

Regulatory Mode and Acceptance of Online Recommendations

Despite the prevalence of online product recommendations, extant literature regarding their effectiveness is inconclusive. Drawing on regulatory mode theory, we argue that the conflicting findings may be attributed to individual differences among consumers. Two experiments show that individual differences in regulatory mode (focusing on task completion vs. focusing on the task process) play an important role in determining the effectiveness of online product recommendations. We demonstrate that those who focus on task completion (i.e., locomotion-oriented consumers) are more likely to perceive a recommendation as useful, and subsequently are more likely to accept the retailer's recommendations. However, consumers who focus on the process of decision-making (i.e., assessment-oriented consumers), are less affected by product recommendations when making product choices online. These findings contribute to a better understanding of when and how product recommendations influence consumer decisions in online purchases.

Keywords: online product recommendations; regulatory mode; locomotion orientation

Introduction

In an online shopping environment, marketers often facilitate customers' product purchases by providing product recommendations (e.g., 'recommended,' 'you may also like,' 'staff pick,' 'we recommend') (Zhang et al., 2018). Despite the prevalence of online product recommendations, findings regarding their effectiveness are disputed and at times contradictory. There is a need for additional research to identify when and for whom product recommendations are appropriate. We demonstrate that the effectiveness of product recommendations is critically dependent upon individual differences in regulatory mode orientation (i.e., how individuals approach goal pursuit).

Conceptual Background

Product recommendations can have positive effects. For example, recommendations can increase choice quality under information overload (Aljukhadar et al., 2014), reduce the cognitive effort in decision-making (Zhang et al., 2011), and reduce uncertainty surrounding a decision (Aljukhadar et al., 2014). However, some retailers are afraid that product recommendations generate reactance among customers, resulting in a *backfire* effect (Aljukhadar et al., 2017). This reactance is the result of a perceived threat to a consumer's sense of freedom and autonomy. Indeed, research has shown that recommendations can induce reactivity, leading to choice avoidance (Lee & Lee, 2009) or reactive behavior, such as choosing a non-recommended product (Fitzsimons & Lehmann, 2004). Thus, identification of the factors which increase, decrease or moderate the effectiveness of recommendations is warranted.

We propose that individual differences in regulatory mode orientation affect responses to online product recommendations. Regulatory mode theory suggests that consumers differ in two distinct motivations for goal pursuit: locomotion and assessment orientation (Kruglanski et al., 2000). Locomotors are focused on getting things done; assessors like to compare and analyse options. Because locomotors (vs. assessors) are more motivated to complete tasks quickly and thus less likely to evaluate alternatives (Webb et al., 2017) and they consider fewer alternatives (Kruglanski et al., 2000), the relative salience of a retailer's recommendation may be stronger. Thus, we propose H₁: locomotion (vs. assessment) orientated consumers are more likely to accept online product recommendations. Furthermore, people experience regulatory fit when the environment in which they pursue a goal sustains (vs. disrupts) their regulatory mode orientation (Higgins, 2000, 2006). Thus, we propose H₂: perceived usefulness mediates the relationship between locomotion and acceptance of an online product recommendation.

Study 1

Study 1 tests whether the relationship between a product recommendation and the selection of that product is stronger among locomotors (vs. assessors). Participants ($N = 280$, 72.6% female, $M_{\text{age}} = 28.18$, $SD = 9.05$) were randomly assigned to one of two (regulatory mode: locomotion vs. assessment) x 2 (recommendation: present vs. absent) between-subjects conditions. Regulatory mode was manipulated in accordance with commonly used procedures (Avnet & Higgins, 2003). Next, participants were shown 3 images of similar, non-gendered shoes. The products had different prices. The product recommendation was randomly shown alongside 1 of the 3 product options. Participants then indicated their intention to purchase either Product A, B, C or none. Selection of the recommended product was used as the dependent measure.

Results: Process Model 1 (Hayes 2017) was used to test for an interaction between recommendation and regulatory mode upon recommendation acceptance. The main effects of both regulatory mode ($b = -.26$, $SE = .40$, $p = .513$) and product recommendation ($b = -.02$, SE

= .39, $p = .954$) were not significant. However, the interaction effect was significant ($b = 1.08$, $SE = .55$, $p = .049$). When a product recommendation was present, participants in the locomotion condition (44.6%) were more likely to accept product recommendations than those in the assessment condition (26.2%, $b = .82$, $SE = .37$, $p = .029$). However, when a product recommendation was absent, there was no difference in the choice of target product (21.9 % vs. 26.7%, $b = -.26$, $SE = .40$, $p = .513$). These results support hypotheses 1.

Study 2

Study 2 was designed to replicate and extend upon Study 1. We used a trait-based measure of regulatory mode, while examining perceived usefulness of the recommendation as a theoretical account for the effect. Participants ($N = 210$, 43.8% female, $M_{\text{age}} = 39.77$, $SD = 12.86$) were randomly assigned to one of two conditions: with recommendations either present vs. absent. We provided three product alternatives from 2 product categories (headphones and vitamin C). Regulatory mode was measured rather than manipulated (Kruglanski et al., 2000). As in Study 1, the recommendation was randomly shown alongside one of the three product options and selection of the recommended product was used as the dependent measure.

Results: Headphones: In the recommendation condition, regression showed that locomotors were more likely to accept the recommended headphones ($b = .50$, $SE = .25$, $z = 2.04$, $p = .041$), while no relationship was found between assessment orientation and recommendation acceptance ($p = .810$). Vitamin C: The same pattern was observed for the vitamin C products. Locomotion orientation (including covariates) increased acceptance of the recommended vitamin C ($b = .51$, $SE = .25$, $z = 2.01$, $p = .044$), while there was no relationship between assessment orientation and product recommendation acceptance ($p = .927$). In the no-recommendation conditions ($N = 106$), neither locomotion or assessment orientations were associated with recommendation compliance. H_1 was supported. To test perceived usefulness as a processing mechanism for the effect, a mediation model (Process Model 4, Hayes, 2017) was run for the headphones and vitamin C categories. In the headphones task, the indirect effect was significant (indirect = .24, 95% CI = [.053, .660], 5,000 resamples). In the vitamin C task, the indirect effect was significant (indirect = .21, 95% CI = [.018, .623], 5,000 resamples). Thus, both product categories supported the perceived usefulness mediation hypothesis (H_2).

Implications for Theory & Practice:

Findings regarding the effectiveness of product recommendations are inconclusive. Studies suggest that recommendations increase sales and revisit intent (Zhang & Bockstedt, 2020). Meanwhile, an alternative perspective proposes recommendations increase psychological reactance and are therefore counter-productive (e.g., Aljukhadar et al., 2017; Lee et al., 2010; Lee & Lee, 2009). We show that an individuals' regulatory mode orientation plays an important role in the acceptance of online recommendations. We demonstrate that compliance significantly varies depending on individual differences in regulatory mode orientation. Across multiple product categories and price points, the findings suggest that locomotion leads to greater acceptance of online recommendations (i.e., choosing to purchase the recommended products). Compliance with recommendations is important, given retailers may recommend higher profit margin products or overstocked products. We also demonstrate the underlying mechanism. Locomotors find product recommendations to be more useful. This perceived usefulness predicts recommendation acceptance. This effect was not observed for assessors.

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