

Investigating a New Framework for Hospital Information System Adoption: A Case on Malaysia

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Abstract

Hospital Information System (HIS) has been designed to provide numerous values to the healthcare community and indirectly provide benefits to the patients. Despite this only a few hospitals in Malaysia have actually adopted it, thus this paper by relying on secondary data aims to provide more insight to the literature review of HIS adoption in the context of Malaysia. In light of this, the study introduces a new combination of three theories namely Technology Organization Environment (TOE) framework, institutional theory along with Human Organization Technology (HOT-fit) model to address the slow rate of HIS adoption by Malaysian public hospitals. We argue that each theoretical perspective has its own explanatory power and that a combination of these three facilitate a much richer interpretation of Information System (IS) implementation regarding the macro-level analysis. Thus, it is hoped, to represent some directions for future research to demonstrate the relationship existing in our new proposed research framework where hospitals by paying attention may take an action in order to achieve a better HIS adoption decision making.

Keywords: Public hospitals, HIS, Adoption decision, TOE framework, Institutional theory, HOT-fit model

1. Introduction

Healthcare in particular hospitals is regarded as an important determinant of national well-being (Ahmadi et al., 2014; Mackenbach et al., 2008). In order to achieve high national well-being, affordable, accessible and high quality healthcare is important (Ahmadi et al., 2014). Nevertheless, the use of Information Technology has been reported rather slow throughout the healthcare field (Ahmadi et al., 2013).

Malaysian healthcare system has been put under pressure as healthcare expenditures are expected to rise significantly in the coming years, mainly due to an increase in overall healthcare consumption (Lee et al., 2012). Besides, the Malaysian government faces an imposing pressure to enhance the healthcare quality (Lee et al., 2012).

Because of the aforementioned issues, several reformations have been started in Malaysian for promoting and maintaining the citizens' wellbeing.

One of the areas that have been aimed for sharp improvement is telemedicine (Abdullah, 2008; Lee et al., 2012). This is known as the Telemedicine Blueprint under the renowned Multimedia Super Corridor (MSC) Telehealth project, Telemedicine is a healthcare-reform initiative introduced to boost the Malaysian healthcare system. Moreover, these reformations heavily help the

national vision of 2020 Malaysia toward becoming a developed country in the year 2020 through particular objectives. Hospital Information System (HIS) is introduced to kick starts the process of digitalization of the healthcare sector (Lee et al., 2012).

In this regard, three types of HIS was introduced including Total Hospital Information System (THIS), Intermediate Hospital Information System (IHIS), and Basic Hospital Information System (BHIS) (Hassan, 2004; Ismail et al., 2013; Lee et al., 2012; Mohan & Razali, 2004). According to Lee et al. (2012), "the choice of which hospital information system to implement is based on the number of beds that the particular hospital has." In contrast of these, only 15.2% of the public hospitals in Malaysia are referral hospitals to have fully integrated or partially integrated HIS since the Telehealth project was announced more than a decade ago (Ahmadi et al., 2015; Ismail et al., 2010; Ismail et al., 2013; Lee et al., 2012; MOH-Malaysia, 2014; Sulaiman & Wickramasinghe, 2014). Therefore, most of the hospitals are delaying in adopting the HIS technology.