

# Reputational Mechanism in Consumer-to-Consumer Online Commerce

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## INTRODUCTION

The emergence of the Internet is, in many ways, an historically similar event to the industrial revolution; it has fundamentally changed the cost of transmitting, presenting, and processing information. However, the new means of transmitting and presenting information do not insure its quality. Early in the Internet development, asymmetry of information presented a significant challenge to the adaptation of the Internet in consumer-to-consumer commerce. However, with the help of simple, intuitive, and transparent instruments such as customer review or rating mechanisms, consumer-to-consumer online commerce has been able to overcome this potentially serious obstacle and flourish, changing the way consumers shop.

## BACKGROUND

### Asymmetry of Information

Asymmetry of information occurs when the parties involved in a transaction have different access to the relevant for the transaction information. The issue of asymmetry of information has been studied by economists for many decades. In 2001, George Akerlof shared the Nobel Prize in economics with Michael Spence and Joseph Stiglitz for their monumental work in the area of asymmetry of information in economics. His groundbreaking work formulated the problem on the example of used car sales, Akerlof (1970). When selling a used car, the seller knows far more about the car than a perspective buyer, putting the buyer into

a position of disadvantage. The asymmetrically distributed information not only puts the party with less information at a disadvantage but also creates a disincentive for that party to participate in the transaction. This latter characteristic can threaten the growth and development of an impacted market.

In online consumer-to-consumer commerce, the issue is magnified by the fact that there are two channels for the emergence of asymmetry of information. First, in most cases, the perspective purchasers may not have any direct way of examining the goods they intend to acquire online. Second, historically, buyers have been required to submit payments prior to the seller delivering the item. This dynamic implies that the buyer has to rely on the seller for the accuracy of the item's description and compliance with the terms of transaction.

The success of online consumer-to-consumer marketplaces, including one of the largest such platforms – eBay, serves as an excellent and innovative example of addressing the problem of asymmetry of information. Typically, a consumer-to-consumer website merely serves as the platform for its users to sell/purchase various goods and services. This limited role places the burden of compliance with the terms of transaction on the individual participants and therefore presents the possibility of asymmetry of information.

### eBay Rating Mechanism

eBay is perhaps the largest and most recognized consumer-to-consumer website today. eBay is set up as a platform for third party users to sell

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their goods. eBay corporation merely serves as the marketplace and brokers the trades, but the actual compliance with the terms of transaction is left up to the individual users. By this setup, eBay exposes its users to potentially serious asymmetry of information issues, including the accuracy of item description and compliance with the terms of transaction, such as shipping the product, selecting the correct shipping option, shipping it in a timely fashion, etc. The problem is further highlighted by the customary requirement that the buyer submits the payment prior to the seller shipping the item. Despite the obvious nature of the problem, eBay has become a flourishing consumer-to-consumer platform with the quarterly gross merchandise trade approaching nearly 22 billion dollars in the fourth quarter of 2015 (eBay, 2016).

eBay was able to overcome the asymmetry of information problem by creating a simple and intuitive user rating mechanism. In February of 1996, just six months after the launch of the website, eBay introduced its rating system, back then, referred to as feedback (eBay, 1996). After completing a transaction on eBay, each party can rate the performance of the other along three choices: positive, neutral, and negative. eBay converts these individual responses into a continuous variable, the eBay rating, which is simply the difference between the number of positive and negative responses. This rating is then displayed next to the user's id. In the case of sellers, it is easily visible on every listing they place on eBay.

The eBay rating of a user only captures responses left by those users with whom the user had transactional experience on eBay. This reduces the ability of manipulating someone's rating. Furthermore, although eBay users can rate each other after every transaction, the rating only measures responses left by unique users. This implies that if two users participate in multiple transactions between themselves and place multiple positive responses about each other, these multiple responses will count as one, because they are left by the same user. This characteristic of the eBay rating mechanism further enhances the ability to resist manipulation.

Over time, the rating mechanism underwent some changes. Today, each seller's auction not only displays the overall value of the seller's rating, but it also reports the percentage of positive responses. In addition, buyers have the ability to rate sellers on various individual aspects of transaction experience. These may include the accuracy of item description, the quality of communications, expedience of shipping, and shipping and handling charges.

The simplicity of the mechanism not only makes the process of evaluating someone's performance on eBay easy, but it also makes the interpretation of the rating mechanism rather straightforward. This is particularly important for sellers. For buyers, the rating is arguably less important (Melnik and Alm, 2002). The seller's overall rating conveys the information about the net number of praises left by other unique users who had transaction experience with this seller. Thus, the rating can serve as a signal of reputation, and thereby help address the problem of asymmetry of information and promote trust (Resnick and Zeckhauser, 2002).

Other online consumer-to-consumer platforms have developed their own, similar to eBay rating mechanisms. One example is Yahoo Auctions. During 1998 – 2007, Yahoo competed with eBay in the auction space (in the U.S. market) and employed a rating mechanisms that was similarly constructed (Melnik, 2011).

## **SOLUTIONS AND RECOMMENDATIONS**

### **Empirical Evidence**

A rising price (English design) auction outcome can be analyzed as a two-step process. First, an auction may or may not result in a sale. Second, if an auction results in a sale, then its price is determined by the willingness to pay of the bidder with the second highest willingness to pay (assuming there are more than one bid). This

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