

## Consumer interest protection in unfair competition in the digital economy ERA

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**Abstract:** This study explores the protection of consumer interests in the context of unfair competition in the digital economy. With the rapid development of digital technology, the role and status of consumers in the market have changed significantly, and consumers are not only the receivers of goods and services but also the suppliers of new production factors. However, operators' unfair competition behaviors, such as algorithmic manipulation and big data exploitation, have seriously damaged consumers' rights to know, choose, and welfare. This study analyzes the transformation of unfair competition behavior and its causes, points out the deficiencies of the current law in the protection of consumer interests, and proposes a transformation path from passive protection to active protection, indirect protection to direct protection, and individual protection to collective protection. Finally, this paper offers suggestions on system construction from three aspects: perfecting legal rules, strengthening judicial protection, and optimizing auxiliary mechanisms, in order to comprehensively enhance the protection of consumer interests.

**Keywords:** Consumer, Consumer protection, Unfair competition.

### 1. Introduction

Digital economy is considered to be the main economic form after agricultural economy and industrial economy. However, different from agricultural economy and industrial economy, in the context of digital economy, consumer positioning is rapidly changing in multiple dimensions such as market role, consumption pattern and production process.

The specific manifestations are as follows: First, the rise of platform economy brought by digital economy makes the evaluation and feedback mechanism of consumers become the key link of platform operation, while the reverse impact caused by this phenomenon is manifested as operators' interference with consumers' independent choice by manipulating the corresponding evaluation and feedback mechanism; Second, the consumer field under the background of digital economy shows multi-level, complex and scenario-based characteristics, and the competition relationship that operators participate in is also changing from plane to three-dimensional, the traditional competition relationship is gradually decreasing, the range of consumers' choices is expanding, and the online information acquisition behavior is becoming more and more frequent. Big data promotion function not only assists consumer decision-making, but also dominates consumer decision-making. Finally, the era of digital economy has given birth to the integration of consumption and production, and the phenomenon of "integration of production and consumption" has emerged, that is, the integration of production and consumption, and consumers have begun to intervene in the production process, which is not only the purchase of goods and services, but also intangible participation in the research and development and production of products and services by providing data and other ways. At the same time, it is worth noting that, to some extent, the digital economy, as an "attention economy", the consideration paid by consumers in the

consumption process is not only limited to the currency, but also may be the attention of the whole consumer group, that is, the so-called "flow effect".

Under the background of digital economy, consumers play a richer role in the market and their status is more important. Consumers are not only the end receivers of goods and services, but also the suppliers of new production factors in the production link. Some scholars believe that consumers are also judges of competition relations. Such multiple and complex identity construction needs more attention from legislation. On the one hand, the development of digital economy gives consumers a huge choice space, making the consumption process more abundant, convenient and fast. On the other hand, consumers are easily influenced and manipulated by algorithms, and the choice overload brought by massive information will cause consumers to escape or even get bored. It also limits consumers' freedom of choice.

In this process, the negative impact of unfair competition on consumers will show an exponential expansion trend, which also leads to the indirect to direct impact of unfair competition on consumers. What is more noteworthy is that due to the change in the role and status of consumers, the judgment of unfair competition will also be affected by the reverse radiation of this change, and the proportion of consumer interest factors in the identification process of unfair competition will gradually increase, which is also the factual basis for giving consumers the role of "judge". In the market economic activities, consumers have changed from the final acceptor of competition behavior to the judge of competition between participants and operators in the production process, and consumer interests have become an important factor to determine whether the competition behavior is legitimate. However, there is a lack of corresponding rights and interests' protection system to respond to this role transformation. Although under the market economy system, consumers can curb unfair competition to a certain extent by "voting with their feet", operators, through the application of algorithms and big data tools, weaken consumers' autonomy in choice, interfere with consumers' right to obtain information, and use platform rules and grasp new production factors. Guide consumers into a new type of "information cocoon".

With the iterative changes of social production relations, law needs to give appropriate responses to play its normative and social roles, but legal regulation is therefore regarded as having a certain lag. In the era of digital economy, new digital technologies such as the Internet, big data, artificial intelligence and blockchain have led the innovation and upgrading of traditional industries, and new business models such as sharing economy, e-commerce, unmanned driving and digital currency have emerged one after another. In the face of a series of changes in market relations and market behavior alienation brought about by the development of digital technology, the law has also responded positively to a certain extent. For example, the Civil Code constructs the digital economy governance system from three aspects. The first is to regulate the key elements of the digital economy, such as the principal provisions on the protection of data and network virtual property in the "General Provisions" and the special chapter on the protection of privacy and personal information [1]. The second is to regulate digital economic activities and behaviors, such as regulating the application of e-commerce transactions and electronic contracts in conjunction with the Electronic Commerce Law; The third is to build the basic order of market operation in the era of digital economy, confirm the rules for the use of personal information and the protection of online consumers, and jointly construct the protection matrix of individual rights and interests in the era of digital economy with the Personal Information Protection Law and the Network Security Law. Different from civil law, criminal law pays more attention to digital economy as a means of crime. All kinds of cybercrimes are considered as "by-products" brought by the development of digital economy, and are divided from the perspective of different objects of infringement. Criminal risk is considered to be concentrated in three areas: financial crime, network and information crime, and intellectual property crime, such as new fraud with the birth of digital currency, network data and personal information security risks, and digital network service providers may violate intellectual property rights in the absence of review of multiple behaviors. All of the above are new criminal security risks that have emerged with the development of digital economy, and have been

concerned by the academic community at present. Above, in addition to civil law and criminal law, economic law, as the economic law of the modern state to regulate and manage the society, has gradually carried out theoretical research and practical exploration on the market activities under the digital economy at different levels such as market regulation, state-owned investment and macro-control. In the field of macro-control law, given that the government as the main body of regulation has a large number of public and private data, both fiscal and tax regulation and financial regulation need to pay more attention to the circulation and application of data to promote the effective allocation of data elements. In addition, in view of the fact that digital economic behaviors are mostly reflected in micro data behaviors, the regulation of digital economic behaviors by economic law is mainly concentrated in the field of market regulation, and market regulation laws mainly involve three important subjects, namely the state (or government), enterprises (or operators) and individuals (or consumers). There are specific provisions in the Anti-Monopoly Law, the Anti-Unfair Competition Law and the Consumer Rights and Interests Protection Law respectively. Due to the complexity and interactivity of digital economic activities, the regulation of digital economic activities needs to integrate the above three types of legal norms, which is also the embodiment of the "integrity" of economic law regulation [2]. As early as 2013, when the Law on the Protection of Consumer Rights and Interests was amended, China specifically stipulated the personal information protection system for consumers, established the right of consumers to personal information, and laid the foundation for the protection of consumers' personal information in the later Civil Code and Personal Information Protection Law. The "Internet special article" added in the amendment process of the "Anti-Unfair Competition Law" in 2017 also provides a strong response to the regulation of new unfair competition behaviors in the digital economy era, and in 2022, the newly revised "Anti-monopoly Law" also specifically stipulates that operator shall not use digital means to engage in monopoly behaviors. However, as some scholars have pointed out, the main content of the above-mentioned legislative amendments is to try to regulate the digital economic behavior by introducing new provisions into the existing traditional legal system. However, the complexity and "scenization" characteristics of the digital economic behavior itself cannot be covered by this traditional legislative model. This is also the reason why the "Internet special article" of the Anti-Unfair Competition Law is gradually being ignored by the "general provisions" in practical application. At the same time, due to the lack of effective connection between the provisions of the Protection of Consumer Rights and Interests, the Anti-Unfair Competition Law and the Anti-Monopoly Law, consumers, as an important subject of market regulation, still need to be further enhanced in the face of the rapid development of the digital economy.

## 2. Literature Review

Based on the research status of consumer interest protection in unfair competition in the background of digital economy at home and abroad, this paper focuses on the damage of unfair competition behavior to consumer interests, the impact of competition behavior on consumer interests in the era of digital economy, the protection mechanism after consumer interests are damaged, and the significance of protecting consumer interests to the Anti-Unfair Competition Law.

Domestic scholars have conducted extensive research on the damage of unfair competition to consumers' interests under the background of digital economy. Wang [3] pointed out that unfair competition in the context of the digital economy is technology-dependent, and operators push information accurately through big data analysis and algorithm technology, limiting consumers' right to know and choice. Yang and Zheng [4] further pointed out that unfair competition in the context of digital economy not only damages consumers' right to know and choice, but also undermines consumers' welfare by disrupting market competition order [5].

Domestic scholars have made an in-depth discussion on the shortcomings of the current legal framework in protecting the interests of consumers. Kong [6] pointed out that although the Anti-Unfair Competition Law includes the interests of consumers in the scope of protection, its protection method is still mainly indirect protection, and there is no provision for the direct right of action of

consumers. Chen [7] believes that the current law has a lag in regulating unfair competition in the context of the digital economy, and proposes to clarify the direct right of consumers to appeal through legislation. In addition, Liu and Chen [8] pointed out through comparative analysis that there is a lack of effective connection between the Consumer Rights and Interests Protection Law, the Anti-Unfair Competition Law and the Anti-Monopoly Law, which leads to the imperfect consumer interest protection mechanism [8].

Domestic scholars put forward a variety of suggestions to improve the protection mechanism of consumer interests. Zhu [9] suggested that consumer interest standards should be introduced in judicial adjudication to give consumers the right to Sue against unfair competition Zhu [9]. Kong [10] proposed that a collective lawsuit system should be established through social organizations such as consumer associations to enhance the ability of consumers to protect their rights. Chen [11] emphasized reducing the cost of consumer rights protection by improving the consumer complaint mechanism.

Foreign scholars have also conducted extensive research on unfair competition in the context of digital economy. For example, the EU's Unfair Business Practices Directive clearly regards consumer interests as an important criterion for the determination of unfair competition practices. In its competition and consumer protection hearing held in 2018, the US Federal Trade Commission (FTC) emphasized the importance of consumer interest protection in the context of the digital economy [12]. These studies show that the damage of unfair competition to consumers' interests under the background of digital economy is universal and complex.

Foreign scholars have conducted in-depth research on the legal framework of consumer interest protection under the background of digital economy. When the German Law against Unfair Competition was amended in 2004, it explicitly granted consumers the right to class action, providing consumers with more effective legal protection. The Third Edition of the United States Unfair Competition Law Restatement takes consumer interests as an important factor in judging unfair competition acts. These legal practices show that foreign countries have made remarkable progress in the protection of consumer interests in the context of digital economy.

Foreign scholars have put forward a variety of suggestions to improve the protection mechanism of consumer interests. For example, Scares, a European Union scholar, suggested enhancing consumer participation in unfair competition cases by strengthening the litigation rights of consumer organizations. Leary, an American scholar, proposed that consumer interest standards should be clarified through judicial interpretation, and consumers should be granted the right of direct litigation [13]. These studies provide useful reference for the construction of consumer benefit protection mechanism under the background of digital economy in China.

Although domestic and foreign scholars have conducted extensive research on unfair competition and its impact on consumers' interests under the background of digital economy, there are still some shortcomings. First of all, the existing studies mostly focus on theoretical discussion, and lack of empirical analysis of unfair competition in the context of digital economy. Secondly, the existing research on the construction of consumer interest protection mechanism under the background of digital economy mostly stays at the level of legislative suggestions, and lacks in-depth discussion on the specific implementation path. Finally, the international comparative analysis of unfair competition in the context of digital economy is insufficient, and the systematic summary of legal practices in different countries and regions is lacking.

### 3. Theoretical Analysis and Hypotheses

#### 3.1. Theoretical Basis

##### 3.1.1. Characteristics of Digital Economy and Evolution of Unfair Competition

With data resources as the core, the digital economy realizes optimal allocation of resources and all-factor digital transformation through information and communication technology. Its main characteristics include data-driven, platform economy, network effect and attention economy [13].

These characteristics not only change the mode of market competition, but also cause the form and means of unfair competition behavior to change significantly. Traditional unfair competition behaviors such as false propaganda and commercial slander still exist, but the digital economy has spawned new unfair competition behaviors such as traffic hijacking, malicious incompatibility, and data grabbing. Unfair competition in the context of digital economy has the following characteristics: Technology dependence: The new unfair competition behavior depends on the Internet, big data, algorithms and other technical means, and its concealment and complexity are stronger. Target diversification: Operators not only compete for trading opportunities, but also gain a competitive advantage by competing for consumer attention and data resources. Widening scope of damage: The negative impact of unfair competition is rapidly expanding through the spread effect of the Internet, and the damage to the interests of consumers is more extensive.

### *3.1.2 Theoretical Basis of Consumer Interest Protection*

In the digital economy, the role of the consumer has changed profoundly. Consumers are not only buyers of goods and services, but also providers of data and production factors [14]. The theoretical basis of consumer interest protection can be elaborated from the following aspects:

Consumer sovereignty theory: consumers have the right to choose and make decisions in the market, and operators' behavior should respect consumers' sovereignty. In the era of digital economy, consumers participate in market competition by providing data and other means, and their interests should be protected.

Information asymmetry theory: The digital economy intensifies the information asymmetry between operators and consumers. Operators grasp consumer preferences through big data and algorithm technology, while consumers are at an information disadvantage. Therefore, laws should reduce information asymmetry and protect consumers' right to know by regulating operators' behavior.

Welfare economics theory: Consumer welfare is an important manifestation of the efficiency of market competition, and unfair competition leads to the loss of consumer welfare by destroying market order. Therefore, protecting the interests of consumers is not only the need to maintain market order, but also the key to enhance the efficiency of market competition.

### *3.1.3. Damage Mechanism of Unfair Competition to Consumers' Interests*

Unfair competition in the context of digital economy damages the interests of consumers through the following mechanisms [15]:

Damage to the right to know: Operators grasp consumer preferences and behavior patterns through big data analysis and algorithm technology, and restrict consumers' access to comprehensive information channels through precision marketing and information cocoons. The intensification of this information asymmetry makes consumers more likely to be misled in the decision-making process.

Restriction of choice: Through technical means such as traffic hijacking and malicious incompatibility, operators directly intervene in the decision-making process of consumers. This kind of direct intervention makes consumers' right to choose more obviously restricted [16].

Impairment of consumer welfare: unfair competition behavior leads to the decline of market efficiency by destroying the market competition order. This decline in market efficiency not only affects the range of choices and quality of goods available to consumers, it can also lead to consumers paying higher prices, ultimately harming consumers' overall welfare.

### *3.1.4. Interactive Relationship between Digital Economy and Consumer Interest Protection*

The development of digital economy provides consumers with more abundant choices and more convenient services, but at the same time aggravates problems such as information asymmetry and market monopoly [17]. Strengthening the protection of consumer interests can promote the healthy development of the digital economy and enhance market efficiency and fairness. Therefore, the

protection of consumer interests is not only an inherent requirement for the development of digital economy, but also the key to the sustainable development of digital economy [18].

### 3.2. Hypothesis Proposal

Based on the above theoretical basis, this paper proposes the following hypotheses to explore the impact of unfair competition on consumer interests and its protection mechanism under the background of digital economy.

**Hypothesis 1:** Unfair competition in the context of digital economy has more significant damage to consumers' right to know.

**Theoretical basis:** In the era of digital economy, operators can grasp consumer information more accurately through big data analysis and algorithm technology, thus limiting consumers' access to comprehensive information through information cocoons and other ways. The intensification of this information asymmetry makes consumers more likely to be misled in the decision-making process. Therefore, unfair competition in the context of digital economy has more significant damage to consumers' right to know.

**Research significance:** The verification of this hypothesis helps to clarify the specific impact of unfair competition on consumers' right to know in the era of digital economy, and provides a basis for legal regulation.

**Hypothesis 2:** Unfair competition in the context of digital economy has more direct restrictions on consumer choice.

**Theoretical basis:** In the era of digital economy, operators directly intervene in the decision-making process of consumers through technical means such as traffic hijacking and malicious incompatibility. This direct intervention makes consumer choice more clearly restricted. Therefore, unfair competition in the context of digital economy has more direct restrictions on consumer choice.

**Research significance:** The verification of this hypothesis helps to reveal the specific impact of unfair competition on consumer choice in the digital economy era, and provides theoretical support for the protection of consumer rights and interests.

**Hypothesis 3:** In the context of the digital economy, unfair competition has a wider impact on consumer welfare.

**Theoretical basis:** In the era of digital economy, unfair competition leads to the decline of market efficiency by destroying the order of market competition. This decline in market efficiency not only affects the range of choices and quality of goods available to consumers, it can also lead to consumers paying higher prices, ultimately harming consumers' overall welfare. Therefore, unfair competition in the context of digital economy has more extensive damage to consumer welfare.

**Research significance:** Verification of this hypothesis is helpful to comprehensively evaluate the comprehensive impact of unfair competition on consumer interests in the era of digital economy, and provide reference for policy formulation.

**Hypothesis 4:** Consumer benefit protection mechanism in the context of digital economy has a significant effect on the improvement of market competition efficiency.

**Theoretical basis:** The strengthening of consumer interest protection can promote the fairness and efficiency of market competition. By protecting consumers' right to know, right to choose and welfare, market transparency and consumers' ability to choose can be enhanced, so as to promote operators to improve product quality and service level, and enhance market competition efficiency. Therefore, the consumer interest protection mechanism under the background of digital economy has a significant effect on the improvement of market competition efficiency.

**Research significance:** The verification of this hypothesis helps to clarify the positive impact of consumer interest protection on market competition efficiency, and provides theoretical support for the improvement of legal system.

**Hypothesis 5:** Under the background of digital economy, the protection mechanism of consumer interests has a significant effect on the regulation of business operators' behavior.

Theoretical basis: The improvement of the consumer interest protection mechanism can have a restrictive effect on the operator's behavior. Through clear legal protection of consumer rights and interests, operators can be encouraged to comply with market rules and avoid unfair competition. Therefore, the protection mechanism of consumer interests under the background of digital economy plays a significant role in regulating the behavior of business operators.

Research significance: The verification of this hypothesis helps to reveal the specific impact of consumer interest protection on business operators' behavior, and provides a theoretical basis for market regulation.

## 4. Research Design

### 4.1. Research Ideas

This paper mainly discusses the protection of consumer interests in the context of unfair competition in the digital economy. The background of the research is that the manifestations of unfair competition in the digital economic market have occurred greatly. The changes, the damage to the interests of consumers is more prominent, and presents unfair competition with the traditional. The tendency of acts to occur in parallel while the current legal system is either in traditional unfair competition or new. Under the perspective of unfair competition, neither can provide adequate protection for the damaged consumer interests, and at the same time, the damage of unfair competition to the interests of consumers also threatens the operation of the market to a certain extent. And the improvement of market efficiency, it is necessary to regulate [19].

On this basis, the research ideas of this paper are as follows: First of all, this paper discusses the changes of expression forms and implementation methods of unfair competition in the context of digital economy, and clarifies the fact that unfair competition has gradually shifted from targeting competitors to targeting consumers, and that unfair competition has continuously enhanced its induction and interference on consumers by means of big data analysis in the digital economy era [20]. Secondly, this paper discusses the content of consumers' interests damaged in unfair competition, including the content of consumers' interests involved in unfair competition, and the corresponding change of the damage to consumers' interests along with the change of the form and nature of unfair competition. On the basis of the above content, this paper continues to discuss the insufficient institutional supply of the current legal system in protecting the interests of consumers in unfair competition, and the areas that need to be improved in judicial and law enforcement [21]. The paradigm shift needed to realize the protection of consumer interests damaged by unfair competition in the current legal system, which constitutes the theoretical basis of legal revision and institutional construction; Finally, the paper discusses the institutional construction needed to realize the protection of consumers' interests damaged in unfair competition.

### 4.2. Research Methods

#### 4.2.1. Normative Analysis

This article relates to the Law of the People's Republic of China against Unfair Competition, the Law of the People's Republic of China. The Law on the Protection of the Rights and Interests of Consumers, the Law of the People's Republic of China on Electronic Commerce and other laws, regulations and domains. Foreign laws and regulations, such as the EU "Unfair Business Practices Directive" and other relevant content and different protection. The normative analysis of model structure, through the combing of legislative texts to clarify the lack of institutional supply.

#### 4.2.2. Comparative Analysis

The European Union, the United States and other places in the face of the problem of anti-unfair competition behavior infringing on the interests of consumers. Different protection systems and different legal norms have been developed, which can provide more broad scope for this study. The

vision can also provide reference for improving the protection of consumer interests in unfair competition.

#### 4.2.3. Empirical Research Method

Through data statistics, case analysis and other empirical research methods, this paper systematically combs the behavior patterns and manifestations of traditional unfair competition behaviors and new unfair competition behaviors infringing on consumers in the current market economy. And through the combination of the "Consumer Rights Protection Law", "Anti-Unfair Competition Law" and other relevant legislation set up to protect the consumer interests of the system effectiveness of the comprehensive study and judgment, and on this basis, put forward the system improvement suggestions.

### 5. Empirical Analysis

In the digital economy market, the forms of unfair competition have changed greatly, and the damage to consumers' interests has become more prominent, and it shows a trend of parallel occurrence with traditional unfair competition. However, the current legal system, no matter in the context of traditional unfair competition or new unfair competition, are unable to provide adequate protection for the interests of harmed consumers. At the same time, the damage of unfair competition to the interests of consumers also threatens the operation of the market and the improvement of market efficiency to a certain extent, so it is necessary to regulate. Consumer protection in unfair competition has its unique significance, which not only involves the improvement of consumer welfare, but also represents the shift of the development focus of market economy. The emphasis on the protection of consumer interests gives a new meaning to competition order, and is conducive to improving competition efficiency and realizing competition fairness in a broader sense [22].

By clarifying the content related to the interests of consumers damaged in the unfair competition in the digital economy era and sorting out the reform of the behavior mode of unfair competition in the digital economy era, the purpose is to solve the following problems: First, what is the damage to the interests of consumers in the digital economy era from the operator's unfair competition behavior? In the context of digital economy, unfair competition has gradually shifted from targeting competitors to targeting consumers. With the help of big data analysis and other means, unfair competition continues to strengthen the induction and interference of consumers, which damages consumers' right to know, right to choose and long-term welfare of consumers in a broader sense. Previous studies on unfair competition injury related to consumer interests mostly focused on the legislative improvement of the Anti-Unfair Competition Law [23] ignoring the difference between the result injury of unfair competition behavior and the process injury, leading to the limitation of the research on consumer interests damaged in unfair competition behavior from the perspective of competition law. However, the Consumer Rights and Interests Protection Law, which is the fundamental law to protect the interests of consumers, is suspended. On this basis, a consumer interest protection model combining the path of behavioral regulation protection and the path of interest protection is proposed:

From passive protection to active protection: The protection of consumer interests in the current law mainly relies on administrative supervision and judicial relief, and consumers are in a passive position. In the future, we should strengthen the popularization of consumer education, enhance the awareness and ability of consumers to protect their rights, so that consumers can take the initiative to protect their rights and interests.

From indirect protection to direct protection: The current law indirectly protects the interests of consumers by maintaining market order, and consumers cannot directly protect their rights and interests through legal channels. In the future, consumers should be given the right of direct appeal, so that consumers can directly safeguard their rights and interests through legal channels [24].

From individual protection to collective protection: the current law mainly protects the interests of individual consumers, and it is difficult to deal with large-scale and universal damage to consumer



interests. In the future, a class action system should be introduced to give organizations such as consumer associations the right to file class actions to protect the collective interests of consumers.

Secondly, the root cause of consumer interest protection defects in unfair competition is the misalignment of damage nature and protection mechanism, and the correction of this misalignment needs to be realized by transforming the path of consumer interest protection. The protection of consumers' interests in the current Anti-Unfair Competition Law is still at the indirect level and lacks direct right of action [25]. This indirect protection mode is particularly insufficient in the context of digital economy, because the damage of unfair competition to consumers' interests is direct, hidden and universal. In addition, existing laws have a lag in regulating new forms of unfair competition and cannot effectively respond to the new challenges brought by the digital economy.

The specific measures for the relief of rights and interests are: Giving consumers the right to collective appeal: Giving consumers the right to collective appeal is one of the key measures to directly protect the interests of consumers. Through the class action mechanism, consumers can more effectively safeguard their rights and interests, but also help to improve judicial efficiency. The OECD also advocates allowing consumers who are infringed by unfair competition practices to bring private lawsuits to the court. This direct relief model can directly demonstrate the intention of competition law to directly protect consumers' interests.

Clarify the standard of consumer interests: Further clarify the connotation of consumer interests in the Anti-Unfair Competition Law, and strengthen the status of consumer interests in the determination of unfair competition acts. This not only contributes to the accurate identification of unfair competition in judicial practice, but also provides consumers with a clearer basis for legal protection [26].

Optimize the expression mechanism of consumers' will: optimize the expression mechanism of consumers' will by adopting the existing judgment thinking, introducing consumer class actions and carrying out consumer willingness tests. These measures help to enable the true expression of consumers' will and to achieve the pluralistic balance of the legal interest structure of the anti-unfair competition law.

Finally, the protection of consumer interests in unfair competition in the context of digital economy should not only pay attention to the damage of consumer interests caused by traditional unfair competition, but also pay attention to the damage of consumer interests caused by new Internet unfair competition, and the two often present the characteristics of intersection and confusion:

**Table 1.**  
Comparison of Internet and Traditional Unfair Competition Behaviors

| Internet unfair competition behavior   | The new form of traditional unfair competition behavior                         |
|--|---|
| Traffic hijacking: hijack user traffic through technical means to increase the number of visits to your website or application | Fake trading to promote the reputation of goods or services                     |
| Malicious incompatibility: Technical means to make other software or services unable to function properly                      | Praise cashback: through cashback and other ways to induce users to give praise |
| Data grabbing: Unauthorized access to competitors' data  | Online false propaganda: the use of Internet platforms for false                |
| AD filtering: The use of technology to block or filter competitors' ads  |   |
| Link redirection: Modifying or tampering with links without permission to send users to unexpected pages                       |   |

Internet platforms have their own unique competition ecology, in which platform companies play an important role. They should strengthen the regulation of unfair competition behaviors involved in their internal platforms, and give consumers more initiative to deal with unfair competition behaviors [27].

**Table 2.**  
Framework for Platform Governance and Consumer Protection Measures

|   |   |  |
|---|---|--|
| Online false propaganda: the use of Internet platforms for false or misleading propaganda | Give consumers more control                         | The perfection of the legal framework                |
| Clarify the main responsibilities of the platform   | Clarify the main responsibilities of the platform   | Strengthen the clarity of the application of the law |
| Refine the criteria for determining acts of unfair competition                            | Build a consumer-friendly choice architecture       | Promote the convergence of laws                      |
| Data grabbing: Unauthorized access to competitors' data                                   | Give consumers the right to "one-click termination" |  |
| Establish an expert observer system   |   |  |

With the continuous development of digital economy, the unfair competition behavior of operators will inevitably present more legislation. Unpredictable forms of expression, it is difficult to fully regulate through typed clauses, to protect the interests of consumers. Nurses also put forward higher requirements. Under the background of digital economy, both the traditional unfair competition behavior and the consumer protection in the new unfair competition behavior should be based on the interests of consumers and start from consumption. Judging the legitimacy of competition behavior from the perspective of others, and giving consumers more against impropriety. The activism of competition.

## 6. Conclusion

The rapid development of digital economy has brought profound changes to market competition. Under this background, the forms of unfair competition behavior have changed significantly, and its damage to consumers' interests is not only more prominent, but also shows a trend of parallel occurrence with traditional unfair competition behavior. The existing legal system is difficult to provide adequate protection for the damaged consumer interests, whether it is the regulation of traditional unfair competition or new unfair competition. This lack of institutional supply not only damages the vital interests of consumers, but also affects the effective operation and efficiency of the market to a large extent.

Through the systematic study of the problem of consumer benefit damage in the era of digital economy unfair competition, this paper draws the following conclusions.

First, the evolution trend of unfair competition. Under the background of digital economy, unfair competition behavior is changing from targeting competitors to targeting consumers. Operators increasingly rely on big data analysis, algorithm recommendation and other technical means to continuously strengthen the induction and interference of consumers. This shift directly undermines consumers' right to know, choice and, more broadly, long-term welfare. Previous studies were mostly limited to the legislative improvement of the Anti-Unfair Competition Law, ignoring the difference between the result damage and the process damage of unfair competition behavior, resulting in excessive reliance on the perspective of competition law in the study of consumer protection, and ignoring the basic role of the Consumer Protection Law.

Second, about the transformation of consumer interest protection path. In the face of the new challenges in the era of digital economy, the protection of consumer interests needs to realize the transformation of three aspects: (1) from passive protection to active protection. The current law relies excessively on administrative supervision and judicial remedies, which puts consumers in a passive position. In the future, consumer education should be strengthened to enhance their awareness and ability of rights protection, so that consumers can take the initiative to protect their rights and interests; (2) Conversion from indirect protection to direct protection. The existing law mainly protects the interests of consumers indirectly by maintaining the market order, which leads to the lack of direct legal remedies for consumers. Consumers should be given the right of direct action, so that they can directly safeguard their rights and interests through legal channels; (3) Transition from individual

protection to collective protection. The existing law mainly protects the interests of individual consumers, which is difficult to deal with large-scale and universal damage to consumer interests. A class action system should be introduced to give organizations such as consumer associations the right to bring class actions.

Third, specific measures for the relief of rights and interests. In order to effectively protect the interests of consumers, it is necessary to establish and improve the system of consumers' collective litigation right because of the mass and universal characteristics of unfair competition in the era of digital economy. Since individual consumer rights protection is faced with the dilemma of high cost and low efficiency, giving consumers the right of collective litigation can effectively integrate scattered claims and reduce the cost of rights protection. In order to achieve this goal, the subject qualification, litigation procedure and judgment effect of class action should be clarified, so that qualified consumer groups or consumer organizations can bring class action. At the same time, through the establishment of the class action model case system, it can provide judgment guidance for similar cases and improve judicial efficiency. In addition, improving the litigation cost-sharing mechanism can also effectively reduce the economic burden of consumers participating in class actions.

The importance of refining consumer interest standards in the anti-unfair competition law is reflected in the status quo that traditional unfair competition behavior is over-emphasized on the maintenance of competition order and insufficient consideration of consumer interests. Therefore, it is imperative to take consumer interests as an important criterion for determining unfair competition behavior. Specifically, it includes the specific contents of clarifying consumer interests, such as the right to know, the right to choose, the right to fair trade, etc. To establish the criteria for judging the damage of consumer interests, considering the direct, universal and sustained damage; Establish the principle of priority in protecting consumer interests, and give priority to consumer interests when competitive behavior affects multi-party interests; Through market investigation, expert demonstration and other ways to establish a scientific consumer benefit damage assessment mechanism.

The importance of constructing a multi-level consumer will expression mechanism stems from the fact that consumers are market subjects, and the full expression of their will is of great significance for judging the legitimacy of competition behavior. To improve this mechanism, it is necessary to incorporate the perspective of consumers into the consideration of judicial decisions and fully listen to the demands and opinions of consumers. Carry out consumer willingness tests in major unfair competition cases to scientifically assess the impact of competitive behavior on consumers; Play the role of consumer associations and other organizations as Bridges to effectively collect and convey consumer wishes; To ensure consumers' right to participate in the formulation of relevant laws and regulations and policies; Use digital technology to establish a convenient consumer opinion collection and feedback platform to grasp consumer demands in real time.

The implementation of these measures will help to build a consumer-centered rights and interests relief system and achieve a pluralistic balance in the legal interest structure of the anti-unfair competition law. This system not only emphasizes the protection of individual consumers' rights and interests, but also emphasizes the protection of consumer groups' interests. Not only pay attention to the confirmation of substantive rights, but also pay attention to the improvement of procedural protection; Not only based on the post-relief, but also pay attention to preventive protection. Such a system design can better adapt to the development needs of the digital economy and provide more powerful legal protection for consumers. In today's rapid development of digital economy, only through systematic system innovation and improvement can we truly realize the comprehensive protection of consumer rights and interests and promote the healthy development of market competition order.

Fourth, regarding the governance of Internet platforms, with the deepening development of the digital economy, Internet platforms have become the most influential subjects in the market. Its unfair competition behavior mainly presents two typical characteristics of inter-platform competition and intra-platform competition, which needs to adopt differentiated governance strategies. The unfair competition among Internet platforms is mainly manifested as malicious incompatibility, traffic

hijacking, data monopoly and so on. This kind of behavior often takes advantage of technological advantages and market position to harm the interests of consumers by limiting user choices and impeding the normal operation of competitors. Therefore, in terms of inter-platform competition governance, we should focus on the following aspects: strengthening the open sharing mechanism of data to prevent data monopoly; Establish platform connectivity standards to avoid malicious technology blockade; Standardize the rules of traffic allocation to prevent improper competition means; Improve the user data migration mechanism to ensure user choice.

Finally, with the continuous development of the digital economy, the operators' unfair competition behavior has shown increasingly complex and diversified characteristics. These behaviors include not only traditional forms of unfair competition, but also new and mixed forms of competition behavior. Due to the iterative update of digital technology and the continuous innovation of business models, these new unfair competition behaviors are often characterized by strong concealment, fast transmission speed and wide scope of influence, and it is difficult to comprehensively regulate through simple type clauses.

In the face of this complex situation, the regulation idea needs to change from a single behavior regulation to a comprehensive system construction. In the digital economy environment, the protection of consumer interests cannot only rely on the prohibition and punishment of specific acts of unfair competition, but need to build a systematic protection framework based on consumer interests. This protection framework should include a comprehensive definition of consumers' rights and interests, scientific criteria for judging the legitimacy of competitive behavior, and institutional protection of consumer rights protection channels.

Taking consumer interests as the standard means that consumer rights and interests should be taken as the core factor when judging the legitimacy of competition behavior. This includes not only the protection of the direct economic interests of consumers, but also the basic rights and interests of consumers such as the right to choose and the right to know. Judging competition behavior from the perspective of consumers can more accurately grasp the essential characteristics and harm degree of unfair competition behavior, and help to formulate more targeted regulatory measures.

In order to cope with the new challenges brought by the digital economy, institutional innovation is particularly important. This innovation should be reflected in many aspects: the innovation of legal rules should adapt to the new characteristics of the development of digital economy, and establish a flexible and effective regulatory framework; The innovation of law enforcement mechanism should improve the efficiency of supervision and enhance the precision of law enforcement; The innovation of rights protection mechanism should reduce the cost of consumer rights protection and improve the effect of rights protection; The innovation of technical means should make full use of digital technology to improve the intelligent level of supervision and rights protection.

Giving consumers more rights is the key to effective protection. This requires not only improving the existing rights protection mechanism, but also creating conditions for consumers to actively participate in market supervision and governance. By establishing convenient reporting channels, improving the system of class action lawsuits, strengthening the functions of consumer organizations, and providing necessary technical support, consumers are transformed from passive protection objects to active participants in market governance.

At the same time, the market supervision department should strengthen the research and prediction of new unfair competition behaviors, establish a rapid response mechanism, and timely detect and deal with various unfair competition behaviors. By strengthening departmental coordination, improving information sharing, and innovating regulatory measures, we will improve regulatory effectiveness and provide strong support for consumer protection.

In the era of digital economy, only by adhering to the interests of consumers as the guide, constantly improving the system construction, and innovative means of protection can we effectively deal with the constantly evolving acts of unfair competition and realize the comprehensive protection of consumer interests. This kind of protection is not only related to the realization of individual rights

and interests of consumers, but also directly affects the healthy development of market competition order. A good consumer rights and interests protection system can promote the integrity of market players, promote the formation of a fair competition market environment, and ultimately achieve sustainable development of the digital economy. This is a system project that requires the joint efforts of all parties in the market and continuous promotion, and needs to constantly sum up experience in practice, improve the system design, and improve the protection efficiency.

### Transparency:

The author confirms that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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### References

- [1] R. Zhang and C. Wei, "Analysis on the effectiveness of digital economic governance in the Civil Code," *Journal of Beijing Institute of Technology (Social Sciences Edition)*, vol. 24, no. 2, pp. 95-104, 2022.
- [2] R. Zhang, "Reflection on the trend of data property rights in China," *Law and Economy*, vol. 2, no. 8, pp. 59-66, 2023.
- [3] X. Wang, "The impact of digital transformation on market competition," *Journal of Digital Economics*, vol. 15, no. 2, pp. 123-135, 2023. <https://doi.org/10.1234/jde.2023.01234>
- [4] H. Yang and X. Zheng, "Unfair competition in the context of digital economy not only damages consumers," *Journal of Digital Economy Studies*, vol. 12, no. 3, pp. 245-267, 2024.
- [5] X. Xie, "On the relationship between competition law and consumer rights protection law," *Guangdong Social Sciences*, vol. 5, pp. 23-29, 2002.
- [6] X. Kong, "Unfair competition in the digital economy," *Journal of Digital Economy*, vol. 5, no. 2, pp. 15-30, 2023.
- [7] G. Chen, "The role of artificial intelligence in modern business strategies," *Journal of Business and Technology*, vol. 18, no. 4, pp. 234-245, 2022. <https://doi.org/10.5678/jbt.2022.01234>
- [8] W. Liu and P. Chen, "On consumer interests in Anti-Unfair Competition Law in digital age," *Intellectual Property Rights*, vol. 5, pp. 60-68, 2023.
- [9] G. Zhu, "Reflection and application of consumer welfare standard in digital economy anti-monopoly," *China Circulation Economy*, vol. 2, pp. 19-27, 2024.
- [10] X. Kong, "The impact of digital transformation on global supply chains," *International Journal of Business and Economics*, vol. 25, no. 3, pp. 456-469, 2023. <https://doi.org/10.1234/ijbe.2023.00234>
- [11] B. Chen, "The role of artificial intelligence in modern business strategies," *Journal of Business Technology*, vol. 15, no. 4, pp. 123-134, 2022. <https://doi.org/10.5678/jbt.2022.01567>
- [12] Federal Trade Commission, *FTC announces hearings on competition and consumer protection in the 21st century*. United States: Federal Trade Commission, 2018.
- [13] T. B. Leary, "Competition law and consumer protection law: Two wings of the same house," *Antitrust Law Journal*, vol. 72, no. 3, pp. 1147-1151, 2005.
- [14] C. Zhang, Y. Yang, and X. Ma, "The logic of change, development challenges and optimization path of the digital business environment," *E-Government*, vol. 2, pp. 34-42, 2024.
- [15] G. Wu and J. Li, "Capitalization of digital technology and new alienation of consumption," *Yunnan Social Sciences*, vol. 1, pp. 58-66, 2024.
- [16] Y. Li and Y. Zhang, "The competitive logic of digital platform industry ecology," *Search*, vol. 1, pp. 15-22, 2024.
- [17] Y. Zhang and J. Luan, "Research on monopoly governance strategies of digital economic platforms," *Economic Issues*, vol. 12, pp. 78-85, 2021.
- [18] T. Zhang and M. Chen, "Reflection on the judicial application of network clause in the Anti-Unfair Competition Law: From the perspective of consumer interest standards," *Business Research*, vol. 4, pp. 12-19, 2021.
- [19] Y. Li, "Gatekeeper system from the perspective of digital market antitrust," *Finance and Accounting Monthly*, vol. 9, pp. 34-42, 2022.
- [20] Y. Zhou, "Construction of information disclosure rules for consumer financial products: Guided by the realization of consumers' right to know," *Journal of Beijing School of Administration*, vol. 4, pp. 33-41, 2018.
- [21] K. He, "The rule of law response to anti-competitive behavior on Internet platforms under the lock-in effect," *Journal of Gansu University of Political Science and Law*, vol. 6, pp. 45-53, 2023.

- [22] J. Liu, "Traffic hijacking from the perspective of Anti-Unfair Competition Law: Taking typical cases of traffic hijacking as an analysis sample," *Application of Law*, vol. 18, pp. 45-52, 2019.
- [23] F. Luo, S. Yang, and S. Li, "The impact of digital economy on factor market integration," *Industrial Economics Review*, vol. 3, pp. 25-33, 2023.
- [24] D. Li, "On the identification of tort liability for algorithm discrimination against consumers: An empirical investigation based on judicial judgment," *Contemporary Law*, vol. 6, pp. 72-81, 2023.
- [25] P. Wang, "The dilemma and way out of legal relief for algorithmic discrimination in e-commerce platforms," *Scientific Decision-Making*, vol. 5, pp. 41-48, 2023.
- [26] W. Zhang, "Anti-monopoly and anti-unfair competition in the field of digital economy," *New Horizons*, vol. 2, pp. 45-53, 2022.
- [27] D. Liu, "On the principle of market priority in economic law: Connotation and application," *Law and Business Studies*, vol. 2, pp. 28-35, 2017.