Making Good Decisions: An Attribution Model of Decision Quality

TREO Talk Paper

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Abstract

Decision-making is a fundamental activity for all individuals. Decisions have become more complex and more time-intensive as a result of the transformation process from data to big data. Thus, businesses are increasingly relying upon systems that are specifically designed to help facilitate complex decision-making, namely decision support systems (DSSs) and big data analytics (BDA). However, individual decision-makers who are leveraging decision support technology are experiencing highly varied decision quality outcomes (Davern, Mantena, & Stohr, 2008; Sharda, Barr, & McDonnell, 1988).

Many decision quality studies to-date examine decision quality using a priori models, which are based on the theoretical tenets already established in the literature, to understand the constructs which affect objective decision quality. This approach assumes that a correct answer exists and can be used to compare to the actual answer and obtain the level of decision quality. It also assumes that if the decision outcome is good then the decision itself was good. However, in an ambiguous environment with many input variables, these assumptions may not be realistic.

A less-explored approach and an alternative to the a priori method is to let the decision-makers' observations and experiences be the guide to determining the factors which they attribute to the decision quality. This method focuses on the decision-maker's judgements and beliefs. The established theoretical tenets as well as the context of complex business decisions as supported by technology were considered to establish and support the research model. The point of view of that model focuses on what the decision-maker observes and believes about the decision-making process and how she/he arrives at the outcome. The research question is; what are the causal factors assigned by individual decision makers in the context of complex decision tasks when supported by technology?

Attribution theory is used to address the research question because it’s concerned with how each individual interprets events and how that relates to their behavior (Heider, 1944; Hughes & Gibson, 1987). It begins with an outcome and uses processes to assign a degree of success or failure as well as to determine causal factors of the outcome. Once an individual determines causation about their behavior, actions can be taken to predict and improve the resulting outcomes (Kelley, 1967; Snead, Magal, Christensen, & Ndede-Amadi, 2015). Studies have shown that interventions into the attribution process can alter causal beliefs and alter achievement-related performance (Weiner, 2010). This will be particularly effective since the causal attributions defined in the study are from the perspective of the decision-makers themselves as opposed to an objective point of view.

To investigate perceived decision quality within a context of complex decision-making when supported by technology, this study considers task-technology fit (TTF), intolerance for ambiguity, and two conceptualizations of self-efficacy

References

Available upon request.