

# *Legal Service Development for Industrial Enterprises in the Greater Bay Area with Patent Circulation Driven by Intelligent Valuation*

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**Abstract:** Based on the research on industrial enterprises in the Greater Bay Area, this paper analyzes the patent legal risks faced by industrial enterprises in the Greater Bay Area, the market demand for legal services of patent agents and the patent transaction process, and puts forward the idea of legal services for industrial enterprises in the Greater Bay Area according to the characteristics of patent circulation driven by intelligent valuation. Driven by intelligent valuation, industrial enterprises in the Greater Bay Area will usher in brand-new development opportunities, and their legal services will expand from single intellectual property management to multiple fields such as intellectual property risk warning and dispute resolution.

## 1. Intelligent Valuation's Response to Patent Legal Risks

In recent years, many countries in the international are constantly exploring the impact of artificial intelligence on the operation of the intellectual property system and applying artificial intelligence technology to intellectual property review and retrieval work. On this basis, in-depth research has been carried out on the application of artificial intelligence technology in patent retrieval, the application of semantic analysis technology in patent retrieval, and the intelligent classification of patent classification based on artificial intelligence through the study of patent value evaluation index system.

The intelligent valuation technology has the characteristics of 'open data, fast processing and data sharing'. Through the information processing of patent technology, the classification, retrieval and statistical analysis of patent technology, combined with the understanding of technology and market demand, the intellectual property valuation can be realized. <sup>[1]</sup>In September this year, the Guangdong Provincial High People's Court issued a number of typical cases of intellectual property protection in the Greater Bay Area. It shows that in recent years, the main reasons why industrial enterprises in the Greater Bay Area are facing greater patent legal risks are : patent infringement litigation, patent invalidation litigation and invalidation procedures. Therefore, in the legal services of industrial enterprises in the Greater Bay Area, it is necessary to deal with the above

risks from two aspects: first, to enhance the awareness of intellectual property protection ; second, understand the risk response measures.

According to the characteristics of the technical field and the type of patent, different countermeasures are taken for different infringement risks and invalid risks. For the risk of patent infringement, enterprises can know in advance which patents may be suspected of infringement through the patent infringement risk early warning system; for the risk of patent invalidation, enterprises can search for potentially invalid technologies through the patent invalidation retrieval system and third-party databases. <sup>[2]</sup>

## 2. Patent transaction process driven by intelligent valuation

According to the 'opinions on accelerating the construction of the provincial intellectual property protection center system', the Guangdong Provincial Market Supervision and Administration Bureau proposed in the co-organizing opinion letter to promote the construction of a strong intellectual property province and support the high-level scientific and technological self-reliance and self-improvement of the manufacturing industry. Important measures include vigorously strengthening the protection of the entire chain of intellectual property rights, guiding and guiding the protection of intellectual property rights of production enterprises.

By 2023, the number of intellectual property mediation organizations in Guangdong has increased to 133, with 2,000 cases handled. Around 20 strategic industries, 13 national-level intellectual property protection centers or rapid rights protection centers have been built, with a total of 21,000 fast pre-examinations of patents and 1,543 fast rights protection cases. The local pilot work of data intellectual property rights has been carried out, and the Guangdong Provincial Data Intellectual Property Registration Platform has been officially launched.

Patent transaction is an important part of the realization of patent value. Among the industrial enterprises in the Greater Bay Area, patent transactions are mainly internal transactions between enterprises, and the transaction targets are mostly authorized invention patents, utility model patents, design patents, etc. In this case, if it is necessary to further promote the occurrence of patent transactions, it is necessary to drive the realization of patent value through intelligent valuation. Specifically, smart valuations can be embedded in the following areas:

1) Set the evaluation price: combined with patent technology and market demand and other factors, to determine the evaluation value.

2) Intelligent valuation: The value of patents for sale / to be sold is estimated by the patent evaluation system. Among them, when evaluating the value of the patent to be sold, it should be priced according to the market demand; when evaluating the value of the patent to be purchased, the final price should be determined in combination with the company's own development strategy, market environment and other factors.

3) Dealing: Driven by smart valuations, a deal is finally reached through negotiation or bidding.

Intelligent valuation can be used to judge whether the patent right for sale / to be sold has sufficient market value; or it is used to judge whether the patent right for sale / to be sold is defective or faces the risk of invalidity. <sup>[3]</sup> In this case, if the two parties can reach a deal, it means that the market needs a matching asset to meet the market demand.

Since industrial enterprises in the Greater Bay Area have certain advantages in terms of technological research and development (e.g., higher investment in research and development), they have a higher tolerance for risk in technological innovation. Therefore, it may be easier to reach an agreement on the transfer of intellectual property rights among industrial enterprises in the Greater Bay Area than in other regions.

### **3. Legal services combining smart valuation and intellectual property protection**

Intelligent valuation is the product of the combination of intelligent technology and legal system, which can provide greater value space for enterprises. Most enterprises have the problem of “heavy registration and light protection,” which leads to the problems of difficult proof and low compensation when they encounter infringement litigation. Driven by intelligent valuation, industrial enterprises in the Greater Bay Area can choose appropriate patent protection methods and methods according to their own technological development characteristics and patent infringement risks. For example, intelligent valuation can be combined with patent early warning to provide timely and effective risk early warning services for industrial enterprises; it can also combine intelligent valuation with litigation to provide intellectual property litigation solutions for industrial enterprises.

#### **3.1. Intellectual property infringement early warning**

Intelligent valuation can use big data analysis and other technical means to scientifically evaluate the value of patents, provide suggestions for enterprise patent layout, guide enterprises to formulate appropriate patent strategies, and avoid waste of R & D and invalid patents. However, this requires a lot of manpower, material resources and time costs, which is usually applicable to large enterprises. For industrial enterprises in the Greater Bay Area, they can carry out targeted early warning of intellectual property infringement according to their own development needs and development goals. For example, when enterprises develop new technologies or new products, they can monitor and evaluate in real time through the early warning system of intellectual property infringement; when potential patent infringement risks are found, professionals should be consulted in a timely manner and feasible solutions should be provided.

In addition, early warning of intellectual property infringement can also provide more value space for enterprises. When enterprises fall into intellectual property infringement disputes, they often fall into the dilemma of difficult proof, low compensation and high cost of rights protection. For this problem, the early warning system of intellectual property infringement can be used for real-time monitoring and evaluation. The early warning system of intellectual property infringement can quickly retrieve and evaluate patents by mining, analyzing and utilizing massive patent data, and combining patent value evaluation models and algorithms. <sup>[4]</sup>

#### **3.2. Intellectual Property Risk Assessment**

From the perspective of intellectual property protection of enterprises, enterprises should incorporate intellectual property management into the enterprise management system, strengthen the management, control and application of intellectual property rights, and timely warn and effectively prevent possible infringement risks. According to the State Intellectual Property Office 's ' Opinions on Further Strengthening the Use and Protection of Intellectual Property Rights to Help Innovation and Entrepreneurship ' ( State Intellectual Property Office No.56 ), the State Intellectual Property Office requires patent management departments at all levels to strengthen the enforcement of intellectual property rights and protect innovation and entrepreneurship achievements, and build a network-based intellectual property rights protection assistance system. This shows that the state attaches importance to the risk assessment of intellectual property infringement. Industrial enterprises can assess the risks in their operations through professional institutions to ensure that their operations are within the protection of intellectual property laws. At the same time, because intelligent valuation has the function of information collection and processing, it can provide real-time and timely risk early warning services for industrial enterprises, so as to avoid unnecessary

losses. For example, through intelligent valuation, competitors are analyzed, and the development trend and patent layout of competitors are grasped in time, so as to take effective measures to prevent them.

### **3.3. Intellectual property litigation solutions**

For industrial enterprises in the Greater Bay Area, the problem of intellectual property infringement is particularly prominent. Driven by intelligent valuation, infringement will be greatly increased, and the cost of infringement will be greatly reduced. For example, enterprises can realize the risk assessment of the target patent through intelligent valuation technology, and use the evaluation results to effectively defend. In addition, intelligent valuation can also provide timely and effective patent infringement risk warning for enterprises.

In the industrial enterprises of the Greater Bay Area, patent infringement disputes occur from time to time. Due to the characteristics of concealment, complexity and professionalism of patent infringement disputes, coupled with the differences in the ability of both parties to present evidence, there is a great controversy between the two parties in the collection of evidence and the distribution of burden of proof. For industrial enterprises, on the one hand, the risk assessment of target patents can be carried out through intelligent valuation technology; on the other hand, corresponding coping strategies can be adopted according to the evaluation results.

Litigation solutions will become an important part of enterprises' intellectual property protection. Because intelligent valuation technology has the advantages of high efficiency, convenience and quantification, it will be widely used in intellectual property infringement litigation. Therefore, we should make full use of intelligent valuation technology to provide litigation solutions for industrial enterprises. <sup>[5]</sup>Specifically, in the litigation solution, intelligent valuation technology can be combined with the evidence discovery system to ensure the fairness and justice of the parties in the proof link; at the same time, the expert witness system and the expert assistant system can be adopted to improve the efficiency of litigation, reduce the cost of litigation and improve the predictability of litigation results. In addition, the combination of smart valuation technology with the existing judicial system can also be considered. For example, the intelligent valuation technology can be used as the basis or reference standard for the court to entrust the identification agency to identify the infringement behavior; intelligent valuation technology can also be used as an important reference standard for the court to determine the amount of compensation.

## **4. The new path of legal services for industrial enterprises in the Greater Bay Area**

With the increasing protection of intellectual property rights by the state, industrial enterprises in Guangdong will usher in new development opportunities. In the face of the practical difficulties faced by industrial enterprises in Guangdong, it is an important way to solve the dilemma of intellectual property legal services for industrial enterprises in Guangdong by constructing a new path of intellectual property legal services for industrial enterprises in Guangdong with the help of patent transaction process driven by intelligent valuation.

The patent intelligence evaluation platform of the Greater Bay Area will also provide additional legal services for enterprises to improve the fairness of the evaluation results. This project will evaluate the platform as a " fair promoter " in patent circulation, that is, to play the role of a fair service provider between the patent assignor and the assignee, to realize the identification of core patent ownership defects, disputes over the rights of transnational service inventions in Guangdong, Hong Kong and Macao, and to verify the integrity of the patent property right chain. <sup>[6]</sup>

Driven by intelligent valuation, industrial enterprises in the Guangdong region can make use of existing intellectual property service organizations to provide them with a full range of legal

services, instead of simply resolving disputes by litigation and arbitration. For industrial enterprises, by building their own IPR legal service system, it can enable them to strengthen their IPR management from legal risk prevention, patent layout, patent operation, infringement litigation and other aspects, and at the same time, it can also provide more efficient IPR services for enterprises.

## 5. Conclusion

Intellectual property protection is an important part of the economic and social development of the Greater Bay Area and plays an important role in international competition. Under the background of the construction of the Greater Bay Area, the protection of intellectual property rights needs to be further strengthened, and the development of intelligent valuation of intellectual property rights provides new development opportunities for industrial enterprises in the Greater Bay Area.

Intelligent valuation is a product of the combination of a new generation of information technology and intellectual property rights. To a certain extent, it can solve the problems of difficult patent evaluation and difficult transaction. However, there are differences between patent intelligent valuation and traditional patent evaluation, which requires professionals to formulate appropriate trading models according to specific circumstances. With the advancement of the construction of the Greater Bay Area, the transportation links between cities have become increasingly close, which has brought great convenience to intellectual property transactions, but also put forward higher requirements for intellectual property management.

Industrial enterprises in the Greater Bay Area actively use intelligent valuation technology to reasonably value their intellectual property rights, establish a patent early warning analysis system, establish a patent information disclosure system, and improve the internal intellectual property management system of enterprises. This will help industrial enterprises in the Greater Bay Area to expand from intellectual property management to intellectual property risk early warning, dispute resolution and other fields.

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