

HEURISTICS AND COGNITIVE BIASES IN DECISION MAKING PROCESS

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EXTENDED ABSTRACT

The goal of this paper is to recognize the most commonly present heuristics and cognitive biases occurring during managerial decision making process. The study will use simulation game as a space to track how game participants are perceiving their biases and heuristics during the game. The purpose of the study is to identify the most commonly used cognitive biases and heuristics in decision making process and compare them to performance of the team and their decisions in the simulation game, which will give valuable insights that can improve game-based business learning.

Decision making is one of the crucial processes occurring every day in every organization. The process of making decisions in business situations is influenced by a variety of different circumstances, thus the subject is widely discussed in both academic and professional publications. The subject of heuristics and cognitive biases was widely introduced into decision making science by David Kahneman and Tversky (Tversky & Kahneman, 1973) and furtherly researched by other authors (Baron & Hershey, 1988); Griffin, D., Gonzalez, R., & Varey, C., 2001). In 2011, David Kahneman, Dan Lovallo and Oliver Sibony in their article "The Big Idea: Before You Make That Big Decision..." published in Harvard Business Review listed a checklist for managers to avoid cognitive biases in their decision making process. The most common cognitive biases in managerial decisions are: confirmation bias, availability bias, anchoring, halo effect, overconfidence, disaster neglect and loss aversion (Kahneman & Sibony, 2011). Mentioned above biases are widely common in managerial decision making process and worth examining in an experimental learning environment of a simulation game.

The data collection consists of a survey conducted among undergraduate students (n= 100) during classes based on a management simulation game. In the game participants are managing their own virtual company in teams from 3 up to 5 people. After each one of the decision rounds students receive a short questionnaire about possible heuristics and cognitive biases that they may have encounter during decision making process in the simulation game. The questionnaire is based on a mentioned above managerial checklist adjusted by the author to the game environment. The data is collected after each of the decision rounds, which gives a possibility to track changes in decision making process throughout the whole life of the virtual companies. As a result, correlations between survey results, game score and decisions will be analyzed to show which heuristic/ confirmation bias is the most present during different stages of the game and how it affects both game performance and differences in participants' decisions.

REFERENCES

- Baron, J., & Hershey, J. C. (1988). Outcome bias in Decision Evaluation. *Journal of Personality and Social Psychology*, 54(4), 569–579.
- Frederick, S. (2002) Automated choice heuristics. In T. Gilovich, D. Griffin, and D. Kahneman, *Heuristics and Biases: The Psychology of Intuitive Judgment*, Cambridge University Press.
- Griffin, D., Gonzalez, R., & Varey, C. (2001) The heuristics and biases approach to judgment under uncertainty. In A. Tesser and N. Schwarz, *Blackwell Handbook of Social Psychology: Intra individual Processes*. Oxford: Blackwell.
- Kahneman, D., & Sibony, O. (2011). Before you make that decision... *Harvard Business Review*, (March 2010).
- Tversky, A., & Kahneman, D. (1973). Availability: A heuristic for judging frequency and probability. *Cognitive Psychology*, 5(2), 207–232. [https://doi.org/10.1016/0010-0285\(73\)90033-9](https://doi.org/10.1016/0010-0285(73)90033-9)