Critical Evaluation of the Security Awareness Models:
Case Study of UAE Police Department

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Abstract

An organization should aim for a responsible security culture, which should not only focuses on hardware and software but also include the human factors. It is because the combination of both human and software & hardware factors makes the security culture of an organization stronger. Einstein's work, 'Quantum Cryptograph', which allows two or more people to communicate under complete privacy even during the presence of an eavesdropper. This paper evaluates similar area of concern by specifically focusing on one of the police departments of the UAE, which identified the absence of awareness in using information system. Besides, the paper analyses the different information system security awareness approaches in the light of literature to understand their strengths and limitations. The key approaches, models or theories evaluated in this paper include Information System Awareness Capability Model, Information System Policies & Standards, Awareness Programs or Campaigns, and General Deterrence Theory. Based on the identified limitations of each model or theory, a new model is proposed that could overcome the limitations of existing approaches and could be implemented in the police department of the UAE. The finding revealed that there is no single approach of information system security awareness, which can be implemented solely without the support of any other model or standard. Besides, the analysed models are lacking of behavioural factors, which indicates the weaknesses of these models and theories. Therefore, in this work, an improved model is suggested known as 'Information System Security Awareness and Behaviour Competence Model (ISSABCM), which would help in improving the security of information system with respect to both physical security and awareness &behaviour perspectives. It is because the model is integrated with ISO 27002 standards along with the several elements of security awareness, security capability and security risks. The suggested model would also increase the protection of data and information systems in the police department of the UAE.

Keywords

Information System, Quantum Cryptograph, Information System Secuity Awareness