Assessing the Relative Weight of Various Facets of Quality: An Empirical Study of Online Product Reviews

TREO Talk Paper

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Abstract

Online reviews now serve as a major source of information for buyers. These reviews are usually in the form of a numerical star ratings and are often accompanied by text comments. Typically expressed on a one to five scale, the numerical portion of reviews attracts much attention as it is presumed to reflect general product or service quality as experienced by prior purchasers. Nonetheless, as intuition as well as prior research suggest, quality is not a unidimensional phenomenon, rather, it’s an abstract concept with multiple facets. Among the major facets, or “dimensions” of quality are performance, durability, aesthetics, reliability, and value for money. Depending on the type of product and the context in which it is used, each of these facets of quality may carry different weights from the perspective of consumers. Hence, although easy to capture and display, the unidimensional measure of quality employed by most review systems has limited capacity in capturing and conveying quality-related information.

This study aims at understanding the makeup of a typical unidimensional star quality rating by decomposing it to its more basic underlying facets. Assuming that unidimensional star reviews capture buyers’ “overall” perception of quality, the goal of this research is to understand the relative weight of various facets of quality that form this overall rating. The study also investigates the possible interaction between different attributes of the product being rated and the relative weight of different dimensions of quality. To empirically investigate this topic, we use a dataset from a seller that unlike most others, in addition to capturing and displaying consumers’ overall quality rating, captures and presents various subdimensions of quality. Our data therefore provides us with a valuable opportunity to “unbox” the overall quality rating to reveal its more basic components. From a theoretical perspective, this research is one the few to look at the subdimensions of quality as captured by overall product ratings. From a practical standpoint, the research unveils those aspects of quality that matter the most to consumers, thus enabling sellers to focus their quality improvement efforts on those aspects of quality that are likely to enhance users’ overall perception of product the most.