

The Reasons for Reputation Mechanism Failure

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Abstract

The word 'reputation', which is closely known in the social practice, is equal to renpin, koubei and credit (non-financial category) in Chinese language. From the perspective of Information Economics, reputation mechanism can be understood as the constraints for market participants which are committed by the probability of information transmission among the potential trading partners about when and Where some one did what. However, as an important assumption of repeated games and important guarantee of self-enforce contract, it often faces the dilemma of failure in practice. Recent problems such as food safety, fashion of overseas shopping and concerns over the quality of domestic products have all exposed the fragility of the market reputation mechanism in Chinese traditional industries to some extent. Therefore, finding out the reason for reputation failure is of great significance to society. From the point of reputation mechanism conditions, this article tries to find out what leads to reputation failure in practice, so as to put forward some thoughts for the improvement of reputation mechanism and market governance structure.

Keywords

Reputation mechanism; Failure; Economics of information.

1. INTRODUCTION

Law and reputation are two basic mechanisms to maintain the order of market economy. [1] As a part of social governance structure, reputation mechanism is an effective guarantee for the success of self-performance contracts, and it is also a tool to send signals and identify information in asymmetric information markets, especially in high-risk areas such as financial credit where the reputation mechanism, based on personal credit, plays a vital role. However, it still faces many obstacles in the imperfect market, which challenges market governance. Domestic research on the failure of reputation mechanism is mostly based on a specific industry, such as Credit Deficiencies in Financial Industry [2], distortion of excessive government intervention in public hospitals [3] and hitchhiking or tragedy of the Commons in industrial reputation. The question discussed in this paper is what causes the reputation mechanism to fail? How do these reasons affect the reputation mechanism? According to information economics, reputation mechanism needs three important conditions: opportunistic behavior can be discovered, information can be disseminated in time, and the cost of making the choice of reputation maintenance mechanism is greater than the benefit. Therefore, this paper will also answer these questions from this point of view, and will also put forward some solutions in order to provide some thoughts for improving the reputation mechanism.

2. METHODOLOGY

2.1. Information Asymmetry and Reputation Mechanism Failure

Information asymmetry means that one side knows more real information than the other. In fact, it is common that one side has absolute information advantage over the other in market

transactions and thus, it is also an important reason for the failure of reputation mechanism- all kinds of opportunistic behaviors are difficult to be found in time or information may also be and falsified in the dissemination.

2.1.1 The Difficult in Perceiving Opportunist Behavior

In the commodity market, it usually encourages merchants to cheat when consumers can not correctly perceive the quality of products, but identifying these counterfeiting behaviors is costly and hard. In the study of consumer purchase behavior, Nelson divides the products into three types by the degree of information asymmetry between consumers and enterprises: search products, experience products and trust products [4]. Search goods are products that can make purchase decision directly by collecting information. Generally speaking, appearance, word of mouth, advertisement and so on can be used as a search tool. For example, through the style, size and fabric composition, we can roughly determine whether the clothes are appropriate. The main obstacle for the quality of search products to be found in time is search cost, which is closely related to market concentration and search route. Stiglitz believes that for consumers searching is to maximize income and minimize payment costs under certain constraints. That is to say, when the search cost reaches a certain level, while the individual has the ability to obtain information, he or she still maintains "rational ignorance". Experience goods refer to products that can perceive quality through consumption experience, such as service and catering. But often, the experience requires a "sunk cost" to buy goods. Trust products are products that can not detect quality even through search and consumption experience. There are serious information asymmetry problems in such products, which must be improved by external intervention. In recent years, the hidden danger of food and drug safety is a typical example that trust products are fake and difficult to be found in time.

In economics of contract, the implicit contract can not define or include all opportunistic behaviors clearly, which makes the default behavior difficult to be measured by standard. The reasons that leads to implicit contract include limited rationality, transaction cost, strategic consideration and so on, which are all due to the information asymmetry before and after the contract and the cost of making the contract: First of all, before the contract, the opportunistic behavior is difficult to be completely defined by the paper contract, that is, it is impossible to foresee all the default behavior, so there is no clear measurement of opportunistic behavior. Secondly, in dispute resolution, incomplete contract can not rely on the intervention of the third party to solve the problem, but can only be implemented by terminating the relationship as a punishment or threat. In interpersonal communication, implicit contracts can be regarded as default rules of both parties. The definition of "how to default" is vague and not mandatory. Therefore, once there is a dispute, the two sides of the dispute usually hold their own opinions and the outsiders can not distinguish right from wrong easily, which makes opportunistic behavior difficult to be found publicly. In addition, because of the existence of supervision costs, opportunistic behavior is even difficult to be perceived by the other party. For example, after signing an employment contract, hard work is a hidden clause. However, the slack behavior of employees is difficult to be accurately known by the company, and it is difficult for enterprises to directly evaluate the employee's performance in practice. (Objective and transparent performance evaluation can be seen as reputation for employee's work)

In the case of perfect information, once opportunistic behavior can be identified, the collective can effectively govern the internal by forming an autonomous alliance. However, when the information is incomplete, the problem of hitchhiking associated with public goods will make the opportunistic behavior of internal individuals difficult to be discovered. Collective action can decrease the cost of establishing individual reputation, and bring economies of scale, which are shared by scattered individual enterprises. However, in collective action, the information of individual behavior could also be blurred, and the replaced collective reputation

may not send a reliable signal of individual reputation to potential collaborators, or the reputation has insufficient constraints on individuals. Olson pointed out that the opportunistic tendency of hitchhiking will increase with the number of members in the collective, which will eventually lead to the tragedy of collective reputation.[5] For example, excellent regional brands do not guarantee that all enterprises in the region are excellent, and good industrial reputation does not guarantee that all enterprises in the industry do not take opportunistic behavior.

2.1.2 Distortion in information dissemination

Reputation information theory holds that reputation can be regarded as special information, which mainly depends on word of mouth communication and forms a huge and shared reputation information network through oral communication between trading partners. Information asymmetry is a necessary condition for the existence of false information. Although reputation itself can solve the problem of adverse selection by sending "honest" signals, at the same time, like other ordinary information, when information is asymmetric, the reputation information in the process of dissemination faces two major problems: information distortion and screening.

Information distortion can be defined as a change in the form, meaning or availability of information. Here we divide it into false information and prejudice. Rumors are typical false information that can be widely disseminated. Allport illustrates two basic conditions of rumor from a psychological point of view: importance and fuzziness. Importance refers to that the information transmitted should be closely related to the listener's interests, which can arouse their attention. Fuzziness means that the information will cover up the facts by exaggerating, weakening or fabricating. For example, slander in vicious competition can directly bring losses to the rumored party, and with the help of the existence of information asymmetry, false rumors can cover up the facts in a short term. Prejudice is a cognitive fallacy caused by the optimal belief hypothesis of personal belief deviating from the model in information processing. Because the information of reputation is mostly a subjective cognition formed by people under a certain subjective condition, its short and changing characteristics can easily cause prejudice.

The direct consequence of information distortion is that the high cost of identifying information. In Stiglitz's information screening model, screening is important for the one with less information in mixed equilibrium market. [6] The key of screening in the model is to offer jobs with different difficulty and payment (efficiency wage system), which makes the market turn to optimal separation equilibrium. It can be understood that the effective screening system can separate the true and false information when the information is difficult to distinguish. However, it doesn't always work — inefficient information screening system does not have the function of separation. At the same time, the design of effective system itself is rare, not to mention the cost of system design.

To identify false information, the government should first encourage the establishment of information sharing mechanism, especially in improving the blacklist system. Under the premise of information security, the state can support the database construction of state-owned and private enterprises, reduce the threshold of the availability of some personal data, and can help to improve these information platforms. [7] Second, solve the problem of government regulatory failure properly. Regulation is a compulsory and widely effective way of screening, but it can also fail when confronted with rent-seeking behavior, self-interest motivation of government personnel.

2.2. Monopoly and Reputation Mechanism Failure

Monopoly advantage often occurs when a product is highly irreplaceable (price, function, etc). Therefore, trading partners may face high conversion costs and psychological differences when

performing self-executing contracts and terminating transactions. Generally speaking, the failure of reputation mechanism caused by monopoly can partly explain why reputation can not effectively restrain moral hazard in some cases, and some monopoly enterprises lack incentive to establish reputation.

Reputation mechanism is one of the important assumptions of finite repeat game under asymmetric information, so this model is also called standard reputation model (KMRW model). The model assumes that the player will judge the opportunistic tendency of the trading partner according to his behavior in previous stage in the case of information asymmetry, and then choose the strategy of cooperation or betrayal. However, after taking the monopolist advantage and menu cost into consideration, the benefit matrix will change. Opportunism does not necessarily lead to the reduction of future benefits, and the penalty cost (i.e. reputation loss) brought by reputation mechanism is not enough compared with its benefits. Therefore, individuals based on shrewd calculation may still choose "betrayal" and his trading partners still have to cooperate. In order to illustrate the damage of monopoly to reputation mechanism, the following table lists a simplified one-time game matrix considering future benefits.

	good	bad
purchase	a, b	a- f, b +f -d
Don't purchase	a-c , b	a-c, b-d

Figure 1. A Simple Example of Game theory in Monopoly Market

The f is the loss for consumers who buy fake goods, which is also the profit of monopoly enterprises; the c is the conversion cost for consumers when they choose to replace the previous products; d is the reputation loss of enterprise fraud. There are two assumptions in the model. First, the reputation of an enterprise is public information, and fraud brings damage to its reputation; second, monopoly will bring monopoly profits to enterprises and conversion costs to consumers. When the monopoly power is weak, enterprises care about reputation premium: $d > f > c$; when the monopoly power is strong, enterprises do not worry about consumer loss: $c > f > d$.

Through analysis, when the monopoly power is weak, the equilibrium result is that the consumer can buy the real goods; when the monopoly power is strong enough, the consumer will buy the fake goods. The reason for the irrational result caused by monopoly is that the monopoly power is strong enough to make the net income $(f-d)$ positive, and the cost of consumers performing self-executing contracts is too high. Reputation mechanism can not achieve the purpose of incentive compatibility. Therefore, in order to maintain the reputation mechanism in the monopoly market, an external mechanism is needed, that is, the government.[8]

To avoid reputation damage caused by monopoly, the key idea is to make both sides possess equal monopoly power or completely eliminate the monopoly power of both sides. For example, encouraging dispersed consumers to form bargaining power groups and encouraging monopoly enterprises to invest in special assets can give both sides a relatively balanced monopoly power, thus making the benefit matrix conform to the hypothesis of the standard reputation model. The elimination of monopoly power can be carried out by cultivating competition, which is similar to the study of restricting monopoly in microeconomics.

2.3. Absence of Government and Reputation Mechanism Failure

The primary manifestation of the failure of reputation mechanism caused by the lack of government is the restraint mechanism- the grey area exists in law or industry supervision. The direct consequence of this phenomenon is to cover up and encourage opportunistic behaviour. The main significance of law and strict supervision is not only to discover opportunistic behavior, but also to increase the cost of opportunistic behavior, so that the cost of accepting punishment is far greater than its income, and the individual or enterprise can actively maintain the reputation mechanism under the cost and benefit model. When the government uses legal constraints, fines, access restrictions, blacklist system and other ways to punish dishonesty, problems arise like imperfect laws and regulations, insufficient enforcement, limited capacity and disciplinary role .

Secondly, the failure of reputation mechanism caused by government also shows that the government can not guarantee the sharing of information to alleviate the problem of information asymmetry. That is to say that the government can not ensure the full disclosure of necessary information by administrative regulations, especially for the industries with highly asymmetric and fraudulent information such as finance and accounting. Meanwhile, although the construction of national information sharing platforms such as personal credit system and blacklist system can effectively solve the problem of information asymmetry and ensure the wide dissemination of information, the government still lacks motivation because these information sharing platforms are similar to public goods, the establishment of which is costly. Take credit system based on real name system in China as an example. The construction of real-name credit system includes three aspects: moral norms, credit system and technical means. Moral norms are closely related to social customs and culture, which can only be guided. As for credit system, there is no legislation related to the credit system in our country, only the General principles of Civil Law and contract Law regard good faith as the legal principle and some punishment of fraud is listed in the Criminal Law. [9] As a result, the supervision department lacks the legal and administrative basis of supervision. For technical means, there is no perfect information sharing platform and information base construction at present, and there is no technical guarantee for the sharing of information between blacklist enterprises and dishonest individuals.

Besides, the government regulation in some fields will distort the signal transmission mechanism and bring the "crowding out effect", which is mainly manifested in the field of public goods or the highly asymmetric field by government intervention. The reason is that most of the reputation information formed through the government comes not from the common people's word of mouth or individual information spread among the market, but from the government standards and government evaluation.[10]Regulatory standards, assessment indicators and so on can be regarded as the government evaluation criteria to distinguish different individuals and send signals , so incorrect standards can not correctly reflect reputation information. Second, the government assessment makes it possible to bribe and distort reputation information, such as the rent-seeking behavior. In the field of medical treatment, which is almost completely monopolized by public hospitals, the government evaluates the hospital grade as a different grade, and the division of hospital grade is directly related to the allocation of resources. As a result, lower-level hospitals are motivated to seek rent to raise levels in order to strive for better medical resources and attract more patients. For example, the national evaluation of the professional title of doctors is based on some indicators, so doctors will be more motivated to meet some one-sided indicators, and other binding force of obtaining good reputation from patients is not enough to affect them.

In addition, the power of the government can bring monopoly, whic can also destroy the reputation mechanism. The reason is mentioned in Section 2. For example, the license system

gives some enterprises an absolute monopoly advantage without paying too much attention to the cost of reputation; patients will still give priority to the hospital even if they have negative reputation for some hospitals considering the medical resources and social security reimbursement.

2.4. Hitchhiking and Reputation Mechanism Failure

Individual punishment for opportunistic behavior includes two aspects: termination of cooperation and retaliation. Termination of cooperation is the main way of the execution of self-performance contracts. There are no formal contracts between consumers and enterprises, but the oral commitments can be regarded as self-fulfilling contracts in terms of trading or cooperative relations: traders use market power to add personal penalties rather than through litigation. [11] The reason for its dependence on self-performance is mainly due to the limited scope of government supervision, legal protection, and the non-verifiability of implicit clauses.

"Revenge" is a kind of anti-fraud behavior, which mainly increases the opportunistic cost of the defaulter by claiming compensation or making public information. In real society, the open reaction to one's performance is also regarded as awareness of rights protection. The penalty mentioned above- "termination of a relationship upon discovery of a breach of contract" is merely a right, meaning that the individuals who have been subjected to fraud do not have an "obligation to inform". Due to the cost of signal transmission caused by information asymmetry or the difficulty of rights protection caused by imperfect laws and regulations, the cost of individuals taking the initiative to send information such as rights protection is relatively high. Meanwhile, the income of "enterprises no longer engage in fraud" obtained through one's rights protection is like public goods, which is not exclusive and easy to get a free ride. Therefore, when consumers have the free riding psychology of "Silence", the motivation of sending information is insufficient, and fraud is often profitable.

The influence of people's silence strategy to hitchhiking behavior on reputation mechanism is significant. First of all, silence conceals opportunistic behavior, so that fraud can not be discovered by other market subjects in time. Similar to the legal term "silent fraud", silence itself is a default and permission to fraud. Second, silence hinders the dissemination of information. Tolerance of fraud increases information asymmetry and increases search costs for other potential traders. At present, the online shopping platform adopts the mutual evaluation system from both sides of the transaction, and the evaluation system adopted by the service and catering industry is to reduce the cost and threshold of signal transmission and encourage the dissemination of information. Finally, silence makes fraud profitable, and potential trading partners still have adverse selection problems under incomplete information. One way to solve the free-rider behavior of silence and encourage consumers to actively protect their rights is to reduce the cost of safeguarding their rights.

3. CONCLUSION

From the perspective of economics, this paper holds that information asymmetry, monopoly, government and free-rider psychology are the four important reasons for the failure of reputation mechanism. First of all, information asymmetry makes opportunistic behavior difficult to be found, which may lead to hitchhiking behavior and the tragedy of collective reputation. Secondly, based on the game theory, this paper shows that the excessive conversion cost for trading partners caused by monopoly will not reduce the future transaction, and the benefit of cheating is still greater than the cost. Then, this paper introduces the third party to explain that the lack of government and government regulation, information sharing dilemma, rent-seeking and other problems will reduce the ability of reputation information. Finally, from the perspective of anti-fraud, this paper also puts forward that because of the high cost of rights protection or information disclosure, the free-riding behavior chosen by most consumers

encourages fraud. In addition, in the process of analyzing the reasons, this paper also puts forward some market governance ideas from the theoretical point of view, such as legislation and supervision, supporting the construction of information sharing platform, cultivating competition and so on.

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