

# : *What is a robust decision support quantitative model?*

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Some quantitative models provide very different results when assumptions are violated and when model parameters are poorly estimated or incorrect. These models are hyper-sensitive and they are not robust. Robustness implies that the complexity of a quantitative model has only a small impact on the quality of the solution it produces. Simple models can yield robust results and solutions.

'Robust' is a characteristic describing a model's ability to effectively perform while its variables or assumptions are altered. A robust quantitative model can provide useful solutions under a variety of conditions.

Investopedia explains "Robustness can relate to both economic and statistical concepts. For statistics, a test is claimed as robust if it still provides insight to a problem despite having its assumptions altered or violated. In economics, robustness is attributed to financial markets that continue to perform despite alterations in market conditions. In general, being robust means a system can handle variability and remain effective." Read more:  
<http://www.investopedia.com/terms/r/robust.asp#ixzz3XdQrN1NB>

"Robust Decision Making is a decision support tool that is used in situations of deep uncertainty, i.e. in the absence of probabilistic information on scenarios and outcomes." from  
<https://weadapt.org/knowledge-base/adaptation-training/module-robust-decision-making>

## References

Decision Modelling and Information Systems: The Information Value Chain  
By Nikitas-Spiros Koutsoukis, Gautam Mitra

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