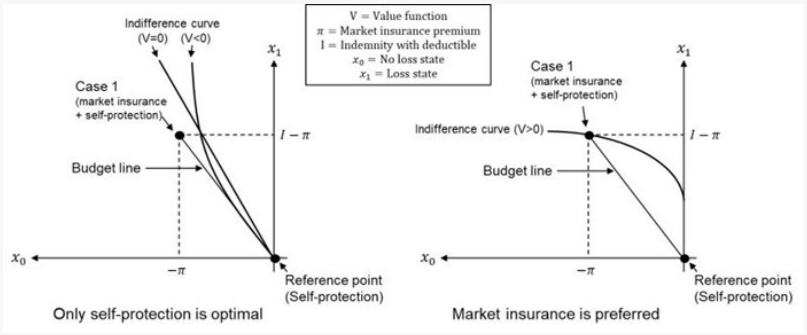
The influence of optimism bias and loss aversion of cyber risk management decisions

USA, August 27, 2024
/EINPresswire.com/ -- The research contributes to the understanding of how optimism bias and loss aversion can skew risk awareness and risk management decisions, emphasizing the need for comprehensive strategies that address these biases to enhance resilience against cyber threats.



The left panel displays indifference curves describing the optimality of staying on the reference point, whereas the right panel shows the indifference curve of the preference for cyber-insurance.

We are excited to announce the publication of the first article on the KeAi journal, Risk Sciences, by renowned experts on cyber risk management, Martin Eling from University of St. Gallen and Kwangmin Jung from Pohang University of Science and Technology.

The research article explores the influence of optimism bias on decision-making in cyber risk management, and introduces a novel model that integrates utility loss aversion — a previously unexplored factor in this context. The study finds that decision-makers who have self-protection as their primary reference point tend to underinvest in additional cyber risk management measures, providing support for the optimism bias observed in the cyber-insurance market. Additionally, individuals with higher levels of loss aversion demonstrate a reluctance to invest in supplementary cyber risk mitigation strategies.

Taken together, these findings offer an explanation for the low demand for cyber-insurance. This lack of investment not only affects corporate risk management strategies, but also has broader consequences for public policy and the management of systemic cyber risks that can have substantial economic and societal impacts. By introducing the concept of utility loss aversion, the study sheds light on the cognitive underpinnings that drive decision-making in cyber risk management, providing valuable insights for policymakers, businesses and individuals alike.

DOI
10.1016/j.risk.2024.100001

Original Source URL
https://doi.org/10.1016/j.risk.2024.100001

Lucy Wang
BioDesign Research
email us here