

## Culture Dimensions of Information Systems Security in Saudi Arabia National Health Services

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**Abstract :** The study of organisations' information security cultures has attracted scholars as well as healthcare services industry to research the topic and find appropriate tools and approaches to develop a positive culture. The vast majority of studies in Saudi national health services are on the use of technology to protect and secure health services information. On the other hand, there is a lack of research on the role and impact of an organisation's cultural dimensions on information security. This research investigated and analysed the role and impact of cultural dimensions on information security in Saudi Arabia health service. Hypotheses were tested and two surveys were carried out in order to collect data and information from three major hospitals in Saudi Arabia (SA). The first survey identified the main cultural-dimension problems in SA health services and developed an initial information security culture framework model. The second survey evaluated and tested the developed framework model to test its usefulness, reliability and applicability. The model is based on human behaviour theory, where the individual's attitude is the key element of the individual's intention to behave as well as of his or her actual behaviour. The research identified six cultural dimensions: Saudi national culture, Saudi health service leadership, employees' trust, technology, multicultural interactions and employees' job roles. The research also identified a set of cultural sub-dimensions. These include working values and norms, tribe values and norms, attitudes towards women, power sharing, vision, social interaction, respect and understanding, hospital intra-net, hospital employees' language(s) used, multi-national culture, communication system, employees' job satisfaction and job security. The research identified that (a) the human behaviour towards medical information in SA is one of the main threats to information security and one of the main challenges to SA health authority, (b) The current situation of SA hospitals' IS cultures is falling short in protecting medical information due to the current value and norms towards information security, (c) Saudi national culture and employees' job role are the main dimensions playing major roles in the employees' attitude, and technology is the least important dimension playing a role in the employees' attitudes.

**Keywords :** cultural dimension, electronic health record, information security, privacy

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