

## Enhancing Cybersecurity Protective Behaviour: Role of Information Security Competencies and Procedural Information Security Countermeasure Awareness

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**Abstract :** Cybersecurity threat have become a serious issue recently, and one of the cause is because human error, which is usually constituted by carelessness, ignorance, and failure to practice cybersecurity behaviour adequately. Using a data from a quantitative survey, Partial Least Squares-Structural Equation Modelling (PLS-SEM) analysis was used to determine the factors that affect cybersecurity protective behaviour (CPB). This study adapts cybersecurity protective behaviour model by focusing on two constructs that can enhance CPB: manager's information security competencies (MISI) and procedural information security countermeasure (PCM) awareness. Theory of leadership competencies were adapted to measure user's perception towards competencies among security managers/leader in the organization. Confirmatory factor analysis (CFA) testing shows that all the measurement items of each constructs were adequate in their validity individually based on their factor loading value. Moreover, each constructs are valid based on their parameter estimates and statistical significance. The quantitative research findings show that PCM awareness strongly influences CPB compared to MISI. Meanwhile, MISI was significantlyPCM awarenss. This study believes that the research findings can contribute to human behaviour in IS studies and are particularly beneficial to policy makers in improving organizations' strategic plans in information security, especially in this new era. Most organizations spend time and resources to provide and establish strategic plans of information security; however, if employees are not willing to comply and practice information security behaviour appropriately, then these efforts are in vain.

**Keywords :** cybersecurity, protection behaviour, information security, information security competencies, countermeasure awareness

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