

FEASIBILITY ASSESSMENT OF USING GEOINFORMATICS TECHNOLOGY IN DISASTER DISEASE SURVEILLANCE IN TEHRAN UNIVERSITY OF MEDICAL SCIENCES, TEHRAN, IRAN.

Abstract

Background and purpose: Geoinformatics technology retains an unprecedented trait of performing with a supersonic speed and precision in disaster disease surveillance, whereas the existing surveillance system is lacking of both rapidity and accuracy. So, geoinformatics technology integration with the current disease surveillance system to enhance its efficacy of disease surveillance is mandatory. We used technology acceptance model to evaluate the feasibility of using geoinformatics technology in disaster disease surveillance at Tehran University of Medical sciences.

Methods: A self-administered questionnaire was developed depending on the validated items from previous technology acceptance model, and a cross sectional survey was conducted in order to collect data. Fifty personnel currently involve in disease surveillance and information technology related to surveillance participated in the survey, and convenient sampling method was applied. Initially, a pilot study was conducted and Cronbach alpha, intra-class correlation coefficient, and standard error of measurement was used to test the validity and reliability of the questionnaire. For final analysis, Cronbach alpha, confirmatory factor analysis, and structural equation model was used to validate the causal model.

Results: We found statistically significant relationship between perceived ease of use and perceived usefulness, and between attitude and intention to use. Even though, the study did not found important relationship between perceived usefulness and perceived ease of use with attitude of the participants, but together the factors explain substantial variability of attitude. The mean of each question was within positive limit regarding technology acceptance.

Conclusion: Policy makers should pay attention to improve necessary skills and knowledge of the personnel, as many of them lacking adequate training related to information technology. Essential logistics and supports are required to integrate geoinformatics technology with the existing disease surveillance system. Finally, the policy makers should have long term strategies running the technology efficiently.