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The Role of Cognition and Affect in the Evaluation of Discontinuous Innovations

A Quasi-Experimental Analysis of Online Review Data

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Understanding the quality evaluation process for discontinuous innovations is key to identify the drivers of innovation adoption and therefore a prominent topic in IS research for decades. More recently, research suggested that cognition and affect are major predictors in this process (Wood & Moreau, 2006). However, research on this topic predominantly focuses on pre-adoption experimental studies using student samples and thus lacks on generalizable findings in how cconsumers are making product quality judgements in a post-adoption setting (King & He, 2006; Straub & Burton-Jones, 2007). New insights in understanding this phenomenon can be derived from studying the quality evaluation process of online reviews (Mudambi and Schuff, 2010). Drawing on online review data of PlayStation games on Amazon.com (N=35,459), the authors show with a quasi-experiment that product reviews of discontinuous innovations (virtual reality games) are more negative than reviews of continuous innovations (US top 100 games). The authors employ text-mining (LIWC, Pennebaker et al., 2007) and show that reviews on discontinuous innovations are also more likely to contain words referring to cognitive than affective (e.g. positive and negative emotion) content. The analyses of cognitive and affective content words further reveals that cognition (affect) dominates poor (good) quality ratings. Thus, the authors suggest that product innovativeness affects product quality evaluations through cognitive and affective processes, whereas cognitive (affective) processes dominate quality evaluations of discontinuous (continuous) innovations. Using Hayes (2012) PROCESS-macro, the authors find evidence for their hypotheses. The findings are congruent with recent studies on innovation adoption which suggest that consumers tend to rely on cognitive (affective) information processing when evaluating discontinuous (continuous) innovations, because they are less (more) likely relying on past experience and product category knowledge (Wood & Moreau, 2006; Zhao et al., 2012). Alternative explanations are ruled out by additional analyses showing that online reviews of VR games contain more performance-related than gameplay-related product attributes, contain more words referring to the present than past, contain more words in general, and more words per sentence. Our research contributes to the innovation adoption literature by examining the dynamics of cognitive and affective information processing in product quality judgements of discontinuous innovations using real-world data and also gives implications for marketers and game publishers.

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