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Health information systems (HIS) sustainable framework

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Abstract
A sustainable technology is a technology that is capable of being maintained over a long period of time; independent of shifts in both hardware and software. Numbers of studies have discussed various factors contributes towards barriers to successful implementation of HIS. Through critical analysis of existing literature on success, failure and challenges of HIS adoption, this paper identifies four crucial factors that shape the sustainable HIS. This paper describes the theoretical basis behind the development of the model and methodology employed to validate the proposed model. This paper proposes a novel theoretical framework which integrates the expectation-confirmation model with the constructs identifies through literature reviews act as HIS sustainability factors. The proposed framework was tested by collecting data from three major public hospitals in Malaysia. A field studies of users who had experience using health information systems mainly medical staffs and administrative staffs were conducted. A valid 166 respondents participated to test the research model using structural equation modeling with the partial least squares method. The results show that all five proposed constructs had a significant impact on HIS continuance usage. Satisfaction had a significant impact on user continue usage of HIS. This study showed that the extended expectation conformation model effectively predicts users' continuance usage which leads to factors discovered for sustainable HIS. The present study provides some insights for hospital management and HIS developers.

Author Keywords
Expectation-confirmation model; Health information systems; Public hospital Malaysia; Structural equation modeling; Sustainability

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