

The Effectiveness of Online Reputation Score under Silence Bias

Completed Research Paper

Lirong Chen, Chang Chen, Qiang Li and Wenli Li

Abstract

Online reputation systems suffer from the silence bias: Most consumers do not report after shopping. The reputation score aggregated by consumer rating may not reflect the real quality of the product. In this paper, we study whether the silence bias decreases the effectiveness of the reputation score. To answer this question, this study proposes a new criterion: If the reputation score accurately reflects the relative quality of competing products, it is effective. We formulate a model of consumer reporting behavior and compare relative reputation scores under different reputation models in use. We find that the effectiveness of reputation score depends on consumers' reporting propensity.

Key words: Reputation system, effectiveness, silence bias, underreporting bias