

# Enhancing Security Culture through User-Engagement: An Organisational Perspective

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## ABSTRACT

This paper presents the survey conducted to assess end-user engagement in building organisation's security. A total of forty-eight (48) responses were collected from fifteen (15) mid-sized business organisations and institutions in Tanzania. The results show that little has been done to facilitate end-user engagement in building secure organisation. Also, the survey showed that old security problem such as passwords sharing still exist. The findings from this paper can be used by security officers and implementers within organisation to build and maintain sustainable secure organisation.

## KEYWORDS

Organisation Security, Security Culture, Security, Survey, User Engagement

## 1. INTRODUCTION

Developing countries in Africa are witnessing a notable proliferation of automation in business operations as well as in social media. Operational efficiency, flexibility and convenience fostered by improved ways of data sharing and collaborations are influencing this trend. Despite the benefits, this proliferation amplifies information security problem particularly to business organisations. Protecting information in a ubiquitous computing environment where utilisation of hand held gadgets is on the rise is a challenging task. Thus, organisations have to employ new strategies in order to maintain their security to an acceptable level.

Contemporary information security management paradigms emphasize on attributing security as a priority item for top management in organisations. Among the reasons behind this move is that security agenda should get an organisational-wide support including that of top management. While this vision is arguably a recommendable strategy, lack of concrete focus on users (end-users) jeopardizes efforts to address security challenges. Parallel to that, end-users are increasing using smart portable devices for various activities including accessing social networking portals and organisations' portals. As a result, traditional perimeter defense for business information resources disappear. This lead to increasing attack surface and security challenges.

The fact that people are the weakest link in the security chain necessitates organisations to employ innovative approaches to reduce attack surface. Human behavior such as casualness and lack of proper security awareness can increase to the deepening of the problem. Therefore, a security management approach that builds organisation's security mechanisms around its employees can possibly reduce attack surface.

This paper brings forward a discussion on lessons learnt and experiences in preparing, promoting and ensuring sustainable security culture from business organisations operating in Tanzania. A major focus being end-user engagement practices in the effort to address security challenges facing business organisations.

## 2. LITERATURE ANALYSIS

### 2.1. What is Protected?

According to the ISO/IEC<sup>1</sup> 27002 directive of 2005 - Information Technology - Security techniques - Code of practice for information security management, *information* is an important organisational asset worth protecting. Furthermore, supporting processes, systems and networks are essential assets of the organisation. In the ever increasingly networked business environment, these assets need be protected from a wide range of threats to ensure business continuity and to maintain a competitive in business edge.

In a nutshell, all assets of an organisation (physical and non-physical) can be represented as information. Thus, protecting information assets is protecting the entire organisation from security threats. The Common Criteria, like ISO/IEC 27002,

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