

## Cybersecurity Protective Behavior in Industrial Revolution 4.0 Era: A Conceptual Framework

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**Abstract :** Adopting cybersecurity protective behaviour among the employees is seriously considered in the organization, especially when the Internet of Things (IoT) is widely used in Industrial Revolution 4.0 (IR 4.0) era. Cybersecurity issues arise due to weaknesses of employees' behaviour such as carelessness and failure to adopt good practices of information security behaviour. Therefore, this study aims to explore the dimensions that might influence employees' behaviour to adopt good cybersecurity practices and to develop a new holistic model related to this concept. The study proposed this by reviewing the existing works of literature related to this field extensively, especially by focusing on the existing theory such as Protection Motivation Theory (PMT). Moreover, this study has also explored the role of cybersecurity competency among the security manager in the organization since this construct is essential to enhance the protective behaviour towards cybersecurity among the employees in the organization. The proposed research model is important to be quantitatively tested in the future as the findings will serve as the input to the act that will enhance employee's cybersecurity protective behaviour in the IR 4.0 environment.

**Keywords :** cybersecurity protective behaviour, protection motivation theory, IR 4.0, cybersecurity competency

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