

Article Review #1: The Big Five Personalities

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Introduction/BLUF

Personality traits significantly influence cybersecurity behavior and compliance attitudes, and perceived security risk alters the strengths of those relationships. The study examines how the Big Five personality traits (agreeableness, conscientiousness, extraversion, neuroticism, and openness) influence cybersecurity behavior and compliance attitudes. Perceived security risk acts as a moderator by influencing the strength of the relationship between personality traits and cybersecurity behavior and compliance attitudes, and perceived risk.

Relation/Connection to Social Science principles

This study is directly grounded in social science principles, particularly psychology and behavioral science. It applies the Big Five Personality Theory, a foundational concept in personality psychology, to explain differences in cybersecurity behavior and compliance attitudes.

Research Question / Hypotheses / Independent Variable/ Dependent Variable

- **Research Question:**

How do the Big Five personality traits influence cybersecurity behavior and cybersecurity compliance attitudes, and what roles do cybersecurity behavior (as a mediator) and perceived security risk (As a moderator) play in that relationship?

- **Hypothesis:**

H1: The Big Five personality traits significantly influence cybersecurity behavior.

H2: The Big Five personality traits significantly influence cybersecurity compliance attitude.

H3: Cybersecurity behavior mediates the relationship between Big Five personality traits and cybersecurity compliance attitude.

H4: Perceived security risk moderates the relationship between Big Five personality traits and cybersecurity behavior.

H5: Perceived security risk moderates the relationship between Big Five personality traits and cybersecurity compliance attitude.

- **Independent variables:**

Big Five Personality Traits, agreeableness, conscientiousness, extraversion, neuroticism, openness

- **Dependent variables:**

Cybersecurity behavior, cybersecurity compliance attitude

Types of Research methods used

This research used a quantitative research design. Data was collected through a structured survey questionnaire distributed to employees, making it cross-sectional study. The researchers

then analyzed the numerical data using Structural Equation Modeling (SEM) to test the proposed relationships and hypothesis.

Types of Data Analysis used

This research used a quantitative methodology, collecting cross-sectional survey data from participants. The authors applied Structural Equation Modeling (SEM) to examine the relationships among personality traits, cybersecurity behavior, compliance attitudes, and perceived security risk.

Connections to other Course Concepts

This study connects to course concepts related to empirical research and evidence-based analysis. The researchers relied on empirical data collected through survey responses from 259 employees and used statistical modeling to test their hypotheses.

Connections to the Concerns or Contributions of Marginalized Groups

Although there is no focus on marginalized groups, by showing that personality differences affect compliance attitudes, the research highlights the importance of designing cybersecurity training that accounts for individual variability rather than using a one-size-fits-all approach.

Overall societal contributions of the study/Conclusion

The overall societal contribution of the study is that it reframes cybersecurity as a psychological and behavioral issue rather than just technical. The study contributes to society by encouraging organizations to design more effective, evidence-based cybersecurity training programs tailored to individual personality types.

Reference

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).

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