# The review of use of simulations in economic cybersecurity decision-making(Article Review #1)

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#### How the topic relates to the principles of the social sciences:

The topic of cybersecurity is from the perspective of economic decision making. It relates to the principles of social sciences as it involves understanding human behavior. Social sciences examine how individuals and organizations make their decisions, manage resources and interact with a societal framework. Cyber Security decision making requires a little bit of analyzing economic factors. Like budget allocation of

digital assets.

#### The study research questions of hypotheses:

The study likely explores questions like "How do economic factors influence cybersecurity decision making?" The answer to this question is that economic factors play a significant role in influencing cybersecurity decisions making and different organizations should carefully balance out factors to protect their digital assets effectively while maintaining financial stability. But the economic decision making framework can improve the efficiency of cybersecurity investments or poor quality of data significantly

impact cyber security decisions.

#### Types of data and analysis done:

The data used in the study could include financial records of cybersecurity budgets, incident reports and qualitative data from different expert interviews. Also some analysis might involve economic modeling to simulate different types of budget allocation scenarios, statistical analysis to identify trends and patterns and thematic analysis of qualitative data to extract insights on decision making processes.

#### How the topic relates to the challenges:

There several challenges and concerns in cybersecurity such as the rapid technological development, cognitive limitations and the lack of skilled workforce. The study aims to tackle these challenges by

providing a structured approach to budget allocation and risk management. It mostly highlights the importance of overcoming disciplinary barriers and the need for high quality data to make informed decisions.

### **Concepts from the PowerPoint presentations relate to the article:**

One thing I did notice while reading the option was that it did talk about human behavior and decision making. In the module 5 powerpoint it talked about Psychodynamic Theory and Cyber Offending Developed by Sigmund Freud, Suggests that early experiences in life influence behavior and Few studies have applied the theory to cybercrime, though tenets of the theory potentially explain some types of cybercrime. Also it talked about how people focus on the way individuals perceive, interpret, think and process information based on their Cognitive processes.

## Work cited page

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decision-making-https://academic.oup.com/cybersecurity/article/11/1/tyaf003/8011238?searchresult=1

Integrated Model of Cybercrime Dynamics: A Comprehensive Framework for Understanding Offending and Victimization in the Digital Realm-<u>https://vc.bridgew.edu/ijcic/vol7/iss2/4/</u>