

# Evaluating Products with Signals of Opportunity and Threat in Online Ratings

## Abstract

Consumers, as they navigate online to buy products, along with average rating and text reviews, often use rating distributions (e.g., bar graphs showing % of reviews for each star rating on Amazon) in the process of evaluation. The dissertation proposes a model of customer rating based product evaluation. For a given level of average rating, the model predicts whether consumers will prefer alternatives with less risky (i.e., low variance) or riskier ratings. The proposed model is based on prospect theory's principle of reference dependence. With its novel mechanism of reference point (target level of outcome) selection, the model explains important findings in the literature (e.g., consumers prefer riskier ratings when average ratings of alternatives are high) that existing reference dependent models cannot. Selection of reference point in the new mechanism, unlike in its counterpart in existing models, is informed by the modal probabilities of rating distributions. The proposed model's predictions and its mechanism of reference point selection find support in the results of a series of experiments. Of theoretical relevance, the essay revises existing perspectives with a range of insights into the process underlying risk preference. Of managerial relevance, riskier ratings are likely to help sales at high positive (well above category average) and negative (very low) average ratings but hurt sales at average ratings in between.

Keywords: Risk, Reference Point, Rating Distribution, SP/A Theory, Prospect Theory