

Imputation Principle of Product Liability in the Perspective of Law and Economics: Concurrence of Contract Law and Tort Law

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Keywords: Product liability, consumer principle, producer principle, strict liability

Abstract: The information asymmetry of market players leads to product safety becoming a regulatory issue. From the perspective of law and economics, the consumer principle requires manufacturers to balance investment in product safety with consumer insurance benefits. The producer principle requires producers to face the conflict between product safety improvements and product innovation and to balance the two. Product liability under Chinese law tends to favour the former. Singh's economic analysis model of effective product liability rules (2001) demonstrates the relative superiority of strict liability, but it is not perfect. It is hoped that, by analysis from the perspective of law and economics, the legal regime relating to product liability in China will move towards effective improvements that balance the interests of the individual and those of society.

1. Introduction

Nowadays social and economic life is undergoing astonishing changes at an unprecedented rate, with a wide range of agricultural, industrial and even high-tech products emerging. However, this is accompanied by a constant stream of defects in the manufacturing process, substandard products from unscrupulous manufacturers and counterfeit products from unscrupulous producers, resulting in a high incidence of accidents in the consumption process.

The product liability theory under the framework of neoclassical economic shows that as long as information is symmetric, the market can always provide the optimal safety products no matter what kind of product liability system it is in. However, Goldberg argues that product safety becomes a regulatory issue because of the "market failure" caused by asymmetric information of market entities and the recourse to private law for correction. [1]

The focus of product liability regimes in modern societies is on the reasonable allocation of risk and the respective bases of liability, defences and scope of liability of consumers and producers. A reasonable product liability regime should be set up in a way that strikes a balance between fairness and efficiency, and helps to achieve a balance between the interests of producers and consumers.

2. The Consumer Principle: Trade-offs between product liability and insurance interest

On the premise of asymmetric information about product risks, consumers sometimes overreact based on negative information of products and thus overestimate product risks. But in more cases, consumers with asymmetric information tend to underestimate the risks of products and deny the

efficiency of holding manufacturers accountable. Under the premise that consumers take self-insurance as a supplementary option and correctly estimate the product price, it is possible to ensure the seller to achieve the liability cost-benefit balance, but this is almost impossible in reality. At this time, only the tort rules that force the seller to bear full liability can help to improve efficiency.

Consumers' final choice of the optimal product safety investment inevitably requires that the quality guarantee provided by manufacturers should find a balance between product safety investment and consumer insurance interest.[2]

3. The Producer principle: Trade-offs between product safety improvement and new product innovation

The influence of product liability on new product innovation mainly includes two paths: one is to investigate the influence of tort liability on product innovation of manufacturers from the perspective of economic factors, the other is to investigate this issue from an institutional level outside the economic field.

From the perspective of economic factors, Moore and Viscusi's model points out that manufacturers must balance investment between product innovation and product safety improvement in order to maximize profits. The improvement of tort liability will help to promote product safety reform in a certain extent. However, when the product liability is too strict and the manufacturer's liability cost exceeds a certain amount, the manufacturer will give up product innovation, which further leads to consumers' more sensitive demand changes caused by product price changes.[3]

From the perspective of an institutional level outside the economic field, product liability can affect innovation through its influence on the organizational structure of enterprises. Between 1967 and 1980, for example, the proliferation of small firms in the United States with close ties to risk departments was associated with increased product responsibility.[4]

All in all, the core point from different perspective is that the optimal safety investment of producers is constrained by profit maximization, so manufacturers must face the conflict between product safety improvement and product innovation, and must make a balance between the two.

4. The balance between negligence liability and strict liability

The research on the emergence and evolution of product liability system by economists is bound to make a balance between consumer principle and producer principle under the goal of protecting consumers and maintaining market competition. Economists attribute the issue to a trade-off between negligence liability and strict liability.

Singh's model (2001) provides a relatively complete framework for economic analysis of efficient product liability rules. Singh pointed out that the sufficient and necessary condition of efficient product liability rule is to satisfy the principle of "negligent consumer responsibility" when consumers do not know either the firm's safety investment or the corresponding relationship between the firm's safety investment and the incidence of injury. Namely : (1) No matter how much manufacturers invest in product safety, as long as the consumer has performed the appropriate duty of care, the consumer is faultless, and all product risks should be borne by the manufacturer. (2) When the consumer is at fault and the manufacturer is not at fault, the consumer shall bear all losses. (3) When the consumers only have incomplete information of product risks, only strict liability can prevent accidents caused by injured party's own carelessness, thus ensuring efficient consumer attention, manufacturers' safety investment, the output of each manufacturer and the number of manufacturers in this industry.

In other words, negligence liability, negligence liability with joint negligence and comparative negligence liability are all inefficient. When the market is in perfect competition or the seller has a

little market control, strict liability is more efficient than negligence liability.

The superiority of strict liability over negligence liability can also be found from other perspectives. First of all, the litigation cost required by the court debate to prove whether the product gets the optimal safety investment will destroy the incentive of negligence liability to product safety investment, and make some manufacturers who do not make the optimal safety investment have the possibility of exemption and moral hazard. Secondly, negligence liability does not provide a good and compelling protection from courts' and juries' errors. For example, Hylton (1990) has demonstrated in detail that the negligence liability standard misjudged by the court and the expensive litigation costs lead to the over-protection of consumers. Although the product safety performance is improved. However, it also distorts the allocation of resources between product safety improvement and new product innovation, and increases the legal uncertainty with adverse effects. Even over-protection can lead to the withdrawal of some socially beneficial products from the market. On the contrary, for plaintiffs, the cost of strict liability is lower, and for courts, the ease of enforcement caused by strict liability increases the likelihood of effective incentives.[5] Therefore, from the perspective of reducing product defects, strict liability is a better choice.

Of course, strict liability is not perfect. Cooter, Ulen and other economists point out that strict liability damages consumers' attention incentives, while negligent liability provides more space for loss prevention, such as consumers' self-insurance.[6] Therefore, negligence liability is a better choice in terms of reducing average cost of loss recovery.

In a word, the choice between negligence liability and strict liability first faces the trade-off between product safety performance and the cost of preventing product risk for consumers: Increasing seller's responsibility (strict liability) may force manufacturers to increase product safety investment, but may reduce consumers' attention, increase the cost of product risk prevention, and at the same time raise the product innovation barrier of manufacturers. While reducing seller's liability (negligence liability) can guarantee consumers' attention incentive, but it may reduce the average damage cost of product risk along with product safety performance.

5. Chinese tendency of product liability: the Consumer Principle

Strict liability is predominantly applied abroad in the field of product liability. The product liability laws of the United Kingdom, Germany and Japan all provide for the liability of the producers, but do not expressly provide for the liability of the sellers; The relevant laws of France and the United States provide for the liability of the producers and the sellers in a relatively clear manner, with the French Civil Code providing for both the direct liability and the ultimate liability of the producers and the sellers. It can be said that the above-mentioned countries do not strictly distinguish between producers and sellers in terms of their liability for product torts.

In contrast, the traditional Chinese doctrine that the producer and the seller are significantly different in this respect has influenced the relevant Chinese legislation. China enacted the Product Quality Law in 1993, which together with the Law on the Protection of Consumer Rights and Interests implemented in 1994 marked the beginning of a legal regime for product liability in China. The completion of the Tort Liability section of the Civil Code marked the further improvement of China's product liability regime.

China's product liability regime is mainly based on the Tort liability section of the Chinese Civil Code and the Product Quality Law of the People's Republic of China, which shows the tendency of the Consumer Principle.

First of all, this tendency partly reflects the strict regulation on the product market in the national level, which inevitably leads to the increase of responsibility prevention cost of market operators and reduces their enthusiasm for product research and development, but it does not drive the improvement of product quality. Secondly, such tendency may require excessive care for consumers, reducing efficiency of the market, thus leading to greater damage. Finally, such tendency weakens the demand induction of law in Chinese citizens. The protection of consumers' rights and the

prevention of product liability should rely more on the organization of market's own moral resources than the intervention of the state. What is needed is that when the market itself cannot bear the responsibility, the state can take on the responsibility instead, such as the state compensation proposed in the case of Sanlu toxic milk powder.

In order to improve China's product liability imputation principles, the definition of defective products and the criteria for their determination should first be improved. It should be clearly stipulated in the legislation the connotation and extension of product defects and the criteria for judging defects, and the legal interpretation of unreasonable danger should be increased.

Secondly, a unified guideline should be established for the various legal provisions on the principle of strict liability, and the issue of the applicable ranking of general law and special law should be resolved, as well as the conflict of law application in judicial practice.

Thirdly, the principle of strict liability, supplemented by the presumption of fault, should be established as the principle of imputation. On the one hand, the application of the principle of strict liability to producers and sellers is conducive to producers changing their production methods, focusing on the quality of their products, curbing the production of counterfeit and shoddy products at source and keeping a good check on product quality. It also discourages sellers from knowingly selling counterfeit products and prevents them from selling them. Strict liability reduces the burden of proof on consumers and helps to maximise the protection of consumers' rights and interests, in line with the mainstream of the international community. At the same time, strict liability is the main premise, supplemented by the presumption of fault. For the consumer, this makes it easier to exercise his or her rights when they are infringed, and shifts the burden of proof to the producer and operator, who has the advantageous position. For production operators, this is supplemented by the presumption of fault, which urges them to seek to reduce avoidable dangers, while at the same time being able to reduce their liability through proof, achieving substantial fairness.

6. Conclusion

Whether producers should be held liable for damage caused by unforeseeable and unavoidable product risks is a complex and significant issue concerning justice, social policy and legal principles. It runs through the three core concepts of product defects, the principles of product liability and the scope of liability, and is closely linked to the legislative objectives and regulatory system of product liability. The need for strict product liability legislation will vary according to the trade-off between fairness and efficiency at different stages of social development.

In order to balance the interests of consumers and producers, promote economic development and from the perspective of law and economics, the legal system is expected to evolve in the direction of maximization interests of individuals, balance of social interests, and efficient improvement of individuals and the society as a whole.

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