system quality, service quality, and intelligence quality while user satisfaction is only affected by system quality and intelligence quality (see Figure 1). The newly added intelligence quality is a critical robot systems success measure. Besides, perceived value is found to affect loyalty directly or indirectly through satisfaction.

**Applications of this study:** The findings provide several important theoretical and practical implications for developing a successful service robot system in the hospitality and service sectors.

**Novelty/Originality of this study:** This study is a pioneering effort to develop and validate a service robot systems success model.

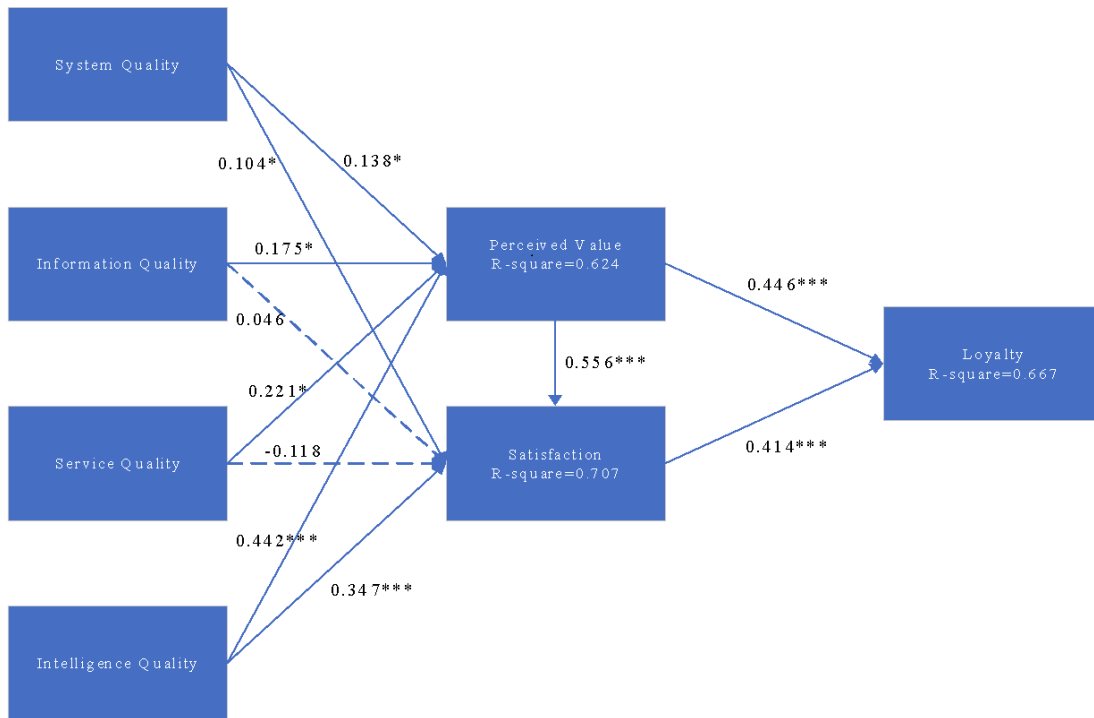


Figure 1: A Service Robot Systems Success Model

**Keywords:** artificial intelligence; service robot; information systems success model; intelligence quality, perceived value, user satisfaction