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The Cue-Of-The-Cloud Effect: When Cues of Online Information Availability Increase Purchase Intentions and Choice

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Cues that highlight the presence of online product information are commonplace in offline purchase settings. Four studies, including a field study, show that these cues can enhance purchase intentions and choices. This occurs, because the cue makes consumers feel at ease in processing product information that is directly at hand.

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EXTENDED ABSTRACT

Cues that highlight the presence of online product information are commonplace in offline purchase settings. For instance, salespeople or signage at retail stores mention product websites. We refer to such reminders as a ‘cue-of-the-cloud,’ and we examine the downstream consequences of these cues on consumers’ offline decision making. While past work has shown how reminders of the presence of online information have negative consequences (Sparrow, Liu, and Wegner 2011), we propose and find that when consumers absorb relatively large amounts of unfamiliar product information in offline purchase settings, a reminder of online content can enhance purchase intentions and choices. This occurs even when consumers do not visit the online site. We show this effect across four studies, including two studies that take place in a real purchase setting.

Our theoretical framework proposes that this “cue-of-the-cloud effect” is driven by a sense of cognitive ease. A reminder of the presence of online information enhances consumers’ feeling that the currently given information is easy to process. More specifically, when absorbing abundant product information that could demotivate or confuse (Eppler and Mengis 2004; Jacoby 1977, 1984; Malhotra 1982), a cue-of-the-cloud leads consumers to feel that even if they do not know this information themselves, they can conveniently get this information externally. The information is “up there,” in the cloud, and it need not be stored locally, in one’s own mind. In turn, this reduced burden increases the sense of ease with handling the information, because the mind is freed up to address the information directly at hand. Importantly, we argue that this feeling of cognitive ease should be less likely to actualize when cued by non-Internet-related sources of information (e.g., reading printed brochures). We contend that the Internet is an extensive and omnipresent information source, and therefore may serve as an especially powerful cue of information availability (Ward 2013).

In our studies, we also demonstrate boundary conditions of the effect and replicate past findings of a negative influence of a cue-of-the-cloud (Sparrow et al. 2011). We compare the effects of a cue-of-the-cloud in low and high information environments, in which consumers are absorbing abundant (vs. relatively little) product information during the offline purchasing decision. The positive effect of a cue-of-the-cloud on purchase intentions and choices is more pronounced in high information environments. In contrast, we show that in low information environments, a cue-of-cloud can actually diminish purchase intentions and choices, because the cue draws attention to the limited amount of information offered with the product.

Study 1 was a field study at a winery involving a 2 (product information: low-detail vs. high-detail) X 2 (cue-of-the-cloud vs. no-cue) between-subjects design. Customers were greeted by winery staff who either told a lot of details about the wine, or very little detail. In another between-subjects manipulation, customers were either reminded that the winery’s information was available online, or no such reminder was provided. This cue occurred before the wine information was presented. Consistent with our prediction, we observed a significant two-way interaction between the manipulations ($F(1, 129) = 8.59, p < .01$). In the high-detail script, average revenue per customer was higher with the cue ($M = \$25.28$) versus without the cue ($M = \$14.20; t(129) = 6.89, p < .01$), but this effect was at-

tenuated (and directionally reversed) with the low-detail script ($M_{\text{Cue}} = \$10.86$ vs. $M_{\text{No-Cue}} = \$18.95$).

In Study 2, we sought to demonstrate that a cue-of-cloud has a more pronounced effect on purchase intentions compared to a cue of a non-Internet information source. Customers at a winery festival were presented a sampling and information about a new wine before responding to a survey. In a three-cell between-subjects manipulation, customers were told either that (i) the wine information is online, (ii) the wine information is available in a printed sheet, or (iii) no cue was provided. Customers rated purchase intention for the focal wine (7-point scale) and indicated (yes/no) whether the sampling provided sufficient explanation about this wine. Customers that perceived the given information as sufficient in explanation showed greater purchase intentions in the cue-of-the-cloud condition ($M=5.46$) versus the information sheet ($M = 4.97$) and no-cue ($M = 4.60$) conditions. In contrast, customers that thought that the given information was insufficient had lower purchase intentions in the cue-of-the-cloud condition ($M = 3.86$) versus the other conditions ($M_{\text{No-cue}} = 4.18, M_{\text{Info-sheet}} = 4.39$).

Study 3, involving a scenario about a sleep aid product, demonstrated how consumers interpret an unspecified cue-of-the-cloud that merely mentions a website and how altering statements that accompany the cue could moderate the effects. We measured purchase intentions after presenting product information and the cue-of-the-cloud, both manipulated between-subjects. In high-detail conditions, purchase intentions were higher with an unspecified cue-of-the-cloud ($M_{\text{Cue}} = 4.86$ vs. $M_{\text{No-Cue}} = 3.89$), but this effect was reversed in low-detail conditions ($M_{\text{Cue}} = 3.76$ vs. $M_{\text{No-Cue}} = 4.14$), similar to our earlier studies. Further, study 3 showed that an unspecified cue-of-the-cloud, which only mentions the *presence* of a website, is by default interpreted as a cue that the *same*, given information is available to access online. When we presented a cue indicating that even *more* product information is available online, then this mentioning of the website actually reduced purchase intentions.

Study 4 tested the process mechanism through a mediation analysis. Participants read a winery scenario, similar to study 1, and indicated their intention to purchase wine. In high-detail conditions, purchase intentions were higher with the cue-of-the-cloud ($M_{\text{Cue}} = 5.92$ vs. $M_{\text{No-Cue}} = 4.68$), but this effect was attenuated in low-detail conditions ($M_{\text{Cue}} = 5.36$ vs. $M_{\text{No-Cue}} = 5.20$). The mediation analysis supported a serial mediator model; when provided a lot of wine information, the cue-of-the-cloud enhanced perceived information availability, which enhanced cognitive ease, which in turn enhanced purchase intentions.

Taken together, this work demonstrates how the Internet can affect consumers’ information processing, purchase intentions, and choices in offline settings. Our results can help managers by providing guidelines regarding when a cue-of-the-cloud is a suitable tactic, taking into account the types of consumers targeted, the information environment, and other elements of the purchase context.

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