A Narrative Literature Review on the Impact of Organizational Context Perspective on Innovative Health Technology Adoption

Hossein Ahmadi [a], Leila Shahmoradi [b], Farahnaz Sadoughi [a,*], Azadeh Bashiri [b], Mehrbakhsh Nilashi [c], Abbas Sheikhtaheri [a], Sarminah Samad [d], Othman Ibrahim [c]

[a] Department of Health Information Management, School of Health Management and Information Sciences, Iran University of Medical Sciences, Tehran, Iran
[b] Health Information Management Department, School of Allied Medical Sciences, Tehran University of Medical Sciences, No #17, 5th Floor, Farredanesh Alley, Ghods St, Enghelab Ave, Tehran, Iran
[c] Faculty of Computing, Universiti Teknologi Malaysia, 81310 Skudai, Johor, Malaysia
[d] CBA Research Centre, Department of Business Administration, Collage of Business and Administration, Princess Nourah Bint Abdulrahman University, Riyadh, Saudi Arabia

* Corresponding authors email addresses: sadoughi.f@iums.ac.ir

Abstract

Hospital Information System (HIS) is an integrated Information System (IS) designed to enhance clinical, financial and administrative functions of a hospital. HIS is vital to the healthcare sector especially in public hospitals as they need to serve the public with high-quality healthcare services. Therefore, it is important to investigate the adoption of HIS in public hospitals. The aim of this study is to provide a literature review of adoption theories (Technology Organization Environment Framework, Institutional Theory and Human Organization Technology Fit Model) in IS domains and potential factors that influencing adoption of HIS framework in public hospitals with emphasis on organizational context perspective.

Keywords: HIS adoption, TOE framework, Institutional Theory, HOT fit model, Organizational context

1. Introduction

Hospital Information System (HIS) can be considered as innovation for hospital's organization, if the hospital organization perceives HIS as new. Innovation has been studied in various disciplines (sociology, engineering, economics, marketing and psychology), for different stages of innovation (generation of innovation or adoption of innovation), at different levels of analysis (individual, subunit, organizational, industrial, national or the innovation itself), and for different types of innovation (technical/administrative, radical/incremental or product/process) (Damanpour and Schneider, 2009; Damanpour and Daniel Wischnevsky, 2006; Gopalakrishnan and Damanpour, 1997; Read, 2000; Ahmadi et al., 2015b; Ahani et al., 2016; Nilashi et al., 2018a; Ehtesham et al., 2017; Kimiafar et al., 2015). Innovation adoption refers to making decisions for employing HIS in public hospitals, work practices and encouraging healthcare professionals to apply HIS. Many adoption/diffusion theories in IS research have been developed that aim at explaining organizational and human behaviour in respect to innovation adoption and make the understanding of factors affecting adoption and acceptance of particular technologies easier (Cardozo et al., 1993; Hecht et al., 2011; Nilashi et al., 2017a). These theories can be potentially useful to this research development of a new framework of HIS adoption. Generally, studies on technology adoption and diffusion in the area on IS are conducted in two levels, user level and organizational level (Hossain and Quaddus, 2011; Lian et al., 2014; Chang et al., 2007b; Misra and Mondal, 2011; Choudrie and Dwivedi, 2005). The organizational innovation theories and models along with the existing HIS literature might help to achieve identifying these potential factors that affect the HIS adoption in the context of public hospitals (Chang et al., 2006b; Yang et al., 2013; Ismail et al., 2015; Nilashi et al., 2016c; Bashiri et al., 2017a). Previous studies indicate that organizational issues, for example lack of inappropriate organizational structure and planning have a negative effect on applying information technology in hospitals (Moghaddasi et al., 2009; Malekzadeh et al., 2018). Hence, present study focuses on a narrative literature review of adoption theories in IS domain including Technology