

AUTHORS

SWAPNEEL MEHTA
AARON NICHOLS
NINA MAZAR
MARSHALL VAN ALSTYNE

Truth Warrants Can Accelerate Sales in Digital Marketplaces



Boston University Questrom School of Business

INTRODUCTION

Reputation Mechanisms in Digital Markets

Financial Escrow for Seller Accountability

Behavioral Experimentation

Two-sided marketplaces suffer from an **information asymmetry** problem where the prospective buyers of a good cannot determine its quality before they purchase it.

This allows sellers to take advantage of consumers through **misleading advertising** that seeks to inflate product quality in order to profit from sales at a higher price.

Reputation systems that were designed as a **feedback mechanism** to limit such an outcome are circumvented because market reentry can occur at a negligible cost to sellers.

REPUTATION SYSTEMS ARE NOT ROBUST

The "market for lemons" problem (Akerlof, 1970) remains central to understanding reputation system failures, where sellers exploit information asymmetry to offload low-quality goods through misleading product offerings that fool buyers.

Resnick et al. (2000) identified three prerequisites for effective reputation systems:

1. Accurate feedback
2. Long-term participant identities
3. Resistance to manipulation

Modern marketplaces violate all of Resnick's assumptions, as evidenced empirically by Amazon's 2023 interception of 7 million counterfeit products despite a \$1.2B anti-fraud investment, only growing to 15 million counterfeit products intercepted in 2024 (Amazon, 2023; 2024). We model this in an interactive experiment with human participants in a two-sided market like Amazon:

Identity Cycling and Accountability Evasion: Negligible cost of market reentry enables reputation arbitrage, where sellers abandon compromised identities and relaunch under new accounts. Sellers optimize profit cycles around platform suspension timelines [Dellarocas' (2003) "reputation reset" framework].

DESIGNING INTERACTIVE DIGITAL MARKETS FOR BEHAVIORAL EXPERIMENTATION

The screenshot shows a user interface for a digital marketplace. At the top, there is a title 'Checkout Champions' with a subtitle 'THE HONEST AND CHEATING SELLERS CHAMPIONSHIP IN THE WORLD OF TRADE AND COMMERCE'. Below this, there are two sections: 'PRODUCER' and 'CONSUMER'. The 'PRODUCER' section shows a person sitting at a desk with a laptop, and the 'CONSUMER' section shows a person standing. A large orange button at the bottom right says 'START'. Below the interface, a dark purple bar reads '2-SIDES: PRODUCERS AND CONSUMERS'.

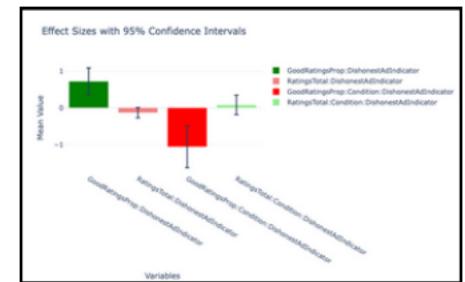
The screenshot shows a grid of six product cards. The top row contains 'Party Hats' for \$10 each. The bottom row contains 'High Quality Cutlery' for \$12 each. Each card includes a 'BUY THIS CART' button and a detailed description of the product, including a star rating and a green 'ADD TO CART' button.

Below the grid, a dark purple bar reads 'CONSUMERS MAY BUY PRODUCTS'.

The screenshot shows a producer dashboard with a title 'Producers! 🌟'. It features two buttons: 'Keep Current Brand' (Lulu) and 'Switch to a new Brand' (Maya). Below the buttons, a message asks if the user is ready to become the top producer. A blue 'GO' button is at the bottom right. Below the dashboard, a dark purple bar reads 'PRODUCERS MAY ADVERTISE DECEPTIVELY AND REBRAND TO "RESET REPUTATION" NEXT ROUND'.

RESULTS

COMPARING REPUTATION AND WARRANTS



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truthmarket.com
swapneel@bu.edu

