

MISQ Archivist

Online Product Reviews: Is a Finer-Grained Rating Scheme Superior to a Coarser One?

Murat M Tunc, Huseyin Cavusoglu, and Srinivasan Raghunathan

Abstract

Product review platforms in online marketplaces differ with respect to the granularity of product quality information they provide. While some platforms provide a single overall rating for product quality (also referred to as single-dimensional rating scheme), others provide a separate rating for each individual quality attribute (also referred to as multidimensional rating scheme). A multidimensional rating scheme is superior to a single-dimensional rating scheme, *ceteris paribus*, in reducing consumers' uncertainty about product quality and value. However, we show that, when sellers respond to product ratings by adjusting their prices, compared to the single-dimensional rating scheme, the multidimensional rating scheme does not always benefit consumers, nor does it necessarily benefit the sellers or the society. The uncertainty associated with quality attribute rating and the extent of differentiation between competing products determine whether a finer-grained multidimensional rating scheme is superior to the coarser-grained single-dimensional rating scheme from the consumers', sellers', or a social planner's perspective. The main driver of the results is that the more (less) granular and less (more) uncertain information exposes (hides) underlying differentiation, or lack of it, between competing products, which, in turn, alters the upstream price competition in the presence of heterogeneous consumer preferences. The results demonstrate that focusing on the information transfer aspect of rating schemes provides only a partial understanding of the true impacts of rating schemes.

Keywords: Online product reviews, competition, retail platforms, analytical modeling, economics of IS