

**Personality traits and cybersecurity compliance**

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### **principles of the social sciences**

This article relates to social sciences because it focuses on human behaviors rather than just computer code or hardware. In social science, we study how people's internal traits and their environment influence their actions. This study looks at “social determinism,” which is the idea that our actions like following security rules are determined by our personality and how we perceive the world around us. Instead of looking at cybersecurity as a IT problem, the author treats it as a behavioral science problem.

### **study's research question, hypotheses, IV and DV**

The main research question of this study is how do the “big five” personality traits affect whether an employee will follow cybersecurity rules at work? The authors had several hypotheses, but the main ones were that personality traits like conscientiousness would lead to better security behavior, and that how much risk a person feels or perceives would change how they act.

Independent Variable: The big five personality traits of agreeableness, conscientiousness, extraversion, neuroticism, and openness.

Dependent Variable: Cybersecurity compliance attitude. The person's willingness to follow the rules.

### **types of research methods used**

The researchers used a quantitative research method. They didn't just guess, they used a survey to get data from 259 different employees working in various organizations. This is a common social science method because it allows researchers to collect a lot of data from a specific group of people to see if there are patterns in how they think and act.

### **the types of data and analysis done**

The data collected was numerical data from survey scales like 1-5 scales. To analyze this data, they used a method called structural equation modeling (SEM) using a software called STATA. They first checked if their survey questions were reliable.

Confirmatory Factor Analysis) and then tested the relationship between the variables to see if their hypothesis were correct. They found that their model explained a very high percentage over 75% of why people behave the way they do regarding security.

### **how concepts from the PowerPoint presentations relate to the article**

This article connects directly to our class PowerPoints about “Human factors in cybersecurity.” In class, we discussed how humans are often the “weakest link” in a security chain. This article explores that exact concept by looking at the “Big five” personality traits, which we often see in psychology and social sciences lessons. It also sees the theory of planned behavior, which is a concept we’ve looked at to explain why people choose to either follow or ignore safety protocols.

### **how the topic relates to the challenges, concerns and contributions of marginalized groups**

The article relates to the challenge of marginalized groups by showing that not everyone reacts to security training in the same way. If an organization uses a “one size fits all” training program, it might not help people who have different personality traits or who come from different backgrounds where they might not have had as much exposure to tech. For example, people who score high in “neuroticism” might feel more anxious about security, and if the training is too aggressive, it could actually make them less effective. The study suggests that training should be more personalized to help everyone, regardless of their personality type.

### **the overall contributions of the studies to society**

The overall contribution of this study is that it helps organizations create better, more “human-friendly” security policies. By understanding that personality plays a huge role in compliance, society can move away from just blaming “bad users” and start creating training that actually works with the way people think. This helps keep data safer for everyone and reduces the amount of cybercrime that happens because of simple human mistakes.

### **Conclusion**

In conclusion, the article by Ghaleb and Sattarov proves that cybersecurity is just as much about people as it is about technology. By studying the big five personality traits and how they influence behavior, the researchers showed that we can predict who might struggle with security rules. This is important for the future because it allows us to build better training programs that can protect our society from cyber threats by focusing on the human element.

### References

**Article Source:** 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), 27-53.  
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