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Chapter XIV

Reputation, Reputation System and Reputation Distribution — An Exploratory Study in Online Consumer-to-Consumer Auctions

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ABSTRACT

Reputation is an important organization asset, particularly in the era of e-commerce. In an online consumer-to-consumer (C2C) auction market, a trader's reputation sends an important signal to his/her trading partners in their decision-making on C2C transactions, due to the nature of the anonymous transaction process. While prior research has shown that reputation systems,

such as eBay's Feedback Forum, facilitated buyer-seller transactions, several fundamental issues with the transaction mechanism remained unclear. Based on the empirical reputation data directly collected from eBay.com, we find that the distribution of reputation scores can be approximated in a geometric function. We analyze the formation of the distribution with a stochastic process model. The computer simulation using the Monte Carlo approach further validates the findings of the empirical study.

INTRODUCTION

The advent of e-commerce has brought about a new era, in which our daily life has undergone profound revolutions in social and economical aspects. However, Internet fraud in online marketplaces, rooted in the effect of information asymmetry (Akerlof, 1970), has been wearing away consumer benefits from the e-commerce. By the end of year 2000, about 31% of online American users participated in online auctions, and 41% of them encountered fraud-related problems. According to fraud.org (http://www.fraud.org), the total loss in 2001 from Internet fraud almost doubled that of 2000. The average loss per person increased about one third in the same period. In the last three years, online auction has remained the leader of 10 top scams. In particular, the fraud in "Nigerian money offers" increased nine times in 2001 (see AARP.org, 2002). As online auction traders have been faced with vital risks from frauds in online transactions, the vulnerable consumer trust could be easily hurt. This could be the main reason why 69% of American Internetters still keep a distance from online auctions (Selis, Ramasastry & Wright, 2001).

Because online trading allows anonymous transactions, an invisible, guileful trader may easily defraud his trading partners to exploit more benefits, and then may change his identity because of the cost in reputation damage. To promote safer online trades, some online market providers, such as eBay, have offered online reputation reporting services for its traders. A reputation reporting service system can provide up-to-date reputation status of a trader, normally in the numerical scores. According to Friedman and Resnick (2001), the higher a reputation score, the higher the cheating cost to the trader, and the lower the probability the trader will cheat. Therefore, a trader's reputation score sends a critical signal to his trading partner in estimating the risk of trading. The reputation reporting service is apparently one of the important factors leading to the fast growth of C2C online businesses. In this chapter, we present the outcomes of an empirical research on online reputation and its distribution, using the data directly collected from eBay.com. The research is intended to examine the nature of reputation, such as its distribution and formation, in order to provide the empirical evidence and basis for further exploring the effect of reputation on perceived risk and trust.

The chapter is organized as follows. First, we present a brief literature review on reputation research; second, we summarize recent research progresses in online