

Article Review #1: Personality Traits and Cybersecurity Behavior

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Introduction

This article review is based on the “Perceived Security Risks and Cybersecurity Compliance Attitude: Role of Personality Traits and Cybersecurity Behavior”, this study was used to look into how the big five personality traits affect cybersecurity behavior. The study used a quantitative research method to study how the big five personality traits affected cybersecurity behavior and cybersecurity compliance. This study focused on the social sciences side of cybersecurity by focusing on psychology instead of technical measures revolved around cybersecurity practices.

The Social Sciences

The article related to the seven principles of Social Sciences. For relativism, it relates psychology to cyber security. They are studying and using their methods to prove that human personality traits are related to cybersecurity behavior and compliance. The study remained true to objectivity, they kept opinions out of the research and focused on furthering knowledge of psychology and cybersecurity to better understand how cybersecurity policies should be worked. The article showed parsimony by keeping their final explanation simple, they showed that the personality traits did impact cybersecurity behavior and compliance.

The Study

This studies main purpose was to find out how the big five personality traits would affect cybersecurity behavior. The big five personality traits being agreeableness, consciousness, extraversion, neuroticism, and openness were used as the basis to study psychology and how it would influence behaviors and compliance for cybersecurity. The authors of this journal created multiple hypotheses on how these traits affected behavior and compliance, along with how perceived security and privacy risks change the relationship between both behavior and

compliance. In short, they hypothesize that the big five personality traits significantly influenced behavior and compliance and that the perceived security and risks greatly changes the attitude towards behavior and compliance. They had set up a model that would describe how the personality traits go to behavior than compliance attitude, and how perceived security and privacy risk could change it.

The researchers used a quantitative research method to test out their hypotheses, they used 259 people who they would expose to cybersecurity policies. Their independent variable was a diverse group of people to bring in different personality traits. Their dependent variable was how the personality traits would respond to the cybersecurity policies they would expose to them. They use empirical evidence from measuring numerical data on how the behaviors used preventive and promotive practices regarding cybersecurity. With the data they collected they were able to use charts to show numerical values relating to behavior and compliance across all five of the personality traits. The analysis they performed would look at “indicators of reliability and validity such as Cronbach’s Alpha (CA), Composite Reliability (CR), and Average Variance Expected (AVE)” to help measure their data on cybersecurity behavior and compliance (Ghaleb, 2025, p. 12). Through the tables they were too able to form Table 4 showed that behavior and compliance are very heavily associated with the big five personality traits.

Conclusion

With the data gathered from this study the researchers helped further the knowledge of psychology on cybersecurity. It helped emphasize that there is more to cybersecurity than technical countermeasures, and that more focus needs to be put on human interactions. The data showed that the big five personality traits greatly impact user behavior and compliance revolving

cybersecurity. It helped showcase that cybersecurity needs to adopt psychological informed practices into their frameworks to maximize security efforts.

References

Ghaleb, M., & Sattarov, A. (2025). *Perceived Security Risks and Cybersecurity Compliance Attitude: Role of Personality Traits and Cybersecurity Behavior*. International Journal of Cyber Criminology.

<https://cybercrimejournal.com/menuscript/index.php/cybercrimejournal/article/view/438/>

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