Entrepreneurial Resource Allocation and Internet-based Consumer Reviews

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Purchasing goods as a consumer is an uncertain act. The good may not last as long as the consumer expects. Other measures of quality also may fall short of the consumer's expectations. Additionally, the seller might outright defraud the buyer. Word of mouth is one way to attempt circumventing this problem. Before buying something or going out to eat at a restaurant, people often talk to their friends who have bought similar products in the past. Not too long ago, the only additional means consumers had of acquiring third-party information on goods were newspapers, magazines, and television. Today, in the digital age, this process of evaluating potential purchases is radically transformed. At the click of computer mouse one can read countless reviews of the company one is considering a purchase from, or the restaurant one is thinking about eating at. Due to the vastly lowered cost of producing and acquiring reviews, they have become an important feature of the market economy. What one could only gain access to years ago by buying a newspaper, magazine, or watching a television program, can now be accessed instantaneously at very low marginal cost.

This paper examines these how these reviews effect entrepreneurial decision making and the shifting of resources in the economy. In particular, this paper examines how reviews of individual sellers on Amazon.com affect market outcomes. For those unfamiliar, the popular online retailer Amazon.com allows individuals to set up an account and attempt to sell goods on the actual Amazon website. Once a consumer purchases a good from an individual seller (as opposed to Amazon itself), they can rate their buying experience. These reviews are similar to and will be examined alongside reviews like those on Yelp.com for restaurants and other businesses. One advantage the example of Amazon individual seller reviews has over, for example, restaurant reviews, is that a reviewer must actually buy a product from a particular seller in order to review that seller. With the application of restaurant reviews, there is the confounding possibility that a reviewer did not actually go to the restaurant (and may in actuality be a competitor (more on this below in the cultural section).

The reviews are found to reduce consumer error and increase the probability of *ex post* satisfaction. This paper also examines the internet review phenomena in light of "the market as a ballot box" metaphor used by Mises (2008 A, 271) and Fetter (1905, 212). The paper also briefly examines the cultural prerequisites for internet reviews to succeed in enhancing consumer preference satisfaction. A key finding of this paper is that internet-based consumer ratings, with respect to consumer *ex post* satisfaction, are the closest thing to a time machine that currently exists. The central focus is how internet based ratings systems reduce error in resource allocation by more quickly identifying the good and bad entrepreneurs.

A More Efficient Allocation of Resources

In the market economy the buying and abstaining from buying of consumers is the ultimate decider of where resources go. The entrepreneurs may appear to be the ultimate decision makers about where resources will go, but they only steer the ship. Consumers are the captain calling the orders. Capitalists, entrepreneurs, and managers do not ultimately decide who is to produce goods and what goods will be produced (Mises, 2008 A, p. 270). Consumers make these decisions. When businessmen fail to properly listen to the orders of consumers, they are removed from their position at the helm (Mises, 2008 A, p. 270). Their resources are bid into more productive, consumer-satisfying uses. In this way, the market activity of consumers works to put resources into the hands of those best capable of satisfying consumer preferences and remove resources from those least capable.

One aspect of reality that hampers this process is that consumers make mistakes. Additionally, anyone who has engaged in purchasing goods knows that sometimes they do not come as advertised. Sometimes goods are of poor quality. Sometimes the seller is slow to ship the product (as with internet transactions). Lastly, sellers can outright cheat a buyer. In sum, *ex post* satisfaction is not a sure thing. The failure of a good leave a consumer satisfied may be the consequence of an incompetent entrepreneur/seller. Thus, if consumers have a tool that allows them to reduce error in their purchases and more easily identify the bad from the good entrepreneurs, their "orders" to helm will improve. The result is that better entrepreneurs will be selected for the job of steering the ship. Good entrepreneurs will more speedily amass resources and the bad entrepreneurs will more speedily be starved of resources. Thus, if consumers could better identify the best entrepreneurs, resource allocation as a whole would improve. Consumer preferences would be satisfied more efficiently and the economy would grow more quickly.

Until recently, word of mouth, newspapers, magazines, and television programs were the only ways for consumers to communicate to one another about their good and bad experiences exchanging with various sellers on the market. The internet has revolutionized this consumer communication process. Consumer internet ratings on websites like Amazon.com and Yelp.com have vastly improved the ability of people to communicate about their consumption experiences. This improvement in communications has far reaching consequences in terms of how efficiently resources are allocated in the economy. Far more products and businesses have consumer reviews now than ever before. This means that no matter what product or service a consumer is looking for, he can almost always find reviews online. It also means that there are likely to be reviews written by people who have very similar preferences to him (rather than reviews written by a newspaper reporter or critic who may have disparate preferences). Consumer can therefore seek out highly specific information from people like themselves who have actually used the products they wish to buy. It is almost as if internet-based consumer ratings are a time-machine. If a consumer finds a review written by somebody who was in their precise position in the past, it is as if they themselves have already made the decision and get another shot at it. If the past decision by the similar consumer (the reviewer) was successful, the present consumer can replicate it. If the past decision made by the reviewer was unsuccessful, the present consumer can try something else. In this way, consumer ratings prevent mistakes from happening. Thus, the ratings prevent consumers from wasting resources. Less waste means that society as a whole is more prosperous. Ratings turn out to be a very valuable tool for dealing with uncertainty.

These attributes of internet based consumer ratings mean that fewer consumers will have to purchase a good from a bad entrepreneur before word gets out that he is in fact unlikely to provide *ex post* satisfaction. It also means that the superior entrepreneurs will be easier for consumers to locate. Each transaction with an incompetent entrepreneur that doesn’t take place because of an online consumer review represents resources that are withheld from wasteful, wealth-destroying activities. Likewise, each transaction made with a good entrepreneur because of online ratings represents resources that will (likely) be put into wealth-creating activities. In this way the wise entrepreneur rises more quickly to his position at the helm, directing resources here and there. Similarly, the bad entrepreneur is more quickly ousted.

One of the efficient outcomes of the ratings system is that it better satisfies consumer preferences by aligning buyers more willing to bear uncertainty with sellers charging a lower price. Consumers with more willingness to bear uncertainty are compensated for this by the ability to select a seller with a lower rating (or fewer rated sales). This seller must charge a lower price in order to compete with sellers of like products who have higher ratings.

The Market as a Ballot Box: You Get to Vote Twice!

A common metaphor for the market is that every penny spent is vote cast for a particular entrepreneur. Frank Fetter (1905, p. 212) writes that the "market is a democracy where every penny gives a right of vote." Mises ([1949] 2008 A, p. 271) clarifies the metaphor by writing that

> "it would be more correct to say that a democratic constitution is a scheme to assign to the citizens in the conduct of government, the same supremacy the market gives them in their capacity as consumers"

The "market as a ballot box" metaphor as Fetter states it is, Mises describes, backwards.[1] Notwithstanding, the metaphor is a highly useful rhetorical device for describing market activity given the rampant frustration with politics.

Mises ([1952] 2008 B, p. 11) goes on to describe the actual process of how consumers buying and abstaining "from buying elect the entrepreneurs in a daily repeated plebiscite as it were." Just as political elections decide who gets an office, the market election determines "who should own and who not, and how much each owner should own" (2008 B, p. 11). The multitudes of sellers on Amazon are all trying to be "elected" by consumers. Each consumer's decision has the consequence of determining who will own and who will not. Every time a seller brings a good to market, then packages and ships it, he is confronting a new trial. The judge is the consumer.

[1] Huerta de Soto (2009, p. 203) also identifies the more common account of this metaphor as backwards. From this he deduces that "the most perfect direct democracy only will be reached once the free market is also extended to the areas currently covered by governments through a constellation of overlapping voluntary and competing private agencies, associations and corporations."

Now, with the high prevalence and low cost of internet-based consumer ratings, the voting takes place in two forms. The first is just as Mises elucidates. The businessmen must convince consumers to buy their products. The second form of voting takes place *ex post* in the form of the ratings system. Such a system was technologically unfeasible during the time of Mises and is one of the many wonderful advancements made possible by years of capital accumulation. Once the consumer receives the product, he can then rate the seller. The buyer thus has a chance to vote a second time. While it is true that the second vote does not directly confer resources upon the seller, it does have a significant impact on the seller's future revenue from other customers. So the second vote confers resources into the possession of the seller indirectly. The higher the rating a consumer gives a business on an online rating site, the higher the probability that future potential consumers will give their first vote to the entrepreneur. Given that entrepreneurs are first and foremost seeking monetary profit, the first is the one that matters most. The second vote (consumer review) is only valuable insofar as it influences future potential consumers to buy the good. As such, the second vote significantly influences the flow of resources. Consequently, the ratings can have a sizable effect on the efficiency with which resources are allocated in the economy.

The fact that the buyer incurs a cost when rating the seller is slightly problematic. Fortunately for future buyers, the rating process is incredibly fast - just a few clicks and a few sentences of typing. One consequence of the extra effort required on behalf of the buyer is that the seller must put in extra effort himself to increase the likelihood that the buyer will click the five-star button. Regardless, this additional voting via the ratings system greatly aids future consumers by reducing the uncertainty they have to bear in making their purchases (the decision of whom to buy from itself being an entrepreneurial one). So, the consumer's sovereignty is increased and seller-entrepreneurs are kept in check, and even more "speedily reduced" or more quickly exalted by the buyers (Mises, 2008 B, p. 13).[2] To induce buyers to give good ratings, entrepreneurs have an additional incentive to go above and beyond in their attempts to satisfy consumers. Because the ratings do take time on the part of the consumer, entrepreneurs who merely satisfy as expected are less likely to receive ratings. This means entrepreneurs now have even more incentive to satisfy consumers to the very best of their abilities. The second vote provides this additional incentivizing boost. This development in consumer's ability to evaluate sellers and communicate this information to potential future buyers at very low cost strengthens Mises "ballot of the market" metaphor.

Consumer Reviews are a Time Machine

Mises (2008 B, p. 11) notes that choosing, whether between entrepreneurs to exchange with or between politicians to vote for, is always forward looking. He states that "there is no experience of the future" (2008 B, p. 11). While this is fundamentally true, consumer reviews can paint a detailed picture of what a consumer is likely to experience in the future if he chooses a particular seller on Amazon or restaurant to eat at. In this way, reviews partially alleviate the uneasiness and uncertainty of decision making for the consumer. Furthermore, the reviews can me likened to a time machine. Consumer X can read reviews written by consumer Y who, based on his user profile (or some analogous communication of personal information) is very similar to consumer X. Thus, it is as if X can travel to the future, after he has made the purchase, evaluate his *ex post* satisfaction, and then travel back to the present where he can choose to actually make the purchase or not. Of course, since it wasn't the actually consumer X who who experienced the

[2] While it is true the word "sovereignty" can be carry the connotation of interpersonal violence, it is used here solely to indicate the purely voluntary influence consumers have over the production process. See Rothbard ([1962] 2009, pp. 631-636) for further discussion.

ex post effects of the purchase, there is still some room for error. Even given the room for error, the amount of reviews written each day boggles the mind. There is bound to be at least one (if not hundreds or even millions depending on the product) of reviews written by consumer Y who is using a product in almost the identical way consumer X plans to in the future. As a consequence of the quantity and pervasiveness of internet-based consumer reviews, they are the closest thing to a time traveling machine that currently exists.

Property Rights

Because of ratings each exchange with a consumer can influence how hundreds if not many more consumers think about a particular seller. This means the marginal cost to marginal benefit ratio of committing fraud is drastically higher than it would be in the absence of internet-based consumer ratings. This has some interesting implications for how private property rights are enforced in society. In this instance, no police or courts (even those privately provided) are necessary to protect the property rights of buyers.

The protector of property rights here is nothing more than the threat of a tarnished reputation. No one need be coerced into providing the resources necessary to carry out this property protecting mechanism. Internet-based consumer ratings are a radical leap forwardin ability of consumers to protect their property rights via threat of tarnished reputation. Likewise, the ratings are a huge boon to sellers. They are an incredible way to win over the trust of people one has never met and (if the transaction is over the internet) likely never will meet.

Since the ratings increase the ability of potential trading partners to trust one another, more trades with occur. More exchanges, other things equal, means that consumers are relieving more uneasiness and achieving higher levels of utility. The economy is thusly more efficient.

Cultural Preconditions

Internet-based consumer reviews are a double-edged sword. The ease with which individuals can produce the reviews makes it easier to slander an entrepreneur and/or specific product. Due to this fact, certain cultural preconditions must be in place for internet reviews to properly achieve the goal of enhancing consumer sovereignty. A culture without an emphasis on “minding your own business” or “live and let live” will not reap the same economic rewards from the institution of internet reviews. For internet-based consumer ratings to have the beneficial economic effect effects outlined above, respectful competition must be the cultural norm amongst business men. Cultures where businessmen interact in a friendly, but competitive manner will gain much more than cultures with a less respectful business environment. A less respectful, cut-throat business environment implies that business owners are more likely to sabotage a competitor via ratings. Such activity greatly diminishes the credibility of consumer ratings. It means that the owners of the internet ratings websites must innovate ways for review readers to easily identify the credible review writers. This is already being done on websites like Yelp.com. The credible reviewers have little icons next to their names indicating their trustworthiness. Users can easily find out how helpful others found a particular author’s reviews in the past. The issue of sabotage by review would not be of concern where respectful competition is the cultural norm. The possibility of rival entrepreneurs writing negative reviews of their competitors is, to tie this back to the voting metaphor, much like vitriolic political ads. Thus, the cultural preconditions of kindness and honesty must be met for society to reap the full rewards of internet-based consumer ratings.

Concluding Thoughts

There is much research still to be done on the economic and institutional implications of internet-based consumer ratings. Due to how profitable these ratings are for society (generally, not just monetarily), there is no doubt that the owners of sites like Yelp and Amazon will continue to innovate new ways to verify credible raters and sort out the shills. Owners of these websites will also innovate ways users can find reviews written by people with similar preferences to themselves. This will further decrease the uncertainty of engaging in market transactions.

It is also very interesting that consumer ratings can be described with the metaphor of a time machine. Acknowledging that the future is uncertain, any tool that allows people to better cope with this uncertainty has important implications for entrepreneurial activity. The ratings are an incredibly effective – even revolutionary – way of dealing with uncertainty. The fact that right now there is a consumer making and evaluating a purchase many more consumers will make someday in the future; coupled with the possibility that the present consumer can communicate with virtually all of those future consumers via review, is the closest thing to a time machine that currently exists.

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