We conducted three experiments to examine the role of reputation in alleviating the problem of lemons in an Online market, and found the following results: 1) information asymmetry drives the experimental market among anonymous traders into a lemons market in which only the lowest quality goods are traded, 2) either experience-based information or reputation about other traders moderately alleviates the lemons problem when traders’ identities are permanent, 3) the power of experience-based information or reputation as a solution to the problem of lemons is substantially reduced when traders can freely change their identities and cancel their reputations, 4) the negative reputation system that is designed to reveal dishonest traders is particularly vulnerable to identity changes, whereas the positive reputation system designed to reveal honest traders is not so vulnerable to identity changes, 5) negative reputations are more effective than positive reputations in the short run, but are less effective than positive reputations in the long run.

Key words: lemons market, agency problem, information asymmetry, reputation, online trade, experiment