

An Empirical Study of Determinants Influencing Telemedicine Services Acceptance by Healthcare Professionals: Case of Selected Hospitals in Ghana

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Abstract : Protecting patient's digital information is a growing concern for healthcare institutions as people nowadays perpetually live their lives through telemedicine services. These telemedicine services have been confronted with several determinants that hinder their successful implementations, especially in developing countries. Identifying such determinants that influence the acceptance of telemedicine services is also a problem for healthcare professionals. Despite the tremendous increase in telemedicine services, its adoption, and use has been quite slow in some healthcare settings. Generally, it is accepted in today's globalizing world that the success of telemedicine services relies on users' satisfaction. Satisfying health professionals and patients are one of the crucial objectives of telemedicine success. This study seeks to investigate the determinants that influence health professionals' intention to utilize telemedicine services in clinical activities in a sub-Saharan African country in West Africa (Ghana). A hybridized model comprising of health adoption models, including technology acceptance theory, diffusion of innovation theory, and protection of motivation theory, were used to investigate these quandaries. The study was carried out in four government health institutions that apply and regulate telemedicine services in their clinical activities. A structured questionnaire was developed and used for data collection. Purposive and convenience sampling methods were used in the selection of healthcare professionals from different medical fields for the study. The collected data were analyzed based on structural equation modeling (SEM) approach. All selected constructs showed a significant relationship with health professional's behavioral intention in the direction expected from prior literature including perceived usefulness, perceived ease of use, management strategies, financial sustainability, communication channels, patients security threat, patients privacy risk, self efficacy, actual service use, user satisfaction, and telemedicine services systems securities threat. Surprisingly, user characteristics and response efficacy of health professionals were not significant in the hybridized model. The findings and insights from this research show that health professionals are pragmatic when making choices for technology applications and also their willingness to use telemedicine services. They are, however, anxious about its threats and coping appraisals. The identified significant constructs in the study may help to increase efficiency, quality of services, quality patient care delivery, and satisfactory user satisfaction among healthcare professionals. The implantation and effective utilization of telemedicine services in the selected hospitals will aid as a strategy to eradicate hardships in healthcare services delivery. The service will help attain universal health access coverage to all populace. This study contributes to empirical knowledge by identifying the vital factors influencing health professionals' behavioral intentions to adopt telemedicine services. The study will also help stakeholders of healthcare to formulate better policies towards telemedicine service usage.

Keywords : telemedicine service, perceived usefulness, perceived ease of use, management strategies, security threats

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