

**Article Review #2: Perceived Security Risks and Cybersecurity Compliance Attitude: Role
of Personality Traits and Cybersecurity Behavior**

Student Name: Danielle Williams

School of Cybersecurity, Old Dominion University

CYSE 201S: Cybersecurity and the Social Sciences

Instructor Name: Diwakar Yalpi

Date: November 14, 2025

Introduction/BLUF

Cybersecurity is such a widespread topic to talk about. There are so many different jobs and aspects of cybersecurity that if someone is looking for a particular field they are more than likely going to find it. While that may be true, Ghaleb et al. (2025) broke down the complex field into two simple components: the technology and the human side (Ghaleb et al., 2025, p. 2). It is no secret that humans are not as secure as a computer might be which leads to there being many human error related problems. It is also no secret that humans are also complex creatures that have a mind and personality of their own. According to Ghaleb et al. (2025), a person's personality is the key to how they behave and are going to respond to the rules and regulations (Ghaleb et al., 2025, pp. 2-3). Those topics play a huge role in the way that individuals respond to cybersituations.

Relation and Connection to Social Science Principles

As mentioned up above, technology and humans are both needed for the field of cybersecurity. One cannot work without the other, it's like they are in a relationship. Which is why the social science principle relativism could be applied to the journal article. While on that topic I also think that the social science principle determinism could apply to this journal article as well. The article is talking about the personality and behavioral aspects of a person, determinism is the study of behavior, and I believe that alone allows it to be applied. Furthermore, empiricism could also be applied to the journal article for the same reason: it studies the behavior but in a different way.

Research Question, Hypothesis, Independent and Dependent Variables

In this article there are five hypotheses, "The big five personality traits have a significant influence on cybersecurity behavior", "The big five personality traits have a significant influence

on cybersecurity compliance attitude”, “Cybersecurity behavior significantly mediates the relationship between big five personality traits and cybersecurity compliance attitude”, “ Perceived security and privacy risk significantly moderated the relationship of big five personality traits and cybersecurity behavior”, and “ Perceived security and privacy risk significantly moderates the relationship of cybersecurity behavior traits and cybersecurity compliance attitude” (Ghaleb et al., 2025, pp. 6-11). The research question that can be drawn from all five of those hypotheses is how personality traits and behavior affect cybersecurity and the compliance attitude. The independent variable would be the personality traits and behavior, and the dependent variable would be how the different personality traits and behaviors affect the compliance attitude.

Types of Research Methods Used and Data Analysis

In this article the type of research used was quantitative. The researchers tested 259 workers in their workplace with the goal of analyzing how they behave and react to different cybersecurity situations (Ghaleb et al., 2025, p. 12). The process was implemented with just two steps, the first one was to make sure that everything was in place and that everyone accepted being a part of the experiment. The second step was the actual interactions and studies being done to collect the data from the workers (Ghaleb et al., 2025, p. 12). In some of the results many of the workers had very high scores in two or more personality traits of agreeableness, consciousness, extraversion, neuroticism, and openness which made the researched unable to determine which personality trait and behavior was actively working on the dependent variable (Ghaleb et al., 2025, pp. 15-16).

Connection to Other Course Content

When relating the content of the journal article back to the course content the first thing that stood out was how the sociologists look at the culture, values, and beliefs of different people and see how they affect behavior. I just thought it was interesting how different subjects of cybersecurity can all be hinting and basically talking about the same things. The fact that behavior was a part of the main topic and then was brought up again was what caught my attention. I also think that the overall study of psychology could relate as well. When looking at it psychology studies and tries to understand human behavior, which is kind of what the researchers were doing when looking at how people's personality affects how individuals would respond to cybersituations. Moreover, going back to the human error part from the introduction, I think that could also relate back to the human factors sections with the relations between human and technology.

Connections to the Concerns or Contributions of Marginalized Groups

While some of the research answers did coincide with some of the research questions, it was clear that not everything was met in the research. As Ghaleb et al. (2025) mentioned, the five personality traits do not relate to every personality; it has a very limited range (Ghaleb et al., 2025, p. 23). This is important to take into consideration because if the traits are limited so is the data and how far the experiment can last. To combat this concern researchers are thinking of doing more mixed methods of research, and even wanting to push the research further and wanting to take it to a cross-cultural comparison (Ghaleb et al., 2025, p. 23).

Overall Societal Contributions of the Study and Conclusion

The study was a great way to show that someone's behavior and personality do play a huge role in how they are doing their job. Furthermore, it also goes to show that human error is not as simple as people think. Moreover, having people look at the personality was not

something that I felt played a major factor in job hunting before, but after the study I definitely think it would help filter out characters that would potentially put a system or company at risk because they had a bad day. In addition, personality traits have a direct impact on the willingness of cybersecurity procedures (Ghaleb et al., 2025, pp. 23-24).

References

- Ghaleb, M. M. S., & Sattarov, A. (2025). Perceived Security Risks and Cybersecurity Compliance Attitude: Role of Personality Traits and Cybersecurity Behavior. *International Journal of Cyber Criminology*, 19(1 January-June 2025), 27.
<https://cybercrimejournal.com/menuscript/index.php/cybercrimejournal/article/view/438/124>
- Article Link: [View of Perceived Security Risks and Cybersecurity Compliance Attitude: Role of Personality Traits and Cybersecurity Behavior](#)