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Article review #1:

Mitigating Ransomware Risks in Manufacturing and the Supply Chain: A Comprehensive Security Framework

<https://cybercrimejournal.com/menuscript/index.php/cybercrimejournal/article/view/214/81>

Introduction

This article is about how important it is to have comprehensive cybersecurity procedures to protect companies from cyber attacks. It specifically focuses on ransomware assaults in the manufacturing and supply chain networks. This topic relates to the principles of social science because it touches on the importance of an organizational culture in cybersecurity. About how continuing to build a culture that is collaborative and open and continuously putting the work in to learn to be able to maintain a secure environment. The article talks about communication and leadership and how management's communication style impacts the employees understanding to security rules and how important it is to do/teach things the right way and not take shortcuts. Lastly, the article talked about the human behavior and psychology of employees can be influenced through training, incentives, and awareness programs. All in all, this article relates to the principles of social science by touching on the importance of organizational culture, communication, leadership, and understanding human behavior in the context of cybersecurity.

Hypotheses

In this study, there are four hypotheses that are presented, and they explore the relationship between different variables in the context of organizational cybersecurity. The hypotheses emphasize the interconnectedness of employee behavior, adherence to security protocols, and the impact of various organizational factors (training, technological solutions, supply chain resilience, and collaboration) on a company's overall cybersecurity posture. The study's objective is to investigate and validate this correlation through statistical research.

Research Methods

Surveys and questionnaire were the research methods that I found was widely used in this study. The major research approach used in the study was the dissemination of questionnaire to a sample of 246 employees from various companies in Saudi Arabia. By doing this strategy, it slowed the systematic data gathering by ensuring that all participants answered the same set of questions, promoting consistency and reliability in the collected data.

Data and Analysis Done

There were a few types of data and analysis done that were mentioned in this article. They are quantitative data, factor analysis, discriminant validity analysis, measurement model fit analysis, structural model fit analysis, path analysis, and hypothesis testing. The study used an approach that was very thorough and strict to show the relations between all the many factors that influence the ransomware risk mitigation in the manufacturing and supply chain sectors.

Relations to the challenges, concerns, and contributions of marginalized groups

Based off the research that has been done, you will see that there are implications for marginalized groups. This research lines up with broader societal concerns as it stresses the importance on employee training that is inclusive, awareness programs, and technological solutions. It really emphasizes on the importance of digital inclusion, as it recognizes the diversity in digital knowledge in a workforce.

Conclusion

All in all, this article really emphasizes the importance of comprehensive cybersecurity on mitigating ransomware risk within manufacturing and supply chain networks. In relations to the principle of social science, it really emphasizes the importance of communication, organizational culture, leadership, and understanding the human behavior in cybersecurity. The hypotheses show the personal relationships between employee behavior, the organizational factors that affect the posture of cybersecurity, and the adherence to security protocols. The research methods helped us to understand the depth of this data by recognizing the challenges, contributions, and concerns of marginalized groups.

Reference

Aljoghaiman, A., & Kaliani Sundram, V. P. (2023). *Mitigating Ransomware Risks in Manufacturing and the Supply Chain: A Comprehensive Security Framework*. View of mitigating ransomware risks in manufacturing and the Supply Chain: A comprehensive security framework.
<https://cybercrimejournal.com/menuscrypt/index.php/cybercrimejournal/article/view/214/8>

