Promoting Interactive Decision Aids on Retail Websites: A Message Framing Perspective with New versus Traditional Focal Actions

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Abstract

Online retailers significantly benefit when consumers use interactive decision aids (IDAs). In this study, we investigate how to best design messages that promote IDA use. Using an extended message framing perspective, we propose that messages about consumers' traditional action (searching) increase usage intentions more than messages about the new action (IDA use). Results from two experiments confirm that this holds across both high and low involvement categories and in particular when the traditional action frame is combined with a loss outcome. We also demonstrate that familiarity with the message's focal action mediates this effect.
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The continuing growth of online retailing has vastly increased the variety of product and service choices available to consumers. A potential downside for consumers is that it becomes increasingly difficult to find all relevant product options or service configurations. As a result, they run the risk of making sub-optimal purchase decisions or even of getting so overwhelmed by the variety that they revert to inaction. In response, many retailers introduced online decision aids to assist consumers in their search process (e.g., BNET-Editorial 2007; eMarketer 2009).

Decision aids can roughly be classified into passive ones that do not require active consumer participation for generating recommendations (e.g., collaborative filtering methods, expert or peer evaluation listings, etc.), and *interactive* ones that require consumers to actively state their preferences or needs to obtain personalized recommendations (e.g., Häubl and Trifts 2000; Murray and Häubl 2008). Examples of such interactive decision aids (IDAs) include a whole range of software tools such as comparison matrices, recommendation agents, and ordering and ranking tools (Gupta, Yadav, and Varadarajan 2009; Häubl and Trifts 2000; Kramer 2007; Xiao and Benbasat 2007). For example, *Walmart* and *Costco* respectively offer the interactive "Computer Finder" and "PC Finder" where consumers are asked to answer a few questions to help them find the PC that best matches their needs. IDAs are also offered in other product categories such as *Land's End* virtual model, and the *Bank of America's* online home loan guide to name a few.

In contrast to passive decision aids, IDAs require active consumer participation and cannot be integrated easily in the traditional search process. This may explain why passive decision aids are successfully implemented on many retail websites, whereas IDAs are facing difficulties in getting accepted (Murray and Häubl 2008). Yet, retailers significantly benefit when consumers adopt IDAs. IDAs can help to increase revenue because they allow retailers to successfully leverage customer information which may facilitate the offering of custom products or of products at discriminatory prices, and help in innovating or modifying existing products at lower costs (Dewan, Jing, and Seidmann 2000; Fuchs and Schreier 2011). IDAs also save on costs of acquiring new customers because they more easily retain existing ones (Senecal and Nantel 2004). A prime reason is that IDAs allow consumers to make better decisions with no or

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little additional effort compared to traditional ways of searching and promote consumer engagement in the search process (e.g., Ariely, Lynch, and Aparicio 2004; Franke and Schreier 2011). This, in turn, contributes to increased satisfaction, which is important for customer loyalty and retention (Aksoy et al. 2006). However, in order for retailers to reap these benefits, it is crucial to convince consumers that IDA use is a viable alternative to traditional ways of searching (cf. Grewal and Levy 2009).

Somewhat surprisingly, doing so often proves to be a major challenge. Consumers seem to exhibit strong tendencies to use established routines of searching and are reluctant to change it (Johnson, Bellman, and Lohse 2003; Johnson et al. 2004; Ratchford, Talukdar, and Lee 2007). In addition, due to the power law of practice which states that practice improves individuals' proficiency in a task by becoming more efficient in a familiar environment (Johnson et al. 2003), consumers can become locked-in to a particular action (Bhatnagar and Ghose 2004; Murray and Häubl 2007), although a new action might be easier to use and generate better results. Also perceptions of poor performance on usefulness and ease-of-use may lower consumers' evaluations of IDAs, and hence their adoption (Technology Acceptance Model; Davis 1989; Davis, Bagozzi, and Warshaw 1989; Komiak and Benbasat 2006; Venkatesh and Davis 2000; Xiao and Benbasat 2007). Similarly, consumer characteristics (such as personal innovativeness) can affect the speed of adopting innovations (Innovation Decision Process Theory; Rogers 1995) (see also Mathwick, Wagner, and Unni 2010).

In this study, we investigate an additional potentially important aspect in the adoption of IDAs, which is how IDAs can be promoted effectively. Previous research has shown that the persuasiveness of the communications that promote new technological tools are a significant predictor of trial and adoption (Mahajan, Muller, and Bass, 1990), and message framing research has shown that different ways of promoting a specific behavior can impact consumer's perceptions and intentions towards this behavior (e.g., Chen, Monroe, and Lou, 1998; Levin, Schneider, and Gaeth, 1998). Thus far, the focus in message framing research was on instances where single actions are promoted, with frames only stressing a single action (as compared to inaction). Online retailers, however, face a case where consumers need to trade-off two alternative actions, that is, the new interactive aided search process versus the traditional way of searching for products or services by themselves.[4] Many retailers currently focus on promoting the benefits that consumers gain from using IDAs (e.g., *Walmart* states that the "Computer Finder" "*filters our extensive assortment in just a few easy steps*" and *Costco* states "*This interactive guide can help you find the best choice that fits your lifestyle.*"). However, instead of promoting IDA use, retailers can also emphasize the consequences of engaging in the traditional action, that is, searching by themselves. Although prior message framing research has recognized that linguistic variations in the frame's action may be perceived

differently and may influence the strength of the frame's effect (Levin et al. 1998), it has ignored the focal action as a message frame dimension or has confounded it with other dimensions.

Our main contribution is to explicitly explore the effects of a message frame's focal action (i.e., a focus on the new approach of using the IDA versus the traditional approach of searching by oneself) on the frame's persuasiveness to increase consumers' IDA usage intention. We also investigate the underlying process for finding differences between message frames with a different focal action. In particular, we propose that due to consumers' greater familiarity with self-search relative to using IDAs, message frames that focus on the former are likely to be more effective. Finally, many retailers offer IDAs for both low and high involvement categories (e.g., www.consumerreports.com), and prior message framing research shows that involvement may moderate the impact of loss versus gain framing (Maheswaran and Meyers-Levy 1990; Meyers-Levy and Maheswaran 2004). Therefore, we explore if a message's focal action frame can attenuate previously found moderating differences, and if the same action frame can be used successfully to promote IDAs for high and low involvement categories.

Theoretical background

Message framing can be used to promote a behavior by influencing the persuasiveness of a message that consists of the outcomes when (not) engaging in that particular behavior (Levin et al. 1998). Previous research across diverging – albeit typically health-related – domains has shown that message framing can stimulate a variety of behaviors, such as using sunscreen or eating low cholesterol food (e.g., Block and Keller 1995; Meyers-Levy and Maheswaran 2004).

In the classical goal framing paradigm, Levin et al. (1998) distinguish between positive and negative frames (Fig. 1, panel A). A positive frame stresses the favorable behavioral outcomes of complying with the advocated behavior (*gains* of approaching X). A negative frame stresses the unfavorable behavioral outcomes of noncompliance with the advocated behavior (*losses* of avoiding X) (Levin et al. 1998; Zhao and Pechmann 2007). In our case, a positive frame may state that one gets professional expert advice and support in locating the most-suitable products when using the IDA and a negative frame may stress the risk that one is left alone to evaluate all the available products in an unstructured manner when not using the IDA.

Previous message framing research has shown that negative frames are more persuasive than positive ones (e.g., Maheswaran and Meyers-Levy 1990; Meyerowitz and Chaiken 1987). However, it largely focused on single action frames (sole focus on behavior X). Yet, particularly in a new technology setting such as the introduction of an IDA on a retailer's website, individuals compare this new action to their traditional, more familiar action (searching by oneself). Therefore, the cost–benefit trade-off related to the new technological tool needs to outweigh the cost–benefit trade-off connected to an individual's traditional action. This opens up two avenues for retailers to promote a new technological tool: they can 'market' the new technological tool, or they can 'de-market' the traditional action (cf. Kotler

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[4] Passive decision aids can be used in combination with both interactive aided and traditional search processes and are thus assumed to not affect consumers' choices between these two actions. We control for this in our experiment.