Judgement bias in medical device recall decisions

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(HealthDay)—The characteristics of the signal in user feedback of

adverse events associated with medical devices and the situated context of decision makers correlate with judgement bias in reacting to these adverse events, according to research published online Jan. 29 in *Production and Operations Management*.

Ujjal Kumar Mukherjee, Ph.D., from the University of Illinois at Urbana-Champaign, and Kingshuk K. Sinha, from the University of Minnesota in Minneapolis, developed an integrative theoretical framework for identifying the sources of judgment bias in product recall decisions in response to reports of adverse events. User-generated reports (big and unstructured data) on adverse events related to medical devices were analyzed using a combination of econometric and predictive analytic methods.

The researchers found that noisy signals in user feedback (i.e., high noise-to-signal ratio) correlated with the likelihood of under-reaction; user feedback related to high severity adverse events correlated with a likelihood of high over-reaction. Conditions related to the situated context of managers that correlate with the likelihood of under- and over-reaction were also identified.

"The findings of this study are consequential for firms and government regulatory agencies in that they shed light on the sources of judgment bias in recall decisions, thereby ensuring that such decisions are made correctly and in a timely manner," the authors write. "Our findings also contribute towards improving the post-launch market surveillance of products (e.g., medical devices) by making it more evidence-based and predictive."

More information: Abstract
Full Text (subscription or payment may be required)