World Academy of Science, Engineering and Technology International Journal of Mathematical and Computational Sciences Vol:14, No:12, 2020

Factors Affecting the Adoption of Cloud Business Intelligence among Healthcare Sector: A Case Study of Saudi Arabia

Authors: Raed Alsufyani, Hissam Tawfik, Victor Chang, Muthu Ramachandran

Abstract: This study investigates the factors that influence the decision by players in the healthcare sector to embrace Cloud Business Intelligence Technology with a focus on healthcare organizations in Saudi Arabia. To bring this matter into perspective, this study primarily considers the Technology-Organization-Environment (TOE) framework and the Human Organization-Technology (HOT) fit model. A survey was hypothetically designed based on literature review and was carried out online. Quantitative data obtained was processed from descriptive and one-way frequency statistics to inferential and regression analysis. Data were analysed to establish factors that influence the decision to adopt Cloud Business intelligence technology in the healthcare sector. The implication of the identified factors was measured, and all assumptions were tested. 66.70% of participants in healthcare organization backed the intention to adopt cloud business intelligence system. 99.4% of these participants considered security concerns and privacy risk have been the most significant factors in the adoption of cloud Business Intelligence (CBI) system. Through regression analysis hypothesis testing point that usefulness, service quality, relative advantage, IT infrastructure preparedness, organization structure; vendor support, perceived technical competence, government support, and top management support positively and significantly influence the adoption of (CBI) system. The paper presents quantitative phase that is a part of an on-going project. The project will be based on the consequences learned from this study.

Keywords: cloud computing, business intelligence, HOT-fit model, TOE, healthcare and innovation adoption

Conference Title: ICSRD 2020: International Conference on Scientific Research and Development

Conference Location : Chicago, United States **Conference Dates :** December 12-13, 2020