

Information Delivery and Context in Online Decision Support

TREO Talk Paper

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Abstract

Consumers are increasingly making highly complex purchases - such as health insurance - online, using decision tools widely adopted by e-commerce vendors. Generally, when making health insurance choices, consumers are driven by price heuristics and, also, frequently make those decisions in the circumstances of increased perceived health risk. Considering that certain decision tools – such as non-compensatory (NC) tools – are, by their design, aligned with price heuristics, it would be valuable to examine whether making such a purchase with an NC tool indeed has a positive effect on consumer's decision quality; and, furthermore, whether being under high perceived risk can affect the effectiveness of the tool.

Decision support research has so far largely focused on decision tool design and choice set (or attribute set) size in their effect on user's decision quality, with less attention paid to the way the choice set is delivered to the user. That is, the format of the output, and how decision tool design can play a role in it, and output content (characteristics). Furthermore, little research has examined the role of specific decision contexts - salient to the purchase decision or task - in decision quality as well as the interaction between the user and the tool at the cognitive level, such as the user's decision approach pertinent to the choice. This study addresses these issues by examining the impact of output format and output content – here, *information delivery* - of a NC tool where the alternatives are sorted by price (Descending and Ascending) and a customization-based tool (here, *Financial* tool), on user's decision quality (measured as price paid and extent of attributes purchased). It further investigates the moderating role of decision context (high perceived risk) and user's decision approach (price heuristics) in the effects of tool usage.

Drawing from decision under high perceived risk, decoy effect, price order effect, and options framing, this research carries out 2 studies: 1) 2x3; and 2) 2x3x2 full factorial between subjects experiments. Study 1 manipulates perceived risk (high vs low) and decision tools (choice sets with asymmetrically dominated alternatives - NC Descending with: High Price Anchor vs Low Price Anchor vs No Anchor). Study 2 manipulates perceived risk (high vs low), decision tools (NC Descending vs NC Ascending vs Financial) and measures user's decision approach (price heuristics-driven strong vs weak).

Preliminary results of Study 1 demonstrate that output content characterized by price anchoring differentially affects user's decision quality, whereby the user purchases an option with the highest price and with the largest extent of coverage when a high price anchor is present. This effect holds under high perceived risk but not under low perceived risk, suggesting the decision context and the nature of the alternatives – the extent to which they resonate with the user – can moderate this effect. Preliminary findings of Study 2 indicate that usage of the NC Descending tool has a negative impact on decision quality (highest price paid), and usage of NC Ascending and Financial tools have a positive impact (lower price paid). All effects hold for users under high perceived risk, while there is no difference between NC Descending and NC Ascending tools on decision quality for users under low perceived risk. The usage of the tools also does not differentially influence decision quality for users driven by price heuristics.

The study contributes to research in a) IS, by examining the roles of output format, output content, and tool design in user's decision quality as well as the interaction between information delivery, decision context and user's decision approach; and b) boundaries of reference dependence, thus, loss aversion.