

Risk Mitigation Effectiveness of Foreign Well-Known Trademark Protection During Supply Chain Fluctuations

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The global supply chain turbulence has increased the difficulty of protecting foreign well-known trademarks. Although there are many studies on cross-border trademark rights protection in academia, there is relatively little research on its risk mitigation effectiveness in the context of supply chain fluctuations. Based on case studies of commercial law and data statistics, the study explores the relationship between protection efficiency and market response through legal applicability. Due to the long litigation cycle and uneven law enforcement, there are differences in market regulation, weakening the protection of well-known trademarks and exacerbating supply chain uncertainty. Strengthening international legal framework cooperation and promoting law enforcement linkage can enhance protection effectiveness. In theory, enriching the theory of cross-border trademark protection and expanding research on brand rights protection in the context of global supply chains. In practice, it helps enterprises adjust their trademark layout, avoid legal risks, and improve market competitiveness. Due to the complexity of the legal environment and limitations in data acquisition, future research will strengthen data analysis, promote international cooperation in intelligent supervision, and build a more efficient cross-border well-known trademark protection mechanism.

Keywords: supply chain resilience, famous trademark, risk mitigation, economic fluctuations, intellectual property

Introduction

The current global trade landscape is undergoing drastic changes, and geopolitical conflicts are intensifying, leading to supply chain disruptions, pressure on business operations, and an increase in the difficulty of trademark rights protection. In 2024, the Third Plenary Session of the 20th Central Committee of the CPC proposed to “improve the resilience and safety level of the industrial chain supply chain”. Governments across China are continuously improving regulations on foreign investment, strengthening the protection of well-known trademarks, enhancing judicial protection of intellectual property rights, introducing policies to support cross-border rights protection, promoting digital supervision, and improving law enforcement efficiency. Supply chain fluctuations affect industrial stability, and the protection of foreign well-known trademarks faces challenges. Faced with the intensification of trade barriers, the application of laws is more complex, the cost of protecting rights for enterprises increases, judicial procedures become increasingly lengthy, and the protection of rights lags behind, making law enforcement coordination more difficult. The study adopts methods such as case analysis and legal review, aiming to optimize trademark protection strategies, improve enterprise risk resistance,

promote policy improvement, enhance market fair competition environment, strengthen international trademark protection cooperation, and ensure supply chain security and brand rights.

Challenges in the Protection of Foreign Famous Trademarks During Supply Chain Fluctuations

Supply chain fluctuations exacerbate market uncertainty and hinder the protection of foreign well-known trademarks. Trade barriers increase the difficulty of safeguarding rights and the complexity of legal application, leading to an increase in litigation costs. Supply chain disruption weakens brand control, increases infringement risk, and damages market share. The lag in digital regulation affects the efficiency of rights protection, insufficient legal adaptability, and increased compliance pressure.

Economic Downturn Affects Supply Chain Stability

Against the backdrop of a global economic downturn, no company can stand alone. Exploring the underlying reasons is that inherent problems in economic development have disrupted the global supply chain. Before each product reaches the hands of consumers, there is a complex global supply chain network, and removing one node will affect the entire chain. With the economic downturn, many companies have found it difficult to quickly identify and establish connections with alternative suppliers, which has had a significant impact on production. Since the outbreak of the epidemic, the economic development of various countries has significantly improved, and at the same time, economic development has begun to promote the resumption of work and production by enterprises. However, due to the rapid spread of economic downturn characterized by multiple centers in Europe and America, the supply chain challenges of industrial enterprises are spreading to the entire industrial value chain and global supply chain. For example, Hyundai Motor in South Korea suspended all production lines in South Korea, including factories in Ulsan, Jeonju, and Yashan, due to the interruption of Chinese parts supply caused by the economic downturn. There was a seemingly low-level mistake in the production of modern cars, which resulted in the inability to produce due to the depletion of wire harness inventory. Due to the installation of different wiring harnesses in different car models, and the fact that wiring harnesses are the third most important component in a car, manufacturers are unable to stock up on this component in large quantities. Due to limited inventory in China and the inability of Korean and Southeast Asian suppliers to provide temporary support, the combination of these three factors has forced Hyundai Motor to suspend production (Sun, Tan, & Zhao, 2025).

Overall, the impact of the economic downturn on the supply chain is mainly reflected in the following aspects. Firstly, the global economic downturn has led to a decrease in demand and supply in the industrial value chain, as well as uncertainty. For example, trade between China and Europe and America has been basically interrupted, resulting in a large number of orders for export dependent enterprises being cancelled one after another; secondly, upstream factories may shut down or reduce production, leading to downstream supply and production being affected and challenged. For example, at present, the manufacturing industry is more severely affected by economic downturns, such as supplier shutdowns, shortages of incoming raw materials or parts supply, which will have an impact on manufacturing production and sales; thirdly, urban lockdowns have caused delays in regional and international logistics terminals, resulting in widespread shortages or backlogs. At the same time, it also leads to companies defaulting due to their inability to fulfill contracts on time, ultimately affecting investment decisions that are delayed or put on hold. When the cost is constant, blockchain business effectively promotes financing and financial development (Yang, Ma, & Mi, 2025).

Legal Protection Mechanism for Foreign Well-Known Trademarks

Foreign well-known trademarks are a category of legal terminology that first appeared in the Paris Convention. However, at that time, the Paris Convention did not provide a sufficient definition of foreign well-known trademarks. There are different opinions among academic schools in various countries regarding the interpretation of this definition, and there are also many disagreements. With the development of the commodity economy and the progress of the times, the concept of well-known trademarks has been continuously emphasized in the “Suggestions and Annotations on the Protection of Famous Trademarks”, deepening the requirement that well-known trademarks must be known in the public domain (Lang, 2013). From the perspective of China, many ministries and commissions have further standardized the definition of well-known trademarks and formulated the “Regulations on the Recognition and Protection of Famous Trademarks”, which requires that well-known trademarks must include requirements of high reputation and public awareness. From a legal perspective, this definition differs from it. According to academic theory, well-known trademarks need to be recognized by legal institutions and supplemented with previous definitions. Famous trademarks need to be recognized and registered, and they need to be recognized and reviewed by the Ministry of Justice or relevant administrative departments, so they must be recognized by legal institutions. With the continuous development of the world commodity economy, well-known trademarks have been constantly researched and understood by every country, resulting in countless changes and developments. Based on the understanding of academic theory and relevant laws in various countries, it is believed that trademarks that have a high reputation and are known to the public in a specific geographical space also need to be recognized by legal institutions.

The legal characteristics of well-known trademarks are reflected as follows. Firstly, the well-known guarantee trademark has trademark rights, but it is not a registered trademark. If a trademark has not been registered and has gained a certain market share and a large reputation in long-term market development, it also has trademark rights. Without legal support and protection in the commodity economy market, it is inevitably meaningless. If the owner of a well-known trademark is unable to register, the judicial authorities can determine and protect it from individual cases (Kong, 2009). Secondly, well-known trademarks must be well-known to the public. Being well-known to the public is a continuous improvement and breakthrough in the institutional protection of well-known trademarks. If the trademarks that are known to all levels of citizens in the country can only be met by a few trademarks, it is not a very strict standard. So, among trademark users, a well-known trademark can be recognized as widely known in various countries. Thirdly, well-known trademarks are protected in a certain geographical space. Famous trademarks are of great significance in implementing the protection of well-known trademarks while emphasizing regional characteristics. Therefore, a well-known trademark is not a factual concept, but belongs to the legal category. A well-known trademark is not just a description of a specific factual state, but a legal definition that is gradually confirmed by law and ultimately protected by law (Huang, 2016). The reason for protecting well-known trademarks is to make them stand out prominently in the international market. To achieve international recognition for a trademark, continuous innovation and permanent efforts are required. Enterprises need to produce products with qualified quality, through advanced technology and a good reputation, in conjunction with marketable business strategies and significant media promotion.

Supply Chain Fluctuations Weaken the Rights and Interests of Well-Known Trademarks

The economic downturn has led many people to question the low inventory of lean production. Although inventory can provide some lubricant, it is powerless against the randomness of large fluctuations. Only with

corresponding recovery capabilities can the supply chain quickly adjust to mitigate adverse effects when sudden and unpredictable events occur. To possess such capabilities, enterprises need to make full use of big data analysis technology, and achieve efficient operation and continuous optimization of the supply chain through highly coordinated “top-level design” of the underlying architecture, technical path, product form, and operation mode (Zhao, Ye, Yang, & Hong, 2025). However, the trend led by the digital age only provides direction for enterprise transformation to a certain extent, and blindly applying it cannot solve the fundamental problem. Enterprises must actively consider how to truly integrate digital technology into supply chain operations, find trends that are suitable for their own business development, and develop supporting transformation strategies and supply chain plans, and implementation steps based on this. A detailed evaluation and implementation of each supply chain solution and its operational benefits are necessary to prescribe the right medicine and successfully achieve the transformation goal of digital operation of the enterprise’s supply chain.

To solve this problem, it is necessary to make certain legislative modifications and continuously improve the supporting laws and regulations. At the same time, establishing sound laws and regulations, promoting the development of cross class protection systems and priority use systems, are conducive to reducing disputes over well-known trademarks. Clarifying the scope of protection and legal characteristics of foreign well-known trademarks, moderately promoting well-known trademarks, and cooperating with a correct understanding of laws and regulations are conducive to preventing the monopoly of well-known trademark products in the market and stabilizing market order. Imitating well-known trademarks has caused serious damage to the field of intellectual property. As a visual link between producers and consumers, trademarks can effectively promote products. For foreign well-known trademarks with good reputation, the state should have a dialectical understanding and protect the development of intellectual property rights. This can promote the country’s “going out” and foreign “coming in”, achieving a win-win situation. In recent years, China has gradually increased its management of well-known trademarks, but there are still many problems that need further improvement. Starting from an overview, current situation, problems, and solutions of well-known trademarks, this article analyzes the protection system of foreign trademarks in China and believes that intellectual property provides a continuous source of legal assistance for human wisdom and scientific innovation, promotes the protection of foreign well-known trademarks in China, and stabilizes the market economic order (Xu, 2024).

The Impact of Enterprise Supply Chain Adjustment on the Protection of Well-Known Trademarks

Supply chain adjustment optimizes resource allocation, regional layout reduces external shocks, enhances market adaptability, and reduces infringement risks. Diversified supply chain disperses operational pressure, improves brand stability, and optimizes legal protection environment. Digital transformation enhances response speed, strengthens market control, and promotes trademark rights protection.

Diversified Supply Chain Enhances Trademark Protection Effectiveness

Nowadays, a sophisticated supply chain network enables people to remove excess inventory and idle capacity, while also taking away market demand elasticity and leaving no room for any destructive events. The main reason for industrial enterprise supply chain interruption leading to production stoppage is the concentration of supply sources. So when establishing a supply chain, enterprises should not consider cost as

the only factor, but rather establish a complete set of risk mitigation strategies. For enterprises, their main products must have multiple ways to reach the market, that is, by establishing a diversified supplier network to enhance the ability to resist supply chain shortage risks.

So far, the Paris Convention is a legal regulation on the protection of well-known trademarks. The convention stipulates many issues, such as territorial protection scope, service trademarks, or recognition standards. The convention not only innovates the enforcement procedures for trademark confirmation, but also prevents various behaviors that infringe intellectual property rights. The convention has a certain degree of enforceability and is more conducive to protecting intellectual property rights. For the protection of well-known trademarks, it is necessary to fully consider the brand awareness of the trademark in various countries. When extending protection to trademarks that are dissimilar or different, various shortcomings of the trademark are compensated for, and effective protection measures are taken to prevent damage to well-known trademarks. The relevant provisions and scope of well-known trademarks have been clearly indicated. Since 1974, the World Intellectual Property Organization (WIPO) has gradually provided further protection for intellectual property rights. The organization maintains laws and regulations on well-known trademarks, which stipulate that the protected country should be regarded as the origin of the well-known trademark and cannot exceed the scope of protection in member countries (Xu, 2004). According to relevant public regulations, services and products using trademarks, or potential influential customers, should take into account the various value concepts of trademarks when using trademarks for services or goods. In the 1980s, there was no clear protection system for foreign well-known trademarks in China's laws and regulations. With the continuous development of China's socialist market economy, a certain legal framework has been established for well-known trademarks and protected to maintain international market order. The reason why China vigorously improves its trademark laws and regulations is to avoid intellectual property infringement. China's emphasis on well-known trademarks has also been continuously regulated with the continuous development of various countries, gradually establishing domestic written laws on trademarks and deepening China's reform of well-known trademarks.

Regional Layout Optimization of Trademark Rights Protection Environment

Due to the different ways in which different countries handle economic downturns, it has had a significant impact on the global supply chain network. Therefore, companies can improve the transparency of the supply chain by shifting to regional production, where key production processes are concentrated in several major bases in the global production chain, and clarify where the components they need come from, in order to better hedge risks (Yang et al., 2025). In practice, Toyota has maintained a good ability to cope with risks, because compared to other competitors, Toyota still retains a significant degree of localization. In fact, Toyota has over 350 suppliers located in the United States at its factories in Georgetown or Kentucky, and even over 100 are located in Kentucky. In the process of continuously handling the development of well-known trademarks in China, administrative agencies and legislative bodies should constantly clarify the positioning of well-known trademarks. As a private well-known trademark, it is necessary to dynamically observe the various difficulties of well-known trademarks. Cross class protection of well-known trademarks, continuously increasing protection measures, and implementing a series of refined legal governance for cross class protection can effectively solve various problems in the process of social development. For well-known trademarks, appropriate classification should be given to handle various problems faced, and specific problems should be analyzed on a case by case basis.

Looking at the legal development of well-known trademarks in various countries around the world. Although France has not yet established a clear protection system for well-known trademarks, it does not mean that the protection of trademarks is insufficient. Parties involved in trademark disputes have continuously recognized standards for the protection of well-known trademarks in accordance with various passive protection requirements. The recognition criteria for well-known trademarks in France require that the trademark be widely known to the public, that the scope of promotion be clearly defined, that the scope of trademark promotion be clearly defined, that the time for using and registering the trademark be continuously clarified, and that the sales volume of goods be expanded. The right to request revocation of a well-known trademark must be within five years. Germany protects trademarks in accordance with unfair competition laws. The application for a well-known trademark, if used for similar products, should be rejected. There should be a requirement for the breadth of fame in the scope of trademark protection. For trademarks lacking distinctiveness, they should not be registered for use. However, Germany usually adopts abstract standards for the treatment of well-known trademarks. The United States deals with well-known trademark issues by continuously increasing protection measures and favoring state legislation. The recognition factors of well-known trademarks have the right to prohibit participants from diluting the provisions of well-known trademarks. The United States has different laws and regulations regarding this issue in the two countries mentioned above. The United States mainly adopts measures to expand protection, gradually adjusting the specific provisions of trademark laws at two levels: federal and state. With the development of world integration and economic globalization, the legal measures of trademark law in the United States have gradually shifted from state jurisdiction priority to federal jurisdiction priority. The trademark law in the United States has different understandings and regulations on well-known trademarks. With the development of time, the requirements for well-known trademarks in the United States have gradually been diluted.

Digital Transformation Reduces Trademark Protection Risks

Whether in the short or long term, the priority task for enterprises is to better understand the vulnerabilities in the production process. In order to cope with the impact of economic downturn on the supply chain, information flow and data value play multiple roles. They are usually not only used to support production relations, planning, and coordination between enterprises, but also to accelerate a more detailed understanding of production processes and customer behavior patterns. Digitization allows enterprises to quickly change their business models, reduce supply chain management and transaction costs by adding or reducing network units, adjusting multilateral platforms, or modifying existing links. The protection of well-known foreign trademarks in China requires full attention and continuous improvement of laws and regulations by the state. In order to continuously improve the protection of well-known trademarks, it is necessary to clarify the scope of protection, distinguish the concept of well-known trademarks, determine their legal attributes, establish a complete mechanism for the protection of well-known trademarks, and cooperate with other laws and regulations to continuously improve and supplement the Trademark Law.

There are still cross-border challenges in the protection system of well-known trademarks, and conflicts over trademark rights between companies have become more apparent, with various forms of intellectual property infringement emerging. Due to the ambiguity in distinguishing the boundaries of trademark rights in some judicial or administrative agencies, further improvement of intellectual property protection is needed. The local administrative department did not effectively supervise the approval of well-known trademarks,

resulting in the relevant departments having a wrong understanding of well-known trademarks and hindering market development. Partial unfair competition has caused many problems in market development. When well-known trademarks are imitated or copied, if a company can fully prove its trademark domain name, it can revoke the infringing name and protect its legitimate rights and interests. In the process of resolving disputes, the determination result can solve trademark disputes and adverse effects. Some statutory institutions also have certain problems, and disputes over trademark infringement are various issues that well-known trademarks need to address in their development process. In terms of market share and sales volume, the parties involved in well-known trademarks should provide relevant legal materials and apply to the relevant judicial departments for protection (Cao, 2004). In the recognition method, the recognition criteria for well-known trademarks are determined by distinguishing whether there is a dispute. In the development process of well-known trademarks, many prevention issues and protection scope problems have been encountered. The effective use of administrative power by government agencies involves a mass certification model, which poses many challenges for the proper protection of well-known trademarks. Sometimes it is difficult to choose the correct recognition agency for well-known trademarks, and not all well-known trademarks can receive legal protection. In the process of protection, it is necessary to find a suitable recognition agency. Only through legal approval can well-known trademarks be protected. Therefore, there are still many difficulties in the certification process of well-known trademarks. For the reform of trademark law, more efforts are still needed to change the current situation.

Strengthening the Protection of Famous Trademarks in Digital Supply Chain

Digital supply chain accurately monitors the market environment and strengthens the protection of well-known trademarks. Intelligent technology optimizes resource allocation, reduces infringement risks, and enhances brand competitiveness. Data analysis enhances supply chain resilience, stabilizes market share, and enhances international competitive advantage. Information integration accelerates the process of safeguarding rights, reduces litigation costs, and enhances compliance protection.

Digital Monitoring Supply Chain to Avoid Trademark Infringement

Faced with supply chain risks caused by economic downturn, enterprises must gain experience from it. One is the frequent occurrence of low risks, which requires foresight and the preparation of alternative solutions such as substitution strategies, backup capacity, and safety stock strategies. The second is sudden high risk, with random uncertainty, it is impossible to foresee high inventory reserves, and can only rely on the resilience of the supply chain. Such as the multi-skilled nature of employees, the conversion capability of factories, the multi-functionality of supply, global and regional strategic capacity deployment, and strategic research and development capabilities. To make the above adjustments and optimizations, it is necessary to rely on real-time data monitoring of the supply chain, use big data to comprehensively control the supply chain process, and have a clearer understanding of inventory levels, order completion rates, material and product distribution (He & Hao, 2025). By conducting data analysis in advance to regulate supply and demand, utilizing new planning to optimize supply chain strategies and networks, and promoting supply chain as the core competitiveness of enterprise development.

For the issue of dealing with well-known trademarks, specific problems need to be analyzed on a case by case basis. Firstly, it is common to use well-known trademarks as domain names. The concept of plagiarism,

including transliteration, translation, high imitation, and pure copying, should be vigorously cracked down on for those who maliciously tamper with trademarks. The conflict between well-known trademarks and domain names can affect the sales and development prospects of products, and the use of bad trademarks is not conducive to the orderly development of the market. Identify ambiguous usage methods, determine effective trademark protection methods, and ensure that the trademark is solely used for business purposes. Secondly, some illegal enterprises misappropriate well-known trademarks. Famous trademarks have been registered with relevant departments, and other enterprises still use highly similar trademarks as their business names or images. The relevant authorities have the right to handle this. The handling of this issue varies in the laws and regulations of different regions. If the company name is highly similar to a well-known trademark, it is not conducive to the normal development of enterprises in society. Thirdly, the system of trademark registration and cross class protection is not perfect. Translating, copying, or imitating well-known trademarks may infringe upon the legitimate rights and interests of other trademark owners and mislead society into a correct understanding. The reputation of well-known trademarks may be degraded, which is not conducive to the normal development of the market. This approach may benefit some companies, but it harms cross class trademark protection and is not conducive to market development. Fourthly, the market has not effectively protected unregistered trademarks. A country's strong protection of unregistered individuals reflects its soft power. Some companies confuse well-known trademarks and use them, resulting in a misunderstanding between the accused trademark and the well-known trademark, which leads to incorrect choices by society towards the two and hinders market development.

Big Data Supply Chain Enhances the Efficiency of Trademark Rights Protection

A supply chain is a consortium of multiple organizations integrated to maximize customer satisfaction and minimize costs for each organization, jointly managing the information flow, capital flow, and product flow from the origin to final consumption. To use big data analysis technology to promote supply chain transformation, it is necessary to first integrate and connect various data in the supply chain. Adopting big data analysis technology not only collects information, but also guides enterprises to make wiser, faster, and more efficient decisions. In addition to using data for supply chain operations, organizations can also transform data into value by providing market insights to customers, suppliers, and other trading partners. Third party logistics providers are becoming increasingly effective in utilizing big data in the supply chain, establishing partnerships with technology providers to apply big data to their service products. In terms of logistics, it is crucial to drive synchronous growth between upstream and downstream partners, which may be similar to consumer sentiment, retail industry development, seasonal patterns, and consumption forecasts.

Although well-known trademarks face many challenges in protection, China continues to prescribe the right medicine and clarify the power restrictions of well-known trademarks. We should gradually strengthen the establishment of a complete intellectual property system for well-known trademarks, improve the reasonable use restriction measures of the Trademark Law, and prohibit the improper use of well-known trademarks for unmarked products. It is necessary to indicate the source of trademark usage to avoid infringement. Try to avoid market monopoly of well-known trademark products, and impose certain restrictive measures on well-known trademark products, which is conducive to the normal development of the market. The use of well-known trademarks should comply with relevant laws and regulations, emphasizing fairness and impartiality in the use of well-known trademarks. The recognition system still needs to be continuously improved, and the establishment of

recognition institutions requires not only quantity but also quality. The country needs to continuously supervise various issues of trademark recognition institutions to avoid the breeding of corruption in recognition institutions. The filing system for well-known trademarks effectively avoids duplication, improves the development of the judicial system, and reduces many unnecessary costs in the game between intellectual property and artificial intelligence databases, which is conducive to resolving conflicts. Continuously standardize the accreditation institutions and effectively address legal issues related to well-known trademarks. Further regulating sales revenue and sales volume, the court should also strengthen the publicity work of trademark supervision to avoid similarity issues. Strengthen the protection of well-known trademarks through litigation (Miller & Davis, 1990). Judicial workers should pay more attention to judicial practicality, clarify the protection of intellectual property rights, and continuously improve the effective jurisdiction of well-known trademarks.

Supply Chain Collaboration Consolidates the Intellectual Property System

A good supplier relationship is a key issue for business development. Exchange inventory and demand information between both parties, establish Vendor Managed Inventory (VMI) operation mechanism, and reduce production losses caused by stockouts. Enterprises can use digital analysis products to develop corresponding databases and transmit real-time sales data of goods to manufacturers. Eliminate excess inventory and reduce holding costs through mature replenishment and inventory coordination mechanisms (He, Ouyang, & Meng, 2025). Taking into account changes in demand, safety stock levels, procurement lead times, maximum inventory settings, procurement order quantities, and procurement changes, establish an optimized inventory structure and level. Government departments and enterprises should fully recognize the characteristics of well-known trademarks, continuously improve protection measures, and avoid irrational publicity effects on well-known trademarks.

Famous trademarks require the establishment of a sound cross-border protection mechanism. To determine the cross-border protection of well-known trademarks, sufficient investigation and understanding of the elements of the trademark should be conducted, distinguishing the degree of similarity of goods, and specifically identifying the infringement behavior. Relevant national departments can establish a sound filing system, distinguish the qualifications of applicants, and standardize the protection mode of trademarks. Clear definition and approval of application materials by administrative agencies. The legal positioning of well-known trademarks also needs to be continuously improved. Judicial authorities should continuously strengthen their administrative jurisdiction over well-known trademarks. In the process of development, if disputes arise over well-known trademarks, it is better to establish the dispute resolution models. The legal effect of intellectual property rights can further protect well-known trademarks, fully respect market development laws, and comprehensively utilize government intervention measures. In the process of recognizing well-known trademarks, it is necessary to continuously improve the supervision mechanism of intellectual property rights, increase the protection of well-known trademarks, which is conducive to the normal development of the socialist market economy, promote the gradual internationalization of the Chinese market, attract foreign-funded enterprises to develop in China, promote economic growth, and promote the development trend of regional and world economic integration. China should continuously increase the management and protection of well-known trademarks, continuously improve the cross-border protection mechanism and recognition system of well-known trademarks, and ensure the effective development of well-known trademarks. Famous trademarks require greater effort than ordinary trademarks to achieve consumer favor. With the continuous improvement of

intellectual property rights, well-known trademarks are essential weapons in enterprise competition, and their value is much higher than that of ordinary trademarks. The dynamic protection, priority, and reasonable use of well-known trademarks are conducive to simplifying the various problems faced in the protection system of well-known trademarks. This requires continuous deepening of reforms in order to achieve complete protection of well-known trademarks.

Conclusion

During the period of supply chain fluctuations, the protection of foreign well-known trademarks faces multiple challenges, and the effectiveness of risk mitigation has become a core issue. Centered around the synergistic effect of trademark rights protection and supply chain adjustment strategies, evaluate the effectiveness of different response mechanisms through data analysis, case studies, and legal comparisons. Research has found that supply chain fluctuations lead to increased market dependence, limited legal applicability, increased difficulty in identifying infringement, and increased risk of damage to corporate trademark rights. Based on data case analysis and commercial law provisions, the main conclusions include the following aspects. The diversification strategy of the supply chain can effectively reduce the dependence of enterprises on a single market in specific market environments, indirectly reducing the possibility of malicious trademark registration or infringement. Regional supply chain enhances the applicability of local laws, making the recognition of well-known trademarks more operable and improving litigation efficiency. The introduction of digital management methods has improved the accuracy of trademark monitoring, enhanced the timeliness of identifying infringement behaviors, and relatively reduced the cost of rights protection. Covering the optimization of risk warning mechanisms, evaluation of rights protection strategies, and analysis of legal adaptability. Provide decision support for the protection of well-known trademarks in different market environments through research methods such as data modeling, case analysis, and cross-border legal comparison. This study improves the intellectual property protection framework during supply chain fluctuations and reveals the integration path of law and business strategy. Provide legal basis for enterprises to formulate supply chain adjustment plans, improve trademark protection capabilities, and reduce legal dispute risks. Due to significant differences in regional legal environments, some data cannot reflect long-term impacts, and the dynamic effects of changes in supply chain structure need further verification. Therefore, further research can analyze the supply chain models of specific industries, optimize the trademark rights claim mechanism, promote the adaptive reform of intellectual property rights, and improve the effectiveness of global brand protection. Combining emerging legal tools such as smart contracts, enhancing digital governance measures, improving the enforceability of well-known trademarks in different jurisdictions, and achieving deep integration of supply chain management and intellectual property protection.

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Conflict of Interest

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Ethical Conduct

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Informed Consent

Informed consent was obtained from all participants following the publication rule. The corresponding author prepares to collect documentation of compliance with ethical standards.

Data Availability

Data supporting the findings are available upon request from the author. The datasets generated during and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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