# Research on the Relationship of Game Players in the Governance of Competition Order of Internet Information Service Industry

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### **Abstract**

Internet information service industry is an industry aggregation that uses modern information technology such as computer and network to provide various information products and services to the society, so as to realize the value gain of information. With the increasing popularity of Internet, its position in the society is increasingly prominent. However, in this process, the management of the competitive order of the Internet information service industry gradually shows many difficulties, which should also be paid enough attention. On the one hand, there is unfair competition among some operators for greater benefits, which leads to many unfair competition behaviors depending on Internet technology, resulting in adverse impact on the competition order; on the other hand, the impact of Internet adverse competition cases on the interests of consumers also urges relevant subjects to participate in the governance process of the competition order and build network integration Governance system. As the leading role of industry governance, government departments should not only regulate Internet information service enterprises by constantly improving relevant laws and regulations, so as to achieve effective governance of industry competition order, but also improve governance efficiency through the role of public media. Therefore, we should think about the overall development of the competition order of Internet information service industry.

# **Keywords**

Internet Information Service Industry, Competition Order Governance, Relationship of Game Players.

## 1. Introduction

The rapid development of the Internet has introduced human beings into the information age. The business activities relying on the Internet platform have sprung up like mushrooms, which makes the Internet economy in China present an unprecedented prosperity. China has the largest group of Internet users in the world. According to the 43rd statistical report on the development of China's Internet published by CNNIC in 2019, China's Internet users in 2018 increased by 56.53 million compared with 2017, and the Internet penetration rate in China has exceeded 59.6%. At the same time, the report shows that the scale of online shopping users in China has reached 610 million, the number of online takeout users has reached 406 million, and the scale of online payment users has reached 600 million, showing an increasing trend compared with the first half of 2018, which shows that the Internet market economy is playing an increasingly important role in China's economic society. With the rapid development of Internet economy, Internet competition comes. In order to seize market share and stabilize market position, Internet operators will compete with other operators in varying degrees [1]. In these uneven competition, it is inevitable that some operators will engage in unfair competition in order to seek greater interests, which will lead to many unfair Internet

competition behaviors depending on Internet technology, and aggravate the damage to the social market economic order.

The severe Internet competition cases have caused great impact on the society. Many cases involve well-known domestic enterprises. These enterprises often have great influence in the industry, such as Baidu, Tencent, Sogou, 360, etc., which have produced a series of lawsuits. At the same time, it has become the focus of domestic public opinion. The Internet unfair competition damages a lot and spreads rapidly, which makes it difficult for the injured to protect their legitimate rights and interests in time. In terms of "30 war", with the introduction of Oihu buckle bodyguard, more than 10 million downloads were received in only three days. From release to recovery, it directly led to a loss of one million. In addition, due to the strong professional and technical nature of unfair competition and the low cost of infringement compared with the benefit cost, the unfair competition disputes in the Internet field pay less compensation to the victims, the infringement costs of the infringers are lower, and the profits obtained from the infringement are larger, which also leads to endless vicious competition. For example, a series of very typical cases, namely 360 series cases. According to the information disclosed by the Supreme People's court, 360 lost all cases in a series of cases, and more than ten lawsuits involved commercial low damage, forced unloading, malicious inducement and other acts. However, 360 still continued to carry out the same behavior in several years after losing many lawsuits. It is not difficult to see that, while the infringed party has suffered huge losses, many infringers know that their actions have constituted infringement or unfair competition, but they still fight against the law, because the cost of violating the law is much less than the total amount of their own commercial interests.

Once the Internet was invented, it has been accompanied by governance, and the development history of the Internet is also a history of Internet Governance [3]. Internet information service industry is a branch of the Internet industry. The Internet information service industry also occupies a very important position in the overall social economy. Therefore, our country also attaches great importance to the supervision of the competition order in the industry. For example, general secretary Xi Jinping proposed in the nineteen report of the party that we should create a "social governance pattern of CO building and sharing governance". The governance concept of networking platform. In order to regulate the competition order of Internet information service industry, China has taken a series of measures, such as the introduction of corresponding laws and regulations, such as the State Council promulgated the "Internet information service management measures" in September 2000. In order to conform to the development of the Internet, the Ministry of industry and information technology issued the "Internet information service management measures" (Revised Draft) in June 2012 In January 2011, the Telecommunications Administration Bureau of the Ministry of industry and information technology issued the Interim Measures for supervision and management of Internet information service market order (Draft for comments); in December 2011, several provisions on standardizing the market order of Internet information service clearly restrict the behavior of Internet information service providers, so as to ensure the health of Internet information service industry development; On November 4, 2017, the 30th meeting of the Standing Committee of the 12th National People's Congress revised the anti unfair competition law. The highlight of the amendment of the anti unfair competition law is that it has added a regulation to regulate the unfair competition behavior of Internet enterprises, which conforms to the growth of the network economy and is conducive to the healthy development of the Internet information service industry The formation of exhibition order. In addition, there are corresponding laws and regulations in some subdivision fields. Not only through legislation to regulate the competition order of Internet information service industry, the State Council also implemented the "13th five year plan" market supervision plan in January 2017, which provides new ideas for market supervision; the "ecological governance provisions of network

information content" issued by the state Internet Information Office on December 15, 2019 also points out that it is not allowed to use artificial means or technologies Technology means to implement traffic counterfeiting, traffic hijacking and other behaviors, and destroy the network ecological order. In addition, Internet courts are also established to conduct centralized trials of Internet cases.

At present, although China has taken corresponding measures to stop the occurrence of unfair competition in the Internet information service industry, the phenomenon of unfair competition in the Internet information service industry is prominent, which indicates that China's supervision on the competition order of the Internet information service industry needs to be strengthened. Internet information service enterprises, as the aggregation of providing various information products and services to the society, so as to realize the information value gain, their competitive behavior plays an important role in the good development of the industry competition order; the exposure and disclosure of the illegal events of the enterprise by the public media can effectively deter the enterprise and restrain the unfair competition behavior of the enterprise The government management department can guide or restrict the behavior of Internet information service enterprises, the public and the media, so as to regulate the competition order of Internet information service industry. Therefore, the behavior of Internet information service enterprises, the public, the media and government management departments has a significant impact on the governance of competition order. The governance of competition order of Internet information service industry is a long-term and arduous task, which needs to establish a complete management mechanism from the perspectives of technology, management, guidance and self-discipline.

#### 2. Literature References

## 2.1. Internet Information Service Industry

#### 2.1.1. Definition of Internet Information Service Industry

The definition of Internet information service industry has not been clearly defined. According to the North American industry classification system (NAICS), information industry includes four parts: publishing industry, film and video industry, radio and television and telecommunications industry, information and data processing service industry. On December 29, 2003, the National Bureau of statistics issued the "Interim Provisions on statistical division of information related industries". The Interim Provisions classified the information industry into five parts -- electronic information equipment manufacturing, electronic information equipment sales and leasing, electronic information transmission services, computer services and software industries, and other information related services [4]. Xu Limei thinks that the concept of information service industry is as follows: on the basis of information resources, using modern science and technology, and then collecting, processing, storing, transmitting and using information, and providing information products and services [5]. Wang Ting believes that the Internet service industry is an industry that provides services to users on the platform of Internet technology. It is a cross industry between modern service industry and Internet industry, with emphasis on service. And it is divided into ten categories: online travel arrangement and reservation, online portal, online retail, online publishing, online games, SNS, instant messaging, search engine, blog / video sharing, and Internet of things [6]. Lu Anwen and others believe that the Internet information service industry refers to the industry aggregation that uses modern information technology such as computer and network to engage in information collection, generation, processing, storage, transmission, retrieval and application, and provides various information products and services to the society, so as to realize the gain of information value [7].

In this paper, the definition of Internet information service industry is the definition of this concept by scholar Lu Anwen, and the following research is carried out.

#### 2.1.2. Characteristics of Internet Information Service Industry

As a new service industry, the Internet information service industry shows some new characteristics. Yu Jiangang and others proposed that the information industry has the basic characteristics of network effect, high fixed cost, low marginal cost and high transfer cost [8]. Ji Hongwei and others put forward that the network economy has obvious network externalities, and that its externalities have a profound impact on the competitive behavior of enterprises [9]. Zhang Huiying believes that the Internet is highly open and interactive, and that it has the development trend of digitization, interactivity and convergence [10]. In the Internet information service industry, the market entry behavior of enterprises is closely related to network externality. Mahler and Roger believe that network effects play an important role in the adoption of specific types of products, especially in communication services and products [11]. Tucker studies the influencing factors of technology adoption under network externality in social networks based on individual decision-making behavior [12]. Chen Hongmin and others studied the entry problems of two enterprises in the network externality market [13], and discussed the influence of network externality as an entry barrier on the market entry decision-making of enterprises and the dynamic adjustment of market structure [14]. Jiang Yuyuan believes that with the increase of network popularization rate, the influence of network economy will be comprehensive, the competition pattern will be reshaped, and the market, resources and business strategy will show a trend of global development. The government needs to establish a supervision and law enforcement system with multi-party cooperation and feedback to standardize the market order of network economy [15].

# 2.2. Competition Order of Internet Information Service Industry

## 2.2.1. Research on Competition Order

Competition in different fields, there are different connotations and scope, with a variety of concepts. Although there is no unified view on the definition of competition at present, the academic community has reached a consensus on the characteristics of competition: first, there are at least two independent participants in the same market (seller or buyer), which can be called market structure characteristics; second, independent participants in the market take various measures to gain advantage or increase transactions Opportunity, which can be called the characteristics of market behavior [16]. The essence of competition is the survival of the fittest, which is conducive to optimizing the allocation of resources, encouraging scientific and technological progress, stimulating market vitality and promoting economic development.

However, in order to obtain huge benefits, it is not accepted by the market and society to take improper actions to suppress competitors and damage the healthy, orderly and normal operation of the economy. Therefore, the state has formulated relevant economic competition law for effective regulation. Article 2 of the Anti Unfair Competition Law of the people's Republic of China (hereinafter referred to as the Anti Unfair Competition Law) stipulates: "unfair competition refers to the behavior of business operators violating the provisions of this law, damaging the legitimate rights and interests of other operators and disturbing the social and economic order."

The competition order is the core of the market economic order. The research on the competition order of Internet information service industry mainly focuses on the revision of the competition law, the definition and regulation of unfair competition behavior of enterprises, the formulation of competition policies and the improvement of market competition mechanism. For example, Niu Xin believes that in the network environment, any behavior that destroys the legitimate interests and normal business order of other operators can be regarded as unfair competition in the network. The network is only a carrier, which has been transformed

from reality to virtuality, and space has been transferred [17]. Liu Shuo believes that the network unfair competition behavior refers to the behavior that operators use the Internet as a technical means to violate the legal provisions, the principle of honesty and the recognized business ethics, damage the interests of other competitors, consumers and public interests, and invade the social and economic order [18]. Wu taixuan and Shi Xinyuan proposed that as a new type of unfair competition behavior, the Internet unfair competition not only includes the expansion of unfair competition behavior on the Internet, but also focuses on the behavior of seeking benefits by relying on the Internet and using network technology as a means [19]. Wang Hongxia and others pointed out that the common practice of the court is to apply the general provisions and carry out judicial determination according to the two paths of "article centrism" or "matter centered principle", but there are limitations in the trial rules and the endogenous defects in the judicial self created rules. Therefore, the court should follow the law of Internet economy and try Careful application of interest measurement method, the relevant judicial interpretation still needs to speed up the formulation [20]. Bramati et al. Analyzed and discussed the numerous lawsuits of apple and Samsung in recent years, and their research objects mainly focused on the problems and Countermeasures of "duopoly" monopoly and opposition, and proposed to estimate the illegal income of one party and punish them based on it [21]. From the perspective of the "two choose one" behavior in the Internet industry, combined with the nature of the abuse of comparative advantage status and the current situation of China's competition law system, Yuan Jia and others put forward the suggestion that the abuse of comparative advantage position should be included in China's competition law system for regulation [22]. Chen Geng Hua believes that with the development of Internet business model, the hard law represented by anti unfair competition law is facing challenges and difficulties in regulating Internet unfair competition, while the unique role of soft law in governing such behaviors has not been paid enough attention. Single hard law or soft law regulation can not independently complete the task of governance of Internet unfair competition behavior, only the regulatory logic of coupling soft law and hard law can meet the governance needs of network market competition order [23]. Since the information age, with the development and maturity of Internet technology such as big data and cloud computing, the research on market competition order has entered a new stage. The competition frequency among enterprises has increased and the competition mode has become more diversified. Therefore, China should formulate a governance scheme suitable for economic development in time.

#### 2.2.2. Research on the Governance of Competition Order

The research on the governance of competition order is not only reflected in the academic research on specific measures to solve relevant problems, but also reflected in the change of government policy perspective.

According to the actual situation, the domestic and foreign academic circles put forward specific countermeasures to solve the related problems, mainly through the construction of model, case study, index system, empirical test and other methods, and put forward corresponding suggestions. For example, Rott analyzes the phenomenon of free riding on the Internet and proposes that the provider and user of network data information should establish a contractual relationship to ensure the rights and interests of both parties in the form of contract [24]. Lu Anwen and others summarized and analyzed the current cases of unfair competition on the Internet. They believed that the reason for the emergence of unfair competition lies in the external characteristics of the Internet itself. In order to maximize their own interests, operators naturally refuse to communicate and share with other competitors, and try to solve the above problems through the principal-agent theoretical model [25]. Starting from the importance of traffic and data, Ma Xiaoming et al. Studied the corresponding judicial cases, and on the basis of summarizing the current judicial status of compensation for damages caused by

unfair competition of traffic and data, explored the loss composition and corresponding calculation method caused by the behavior of illegally seizing traffic and data, so as to provide useful reference for judicial practice [26]. Combining with the characteristics and influencing factors of Internet service industry, Wu Weiping establishes a new diamond model of Internet service industry competitiveness. By constructing the index system of Internet service industry competitiveness index, this paper measures the competitiveness of Internet service industry in 31 provinces and cities in China, and quantitatively evaluates and compares the advantages and disadvantages of Internet service industry in various provinces and cities, so as to speed up the development of Internet service in China Policies and measures of the service industry provide scientific basis [27]. Xiong Yan et al. Theoretically analyzed the trigger and constraint mechanism of vicious competition under the hoteling spatial model, and empirically tested the case of "30 war". The study found that the serious homogenization competition in the Internet industry triggered vicious competition and caused Tencent to suffer great reputation punishment, but the administrative punishment and industry regulation did not have effective binding effect. Therefore, it is necessary to further strengthen the mechanism Strengthening enterprise innovation, promoting cooperative competition, and improving the legal and administrative regulatory environment will help to curb vicious competition [28].

Policy tools are the means and ways of government governance. Observing the changes of policy tools is the breakthrough point to understand, evaluate and improve the governance of Internet information services in China. Taking 194 Internet information service policies issued by the state from 1994 to 2018 as data samples, Li Wenjuan and others used content analysis method to explore the operation structure and change mechanism of Internet information service policy tools in different periods from the two indicators of policy tool compulsion and coordination degree. It is found that the degree of enforcement of policy instruments is generally at a high level, but the degree of synergy is low [29]. From the perspective of policy change theory, Huang Lina and others used CO word analysis and multidimensional scale analysis to mine text from the perspective of high frequency words, policy themes and policy tools. It is found that China's Internet policy has roughly gone through five stages of development, with different policy characteristics in each stage. On the whole, it reflects the change of policy concept from "government management" to "common governance", the policy system from "garbage can mode" to "problem oriented" and then to "strategic layout", and the policy process has changed from focusing on "prior control" to balancing "during and after the event" Logic [30]. Wei Na et al. Used the method of policy literature measurement, and took five large-scale institutional reforms since 1994 as the time node to investigate and analyze the interactive network and evolution mechanism of Internet information service governance institutions in different periods. It is found that in the field of China's Internet information service policy, a decentralized but focused governance structure has been formed among governance agencies; at the same time, the cooperation network among governance institutions has been evolving and developing in the process of adapting to the development situation of China's Internet information service and the change of governance resources [31].

#### 2.2.3. Research on the Game Subject of Competition Order Governance

The 19th National Congress of the Communist Party of China calls for the establishment of a comprehensive network governance system, which points out the direction for the theory and practice of Internet information service industry competition order governance. Theoretically, the legalization of network governance is the only way for Internet governance. However, the practice of network governance in China shows that the network governance mode under the guidance of "regulation and suppression" contains moral hazard, insufficient effectiveness risk and public opinion blocking risk of Network Governance [32]. Yu Xiaoqing believes that we should explore the realization path from the aspects of governance subject, governance tools

and governance methods, and build a framework system for the modernization of government network governance capacity [33].

From the perspective of the main body of the competition order, the government, the public, the media and enterprises will have an impact on the balance between the development of the industry and the protection of public interests. Through empirical and normative analysis, Wei Xiaoyu found that the government has difficulties in identifying the legitimacy of regulatory objects, dividing the functions of regulatory agencies, and selecting regulatory tools. Therefore, the government should change its administrative concept, use market methods to achieve public goals, strengthen public participation, select regulatory tools with higher cost-benefit ratio and strengthen legal control. The government departments should change from the original "management" to guidance, service and governance, and realize the healthy development of Internet information service field through multi-faceted joint governance [34]. Qiu Rui and others believe that giving full play to the role of public participation in network security system construction and network security crisis response can achieve twice the result with half the effort and get more with one stone [35]. Zhang Yonghua discussed the inevitability of paying attention to public participation from the effectiveness of Internet Governance and the stability and durability of governance effect [36]. On the basis of analyzing the information attributes of microblog "hot search list" and "paid list", Lei Lili pointed out the problems existing in the current information service supervision, and proposed that the supervision and governance of Internet information service should respect the business autonomy of network service providers, and maintain the publicity of the network and the public's right to know [37]. Luo Jun and others believe that the exposure and disclosure of violations by the public media can effectively deter enterprises and restrain their violations [38]. Zhang Xiaofeng believes that social organizations, by assuming part of the government's public service functions and supervising Internet enterprises, have made up for the defects of the government led management mode in the network social governance, making their behaviors conform to the legal norms and bear the corresponding social responsibilities [39]. Lu Anwen et al. Explored the evolutionary stable equilibrium strategy of the entry enterprise and the incumbent enterprise in the cross domain behavior of the Internet information service enterprises, and thought that the final stable point of competition between enterprises under the market mechanism can be easily reached, and the optimal stable equilibrium strategy can be determined by introducing the government's constraint mechanism. The government can promote the cooperation among enterprises by increasing the appropriate penalty value, reasonably guiding the allocation of cooperation costs among enterprises, and reducing the compatible costs and cooperation risks of enterprises, so as to reduce the unfair competition among enterprises and promote the healthy development of the industry [40].

# 2.3. Evolutionary Game Theory

#### 2.3.1. The Origin and Development of Evolutionary Game Theory

Evolutionary game theory originated from the game analysis of conflict and cooperation between animals and plants by genetic biologists such as Fisher, Hamilton and Trivers. Marshall (1948) thinks that the change of the real world can be explained from two perspectives: one is to explain the world from the perspective of evolution; the other is to understand the world from the perspective of rational equilibrium. The evolutionary point of view is based on Darwin's view of biological evolution, that is, "natural selection, survival of the fittest", that even if there is no rational hypothesis, it can make a reasonable explanation and explanation of the real world. Because the concept of evolution is more complex than the concept of static, the economic research at that time mainly focused on rationality, equilibrium, stability and decisiveness. Since Marshall, a large number of experts and scholars have introduced the perspective of evolution into economic research. Experts and scholars in quantity have

introduced the viewpoint of evolution into economic research. Among them, Maynard Smith and price (1973,1974) proposed the evolutionary stable strategy (ESS), marking the formal birth of evolutionary game theory [41], and then the game theory developed rapidly. Taylor and Jonker (1978) proposed the basic dynamic concept of evolutionary game, replicate dynamics (RD) [42]. The dynamic proposition of replicator marks a breakthrough in evolutionary game theory. Evolutionary stability strategy (ESS) and replicator dynamic equation (RD) constitute the core concepts of evolutionary game theory, which respectively represent the final stable state of system evolution and the dynamic process of convergence of such stable state.

Compared with the traditional non cooperative game, evolutionary game theory assumes that the players are randomly selected from the largest population, and the participants play repeatedly according to the social mode. Specifically, the behavior of each player, that is, the game strategy, is assumed to have a diachronic evolution process in the overall distribution of strategy selection, and the whole system is constantly changing, and eventually a stable equilibrium will be achieved [43].

## 2.3.2. Research Status of Evolutionary Game Theory

The section headings are in boldface capital and lowercase letters. Second level headings are typed as part of the succeeding paragraph (like the subsection heading of this paragraph). All manuscripts must be in English, also the table and figure texts, otherwise we cannot publish your paper. Please keep a second copy of your manuscript in your office. When receiving the paper, we assume that the corresponding authors grant us the copyright to use the paper for the book or journal in question. As a research method, domestic and foreign experts and scholars have applied evolutionary game theory to many fields.

- (1) Environmental governance. On the basis of considering the external effects of air pollution control and the central government's reward and punishment mechanism, Nie Li et al. Built a tripartite evolutionary game model of central government, local government 1 and local government 2 to investigate the influence of various factors on the stable state and the dynamic evolutionary equilibrium mechanism to realize the Intergovernmental cooperative governance of air pollution [44]. Under the background of public participation, Liu Xin et al. Constructed the evolutionary game model of environmental protection between the central government and the local government under the condition of limited rationality, and analyzed the environmental protection strategy choice of both sides under the public participation [45]. Pan Feng et al. Discussed the decision-making evolution process of local governments by using evolutionary game theory in view of the behavior interaction between local governments in the implementation of environmental regulations; Gao Ming et al. Based on the perspective of evolutionary game, compared and analyzed the evolutionary stability strategies of local government territorial governance and cooperative governance with and without central government constraints, and explored the achievement and consolidation of local governments The factors of cooperative governance alliance [47]; estalaki s m, abed elmhouse a, kerachian r proposed a new evolutionary game theory method to determine the penalty function, and proposed that when the monitoring points are limited, EPA should place monitoring point amplifiers along the river to detect water quality standards [48].
- (2) Internet governance. Lu Anwen and others have constructed the evolutionary game model between government departments and Internet information service enterprises with the participation of multiple subjects, revealing the relationship between participants when the level of participation between industry associations and the public is in different threshold space [49]. Qikai et al. Established the evolutionary game model of Internet public opinion communication with the participation of the government, analyzed the evolution law of Internet public opinion of Internet users under different parameters, explored the evolution and guidance mechanism of public opinion [50]; Yulin et al. Took P2P network loan as an

example, established an evolutionary game model including enterprise, borrower, lender and supervisor, and combined with actual case analysis, put forward the supervision measures of P2P network loan industry [51]; Liu Renjing and other people's situation forecast the development trend of network public opinion by using evolutionary game model, and studied the governance mode adopted by the government to deal with network group events [52]. Liu D, Wang W, Li h studies the diffusion evolution mechanism of public information in network emergencies and constructs an evolutionary model of public information diffusion [53].

- (3) Corporate governance. Zhang Zhiyuan et al. Constructed a tripartite stakeholder evolutionary game model. Through the model solution and numerical simulation, it was found that the additional income from false disclosure and the loss of goodwill have an impact on whether the company chooses the real disclosure strategy, and the impact of goodwill loss on the company's strategy choice is more significant [54]. Zeng Jianghong and Cui Xiaoyun use the evolutionary game analysis model to fully consider the dynamic nature of governance and the influence of subsidiary's initiative on governance, and study the interactive mechanism between the parent company's supervision strategy selection and the subsidiary's strategy selection in the enterprise group's governance, and analyze the important factors that affect the stability of the system's evolution process, so as to solve the problem of entrusting between the parent company and the subsidiary company Rational problem provides a new way of thinking [55]. Liu Hanmin and Kang Ligun analyzed the evolution process of corporate governance from the perspectives of diversity of actors, dynamics of evolution path and variability of external environment, discussed the main factors influencing the evolution and selection of corporate governance path in different stages, and built an evolutionary game model of corporate governance on this basis [56].
- (4) Food safety management. Zhu Lilong et al. Constructed a tripartite evolutionary game model among food production enterprises, third-party testing institutions and government regulatory authorities based on consumer feedback mechanism, and analyzed the interaction mechanism of strategic choice among different actors and the evolution trend of strategic choice of each subject under different parameter changes [57]. Lei Xunping, Qiu Guanghua, based on prospect theory, expressed the income function of evolutionary game matrix with prospect value function, constructed the prospect value matrix of food industry behavior supervision, deduced the conditions of eliminating dishonest behavior of food supply enterprises, and introduced government subsidies to further establish the behavior impact model of food supply enterprises under the condition of government subsidies [58]. Wan Chundong et al. Explored how to control the risk of food quality and safety under the supply chain environment, introduced consumption substitution parameters, built a dynamic game model between food producers and consumers, and carried out simulation analysis of a numerical example [59]. Wang et al. Think that behind the food safety supervision problem is the imbalance of evolutionary game among the stakeholders in the food industry chain. Problems in any link of the food industry chain will cause the rapid spread of food safety risks towards the downstream of the food supply chain, leading to food safety accidents [60].

#### 3. Conclusion

According to the above topics, there are some problems as follows:

On the one hand, there is a lack of research on the integrity of the main body influencing the competition order of Internet information service industry. At present, when we study the regulation of unfair competition in the Internet information service industry, most of them have a single angle, and there are still some deficiencies in the integrity of the problem. From the perspective of government governance, this paper explores the game relationship between the main players in the competition order of Internet information service industry, analyzes the

decision-making behavior of the participants inside and outside the industry by integrating effective resources, and systematically and comprehensively studies the government governance strategy of Internet information service industry.

On the other hand, few studies have focused on the influence of the development characteristics of Internet information service industry in the game relationship. The competition among enterprises is a changing process, which can be regarded as an evolutionary game process. At the same time, the advantages of using evolutionary game are as follows: firstly, evolutionary game takes the participants as the research object, and under the limited rationality, it focuses on the behavior subject constantly modifying and improving in the evolution process, overcomes the disturbance phenomenon in the research of individual enterprises, and better adapts to the characteristics of enterprise behavior uncertainty in the industry; secondly, it adopts evolutionary game theory Game theory, different from the existing studies, which focus on the description of the behavior of a single enterprise, can grasp the evolution trend of the market from the macro perspective.

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