Citizen-centric cybersecurity model for promoting good cybersecurity behaviour

Gilbert Mahlangu Colleta Chipfumbu Kangara & Farai Masunda

Abstract

The ultimate success of cybersecurity partly depends on good behaviours by Internet users. However, good cybersecurity behaviour is a major challenge among citizens because they lack cybersecurity knowledge in the use of the Internet and digital devices and generally, there is a misalignment between attitudes and behaviour of people which creates bristly tension in cyberspace. In an endeavour to promote cybersecurity behaviour, attitudes and behaviour of Internet users should be combined with knowledge. This study builds from the Protection Motivation Theory (PMT) to feed into the development of a citizen-centric cybersecurity model for promoting good cybersecurity behaviour. The theory assumes that threat appraisals and coping appraisals are the two foundational mechanisms underlying behavioural actions when individuals are faced with threatening events; hence, it provided a solid foundation for the conceptual model of the study. The model was tested on data collected from 464 participants. Each of the three independent latent variables (Attitude, Behavioral Intention and Cybersecurity Knowledge) has a P-value less than 0.05 in our situation, indicating that each of the independent latent factors affects Behavior. The findings of this study make a significant contribution both to theory and practice to implement a citizen-centric cybersecurity model.

Keywords: Cybersecurity, citizen-centric cybersecurity.education cybersecurityawareness cybersecurity behaviour