



**POLITECNICO
DI TORINO**

Open source service system design

for low infringement cost Intellectual property in China

Thesis For Master Of Science Degree in Systemic Design
Department of Architecture & Design

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Abstract

The current status of intellectual property rights is that, higher-value intellectual property (such as technology patents and trademarks) has a relatively complete legal supervision system and means of accountability. But as for those lower value IP (such as design, part of the Utility model), the legal supervision has difficulty in this area, and the cost of infringement is relatively low.

This article focusing on this kind of IPs, changes its service mode, and based on the background of China's current high-speed development of online transactions, created an online IP sharing platform and protected IPs by changing IP usage and profit mode. In areas where the law is difficult to monitor (such as "Shanzhai" manufacturers), new system promotes them step into legal operating through free market competition instead of direct banning. For creators, first priority is to ensure their profit, rather than stick to strict intellectual property right protection. Thanks to current booming upper market demand in the Chinese market, made possible this model.

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Background

Economic & Network Industry & Manufacturing Distribution

After the reform and opening up, the Chinese economy has entered a period of stable and rapid development. This kind of economic development has also performed differently in the eastern and western regions. The regional economic development is extremely uneven. The main features are still strong in the east and weak in the west. The eastern economy has made rapid progress in the past 30 years. Although the west has developed, it is still far worse than the eastern part. The eastern region has attracted a large number of funds to enter the country due to conditions such as convenient transportation, huge market size, abundant talent pool, unobstructed information channels, concentration of social wealth, overflow of technology and knowledge, etc. Strong financial backing. This has created an insurmountable “gap” between the eastern and western regions, both in terms of economic size and development speed.

The large concentration of manufacturing industries in the Yangtze River Delta has enabled the region’ s manufacturing capacity growing at an unprecedented rate. However, it should also be noted that most of the products produced in the Yangtze River Delta region are low-end products with little economic added value.



Data source: 产业集聚、产业共聚与中国制造业生产率 -- 贺灿飞 肖晓俊 林肯研究院 城市发展与研究中心

Enterprises play the role of an intermediary processor. Most of the economic benefits are the processing costs. The majority of profit is seized by the developer. Some people say vividly that China can only exchange one Boeing 747 passenger plane for every 400 million shirts export. Although this extensive economic development model has played a very important role in the development history of the Yangtze River Delta region, the cost is also enormous. The deterioration of the natural environment and the waste of resources are all problems faced by the economic development in the Yangtze River Delta Region.

Thanks to China's large population, the network industry market has enjoyed a huge demographic dividend since its establishment. Since China's Internet industry started relatively late in the world, the number of people on the Internet in China is relatively late. However, the major universities in China take this opportunity to establish a variety of related majors. At the beginning of the 21st century, network talents emerged to form benign development and attract outstanding talents. Talent enters this industry massively.

Due to China's Internet monitoring and shielding policies, a large number of Internet users in China became users of local Chinese companies in the early days of contact with the Internet. Short-term and rapid capital accumulation has spawned Chinese Internet giants such as Baidu, Tencent and Alibaba. Internet companies invest in and operate the Internet industry and overseas listings continuously . As a result, the Internet industry in China has been heavily funded and in intense competition in recent years. At the same time as the development of the Internet industry, China’ s planned economic structure continued to shift to the free market model. A good market environment has provided the Internet industry with growing soil, especially e-commerce.

In addition, due to China's special culture, Chinese is far away from the Latin language and there is a certain cultural barrier in the search of the Internet. In addition, due to the late popularity of the Internet, Chinese Internet users have not formed a path dependence on the communication function, and various types of instant messaging software have developed rapidly (Instead of email), which in turn has promoted the efficiency oriented demand of Chinese netizens and the developed logistics market and then product update capabilities emerged.

Industry 4.0

At present, China's manufacturing industry is still in the phase of co-existence of electrical automation and digitalization. Most companies have not yet fully realized digitalization. The overall enterprise is still in the period of transition from industry 2.0 to industry 3.0, while Germany has basically completed digitization and is moving toward intelligence. It is hard for China to implement smart manufacturing in one step.

In the 1.0 to 3.0 phase, that is, from the consumer goods to the consumer, there is a fixed pattern and five modules, including machines, workers, raw materials, transportation, sales, these five modules is unavoidable and cannot be simplified. And 4.0 will combine all five modules with the sensor, so that each module becomes a smart module, when the consumer has demand, the five modules will select the most efficient combination of methods to meet the needs of consumers. Make full use of information and communication technology and cyberspace virtual system - information physics system combined means to transform the manufacturing industry to intelligent.

The Chinese-made 2025 is a Chinese version of the 4.0 industrial plan developed on the basis of the German Industry 4.0. It is mainly aimed at improving the industrial competitiveness, from the industrial manufacturing countries to the industrial manufacturing powerhouses, and strengthening the industrial infrastructure to meet the economic and social needs. The difference between the two is that China Manufacturing 2025 focuses on the innovation of institutional environment, improving structural adjustment, accelerating the elimination of outdated production capacity and resolving excess production capacity, prompting it to upgrade as quickly as possible, achieving leap-forward development, and accelerating the deep integration of a new generation of information technology and manufacturing industries. Emphasize the manufacturing internetlization. In contrast, German Industry 4.0 emphasizes smart factories and production intelligence, and places greater emphasis on hardware and technology upgrades.

Literature review

Systemic thinking, as a way of thinking derived from holism, has attracted more and more attention and applications in the Internet age. **Systemic Design How to Compete by Leveraging the Value System and Redesigning Systems Thinking Discussed the system design-related values** and the composition of systematic thinking.

Due to the huge size of the Chinese market and the rapid development of China as an emerging economy, China' s copyright issue has been a serious and thorny issue in the integrated international market since the 1980s. From the 2008 paper **设计与知识产权保护** _ 翟菁 , It can be seen that most of the research on intellectual property at that time remained in the shallow concept of popularizing intellectual property awareness. At that time, the intellectual property protection methods and awareness in the Chinese market were still relatively weak, and the Chinese market in the early 21st century, Is in the "shanzhai" culture and the outbreak of manufacturing. **WHAT "DESIGN COPYRIGHT"?** Based discussed within the definition of the concept of copyright and the United States market and legal system, especially the worldwide complex and fuzzy field of fashion design copyright issues range. And in 2014, the thesis **我国工业企业知识产权保护状况分析** conducted a comprehensive quantitative analysis of the state of intellectual property protection in the Chinese market. It also gives suggestions for the development of standards for the classification of intellectual property rights, and discusses the relationship between intellectual property rights and corporate profits, which could reflect the development of the Chinese market in the protection of intellectual property during the five years.

Some regions tried to improve the current situation through institutional design, but the overall situation has not been solved structurally. **论深圳创意设计的知识产权保护体系构建** _ 何军 discussed Shenzhen as one of the China design industry center in terms of policy and market management issues and given some recommendations. Generally speaking, it was hard to be separate with the three aspects of policy formulation, law enforcement, and copyright awareness. In **论工业设计知识产权保护对策** _ 以浙江省为例 _ 林巧 , the policy formulation of intellectual property protection in Zhejiang Province was analyzed. Due to the advanced manufacturing industry in Zhejiang Province, the protection of intellectual property rights problem is relatively serious while policy development is more advanced.

This thesis attempts to analyze and use systematic design to resolve or mitigate

China's copyright issues through systematic thinking, especially in industrial design. Systematic thinking and design are widely used in such physical production areas as the agricultural industry or industrial production and gradually affect the design of the institution. In the **Systemic Design approach in policy making for sustainable territorial development** article, the system design is mainly applied to the agricultural production and localized marketing, focusing on regional economic development and sustainable development. Similar in **Systemic Design as Effective Methodology for the Transition to Circular Economy**, system design is also applied to manufacturing and agriculture, with the main focus being on sustainability and environmental friendliness. Most system design applications are still limited to these areas.

The application of system design involves cycle economics, localization cooperation, establishment of evaluation systems, promotion of values, etc. In **Systems Thinking Orientation Assessment Framework (STOAF): Towards Identifying the Key Characteristics of the Systems Thinker and Understanding Their Prevalence in the Layperson**. An evaluation system has been established to assess the popularity of systemic thinking. This system can be used as a system design and systemic thinking to expand from manufacturing to education and institutional design. **Creating the Economy of Virtuality: systemic aspects and educational considerations**. From the view of technology popularization discussed the relationship between systematicity, economy, and technology.

With the popularization of systemic thinking, the system design has also been extended to other areas, and has shown a general trend of development. In **Systemic Design for Sustainable Healthcare**, The system design extends to a wider range of areas involving technology, economy, products and software, demonstrating the flexibility of system design. This kind of application method of system design is worth to learn, which means in the field of intellectual property protection, similar methods can also be applied.

At the same time, due to the specific conditions of Chinese political conditions and history, China's copyright issues when entering international market have caused many angles of research and discussion. **中国最优知识产权保护强度的实证研究_蔡虹** established a mathematical model by economics approach to analyze the Chinese intellectual property rights data from 1985 to 2009 and demonstrated the relationship between China's protection of intellectual property rights and the international market. It is concluded that China should strengthen the protection

of intellectual property rights. A similar approach was used to study the intellectual property protection data of 27 developed countries and 57 developing countries between 2006 and 2008, and a similar conclusion was reached that an optimal intellectual property protection intensity is exist, while the Chinese market have not reach the intensity in the beginning of the 21st century. In **更严厉的知识产权保护制度有利于技术创新吗?**, mathematical models were used to analyze relevant data of 20,000 large and medium-sized enterprises in China in 2005-07, and proposed the relationship between the best strength of intellectual property protection in different fields and the value of intellectual property. **Intellectual Property Strategy With main focus on patents and licensing of patents**, while discussing the design of the intellectual property protection system, it mentioned the special nature of China' s intellectual property, and the problem caused be the society of relationship and different institutional systems.

In specific design fields, copyright protection also has different standards and strategies, which can be divided into two aspects. One category belongs to intangible copyright, mainly in the form of books, music, films and other cultural products. There are two articles, **论版式设计的法律保护_张鸽** and **Copyright a systemic marketplace icon**, discussed the relationship between intellectual property protection strategies in graphic design and the more abstract areas of copyright which are trademarks and digital rights. Moreover, the article **Copyright a systemic marketplace icon** explores the relationship between copyright and market, public knowledge, and even democracy through multi-dimensional research.

The other category is tangible intellectual property, which mainly include industrial design, architectural design, fashion design and other fields. **时尚设计创新的知识产权保护探讨基于美欧时尚设计保护的经验和借鉴; 我国服装设计知识产权保护模式的研究_刘珂辰; 国内外工业设计知识产权发展研究_孙炜; 产品新设计的知识产权保护_黄德海; 外观设计专利保护的行政执法刍议_王迅之; Study of Copyright for Architectural Design; 设计创新与知识产权发展现状和趋势**. These articles discuss the issues of intellectual property protection in various fields respectively. Compared with intangible intellectual property protection, the protection in these areas is more difficult and the dimensions are wider. According to the product's technological level and input cost, more angles of view are emerged.

On the other hand, with the rapid development of China's Internet industry, there are more diversify intellectual property issues in e-commerce and related fields. The

two articles : **互联网背景下知识产权保护的创新探讨** and **知识产权视野下的山寨现象研究** , based on China's national conditions, have explored those common infringement measures in the Chinese market today. The development of e-commerce and the development of the telecommunications industry have provided an environment for innovation and design infringement. At the same time, the update of relevant policies has also affected the way of rights protection. Shanzhai industry has a distinctive infringement phenomenon in the Chinese market. Its nature is is inextricably linked to the Internet industry and the development of small-scale manufacturing. Although there are problems in this area, there are also advantages. It is possible to transform Shanzhai into a legitimate manufacturer through proper guidance.

Relevant quantitative analysis provides a clearer perspective on the analysis of copyright issues in the Chinese market. **我国知识产权保护执法水平的度量及分析_孙赫; 识产权保护与中国工业创新能力__省略_大中型工业企业面板数据的实证研究_刘思明; 知识产权保护_信息不对称与高科技企业资本结构_李莉** . These articles have analyzed a large number of data and proposed that China as a developing country, how to faces the complex relationship between innovative industries and intellectual property protection as a developing country. Under the same IPR protection policy, the quantitative analysis of law enforcement level also reflects the fluctuation of China's law enforcement in related fields and the impact on the market.

However, until today, studies on China' s copyright issues have seldom started from a systematic perspective. All major e-commerce systems in China have attempted to solve the issue of intellectual property rights on the Internet through the establishment of new verify system. **电子商务网站知识产权保护系统设计** researched how the e-commerce website categorized the product and related operational processes such as customer complaints and other from the view of the website backstage design. It explained in detail how each step protected the intellectual property of the goods in the website and circumvented pirated goods. Its research methods and design results has great reference value for related system design. **服务创新保护的研究现状与趋势_申静** discussed more comprehensively how to carry out innovation protection and open innovation from the service design field. This article discusses the relationship between traditional innovation industry and new innovation, and from The macro point of view points out the contradictions that exist in various aspects of innovation and protection, but does not give clear solutions.

Therefore, we attempt to apply systemic thinking and system design to the Chinese market, conduct structural analysis of China' s copyright issues, identify problems that need to be solved in the system, and use system redesign methods. This article mainly deals with intellectual property research, protection of design results, system design applications, and market economics.

1. The history of Intellectual Property

In recent years, the public's attention to the intellectual property system and laws has gradually increased while China's intellectual property system and laws are also constantly improving. As Mark Twain said, A country without a patent office and good patent laws is just a crab and can't travel any way but sideways and backwards. Therefore, a Chinese expert on intellectual property Zheng Chengsi has a warning "If you do not protect knowledge, Property rights, it is difficult for China to have four major inventions."

To protect intellectual property rights, we must understand its historical causes at first. Outwardly, intellectual property rights seems to be merely intangible assets established through legislation. In fact, this is lopsided view. In ancient China--the age without intellectual property legal system there is the behavior of text content trading, through this is not the main part of the social economy at that time.

In the ancient human society, the productivity was backward, only self-sufficiency could be achieved, there is no surplus of products to be exchanged with others. In the Neolithic Age, tools were created, productivity was developed. Therefore products exchange appeared. Then because of the social division of labor and private ownership, the commodity economy also appeared. In the capitalism society, the division of labor reached the peak, rapidly increasing productive forces caused a decline in average profits and competition among capitalists. Consequently, capitalists can only improve technology to enhance their competitiveness. The importance of technological innovation to the capitalists is obvious. Therefore, capitalism, through the development and protection of intellectual property rights, has found new resources for the development of productive forces, and innovation work has been incorporated into the framework of productive labor. Therefore, the establishment of an intellectual property system is an inevitable result of social development.

1.1. U.S. Intellectual Property Development

About the establishment of a law on intellectual property, in 1474, the Republic of Venice enacted the world's first patent law, the "Inventors' Law." This law is basically similar to the provisions and purposes of the modern patent law. It defined the inventor's exclusive right for the first time and defined the patent in a specific way--the patent should be original, novel and practical. However, due to

the war, this bill has not been implemented. The United Kingdom promulgated the "Monopoly Law" in 1623, which abolished the monopoly of the monarchy in the Middle Ages. In 1790, the first "United States Patent Law" was established, but it only applied to inventions that were sufficiently useful and important. In 1793, the first version was abolished and the patent was redefined as "Any new and useful artistic, mechanical, manufacturing or material composition, or any new and useful composition of any artistic, mechanical, manufacturing or material composition." And still used today. The bill is also limited to U.S. citizens. In 1800, the 1793 bill was amended to allow foreigners who have lived in U.S. for two years to obtain a patent. In case of Pennock v. Dialogue in 1829, the definition of the word "new" in early legislation was fixed, and patent was forbidden to be used or published by others before the inventor issued an application but had not yet obtained. In 1832, the new bill expanded the scope of potential patentees; in the same year, the case of Grant sued Raymond pointed out that the failure to fully describe the invention could be an excuse that defendants can use in patent infringement cases. In 1836, amendments of the laws were made because of the large number of complaints on patents that lacked novelty. The U.S. Patent Office was also established as part of the State Department, and before the patent was granted, the patentee must submit a normative application to the office and to be reviewed on novelty. In 1849, case of Hotchkiss v. Greenwood introduced patented inventions that should not only be novel and useful, but also non-obvious concepts. In 1861, the bill was amended again. The term of the utility model patent was changed to 17 years. The appearance patent to 3.5 years, 7 years and 14 years of option terms. In 1866, case of Suffolk Company v. Hayden, U.S. Supreme Court stipulated the bill basis on duplicate patents, when the same inventor obtained two patent rights for the same invention, and the second will be invalid. In 1870, U.S. merged all patent-related legislation into a single bill. The 1970s and 1980s, many international organizations were founded. The Paris Convention for the Protection of Industrial Property, which was established in 1883, and U.S. was added in 1887. The purpose of this organization is that after becoming a member of the treaty, a patent of a member country's citizens valid for all other member states. In 1890, it passed the Sherman Law and became the basis of antitrust law. In 1925, the responsibility of the patent office was transferred to the Ministry of Commerce and the Ministry of Labor. In 1930, the "Plant Patent Law" was established and provided for patent protection for vegetatively propagated plants. In the 1930s and 40s, due to the Great Depression and World War II, patents were temporarily stranded. In 1946, the

Lanham Act issued regulations on the use of trademarks. The basic structure of the current patent law was basically formed in 1952. In 1955, U.S. joined the Universal Copyright Convention (UCC) which is adopted in Geneva, Switzerland, 1952. This convention is similar to the Paris Convention, but it is dedicated to copyright protection. Then, the U.S. patent law continued to improve in cases. For example, in 1966, the U.S. Supreme Court established a test method in the case of *Graham v. John Deere Co* to determine the obviousness of the invention. In 1978, the Patent Cooperation Treaty entered into force, which provides a unified procedure for applying for patents in the members of the treaty. In 1980, U.S. amended its laws to make sure that computer programs are copyrightable. In 1982, U.S. joined the Berne Convention, an international treaty dedicated to the protection of copyrights, which was enacted in Berne, Switzerland, in 1886. In 1986, U.S. successfully placed international intellectual property protection on the negotiation of Uruguayan agenda and General Agreement on Tariffs and Trade (GATT). Then in 1994, TRIPS was signed in Uruguay, which is a treaty on intellectual property of member states that have joined the WTO need to comply with. The Digital Millennium Copyright Act is a U.S. copyright law that began in 1998, which prohibited the production and dissemination of copyrighted technology, equipment, or services in the form of criminal legislation, increased penalties for Internet infringement. The U.S. Senate passed the bill unanimously. In 2011, U.S. joined the "Anti-Counterfeiting Trade Agreement" initiated by Japan. In 2012, U.S. became a signatory to the Beijing Treaty on Audiovisual Performances. The treaty updated the international legal framework for audiovisual performers to provide similar rights for music performers under the WIPO Performances and Phonograms Treaty. The treaty is now awaiting approval from the U.S. Senate. In 2013, U.S. became a signatory to the Marrakesh Treaty to promote blind, visually impaired or otherwise disabled people to obtain published works. This agreement involves the exchange of domestic and cross-border printed materials in an accessible format.

1.2. Development of Intellectual Property in China

Comparing with the increasingly mature intellectual property protection system in U.S., the establishment of China's intellectual property legal system was accompanied by reform and opening up in the late 1970s. In 1983, China issued first "trademark law". The goals include "strengthening trademark management, protecting the exclusive right to use trademarks, regulatory prompting producers and operators to ensure the quality of goods and services, safeguarding the

reputation of trademarks, protecting the interests of producers and operators and consumers, and promoting the development of the socialism market economy." U.S. promulgated the Trademark Law Act in 1870, but it was repealed in 1880. If only compared to the Lanham Act still in use today, there is a 37-year gap. In 1984, China also joined the "Paris Convention", lagging behind U.S. for 97 years. After 1949 the PRC founded, "Patent Law" was adopted by the Fourth Session of the Standing Committee of the Sixth National People's Congress on March 12, 1984 and implemented since April 1, 1985. At the same time, the "Implementation Rules for the Patent Law" passed on January 19, 1985 and implemented on April 1, 1985 which lagged behind U.S. 195 years. Although China's "Copyright Law" passed significantly later than "Trademark Law" and "Patent Law", in fact, the legislative initiation of the three basic intellectual property laws was almost simultaneous while it takes 10 years for the drafting of the Copyright Law. How to combine the principles of international copyright conventions with the actual situation in China has always been a difficult issue. However, China's legal protection of copyrights (copyrights) has been established since the adoption of the "General Principles of Civil Law" in April 1986. At that time, China's external copyright relations were mainly related to U.S. because China's use of foreign copyrighted works was mainly the work of U.S.; in fact, since the beginning of the 21st century, U.S. first filed copyright protection issues to China. According to the 1989 China-U.S. agreement on the formation of intellectual property protection negotiations, China promised to enact a copyright law as soon as possible. On September 7, 1990, the 15th meeting of the Standing Committee of the Seventh National People's Congress passed the "Copyright Law of the People's Republic of China" and it came into force on June 1, 1991; in addition, the "Copyright Law Implementation Regulations" passed on May 24, 1991 and implemented on June 1, 1991. In addition to the "Copyright Law Implementation Regulations" China's relevant departments have formulated a series of laws and judicial interpretations for implementing the "Copyright Law." On June 4, 1991, the "Regulations on the Protection of Computer Software", an important part of the "Copyright Law," was promulgated. Copyright law fell behind U.S. by 201 years and computer software protection law was 11 years behind. In 1992, China joined the Universal Copyright Convention (UCC), 37 years behind U.S. In the same year, China joined the Berne Convention, which is only three years behind U.S. This year China also revised the "Patent Law" and "Trademark Law" and promulgated the "Anti-Unfair Competition Law". This was because in April 1989, the U.S. Trade Representative's Office issued the "Foreign Trade Barriers

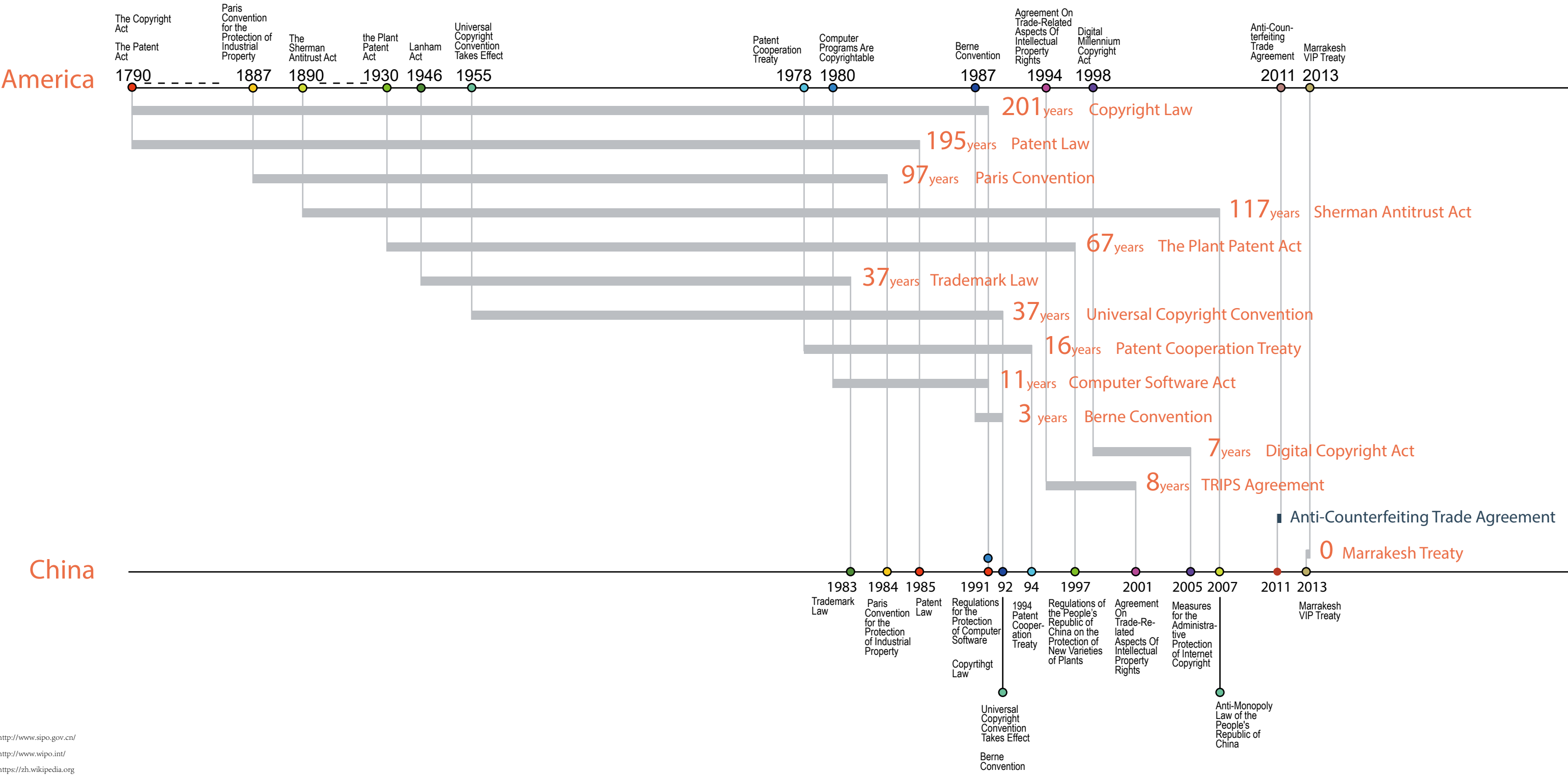
Report", accusing China of failing to provide adequate and effective protection for American intellectual products, especially in patents and copyright systems. China will be included in the list of "Priority Watch List." To this end, China and U.S. began negotiations on intellectual property issues that lasted more than a decade. From May 18th to 19th, 1989, the Chinese and U.S. government delegations negotiated in Washington; afterwards, a memorandum of understanding on the protection of intellectual property rights was concluded between China and U.S., and the Chinese government promised to strengthen the protection of intellectual property rights. Accord with international copyright law, modify the patent law and participate in international conventions for the protection of intellectual property rights. After that, China passed the Copyright Law (previously introduced) in 1990. On April 26, 1991, the U.S. announced that it had lifted its list of "Priority Watch List" from the U.S. Trade Law "Section 301" to the list of "Priority List," and accused China of lacking effective protection of U.S. intellectual property. After negotiations, on January 17, 1992, the two parties signed the second "memorandum of understanding on the protection of intellectual property rights." With the continuous deepening of China's structural reforms and the gradual expansion of opening up to the outside world, new situations and new issues have emerged. At the same time, with the development of economic globalization and the rise of the knowledge economy, the possession, deployment, and application of intellectual property have become The important support for political, economic, technological, and cultural development in all countries. The protection of intellectual property is increasingly valued by the international community. It is also related to the country's sovereignty and economic security. It is even more important to point out that from 1993 to 1996, intellectual property disputes between China and U.S. had fierce confrontations (case H. J.) almost every year. To be in line with international standards, China became a party to the Patent Cooperation Treaty in 1994. , 16 years behind U.S. In 1997, China passed the "Regulations for the Protection of New Varieties of Plants," which stipulates that units and individuals who have completed breeding shall enjoy exclusive rights on their varieties, which is plant variety rights. The content and exercise of the new plant variety rights are similar to patent rights, which is 67 years behind U.S. China joined TRIPS in 2001 and is 8 years behind U.S. In order to pave the way for accession to the WTO, China has revised its intellectual property legal system again to be consistent with the TRIPS agreement and better adapted to China's economic and social needs. Later, in order to strengthen the administrative protection of information network communication rights in Internet information

service activities and standardize administration, China' s National Copyright Administration and the Ministry of Information Industry passed the "Administrative Measures for the Protection of Internet Copyrights" on April 30, 2005, compared with U.S. The Digital Millennium Copyright Act is 7 years behind. Since the Shenzhen Dongjin and the Intel case and other factors, China promulgated the anti-monopoly law in 2007, the anti-monopoly law clearly stipulates the prohibition of large-scale state-owned enterprises damage the interests of consumers through the dominant status. Those industries which controlled by state-owned economy and related with national security and economy life line, industry where franchised monopoly sales are carried out according to law, China regulates the business operations and the prices of their goods and services in accordance with the law, and safeguards the interests of consumers. 117 years behind U.S. In 2011, China did not join the anti-counterfeiting trade agreement proposed by Japan because the anti-counterfeiting trade agreement was led by a large country with a high level of intellectual property protection and was drafted after secret negotiations, independent of the existing international IP governance. A multilateral inter-governmental agreement that aims to increase the level of enforcement of intellectual property rights in the world, which transcends the level of TRIPs protection. ACTA has the following characteristics:

1. The dominant position of developed intellectual property states
2. The secrecy of negotiation
3. Independence of governance structure
4. Transcendence of law enforcement
5. Globalization of law enforcement goals
6. The oppressive nature on third countries

In 2013, China and the United States signed the "Marrakesh Treaty."

HISTORY TIMELINE



<http://www.sipo.gov.cn/>
<http://www.wipo.int/>
<https://zh.wikipedia.org>
<https://www.copyright.gov>

- The Copyright Act of 1790 in United States is copied almost verbatim from the Statute of Anne." The Patent Act of 1790 was the first federal patent statute of the United States. It was titled "An Act to promote the Progress of Useful Arts."
- The Paris Convention for the Protection of Industrial Property, signed in Paris, France, on 20 March 1883, was one of the first intellectual property treaties. It established a Union for the protection of industrial property.
- The Sherman Antitrust Act is first anti-monopoly law in the United States
- the Plant Patent Act is the possibility of patent protection for asexually reproduced plants in the United States.
- Lanham Act is the primary federal trademark statute of law in the United States
- The main content of the Universal Copyright Convention is to provide full and effective protection of literary, scientific and artistic works.
- The Patent Cooperation Treaty (PCT) is an international patent law treaty, concluded in 1970. It provides a unified procedure for filing patent applications to protect inventions in each of its contracting states. Any contracting state to the Paris Convention for the Protection of Industrial Property can become a member of the PCT

- The Berne Convention requires its parties to treat the copyright of works of authors from other parties to the convention (known as members of the Berne Union) at least as well as those of its own nationals. For example, French copyright law applies to anything published or performed in France, regardless of where it was originally created.
- Key among the topics included in the DMCA are provisions concerning the circumvention of copyright protection systems, fair use in a digital environment, and online service provider (OSP) liability (including details on safe harbors, damages, and "notice and takedown" practices).
- The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) is an international legal agreement between all the member nations of the World Trade Organization (WTO). It sets down minimum standards for the regulation by national governments of many forms of intellectual property (IP) as applied to nationals of other WTO member nations.
- The Anti-Counterfeiting Trade Agreement (ACTA) is a multinational treaty for the purpose of establishing international standards for intellectual property rights enforcement. The agreement aims to establish an international legal framework for targeting counterfeit goods, generic medicines and copyright infringement on the Internet, and would create a new governing body outside existing forums, such as the World Trade Organization, the World Intellectual Property Organization, and the United Nations.
- The Marrakesh Treaty to Facilitate Access to Published Works for Persons Who Are Blind, Visually Impaired, or Otherwise Print Disabled (MVT) is the latest addition to the body of international copyright treaties administered by WIPO. It has a clear humanitarian and social development dimension and its main goal is to create a set of mandatory limitations and exceptions for the benefit of the blind, visually impaired and otherwise print disabled (VIPs).

According to the informatino, we can see that at the beginning, Chinese law was behind American law for many years. As the time gose, the gap between them was getting smaller.

The development of China's IP law mainly in the 80s and 90s, combined with the social background, this time China began to economic development, to introduce foreign things, involving the intellectual property rights, because we lack the awareness of this part, a lot of cases came out.

China has not participated in the Anti-Counterfeiting Trade Agreement. Participants include Australia, Canada, the European Union, Japan, Korea, Mexico, Morocco, New Zealand, Singapore, Switzerland and the United States. Most of these are developed countries. Because the regulations of this organization limit the trade of developing countries There is some conflict between the development of developing countries and the protection of intellectual property rights.

1.3. Comparison and Reflection

The last 40 years from the end of the 1970s to now, China has done a lot of effective intellectual property system construction work, which has gone through the legislative journey that some developed countries usually take decades or even hundreds of years to complete. A relatively complete legal system for the protection of intellectual property rights has played a very important role in maintaining the order of the socialism market economy and promoting the development of the country's scientific, technological, and cultural undertakings. But it is also because China has only established intellectual property legal systems for decades. Although it has exceeded U.S. and other countries on the number, but it is still has unstable foundations. The concept of intellectual property protection has not penetrated into people's education and consciousness. It is also a historical reason for the serious problem of piracy in Chinese society.

1.4. Cases

From the above understanding of the history of intellectual property development in China and U.S, we have found that various types of cases have promoted the continuous improvement of the law.

1.4.1. U.S Case

1. Case of Pennock v. Dialogue, the invention for the manufacture of hoses was completed in 1811 and authorized for 1818. According to the method of the invention, the pipe sections are connected together so that their joints are as resistant to pressure as other components. It appears that the connector does not disclose the method of the invention, but the patentee has sold 13,000 feet of the above hose before authorizing it. In the case, the court held that "if the public used the invention based on the inventor's knowledge and acquiescence, without the inventor's opposition, then the subsequent patenting of the invention was a fraud to the public." The Supreme Court also held that "if the inventor is allowed to conceal the secret of invention from the public's cognition, if he publicly makes and sells his invention, and thus gains an interest," then "when the danger of competition forces him to maintain the exclusive right The "allowing him to obtain a 14-year legal monopoly" will substantially hinder the progress of science and practical technology.

2. case of Hotchkiss v. Greenwood: Non-obvious patent requirements, Hotchkiss

claims that they invented an improved method for manufacturing locks, doors, cabinet furniture knobs which is patented with clay door handles. At that time, many people used clay as handles in cabinets and other things, and people used door handles made of metal and wood. All that Hotchkiss does is match the standard door handle mechanism with the clay handle. The U.S. Supreme Court stated that the idea of using clay as a handle is not a new idea. The general idea of doing a doorknob is not a new idea. The only thing that Hotchkiss and others do is based on an ordinary door handle making a clay handles to replace metal handles. The court also pointed out that this may create a cheaper product, but it is fundamentally not different from any existing handle on the market and therefore cannot be patented.

3. Case of Suffolk Company v. Hayden, in December 1854, American Hayden filed a patent application for his invention of a cotton cloth detergent. After a slight improvement on the detergent, he filed the second application in November 1855. As a result of two patent applications, two of Haydn's patent applications were granted patent rights. Hayden sued Suffolk Manufacturing Company for infringing the second patent. The defendant's lawyer asked the judge to determine that the patent was invalid. The final judgment shows that the same inventor obtained two patent rights for the same invention, and the second patent right was invalid. The theoretical basis is the patent incentive theory. That is, the purpose of the country's establishment of a patent system is to motivate people to conduct new and creative research. The same repeated inventions will lead to the prolongation of the monopoly rights provided for in the constitution for a certain period of time, and ultimately make people inert.

4. Case of Graham v. John Deere Co. In 1953 Graham improved the pliers of agricultural plows to prevent damage to plows and applied for a patent. Later, Graham filed a lawsuit against John Deere for patent infringement. After many judgments, the patent was ultimately found to be inconsistent with the non-obviousness of the U.S. Patent Law. In 1966, U.S. courts proposed advanced analysis principles for the case: (1)The scope and content of the existing technology; (2) The difference between the claimed invention and the existing technology; (3) The level of ordinary skill in the field.

The invention is obvious if it is determined through these three steps that the scope of patent claims is easily accomplished by those of ordinary skill in the art. At the same time, it is necessary to consider whether the disputed patents have

commercial success, long-term perceived but unresolved needs, or other factors that cannot be successfully invented.

1.4.2. China Case

1. Shenzhen Dongjin and Intel Corporation

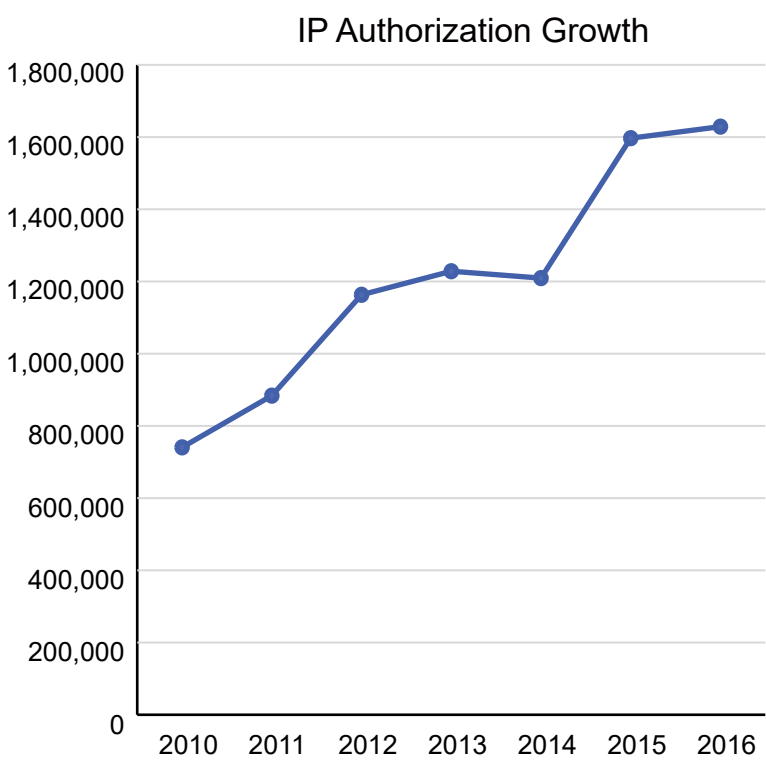
software copyright’ s tort

December 2004, Intel Corporation Company accused that the DN voice card of Dongjin Company infringed their SR5.1.1 products' IP. 23/03/2005 Dongjin made a counterclaim, accused Intel of technology monopoly, they know that China has no anti-monopoly laws, so they found the law’ s loophole to do the technology monopoly, and attack competitors. Then the medias come in to guide the public opinion. They gave Dongjin a “National high - tech enterprises” image, to criticise Intel in a moral way.

14/05/2007 They settle out of court. 30/08/2007 China issued the “Anti monopoly Law of the People's Republic of China”. Then in 2008, China introduced the anti-monopoly law. The state intervened in the economy and maintained economic stability.

2. Chinese Intellectual Property Status data analysis

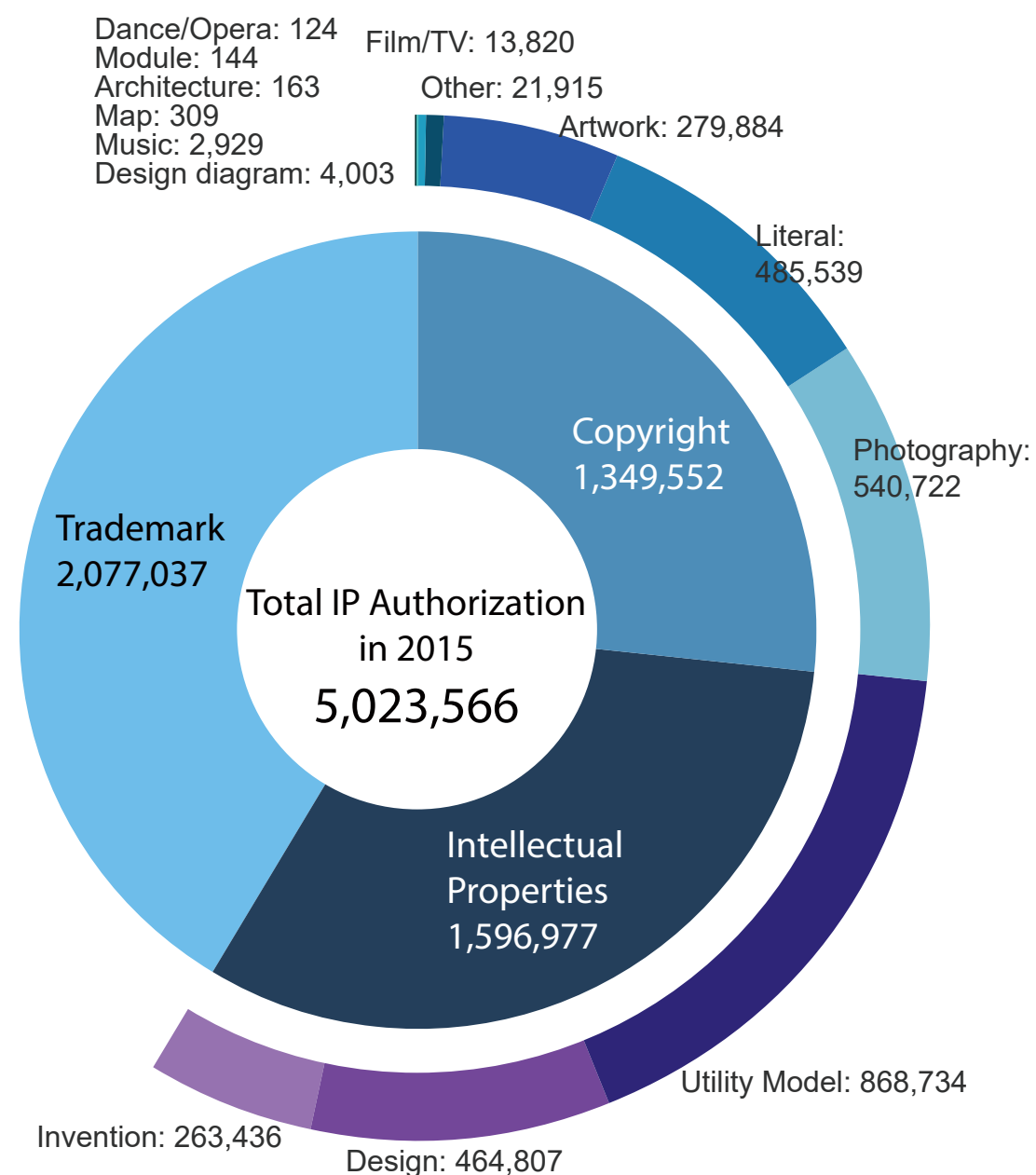
Since 1979, China's intellectual property development rate has gradually increased. Since the 21st century, with the improvement of education level and the continuous amendment of legislation, the number of intellectual property applications has continuously increased. Since 2010, the application for intellectual property application/ authorization statistics has been improved further. The Index for the Development of



Intellectual Property Development Comprehensively utilizes the Analytic Hierarchy Process (AHP) and the Composite Index Method. Using 2010 as the base year, the 2010 development index on synthesis, creation, development, conservation, and environment is set to 100 points, then measure for 2010 to 2016 National data. The result is that since 2010, the national comprehensive development index on intellectual property is steadily rising, reaching 187.3 points in 2015 and reaching 200.3 points by 2016. This trend reflects that China's intellectual property development has entered a new and steady stage of development.

2.1. Chinese Intellectual Property Registration, Authorization, Usage Situation

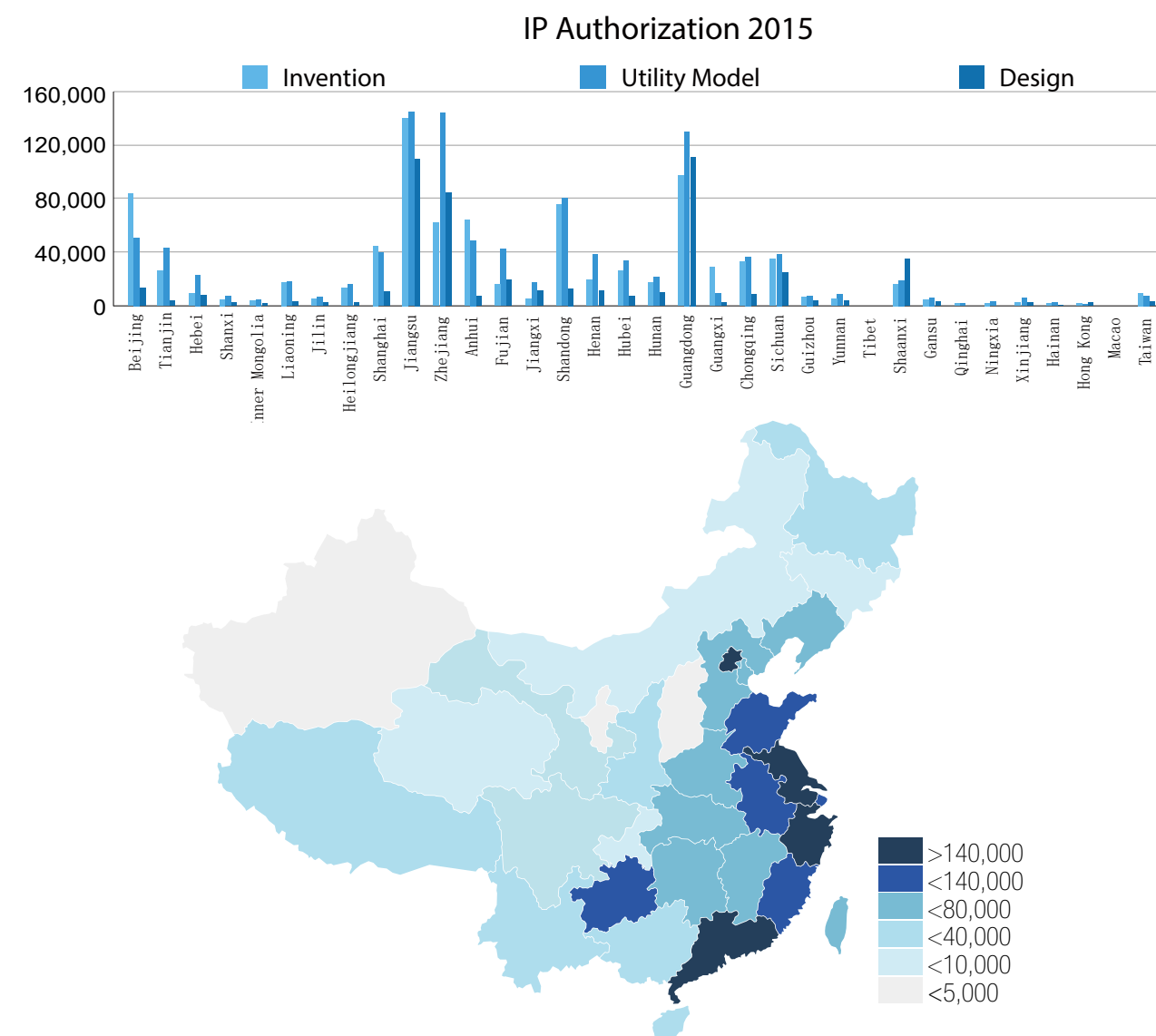
According to the yearbook of intellectual property statistics released by State Intellectual Property Office of the People's Republic of China (SIPO), there were a total of 5023,566 IP product licenses in China during 2015-2016. Among them, 20,770,37 are authorized by the trademark. The copyright category contains a total of 1,329,552 licenses for more than 20 subdivided products including literature, photography and painting. There are 1,596,977 authorized products for utility models, appearance designs, and inventions. Overall, more than 40% of all intellectual property rights licenses were authorized by trademarks, and the number



Data source:
 1. <http://www.court.gov.cn/>;
 2. <http://www.ncac.gov.cn/>;
 3. <http://www.sipo.gov.cn/>.

of copyrighted product licenses was 27%, while the number of IP product licenses exceeded 30%, ranking the second, with the largest number being 868,734 utility model, appearance design was 464,807 cases, the least invention was 263,436 cases.

The comprehensive development index of intellectual property in various regions in China reveals a trend of decreasing gradually from east to west with significant regional imbalances. The imbalance in the development of intellectual property rights reflects the imbalance of economic development and market development levels in various regions, and also reflects the imbalance in the distribution of industries between regions. From the comprehensive development index of intellectual property in 2015 (in the figure, product IP authorization data is used

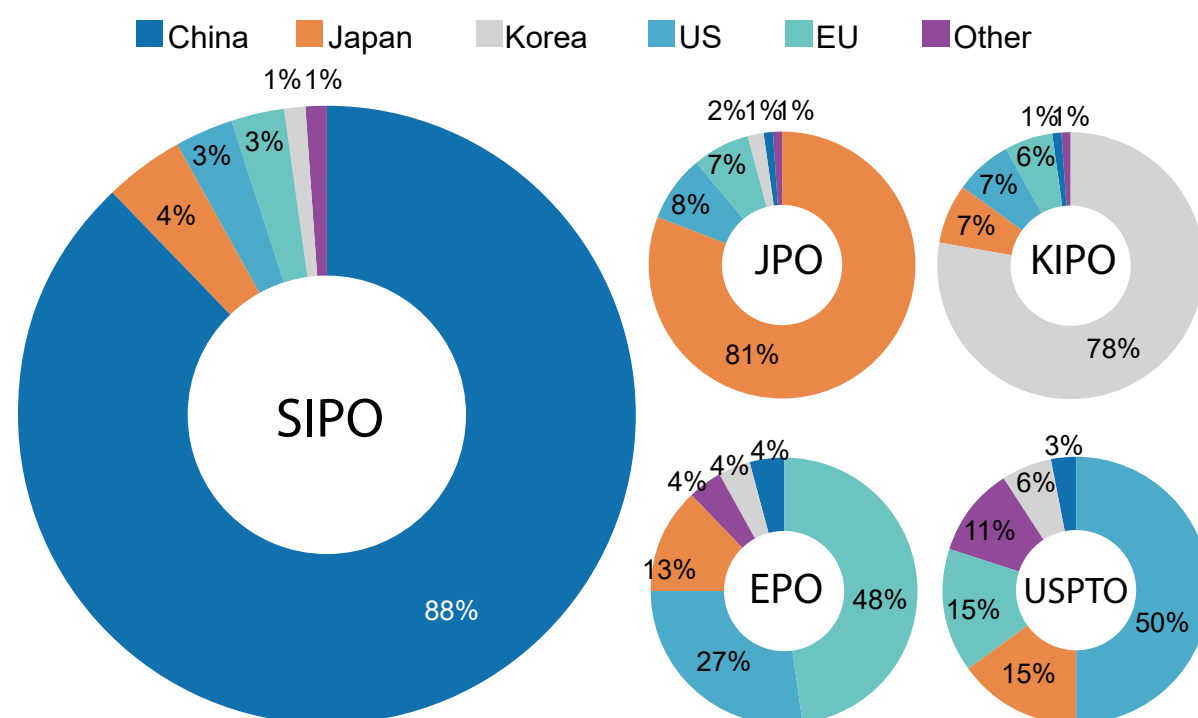


Data source: <http://www.stats.gov.cn/>

as an example), most of the regions with high comprehensive development index have relatively better economic foundations, strong manufacturing industries, and concentrated intellectual property resources. Overall, except Beijing, Guangdong, Shanghai, Zhejiang, and Jiangsu all belong to the coastal region.

From an international point of view, in 2015, the China's International IP Comprehensive Development Index (the three first-level indicators of IP capacity, performance, and environment, the creation, use, protection, management, contribution of domestic innovation, international influence, and The 9 secondary indicators of the institutional environment, market environment, and cultural environment in comprehension) is 58.30 which is increased of 5.61 over the previous year; the report shows that China's ranking was upgraded from 19th to 10th in the 4 years from 2012 to 2015. The level of development has rapidly increased, but there is a large gap between U.S and Japan. According to the number

IP applicate situation in every property office 2015



Data source: <http://www.sipo.gov.cn/>.

of IP applications from the five largest intellectual property centers in the world, China's IP application activities are concentrically domestic. The applications for Japan, South Korea, the European Union and U.S IPR Centers are 1%, 1%, 4% and 3% respectively.

2.2. Problems in the Development of Intellectual Property in China

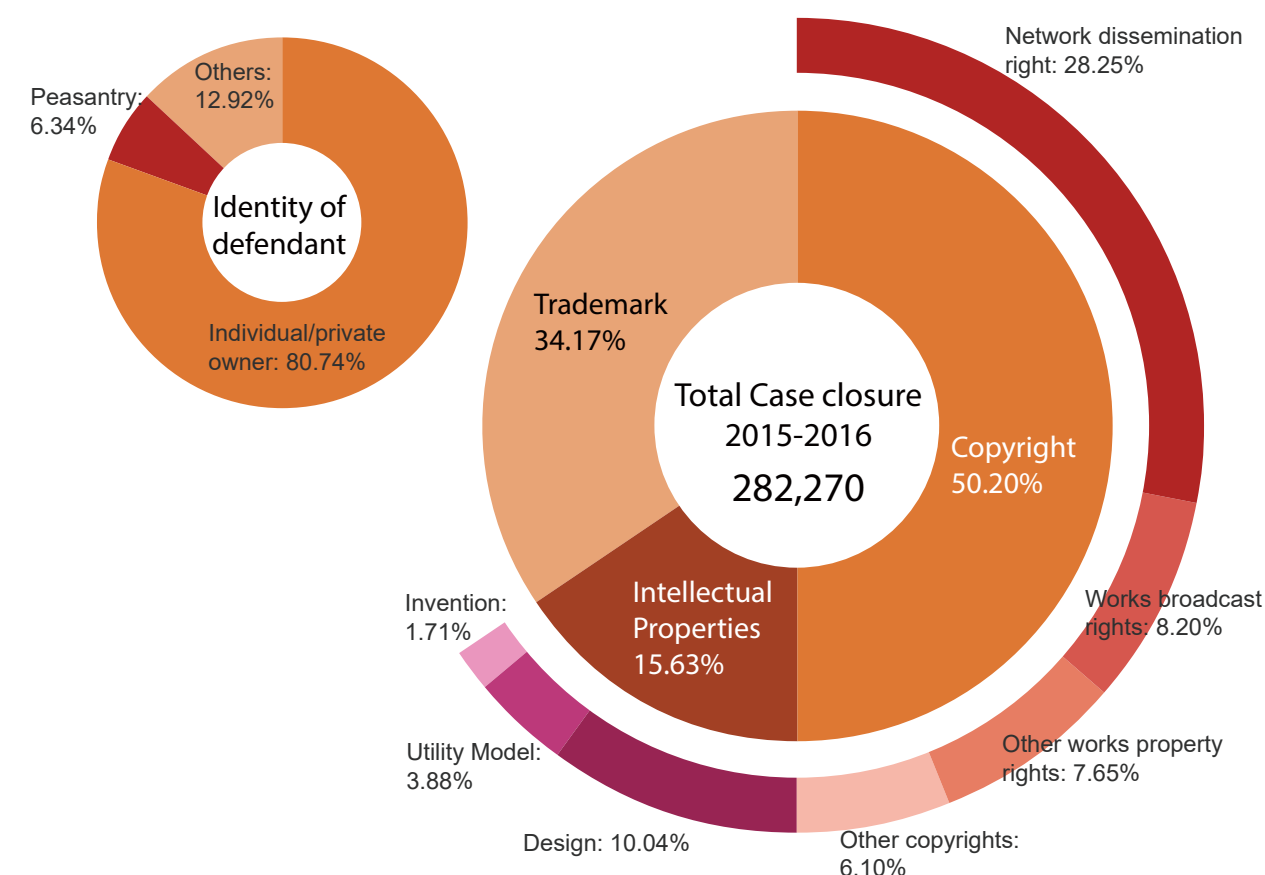
In 2015, the three capabilities, performance, and environmental index under the China's General Index of IP Development scored 68.95, 56.08, and 45.03, respectively. From the perspective of ranking, the three first-level index capabilities, performance, and environmental indexes are ranked 3rd, 3rd and 31st in the world respectively. The imbalances still exist.

In 2015, China's IP environment index scored 45.03 points, an increase of 2.71 points over the previous year, and down to 31st among sample countries. From the score of contribution of those countries' IPR(Intellectual property rights) system, market, and cultural environment index to the environmental index scores in 2015, it can be seen that the institutional environment is the highest contribution in China's IP environment index, and the situation of market environment and cultural environment contribute to the score significantly insufficient is still exists. From a scoring point of view, in 2015, the score of China's market environment index fell

by 1.62 points compared with 2014, a year-on-year decrease of 4.90%; the score of cultural environment index increased by 7.78 points over 2014, a year-on-year increase of 27.64%¹, the market environment did not improve significantly, the cultural environment and Compared with previous years, there has been a greater degree of improvement.

2.3. National Intellectual Property Infringement Situation

The simultaneous increase in the development of intellectual property rights is also the occurrence rate of intellectual property infringement cases. According to the Yearbook of Statistical Data on Cases issued by the Supreme People's Court, from 2015 to 2016, the courts at all levels across the country have concluded 282,270 intellectual property-related cases, and there are The difference is that the three major categories of infringement cases: trademark, copyright and product intellectual property accounted for 34.17%, 50.2% and 15.63%, respectively. At first glance, the total number of copyrighted product infringements has become the most serious category of infringement compared to IP licensing, and there are relatively fewer product and trademark infringement cases.

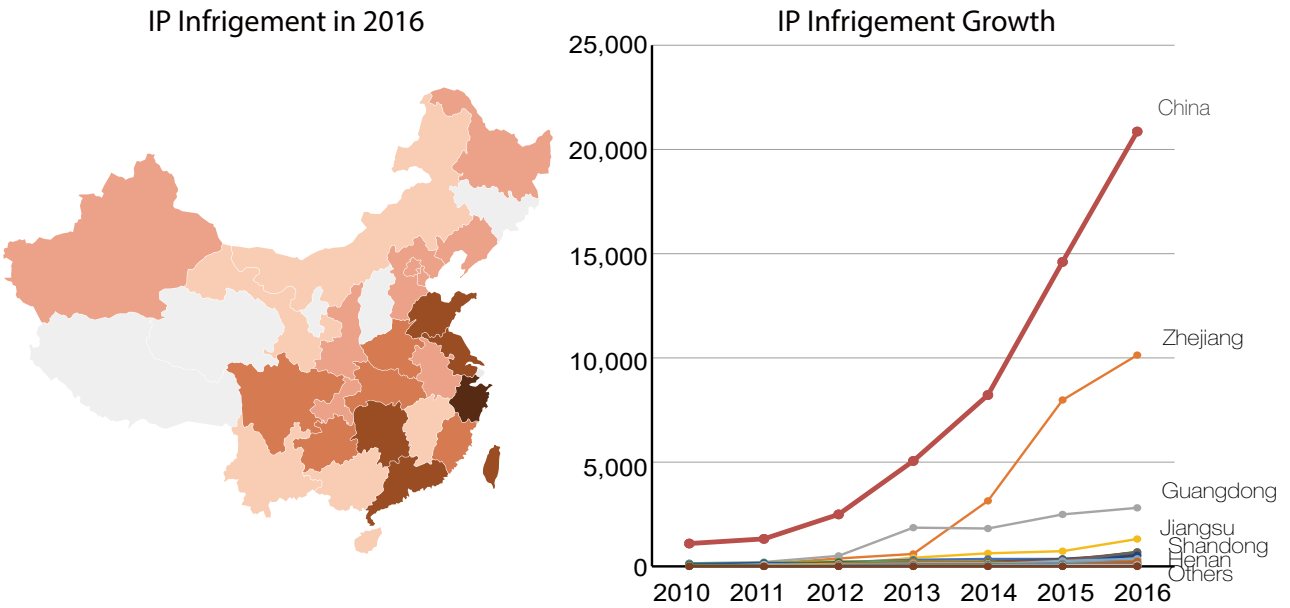


Data source: <http://www.court.gov.cn/>

¹ Data source: <http://xjipo.gov.cn/Article/ShowArticle.aspx?ArticleID=16704>

However, when we look at the classification of secondary cases, we can find some problems: trademark infringement is concentrated on trademark exclusive rights and trademark squatting. For this type of issue, both China's "Trademark Law" and "Implementation Regulations of the Trademark Law" all have relatively clear legal provisions, there are also a considerable number of precedents for reference, while the interests involved in trademark infringement cases are also quite large, so the case is generally clear. The second category, copyright product infringement cases, the types of cases involved mainly for the ownership of network and other media unlicensed problems, copyright issues and suspected copying imitation. Product-type infringement cases are mainly based on design appearance infringement, and there are fewer utility model and invention infringement cases.

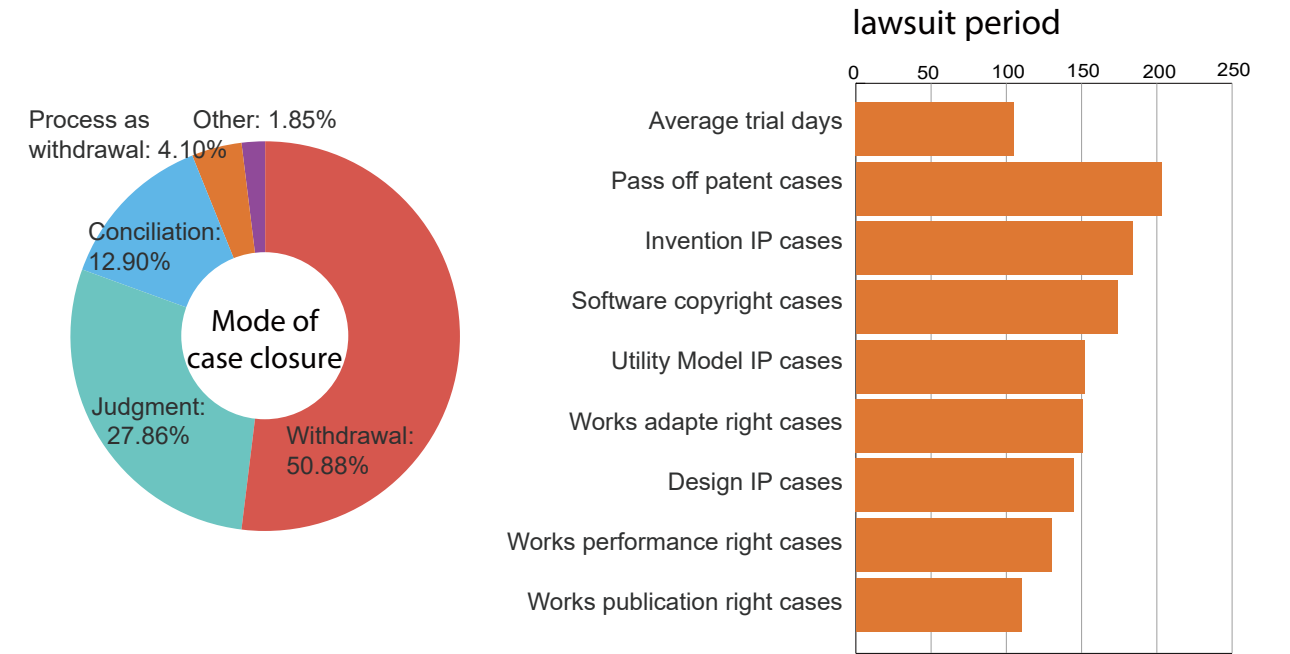
From a geographical point of view, the distribution of intellectual property infringement cases is similar to the authorizing active area, and is also concentrated in the eastern coastal areas. Zhejiang province is the most serious area. According to the observation of IP infringement growth, we can see that since 2013, Zhejiang's IP infringement cases have surpassed Guangdong province as the province with the highest number of cases and in 2016 exceeded 10,000, far more than other provinces. Taking Zhejiang Province as an example, as an important province in the Yangtze River Delta region, it enjoys good location factors: dense population, developed economic foundation, advanced light industry, and various cultural industries, but the industrial structure is dominated by private small and medium-sized enterprises, which is also reflected in the statistics given by the highest court: 87% of defendants were individuals or farmers. Some people still lack the



Data source: <http://www.court.gov.cn/>

awareness of intellectual property rights, which also leads to the effective coverage of intellectual property protection.

Due to the special nature of intellectual property cases, many of infringement cases have a long evidences collection and trial period, the average trial period is 109 days, and some cases such as invention/patent infringement cases even exceed 200 days, and the lengthy trial period and litigation costs extremely increased the time and financial burden. Under the situation of high cost of legally defending the rights, the litigation results could not obtain better returns. Nearly 68% of the cases were settled by means of withdrawal and out-of-court mediation. On balance, although legal measures can effectively deal with the issue of infringement, there are not appropriate benefits for a considerable part of the plaintiffs and defendants. Is there any other non-legal means to satisfy the interests of both parties as much as possible?



Data source: <http://www.court.gov.cn/>

3. The current situation of the intellectual property in the market

3.1. Current Overall Operating Mode

The current intellectual property market is a linear one-way process from IP creator to manufacturer to seller and finally reaching consumers. Here we divide IP into two categories by distinguishing two different forms of IP products reaching end-users: tangible IP products (IP products that are sold after manufacture) and intangible IP products (Cultural creations, method inventions, and other products which their values are contents).

After all IP products have been created, they need to materialize the IP products to produce or publish them. In this step, a large amount of capital and technology is indeed. Then the products enters the market displayed to the consumers. Eventually, the consumers pays for the product and profits both manufacturer/publisher and the IP creator. In order to attract more consumers, manufacturers or marketers could use advertising to gain higher reputation and thus affect the user's choice. In this process, information from IP products will inevitably leak from the hands of marketers and manufacturers as well as users. Information that has not been authorized by IP creators are processed and re-entered by pirates and into the market, which result in infringement. In terms of tangible IP products, advertisements have become a front sight of infringement while expanding product reputation. To this end, the government has imposed laws and other regulatory measures in the manufacturing and marketing sectors, and gradually improved the relevant laws. As the the chain terminals, consumers' economic capabilities, educational level and moral awareness have also affected their choices, which matter the survival of infringing product.

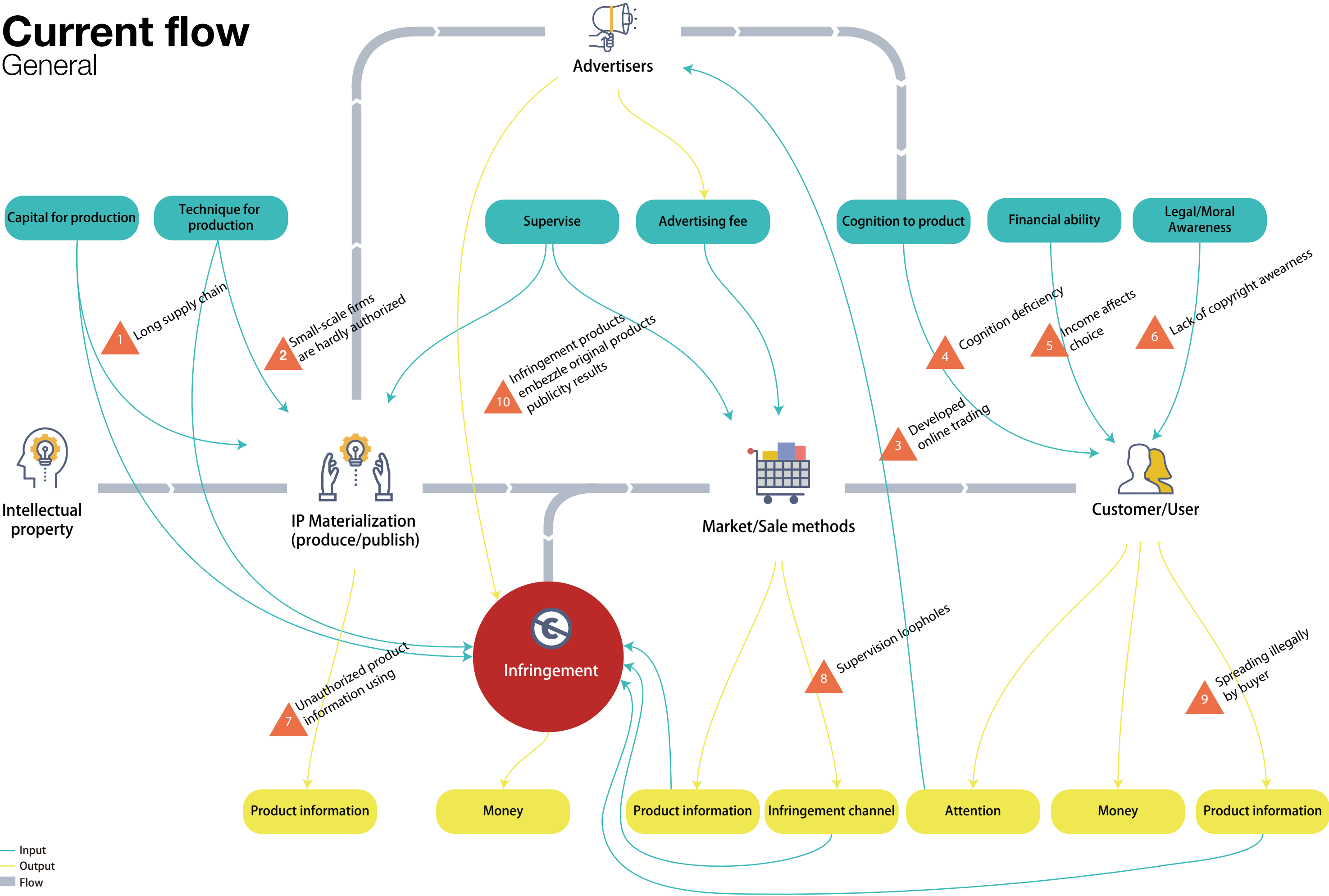
3.1.1. Issues in current situation

① Long supply chain

From the invest of capital to the actual output of products, involving IP, raw materials, production licenses, equipment, as well as material transportation, quality inspection, etc., then they can be put into the market for profit, and this complex production chain process brings more Capital retention which is more risky for producers.

Current flow

General



② Small-scale firms are hardly authorized

The technology and capital investment involved in the manufacturing process makes the production capacity of large manufacturers stronger, and it is more difficult for small manufacturers to survive and obtain IP authorizations, forcing small manufacturers turning to illegal production.

③ Developed online trading

China's extremely developed online trading system has greatly promoted the sales of tangible IP products and the materialization rate of intangible IP products. On the other hand, there are still many problems in the regulation of online transactions, which caused large amounts of profitable counterfeit/pirate products. At the same time, online trading also make it more difficult to crack down on illegal activities.

④ Cognition deficiency

Consumers' original perceptions of products based on advertising may vary depending on their level of education and economic level. Their cognition may be manipulated by advertisements. Because of the existence of "shanzhai products," consumers appear to be passively mistaken their choice. Interact with issue ⑩ .

⑤ Income affects choice

The economic level of consumers directly affects their choice of products, and those with lower economic capabilities are more likely to choose counterfeit/pirate products.

⑥ Lack of copyright awareness

Due to the late start of legislation, copyright education has also needed strengthen and China's modern manufacturing industry has developed from imitation manufacturing. Therefore, some people still do not have a correct understanding of IPR, and have no concept of paying for IP. The problem will gradually improve with the popularity of education, but in the short term it will still be an important issue for the development of intellectual property.

⑦ Unauthorized product information using

In the process of product manufacturing and distribution or the publication of content, product information must be published, and it will inevitably be abused at the same time.

⑧ Supervision loopholes

Except for illegal infringements within the scope of legal supervision, infringements that cannot be identified due to loopholes and many IP disputes that are difficult to determined is another violation of IPR. (small change on design appearance, etc.)

⑨ Illegal Spreading by customer

For some monopoly IP products (secret technology/private design) and intangible IP products (film, music, software), they should end their circulation in the market after they complete the first formal process purchased by consumers. However, as consumers illegally disseminated product information, they illegally re-entered the market.

⑩ Infringement products embezzle original products publicity results

The reputation generated by the manufacturer's advertising campaign will be used by infringers who counterfeit the product, and more famous products are more likely to be counterfeited.

3.3. Various IP features

In the field of research, scholars have proposed different ways of service innovation protection method for different types of IP. For example, C.B. Hipp and C. Herstatt classify service innovation protection methods into five categories: IPR, confidentiality and First market entry, internal locking, external locking, and complex design². And Ye Xiaoliang and Wang Yanxia's 6 Protection Methods: IPR, Confidentiality, Lockout Strategy, Leading Market Strategy, Complex Design and Public Release³. Combining Shen Jing, Rui Li, Zhang Li's Classification of Intellectual Property Protection Types⁴, we narrowed the scope of our design to provide in-depth research into the protection of service innovation for a specific type of IP.

2 HIPPCB, HERSTATTC. Patterns of innovation and protection activities within service companies: results from a German study on service ? intensive companies and lessons learned for emerging Asian markets [C] // IEEE International Conference on Management of Innovation and Technology. Singapore: IEEE,2006:5.

3 叶小梁,王艳霞.知识密集型服务业知识产权保护方法探析[J].科技管理研究,2009(12):503-504.

4 申静 耿瑞利 张璐,服务创新保护的研究现状与趋势,图书情报工作,2017. 8.

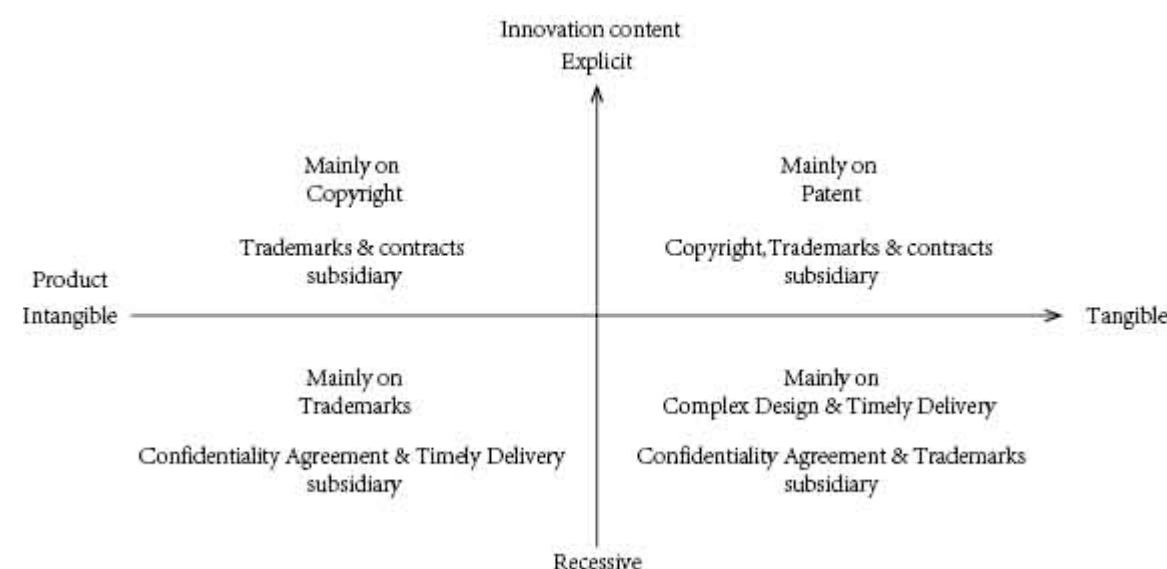
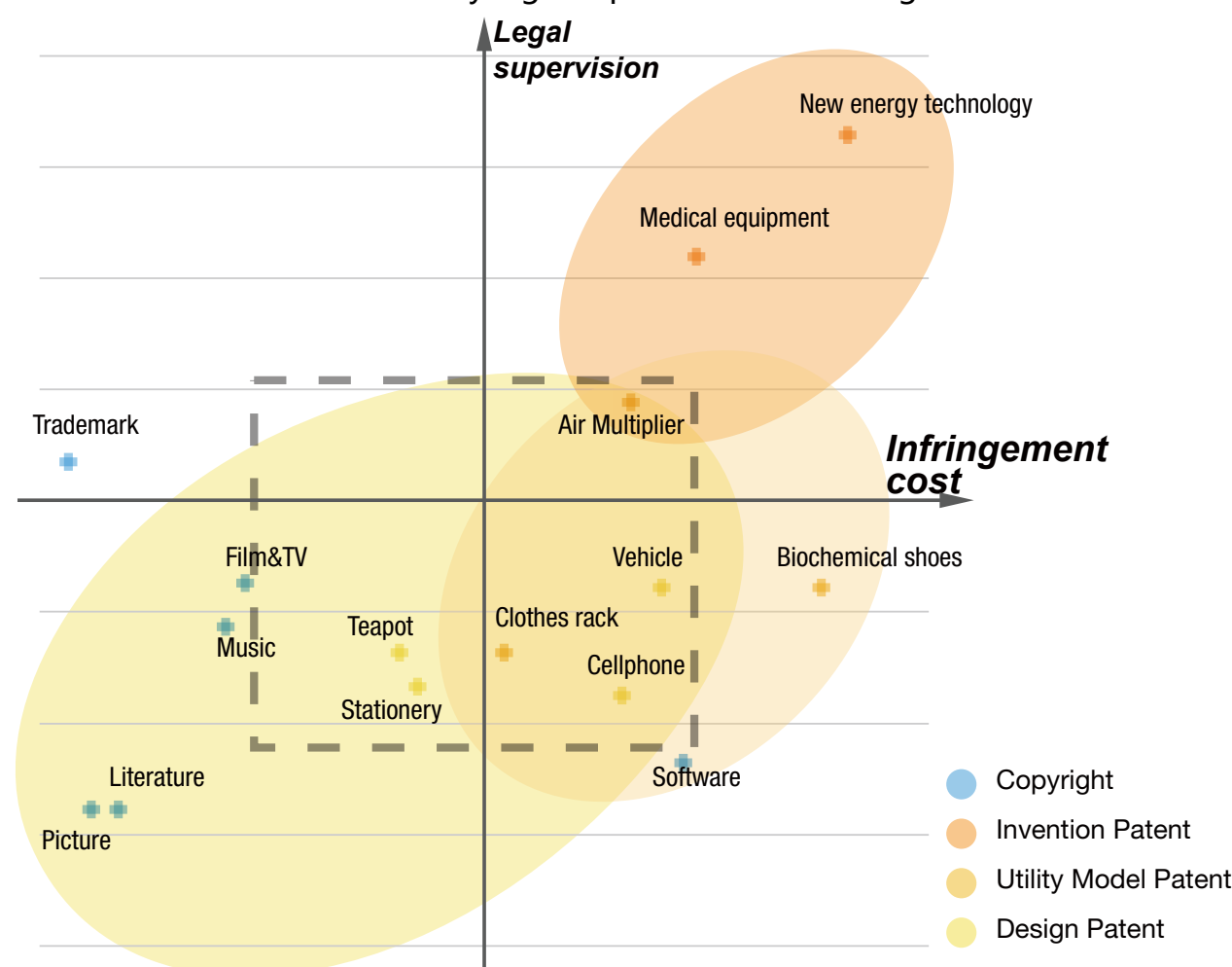


Diagram from: 服务创新保护的研究现状与趋势, 图书情报工作, 2017. 8

IP features divide by legal supervision and infringement cost



The Y-axis is based on the degree of legal supervision. From the bottom up, the degree of legal supervision is stronger. The X-axis, based on the cost of infringement, increase from left to right.

The blue points are copyright products, mainly intangible, there are examples of

trademarks, movies, music, text, images and software. In these copyright products, trademark infringement costs are lower, because it's simply icon and text, but at present, China's trademark law is relatively sound with strong enforcement, therefore this part of infringement can be well controlled, which means the legal supervision is effective on trademarks. For images and literature, legally, the definition of plagiarism is vague and not easily regulated (see Case A and 3.5.4) and cost of infringement is low. China's network is developing rapidly now, but its supervision is not enough. Many literature and pictures can be easily searched and used for commercial purposes. This part needs the joint supervision of the legal and network platforms.

With regard to music, in the 1990s, the rise of CDs and tape recorders reduced the cost of copying music, directly led to the lack of distinguishment of piracy among Chinese people, and made majority of people loss their concept of copyright in music. A large number of infringements caused difficulty of law enforcement and supervision. As long as people's awareness of copyright does not increase, infringement is always exists. At present, the copyright issue of music has been improved. Most of music APPs have charged for download music. Online supervision has also improved, subtly affecting the concept of copyright of consumers.

Film and television are similar to music. The rise of Chinese film and television industry was late, many popular programs are come from abroad. The awareness of copyright in China's film and television industry was weak and the law was not perfect (see Cases C, D, E). However, in recent years, after many international disputes have occurred, the issue of copyright in film and television has gradually been taken seriously. There are also a large number of video APPs that have risen. They have improved the concept of copyright of consumers by adopting the means of agency or classified payment (as in the music field).

The software could be the most serious piece of piracy territory in Chinese market. Although the cost of piracy is quite high, because many software developers have installed the serial key CDkey or other technical measures to prevent piracy, which needs considerable technical skills to be crack, and legal supervision has always been concerned about pirated software, its piracy rate remains high. The first reason is that the price of genuine software is prohibitive for consumers. Second, the rapid spread of Internet piracy and the ineffective supervision of the Internet and also consumer awareness. But nowadays, China's software market has changed,

more and more software has been developed, in order to increase its profit, many software has chosen open source form to enter the market, change its profit mode, such as through advertising or add plugins to charge. In general, the current software market is a direction of healthy development.

As for invention patents, it is mainly sophisticated technologies, such as new energy technology products and medical equipment. These products have high manufacturing technology requirements and high confidentiality of product process flow, resulting in high infringement costs. cooperating with strict legal supervision, so this category of products is almost impossible to infringe.

The products in utility model patents and appearance design patents are the most likely to be infringed. such as leafless fans, NUDE coat racks. Appearance patents like cell phone cases, appearance of automobiles, and appearance of various common products in daily life in these two fields of patents. The infringement costs of these products are not high, and unlike the invention patents, they do not require high-tech support; in the legal sense, the determination of appearance infringement is not strict; currently, there is no mature system to guide consumers to be aware of the concept of intellectual property. Therefore, we hope that through our design, using marketing methods to assist law enforcement and regulatory authorities in managing and relieving the chaos in this part of the product.

Some scholars have down research in a study of industry⁵, and made the question of “what do you think is the most effective way to protect novel processes and novel products?” to the business owners. The answers shows in Table 1 below: The two functions of the patent are only a little more than 3 points (7 is the most effective and 1 is invalid). In the specific analysis of the interviewed groups, the traditional manufacturing industry owners are scoring the patents to less than 3 points, but pharmaceuticals, petroleum refining, pesticides, and plastics these high-tech businesses all reached 5 points, which is basically consistent with our conclusions.

This study also explained why the business owner thinks patents are invalid, shows in the second table 5, and specifically puts forward eight reasons, most of those can support the conclusion in our 3.4.9.2. current defect.

In summary, we have selected the field in the center part of the coordinate axis

5 Appropriating the Returns from Industrial Research and Development, Alvin K. Klevorick, Richard R. Nelson, Sidney G. Winter, and Richard C. Levin, 1987.

Table 1. Effectiveness of Alternative Means of Protecting the Competitive Advantages of New or Improved Processes and Products^a

<i>Method of appropriation</i>	<i>Overall sample means</i>		<i>Distribution of industry means^b</i>	
	<i>Processes</i>	<i>Products</i>	<i>Processes</i>	<i>Products</i>
Patents to prevent duplication	3.52 (0.06)	4.33 (0.07)	2.6–4.0 ^c	3.0–5.0 ^c
Patents to secure royalty income	3.31 (0.06)	3.75 (0.07)	2.3–4.0 ^c	2.7–4.8 ^c
Secrecy	4.31 (0.07)	3.57 (0.06)	3.3–5.0	2.7–4.1
Lead time	5.11 (0.05)	5.41 (0.05)	4.3–5.9 ^c	4.8–6.0 ^c
Moving quickly down the learning curve	5.02 (0.05)	5.09 (0.05)	4.5–5.7	4.4–5.8
Sales or service efforts	4.55 (0.07)	5.59 (0.05)	3.7–5.5	5.0–6.1

Source: Authors' calculations.

a. Range: 1 = not at all effective; 7 = very effective. Standard errors in parentheses.

b. From the upper bound of the lowest quintile of industries to the lower bound of the highest quintile.

c. Differences in means significant at the .01 level.

Table from: Appropriating the Returns from Industrial Research and Development

Table 5. Limitations on Effectiveness of Patents for New or Improved Processes and Products^a

<i>Limitation</i>	<i>Overall sample means</i>		<i>Distribution of industry means^b</i>	
	<i>Processes</i>	<i>Products</i>	<i>Processes</i>	<i>Products</i>
New processes or products patentable	4.32 (0.07)	3.75 (0.07)	3.6–5.4 ^c	2.8–4.8
Patents unlikely to be valid if challenged	4.18 (0.06)	3.92 (0.07)	3.5–5.0 ^c	3.0–5.0 ^c
Firms do not enforce patents	4.29 (0.06)	3.84 (0.07)	3.5–5.0 ^c	3.0–4.8 ^c
Competitors legally “invent around” patents	5.49 (0.05)	5.09 (0.06)	4.9–6.0	4.4–5.9 ^d
Technology moving so fast that patents are irrelevant	3.40 (0.07)	3.34 (0.07)	2.0–4.3 ^d	2.0–4.0 ^d
Patent documents disclose too much information	4.19 (0.07)	3.65 (0.07)	3.2–5.0	2.8–4.5 ^c
Licensing required by court decisions	2.96 (0.06)	2.79 (0.06)	2.0–3.8	2.0–3.3
Firms participate in cross-licensing agreements with competitors	3.08 (0.06)	2.93 (0.06)	2.2–3.9 ^d	2.1–3.9 ^d

Source: Authors' calculations.

a. Range: 1 = not an important limitation; 7 = very important limitation. Standard errors in parentheses.

b. From the upper bound of the lowest quintile of industries to the lower bound of the highest quintile.

c. Interindustry differences significant at the .10 level.

d. Interindustry differences significant at the .01 level.

Table from: Appropriating the Returns from Industrial Research and Development

as the research area of this design. This part of IP are more similar in the product trait and faced with a dilemma of conflict difficulties in IPR protection and market pressure, most of the independent designers and small design agents crowded in this area, legal IPR protection methods can not effectively protect the interests of designers. therefore seeking for service design and other means might be a way solving this issue.

3.4. Tangible IP Operating Mode

3.4.1. IP Creator

Since tangible IP products involve manufacturing, patent rights are created to ensure the interests of creators and manufacturers, and at the beginning of creation, it was divided into job-related invention/creation (the creations of the implementation of the company's tasks or creations using company's material and technical conditions) and individual inventions/creations, which the job-related invention patents was controlled by the company. Individual inventions and creations are generally traded to companies through an authorization system and protected by patents .

A small number of individuals will choose to public their achievements as open source IP. In addition, due to the temporal and territorial nature of patent rights, patents that have passed the protection period and patents that are not protected by domestic laws are also used as default open source IPs and then enter the manufacturing process.

After the company obtains the patent license from the above channels, it still needs to declare the production project to the supervision agency to obtain production license. This step has specific requirements for the company's manufacturing qualification and requires a long time and capital cost.

3.4.2. Manufacturer's formalities and production licenses

Unlicensed companies or factories are objective existences at the present stage in China. They are the breeding grounds for counterfeit products. Unlicensed operation not only undermines social fairness, but also has hidden problems such as production unsafety. Although the state and provinces have issued many laws and regulations to deal with the business without licenses and coordinated with law enforcement officers in various localities. But these problems have not been able to completely solve.

In order to understand in depth the causes of piracy and solve piracy, we need to understand the application process of legitimate companies in order to identify problems and make improvements.

At this stage, the bidding of Chinese enterprises mainly requires four steps: company name pre-approval application, business license management, tax registration, and products' 3C certification. The pre-approval of company name is a special procedure for registration of company name, which means that setting up a company should apply for a name pre-approval to make the application documents and materials to avoid using wrong names during the application period to reduce the repetitive work⁶.

A business license is a certificate issued by the Industry and Commerce Administration Bureau for business enterprises and self-employed persons to permit them to engage in certain production and business activities. Its format is regulated by the State Administration for Industry and Commerce. Its registration items are: name, address, person in charge, amount of funds, economic composition, business scope, business model, number of employees, and operating period. Business licenses are divided into the original and the copy, both have the same legal effect. The original one should be placed in a prominent position in the company's domicile or place of business. Business licenses must not be forged, altered, leased, loaned, or transferred. Business enterprises and self-employed persons without business licenses are forbidden to open their business, to make official seals, to sign the contract, to register trademarks, to advertise. Even do not be allowed to open an account in the bank⁷.

Tax registration is a statutory system for the registration and management of taxpayers' production and business activities by the Taxation bureau in accordance with the taxation law, and it is also a statutory procedure for taxpayers to perform their tax obligations in accordance with law. Tax registration is the starting point for the entire tax collection management. Tax registration categories include: opening registration, changing registration, registration for suspension of business, registration for resumption of business, cancellation of registration, registration for outbound business, tax types' registration of taxpayers, tax payment registration,

6 Baidu Encyclopedia <https://baike.baidu.com/item/%E4%BC%81%E4%B8%9A%E5%90%8D%E7%A7%B0%E9%A2%84%E5%85%88%E6%A0%B8%E5%87%86>

7 Baidu Encyclopedia <https://baike.baidu.com/item/%E8%90%A5%E4%B8%9A%E6%89%A7%E7%85%A7>

etc⁸.

The 3C certification is called the "The system of Compulsive Product Certification", which is a Chinese product quality assessment system aims to protect consumers' personal safety and national security and to strengthen product quality management with the laws and regulations⁹.

3.4.2.1. Bid Procedure

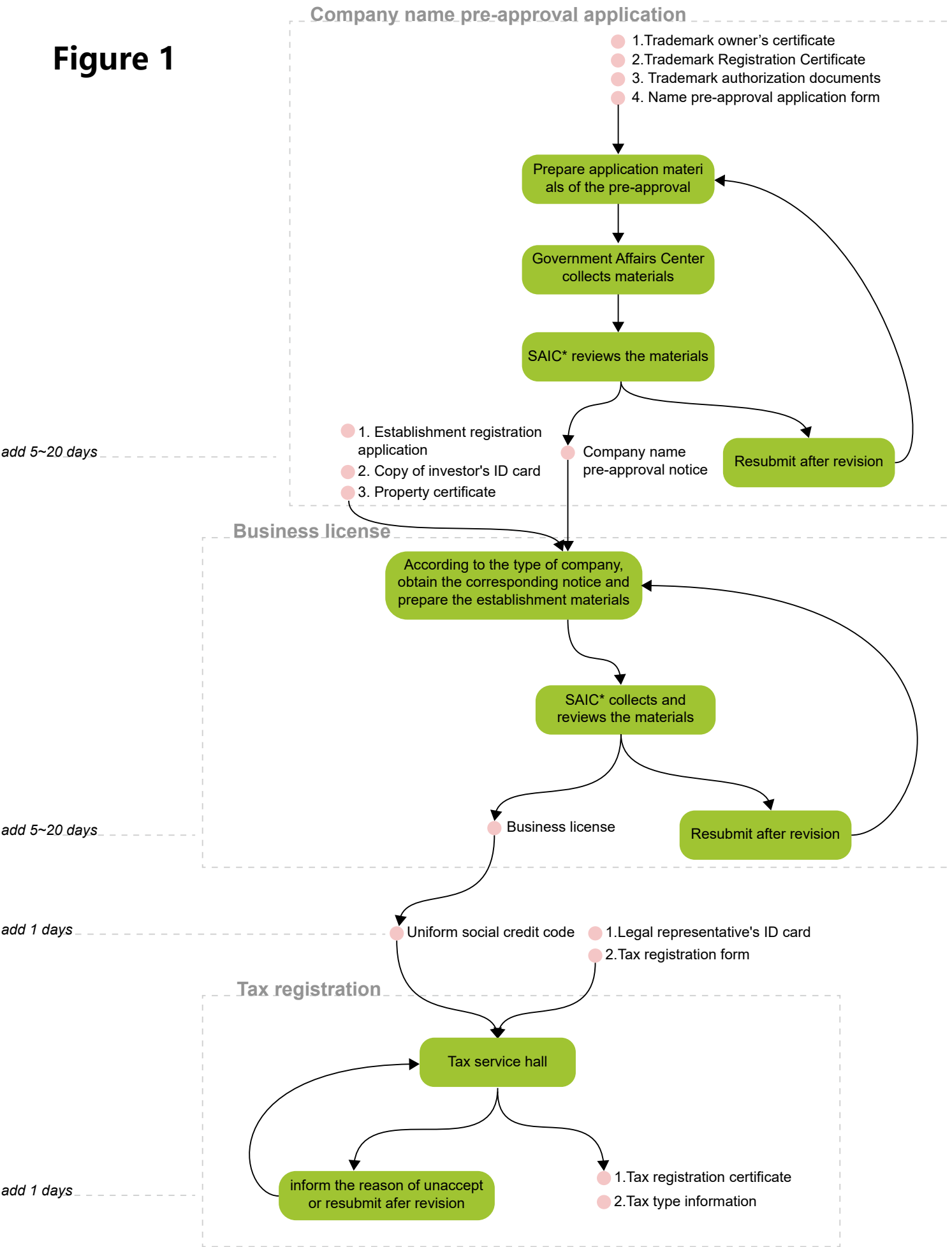
As shown in figure 1, company name pre-approval application requires an enterprise applicant to fill in the name pre-approval application form. If they use a trademark, they need a trademark registration certificate or a trademark certificate of the owner and authorization certificate, those are required to be submitted to the Government Affairs Center. Then the Government Affairs Center reports to the SAIC* for material review. If the materials are incomplete or have errors, they need to be re-submitted after modification according to the notice. A company name pre-approval notice will be issued after the review. This process will take 5 to 20 days. If the enterprise gets the name pre-approval notice, they can continue to deal with the next step "business license". They need to provide the investor's identity certificate, enterprise' s property certificate, and the enterprise' s establishment registration

application, and obtain the corresponding notice form according to the type of company. It will take 5 to 20 days after the SAIC collects and reviews the materials and issues business licenses and a unified social credit code*. Regarding the unified social credit code, its predecessor was the organization code. The organization code is the unit ID issued by the organization in the social and economic activities. It is a separate code and must be handled with the business license at the Government Affairs Center. Since October 2016, the Administration of Quality Supervision, Inspection and Quarantine(AQSIQ) announced the abolition of the organization code and implemented the "three-in-one" policy, meaning that the business license,

8 黄双蓉. 财经法规与会计职业道德: 经济科学出版社, 2014

9 3C certification is the "China Compulsory Certification" authoritative certification of national security certification by China Commission for Conformity Certification of Electrical Equipment(CCEE), China Commodity Inspection Bureau(CCIB), and China Electromagnetic Compatibility Certification (EMC). It is the symbol of General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China (AQSIQ) and Certification and Accreditation Administration of the People's Republic of China (CNCA) that are in line with international standards with replaceable importance. At present, the first batch of products announced by China that must pass mandatory certification are in total of 19 categories and 132 types. Including wire and cable, low-voltage electrical appliances, information technology equipment, safety glass, fire protection products, motor vehicle tires, latex products and so on. See web site <https://baike.baidu.com/item/3C%E8%AE%A4%E8%AF%81#2>.

Figure 1



organization code certificate, and tax registration certificate were merged into one industrial and commercial business license, and cancel the different codes of each certificates, then use the unified social credit code. The unified social credit code is equivalent to the legal person's ID number, which has five characteristics:

① Uniqueness, which is unique throughout the country, an entity can only have a unified social credit code, and even if the entity logs off, the code is retained for retrospective purposes. For example, if an entity is changed from a public institution to a company, according to legal procedures, it is necessary to cancel the institution and establish a new enterprise according to law. The new establishment of a company is a new subject and a new unified social credit code must be issued to it.

② Compatibility: The unified social credit code can be compatible with various agency codes to facilitate the classification management and reduce the transformation costs of various departments.

③ Stability. Once the code is granted, any changes to the subject information will occur during the life of the entity. The code will not change. For example, if a legal person or other organization migrates or changes its legal representative or business scope, it will not change its unified social credit code.

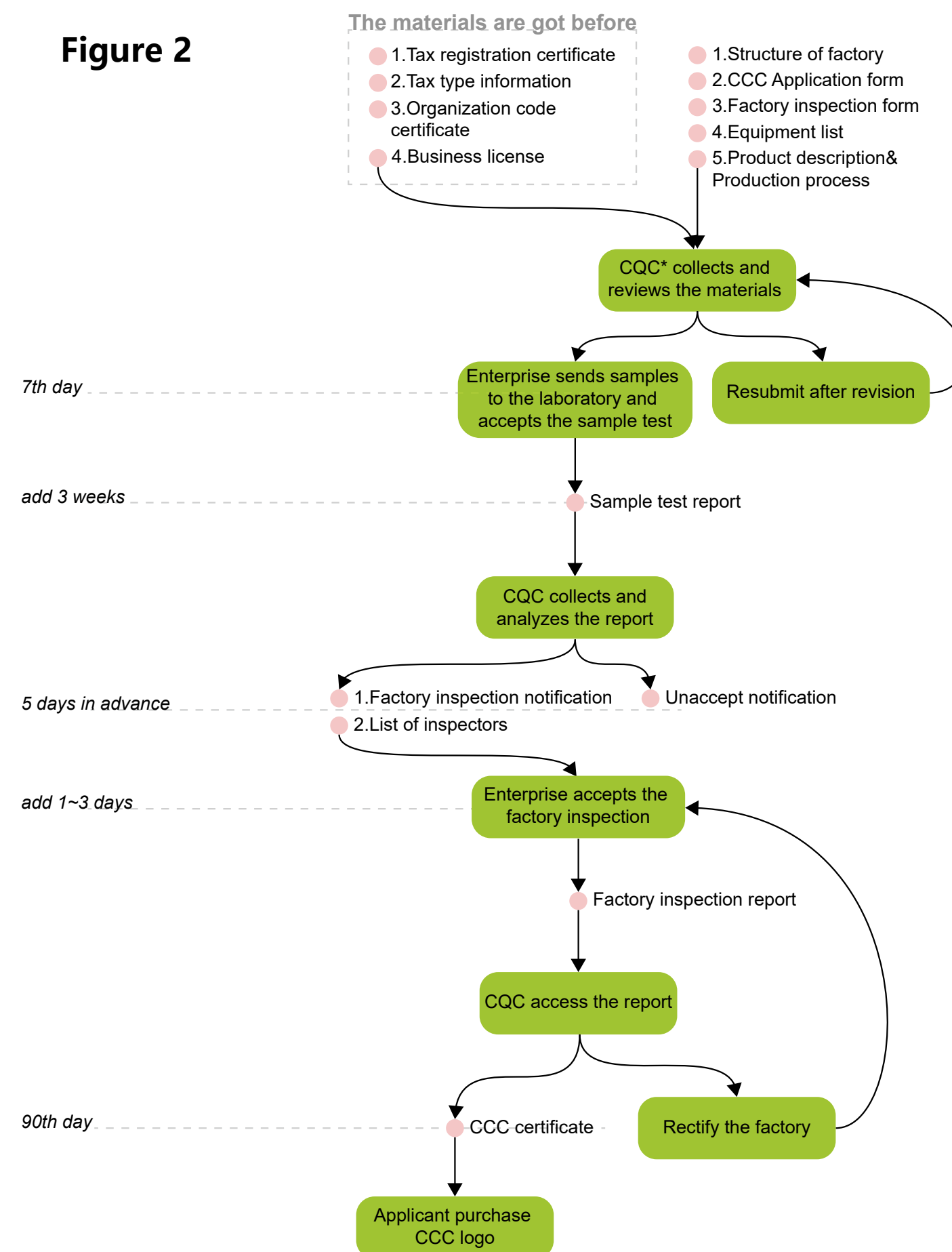
④ Full coverage, after the implementation of the unified social credit code system, the newly established legal person and other organizations shall be issued with a unified social credit code at the time of registration; and the established legal person and other organizations shall exchange the unified social credit code through appropriate means. To achieve full coverage of legal entities and other organizations.

⑤ Coordination, legal persons and other organizations unified social credit code and natural person unified social credit code (civil ID number) consistent with the number of bits, are 18 both numbers¹⁰.

Within 30 days from the date of obtaining the industrial and commercial business license and the unified social credit code, it is necessary to apply for tax registration with the local competent taxation authority, fill in the tax registration form, and provide the legal person identity card. At this point, the administrative process for starting a business is completed.

¹⁰ Interpretation of the Unified Social Credit Code System: Breaking the Credit Information "Isolated Island" , 2017

Figure 2



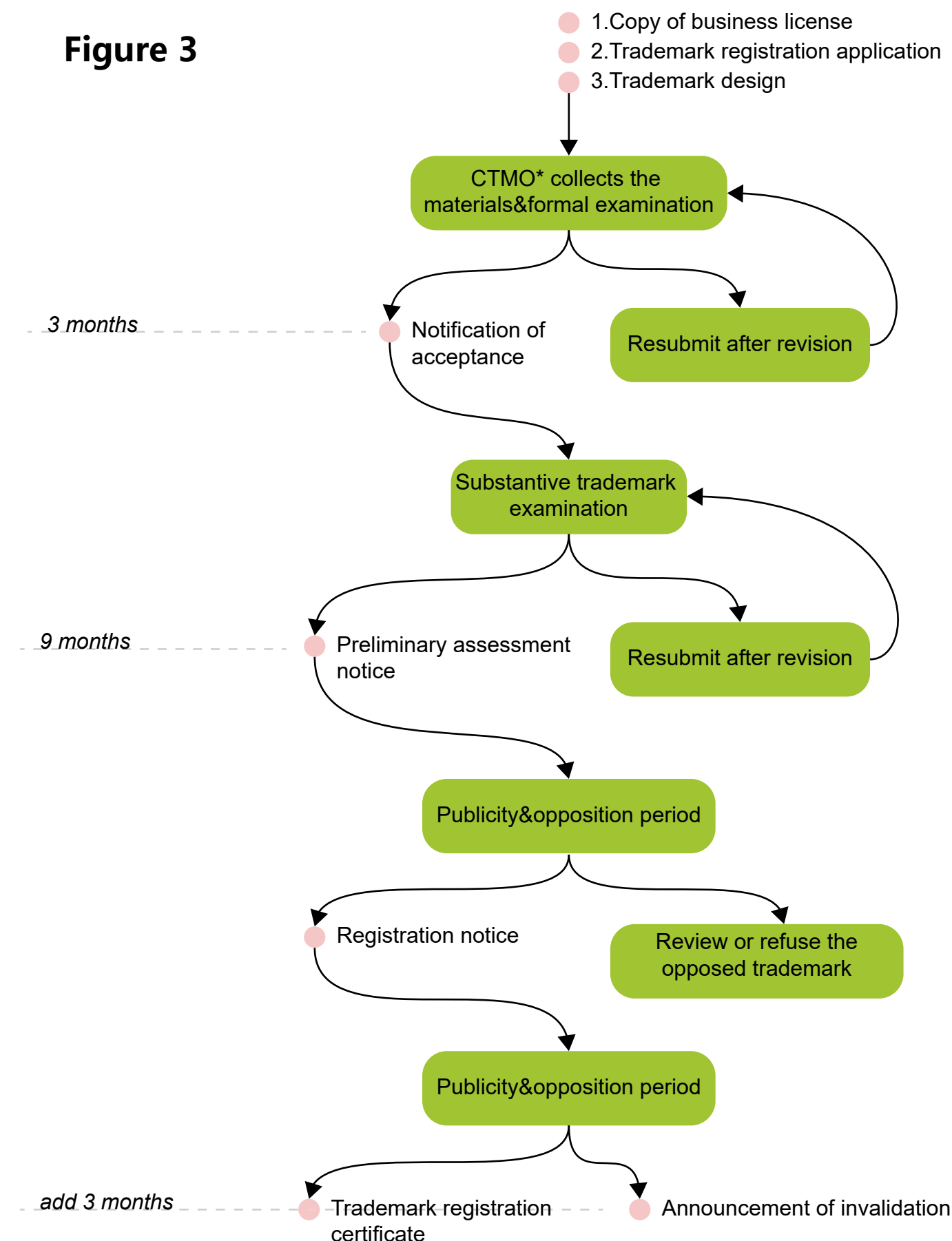
Afterwards, in terms of technology, the 3C certification of the product is required. As shown in figure 2, the company needs to have a material document for handling the administrative process before, and then needs to fill out and submit a compulsory certification application, the factory organization chart, process flow chart for products requiring certification, List of equipment which used to test the product, assembly drawings and schematics of products, and product specifications, describing the difference between each type of product in each unit of the application and attaching appearance photos. After review by CQC China Quality Certification Center, if the materials are complete, CQC sends sample inspection notice to the company, the company send the sample to the laboratory for sample inspection, and get the test report in about three weeks. If qualified, the CQC will send a factory inspection notice to the company 5 days in advance and provide the list of inspectors; If the test fails, the CQC will send a notice of disapproval. After that, the company received the inspectors and cooperated with factory inspection. The inspectors shall issue a test report to the CQC according to the test results. If the test is unqualified, the factory shall be rectified according to regulations. If it is qualified, the 3C certificate can be obtained. The company that has obtained the 3C certificate can directly purchase the mark in 3C certification mark issuing management center.

In addition, the registered trademark is voluntarily selected by the company. The application procedure is shown in Figure 3. The trademark registration requires a copy of the business license, a trademark registration application, and a trademark design. After the enterprise submits the materials to the Trademark Office, the Trademark Office conducts a formal review first and check whether the materials are complete. After the examination is passed, the consent notice shall be sent within 3 months. Then entering the substantive examination stage, the examination of the trademark specification will take about 9 months. If the substantive examination is qualified, it will enter the announcement process. This period is 3 months, also called the objection period. When the announcement expires and no one raises an objection, the company can obtain a registration certificate. The time for successful registration is generally around 12-14 months.

3.4.2.2. Current Problem Analysis

According to investigations, except that many manufacturers and enterprises cannot obtain trademark license from the trademark owners, there are also applicants be required to fill in a large number of application materials and to

Figure 3



go back or forth in various government departments. The entire process takes at least six months. Although SAIC has also introduced the policy of “Three-in-one” in order to reduce the burden on enterprises’ applicants and facilitate the applicants to apply the documents, there are still many problems. Some enterprises said, Holding the “three-in-one” business license to the bank to handle basic account registration, or go to the Public Security Department to go through the formalities for the purchase of the enterprise vehicles, or go to the Foreign Affairs Management Agency to handle the business formalities of the employee, etc. Were told that a separate tax registration certificate or a organization code is required. Companies can only return to the registration places to re-apply for these documents. In addition, regarding 3C certification, this is a national mandatory product certification procedure, CQC expressly stipulated the application fee of 500 yuan and the certificate fee of 800 yuan, each supervising auditor charges 2,500 yuan per working day during factory inspections. Actually, it is 2.5 person/day for the factory inspection fee, which is 6,250 yuan. The 2 of the 2.5 is inspection fee for two inspectors per one day, and 0.5 is food and accommodation fee. However, according to the regulations, it is not permitted to collect food and accommodation fee from the company. According to some companies, during the inspection process, there will be about 3,000 yuan for each inspector in red envelopes (bribe). Secondly, there is no expressly stipulated fee standard for sample testing, which simply means that different products have different pricing, and opaque charging standards will lead to policy loopholes and the possibility of high charges.

Although trademark registration is not mandatory, it takes too long to register. And many small-scale manufacturers think that trademark registration takes a long time, and the company's financial resources are insufficient to support the brand publicity. As a result, brand profit efficiency is slow without visibility. While small-scale manufacturers want to rely on the popularity of big brands to expand sales, they need to obtain the trademark license. But large brand companies looking for partners consider maintaining the reputation of the brand, which need to inspect the manufacturer's production quality, production technology scale, etc. These are precisely what small manufacturers lack. In this dilemma, small-scale manufacturers began to register trademarks similar to big brands and to produce counterfeit products to use the big brands’ popularity. Or they produce products which have the similar appearance of large brand products without register trademarks, but for the same reason, these manufacturers do not get the license for appearance patents of big brands.

In sum, the time consumption, inefficient government office, opaque charging standards, time-consuming of the trademark registration and brand benefits, those issues are the reasons that lead to the existence of unlicensed enterprises in China now.

3.4.2.3. Suggestions and Methods

To solve these problems, government's regulatory and constraints from the policy and the law is in need. For example, the above “three-in-one” problem reflects that the government’ s policy for the Industry and Commerce Bureau involved the coordination with the Quality Supervision Bureau, the State Taxation Bureau, and other multi-sectors. The purpose of the policy is good, but the specific implementation also requires the government’ s unified guidance, directing and coordinating with various departments, which can effectively implement the social benefiting policy. In the issue of 3C certification fees, it is necessary for the certification institution strictly manage the inspectors and publicize the charging standards to avoid bribery of unqualified enterprises and encourage enterprises to accept inspections, thereby reducing the number of enterprises without licenses.

In addition, in our intellectual property system, it may be possible to set up a agent to help companies and manufacturers handle formalities and communicate and cooperate with government departments at the same time. This will serve to supervise and stabilize the charging standards and reduce the processing time.

3.4.3. Tangible IP product infringers

Companies will choose to become manufacturers to complete their industry chain or authorize sub-manufacturers. Small manufacturers will find it harder to obtain manufacturing authorizations due to their limited production capacity. This has led to unauthorized manufacturers, who understand product trends, collecting legally or illegally product information through various stages of the process, then process their changes on design or directly duplicate products. we divided them into three types of infringement:

- ① Skip the authorization of licenses manufacture products directly, save time and patent costs, violate the law directly. These products are mainly low-quality pirated and counterfeit goods that are difficult to circulate in the formal market.
- ② Manufacturers with production licenses producing products without patent. because of the issue of market management they can be circulated in most markets,

and prices are lower, IP owners need to take the initiative to safeguard their rights.

③ Manufacturers with production licenses that have made slight changes to the original patented product (not reach the level of novelty and non-obvious) to manufacture and sale without the patent, which can legally circulate in the market with lower price. The current laws are difficult to distinguish.

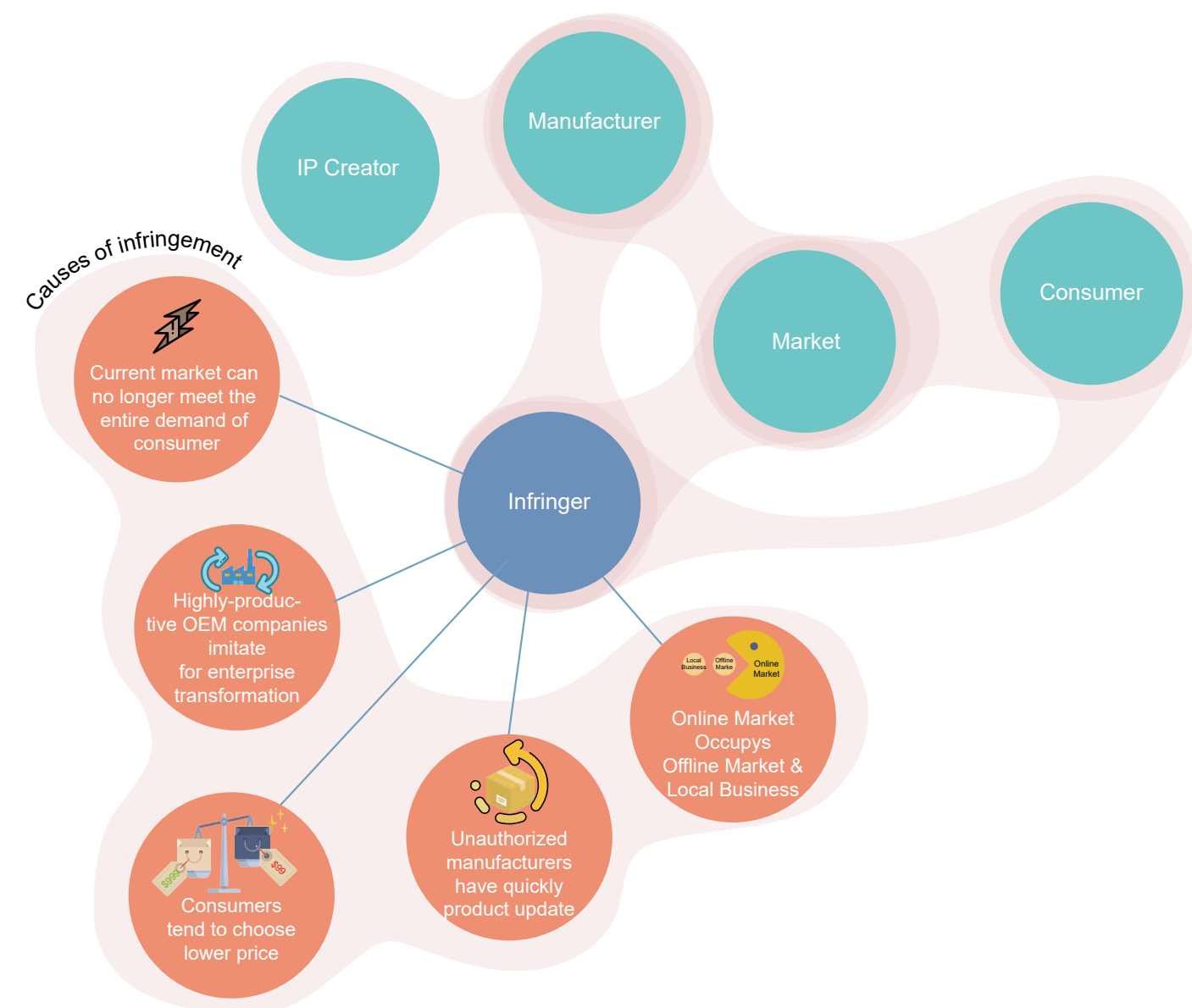
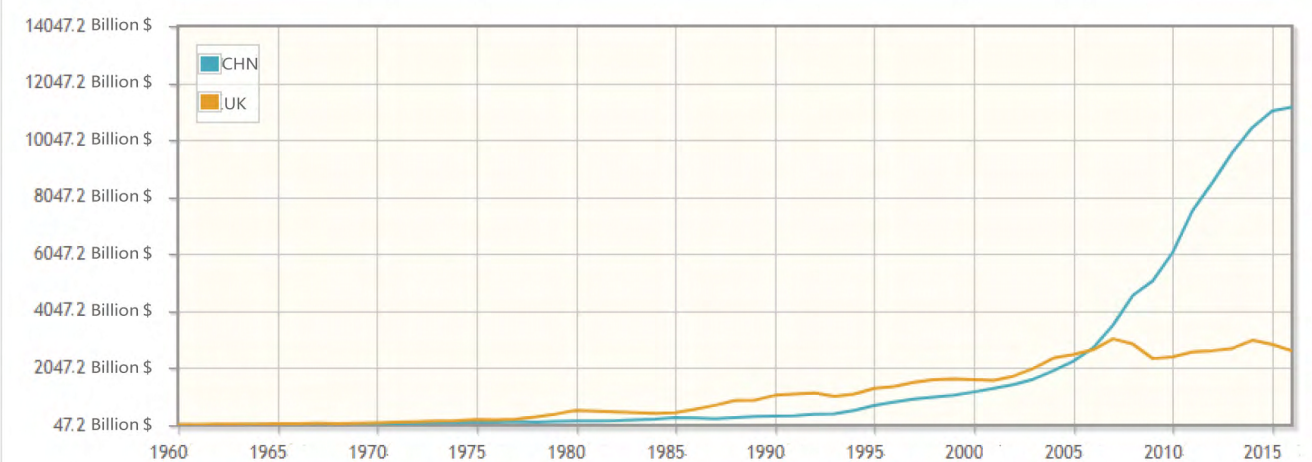
After the manufacturing stage, the company places product information on the online trading platform and advertisements to gain greater influence, while the physical goods are stored in the warehouse and sent to the consumer according to online sales or wholesale merchants selling on offline market to consumers.

3.4.4. Market

Purchasing through superior manufacturers or as a subordinate department of a company, sellers promote products to consumers in the market. At present, the main sales forms in the Chinese market are the physical offline market and online e-commerce market. The cities/eastern developed regions are relatively developed in online market, while the rural/western regions are still more rely on the offline market. The C2C e-commerce and offline market are basically where the seller as a middleman to purchase from the manufacturer and then sell it to the consumer. these sellers generally target the interests of purchases, and the infringing manufacturers often act as the sellers. B2C markets are regulated by law, sellers have the product's authorized.

3.4.5. Consumers

As a terminal for the consumption chain of IP products, currently consumers only receive information from the market and advertisers, passively select products from the selling platform, and purchase products to provide profits for all previous stages.



3.4.6. Causes of infringement under current situation

We believe that the current causes of the Chinese market model are mainly related to China's short-term and high-efficiency development. Compared with the United Kingdom, since the 1960s, the British GDP level has been slightly higher than China and has maintained a steady growth rate. After 2006, China's GDP growth has increased significantly and it has ranked second in the world¹¹.

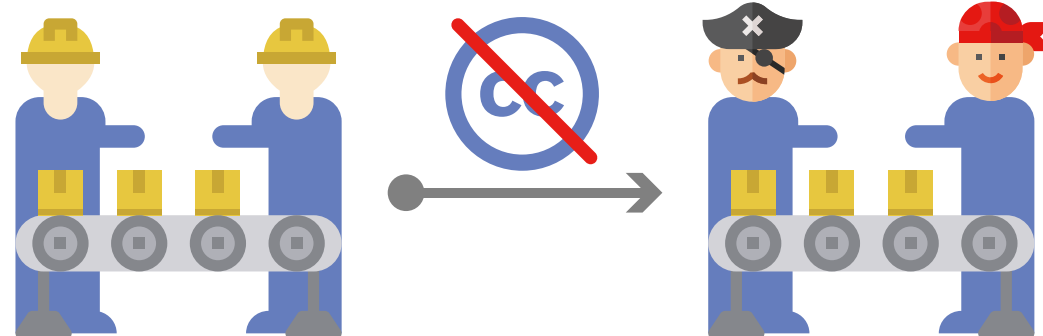
First, Current market can no longer meet the entire demand of consumer. The influence of population base aside, we can see that China' s economic growth rate has been increasing rapidly since 1993, but the level of education develop speed is obviously below the economic increasing level, and a large number of people without intellectual property awareness have gradually become the main consumers of rapidly developing economies. On the other hand, the gap between

11 Data from: http://www.kuaiyilicai.com/stats/global/yearly_per_country/g_gdp/chn-gbr.html

the rich and the poor is still quite large, and the market vacancies in the majority of low-to-middle-income groups is very large.



Second, Highly-productive OEM companies imitate for enterprise transformation. Because some regions such as Guangdong and Zhejiang, have developed as low-cost OEM companies for foreign companies since the 1990s, they have accumulated relatively large amounts of capital and production materials, and their manufacturing capacity is highly developed (which is directly related to the rapid development of GDP short time). When a vacancy occurs in a market, the vacancy is filled by imitation or other means depending on their accumulated production capacity. For example, low-priced cell phone such as Huawei¹² and Jinli¹³, which appeared in the early smartphone market competition, and Tencent with their localization of network products, has been developing and innovating after being profitable through the “Shanzhai” model.



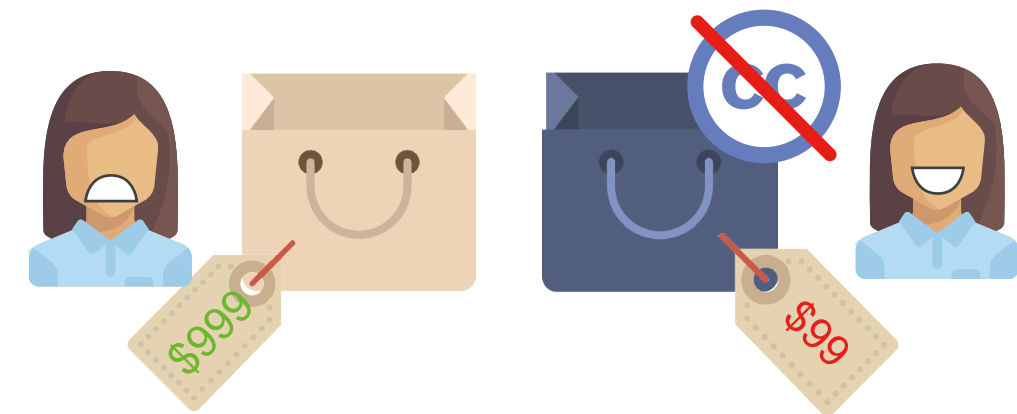
Third, Consumers tend to choose lower price

Because they do not pay fees to IP owners, and the cost of materials, and manufacturing tech etc, the prices of unauthorized products are usually very low.

¹² Reference from the timeline of wikipedia: [zh.wikipedia.org/wiki/ 华为 # 时间轴](http://zh.wikipedia.org/wiki/华为#时间轴)

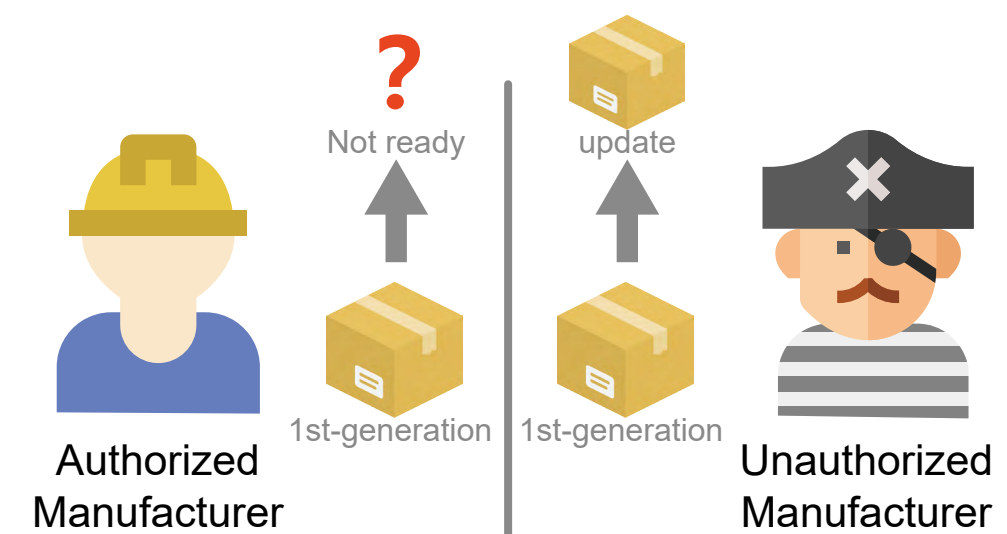
¹³ Reference from: Why everyone thinks Jinli is Shanzhai phone? (为啥大家都说金立是山寨手机?) <http://column.iresearch.cn/b/201612/789154.shtml>

For example, counterfeit of Eames Chair price is only 70 RMB¹⁴, so people will not tend to buy genuine product by hundreds of RMB.



Fourth, Unauthorized manufacturers have quickly product update

Due to the unauthorized manufacturers has high freedom of manufacturing, and without limited by IP authorization, their product update speed or completion is usually higher. Once the manufacturing level is qualified, its market competitiveness is much higher than that of genuine products.



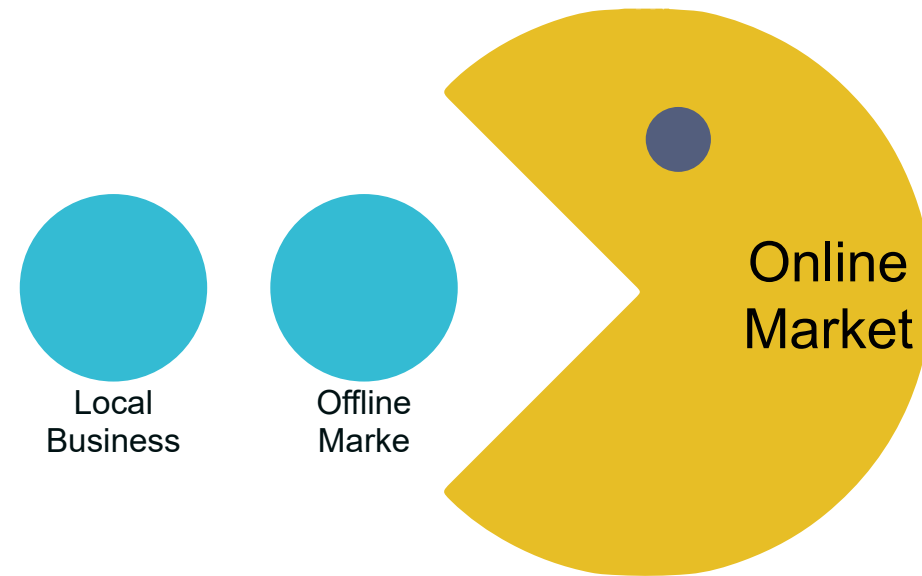
Fifthly, Online market occupys offline market & local business.

The fastest growing phase of China' s economic development is just in time with the Internet. Therefore, the online trading market has developed rapidly and has quickly occupied the physical market. According to the China E-commerce Research Center, the amount of Chinese e-commerce transactions in the first half of 2017 was 13.35 trillion¹⁵, the related logistics and distribution industry is also developing rapidly, which makes the user's consumption more convenient and also makes the

¹⁴ Data from: www.taobao.com.

¹⁵ Data from: <http://www.100ec.cn/zt/bgk/>

products on the market more abundant.



The relevant scholars analyzed and has proposed some reasons of the current cottage phenomenon(Shanzhai)¹⁶, they believes there are the following five factors¹⁷:

- 1) Market demand. With the development of the market economy, people's demand for material culture is also growing. High-end products and mainstream culture that rely solely on monopoly marketing is unable to meet needs of the people.
- 2) Humanity needs. In our daily life, the economic behaviors are all expressions of pursuit of profits. The “shanzhai” products satisfy the motives of pursuing profit and consumers' needs for satisfying material cultural.
- 3) The maturity of technical conditions.
- 4) The popularity of the Internet.
- 5) China's actual national conditions. The main contradiction of society is still the contradiction between the increasing material culture needs of the people and the lagging of production and market. This basic national situation provides a environment for the emergence of the “shanzhai” phenomenon. the emergence of the “shanzhai” phenomenon is not accidental but inevitable.

¹⁶ “shanzhai” from Cantonese, originally referred to those small manufacturers and small workshops that did not have licenses and were unable to enter the formal channels. With the appearance of the “shanzhai phone”, it has gradually become known. Baidu Encyclopedia

¹⁷ 马丽, 知识产权视野下的“山寨”现象研究, Nanjing University of Science and Technology, 2010

The “Shanzhai” phenomenon mentioned by these scholars is similar to what we have identified as 3.4.3.tangible IP product infringers ③, and unlike piracy and counterfeiting, it is an imitation-based act with innovative attributes. As the paper was published in 2010, it has the limitations of the times. At that time, laws and regulations were not perfect, and social economic development was not as good as today. At present, China’ s conditions are different from 2010. The industrial structure is already stable, and it is more difficult for “Shanzhai” industries transforming into innovative industries. Tangible IP product infringers ③ (consider as shanzhai producer) are more inclined to evade supervision rather than transform into innovative industries. However, the five factors proposed are still highly consistent with the causes we propose.

From the perspective of the IP owner, the environment of formal market confused with infringement also has an inseparable relationship with them. In a paper on the protection of IPR of industrial design¹⁸, conducted a questionnaire survey of 500 design practitioners from Beijing, Shanghai, Shenzhen, etc. on IP awareness. The survey shows that 58.14% of them “slightly known” the knowledge of IPR, 6.98% are “very understood” and 18.6% are “pretty familiar”, and 16.28% are “not quite clear.” This shows that most people knows IPR, but the degree of understanding is not high.

Survey of the attitude of rights safeguarding after infringement of IPR shows that 72.09% said “Don't know how to defend rights”; also there are options of “low success possibility of rights protection”, “tipping procedures for rights protection”, “too much money spending” and “wasting time”, accounting for 58.14%, 71.93%, 44.19% and 53.49%; there are 16.28% said that “there is no need for rights protection.” It can be seen that most people have a certain sense of rights protection, but they cannot successfully defend their rights because of complaint channels and processes.

From this part of the survey, we can find that the current awareness of IPR of China's IP owners is not as good as that of other countries with developed intellectual property systems. Their awareness of active intellectual property protection is not strong enough. The author also believes that the current reasons for this phenomenon (in industrial design area) are: lack for awareness of intellectual property rights, legal loophole, and difficulty in enforcement of IPR. Imitation and

¹⁸ 周雅, 中国工业设计知识产权保护—以深圳工业设计知识产权保护为例, Jiangnan University, 2014.1

plagiarism are rampant, and infringement, embezzlement, and leakage are serious.

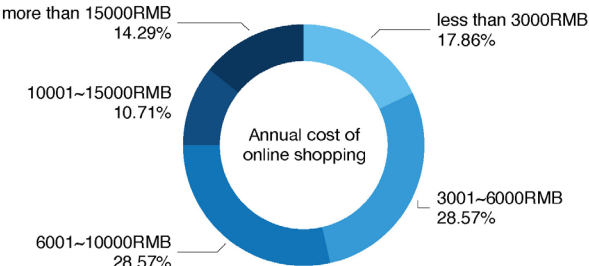
We believe that the conclusions are basically the same as those shown in our previous data analysis and surveys. However, in the current context of intellectual property protection, the law loopholes has been significantly reduced. At the same time, due to changes in the industrial structure, some plagiarism has also gradually suppressed.

3.4.7. Analysis of questionnaires and interview

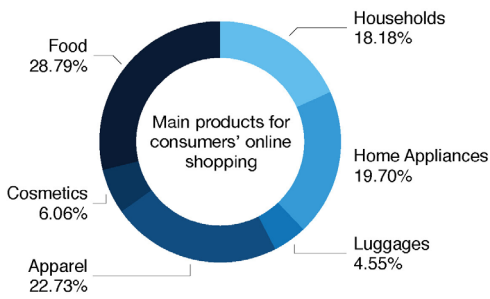
3.4.7.1. Analysis of questionnaire “Consumers’ Online Shopping Behaviour” (Appendix 1)

In our questionnaire “Consumers’ Online Shopping Behaviour” , a total of 73 questionnaires were returned, of which 56 were valid. We can get:

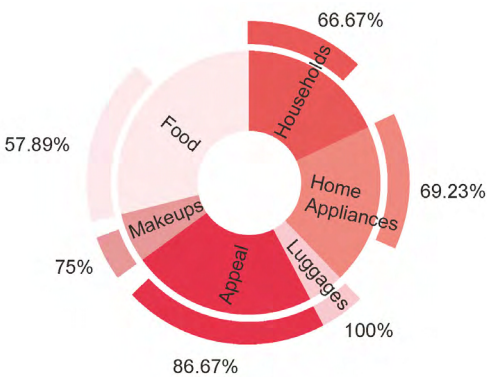
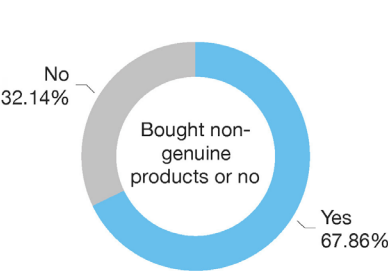
1. In our survey, we find that most of the consumers spend 3000~10000 RMB for online shopping each year.



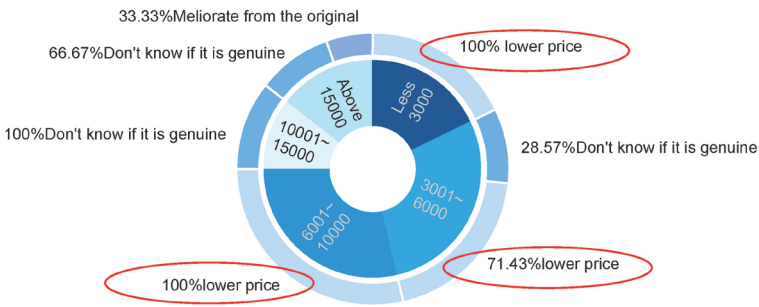
2. Food, apparel, home appliances and households are the main products for consumers’ online shopping.



3. More than half of consumers have purchased non-genuine products. 66.67% of the consumers who bought households, 69.23% of home appliances, 100% of luggage, 86.67% of apparel, 75% of cosmetics, and 57.89% of food. It’ s show that the luggage products piracy situation is the most serious.



4. The consumers whose annual cost is less than 3000 RMB, the first choice for all of them to buy non-genuine products is “lower price” . The annual cost is 3001~6000 RMB, the first choice for 71.43% of them is "lower prices", 28.57% of them chose “Don’ t know if it is genuine” . Also, The consumers’ annual online shopping consumption in 6001 ~ 10,000RMB.

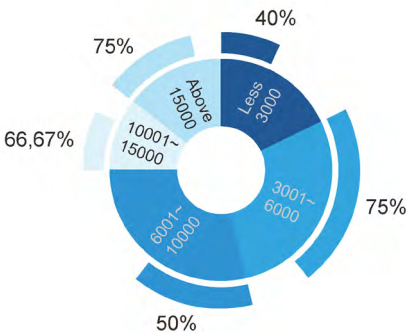


the first choice for all of them to buy non-genuine products is “lower price” . The annual cost is 10001~15000 RMB, the first choice for 66.67% of them is “Don’ t know if it is genuine” , others chose “meliorate from the original” .

This data show the relationship between the economic power of consumers and the reason of buying non-genuine products. Lower economic level, the reason of buying non-genuine products is lower price. And also proved the point we wrote before, consumers tend to choose the lower price(see 3.4.6).



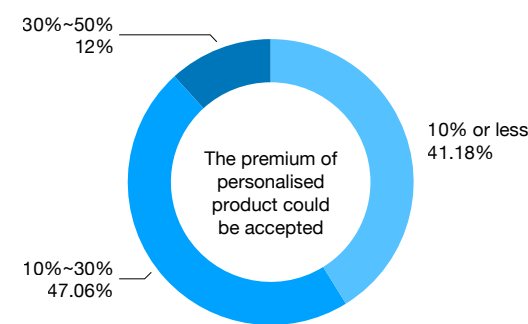
5. The consumers whose annual cost is less than 3000 RMB, just have 40% of them willing to buy genuine products. The consumers annual cost is between 3001~6000 RMB, 75% of them willing to buy genuine products. 66.67% of the consumers whose annual cost is between 10001~15000 RMB willing to buy that. And 75% of the consumers whose annual cost if more than 15001 RMB willing to buy that.



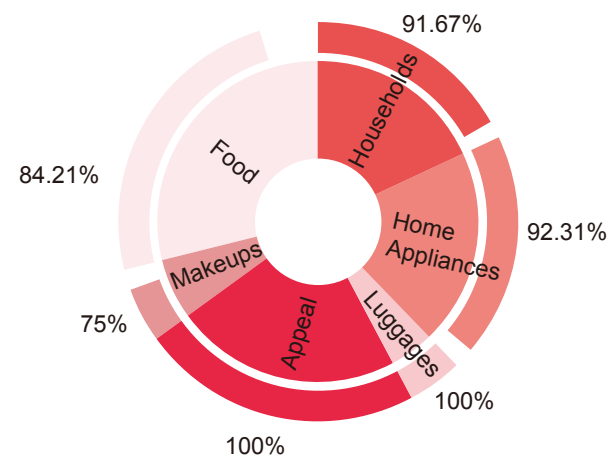
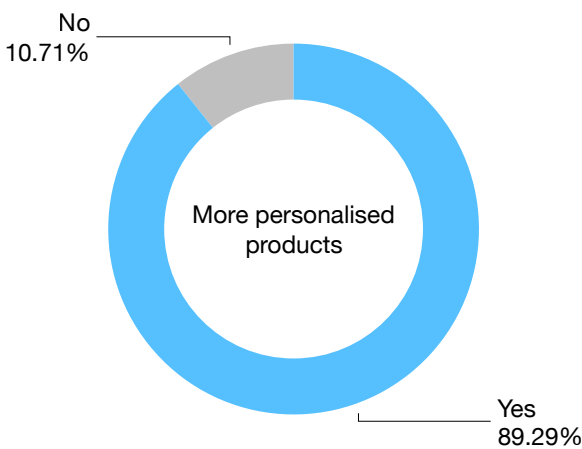
The trend of the data shows the consumers who have higher economic level, the more willing to buy genuine products.

6. Among those who chose to purchase personalized products, 47.06% of those people chose the premium should between 10%~30% of the price. And 41.18% of them chose that should less than 10%. Just 11.76% of them chose the premium

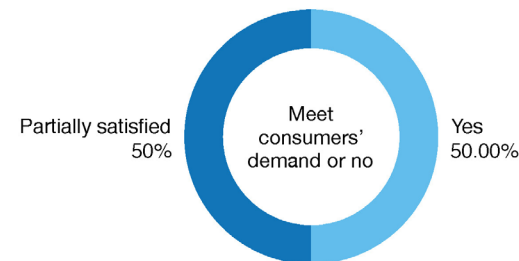
should between 30%~50%. We can see that pricing is not depend on the economic level of the consumers, most of the consumers want the price of personalized products is moderate. On the one hand, consumers are willing to pay premiums for personalized products; on the other hand, the premium of personalized products can be accepted by consumers is under 30% and this price is competitiveness.



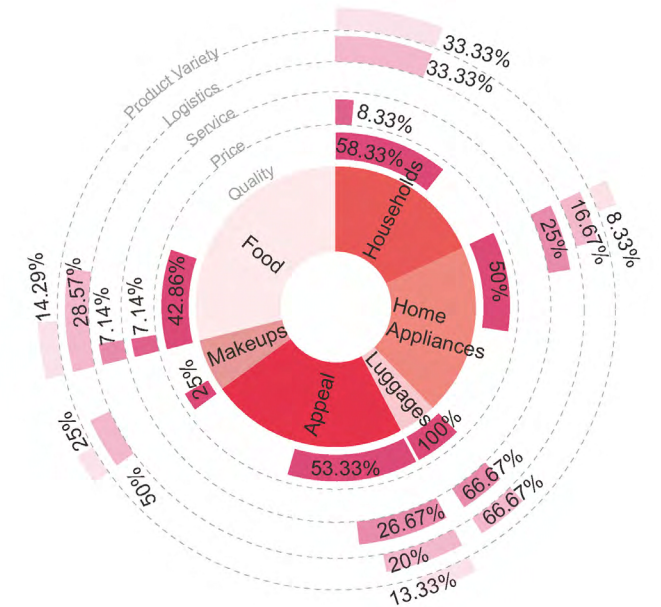
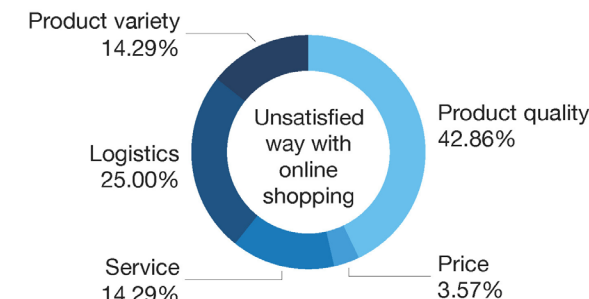
7. Most of the consumers want more personalized products. That show that the Chinese market has entered into a new stage and needs more personalized products to meet consumer needs.



8. Half of the consumers realized that online products can't fully meet their needs. Especially in luggage products, 66.67% of consumers think the luggage products cannot meet their demands.



9. 42.86% of consumers are not satisfied with the quality of online shopping products, 9above average, 50% of consumers who purchase home appliances are dissatisfied with product quality, 58.33% of consumers who buy household products. 100% of luggage consumers are not satisfied with the quality. Apparel consumers have 53.33%. In the total data, 3.57% of consumers are dissatisfied with the price. Above average, there are 8.33% of consumers who purchase household products and 7.14% consumers of food products are not satisfied with the price. The total number of consumers dissatisfied with the service accounted for 14.29%, above average, 25% of consumers who purchased home appliances.



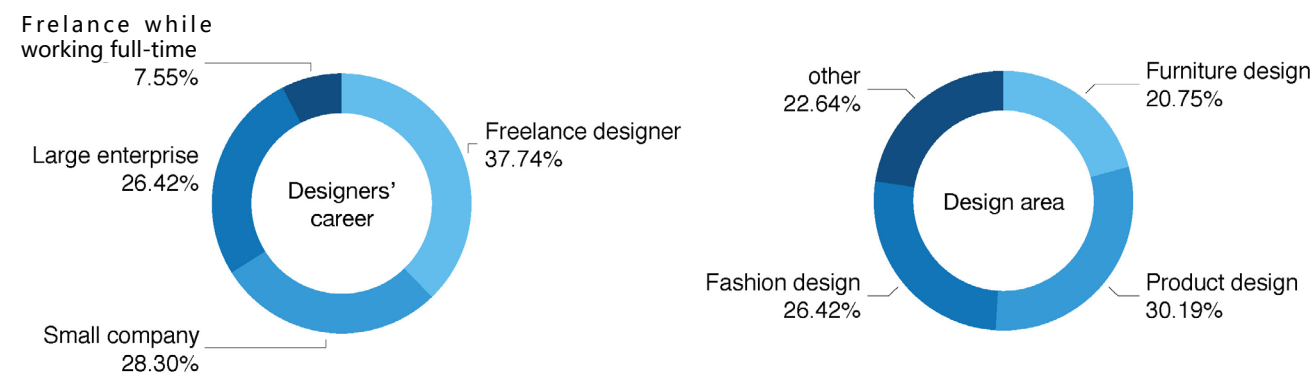
66.67% of consumers who purchase luggage and 26.67% of apparel consumers are dissatisfied with service. Dissatisfied with the logistics of consumers accounted for 25%, above average, consumers who buy home products, has 33.33%. The luggage category has 66.67% of consumers. Cosmetics account for 50% of consumers. Foods accounted for 28.57% consumers. 14.29% of consumers are dissatisfied with the product category, among them, 33.33% of consumers in households are not satisfied. 25% of beauty makeup.

This set of data can be seen that the quality of online shopping products has the greatest impact on consumer satisfaction. It also shows that the quality of products sold online is uneven and management is not sufficient. The prices of online goods are generally cheaper, and consumers have little doubt about this. The luggage category has the highest dissatisfaction with service and logistics. We can see that the consumer was 100% dissatisfied with the product quality of the luggage category, so the dissatisfaction of the product return service and the logistics were relatively high.

3.4.7.2. Analysis of questionnaire “Designers’ Open Source Behaviour” (Appendix 2)

In our questionnaire “Designers’ Open source Behaviour” , a total of 111 questionnaires were returned, of which 106 were valid. We can get:

1. In our survey, the freelance designer occupy 37.74%, the companies’ designers are 54.72%, among them. The designers in small company and in large enterprise are almost equal in number. But the designers who work freelancing while still working full-time, occupy 7.55%.This shows the designers who work in the company don’ t have the free time to work outside, their source of income is mainly form the company.



2. In these designers, the number of product designers are the most.

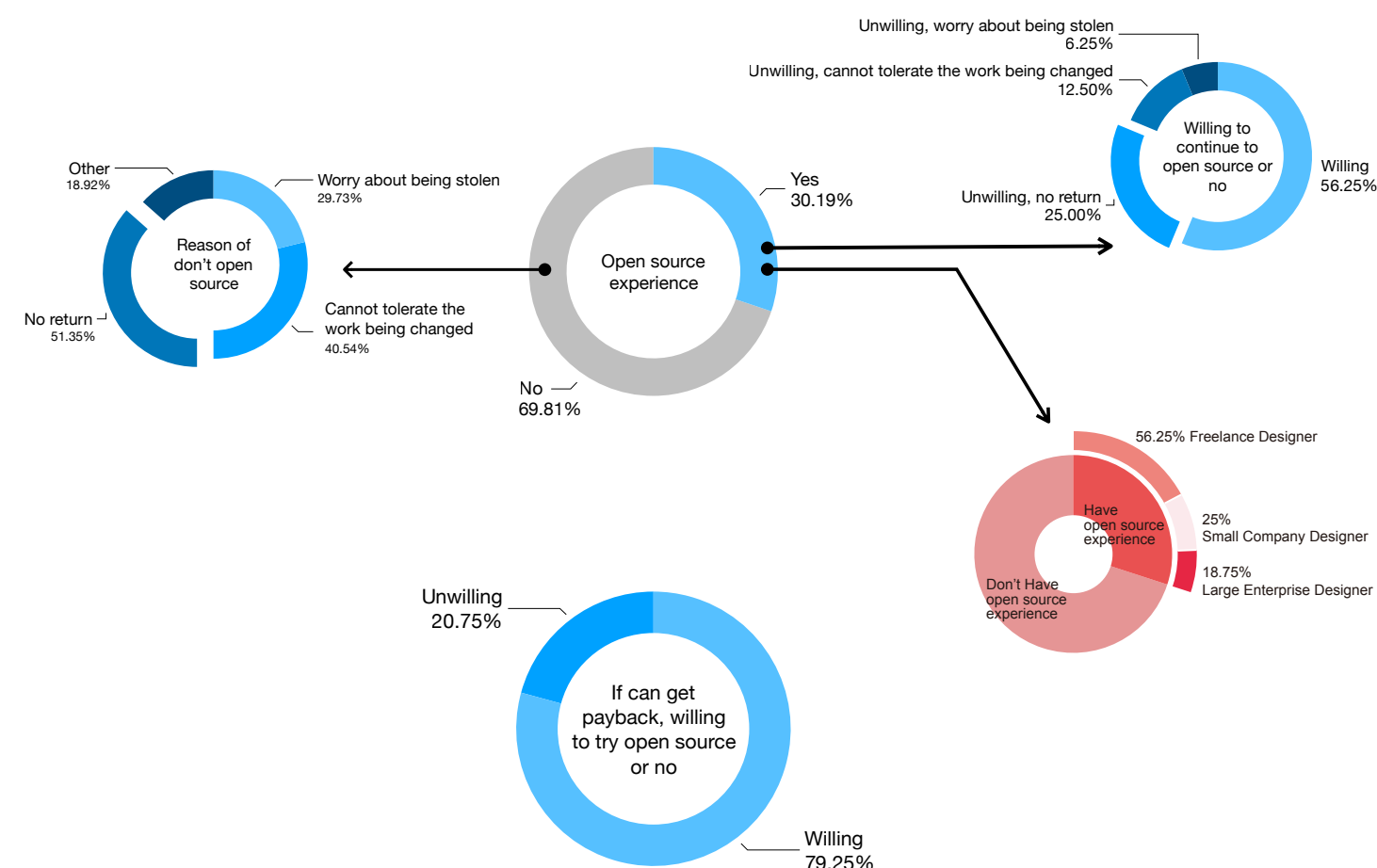
3. The proportion of designers who have tried open source is only 30.19%. Among the open source designers, 56.25% are freelance designers, 25% are small company designers and 18.75% are large enterprise designers.

This data shows that open source is not the mainstream direction in China.

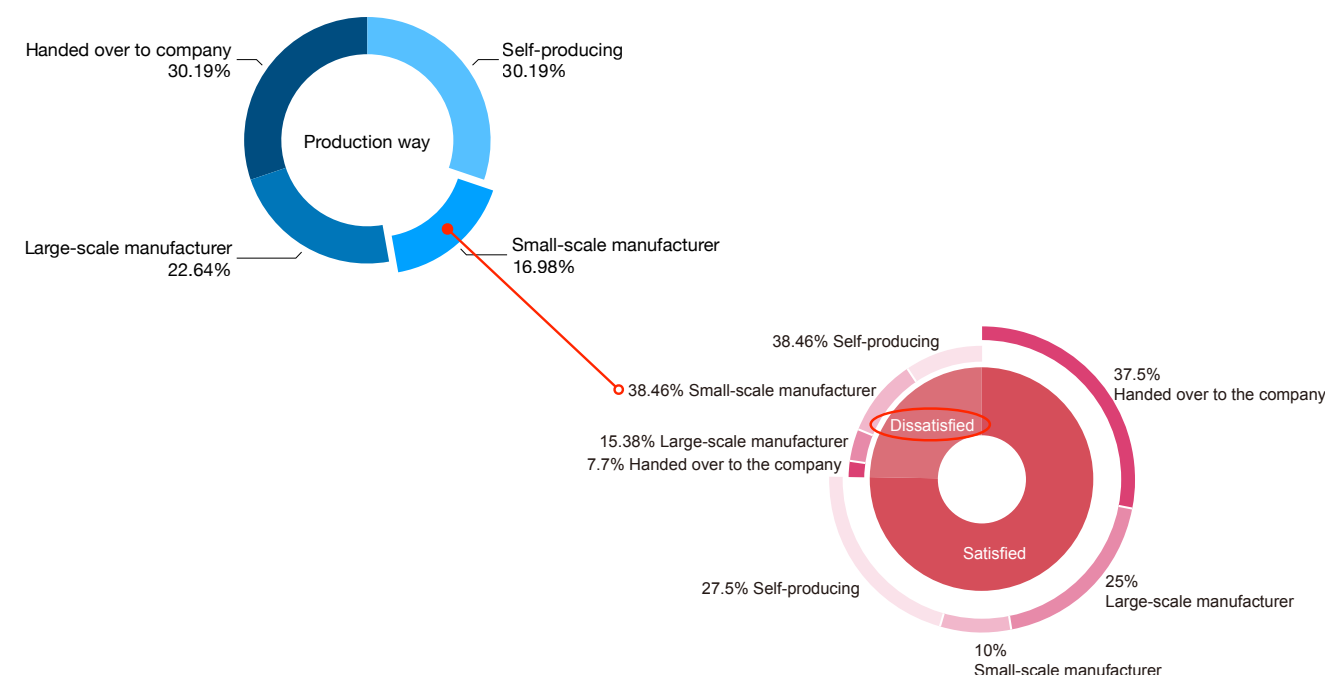
4. In the designers who haven't tried open source, 29.73% of the designer feel that open source has no return. 40.54% of designers can't tolerate the work being changed, and more than half (51.35%) of the designers are worried that their works are being stolen. In the option "other", some of them said that they belong to the company, so their works are dominated by the company and they can't decide on their own. Another furniture designer said that furniture design is borrowed from each other, always open source. Some designers feel that if they want to continue to use their open-source works, they must need more input (money, time,) on these works to exceed the changes made by others.

5. More than half of the designers who have had open source experience are willing to continue to open source. 25% of those who are unwilling to continue open source believe that open source has no return, 12.5% are tired of the work being changed, and 6.25% of designers are mindful of their designs being misappropriated but do not indicate the source. So among these designers who are unwilling to continue to open source, the return is the main factor that they consider.

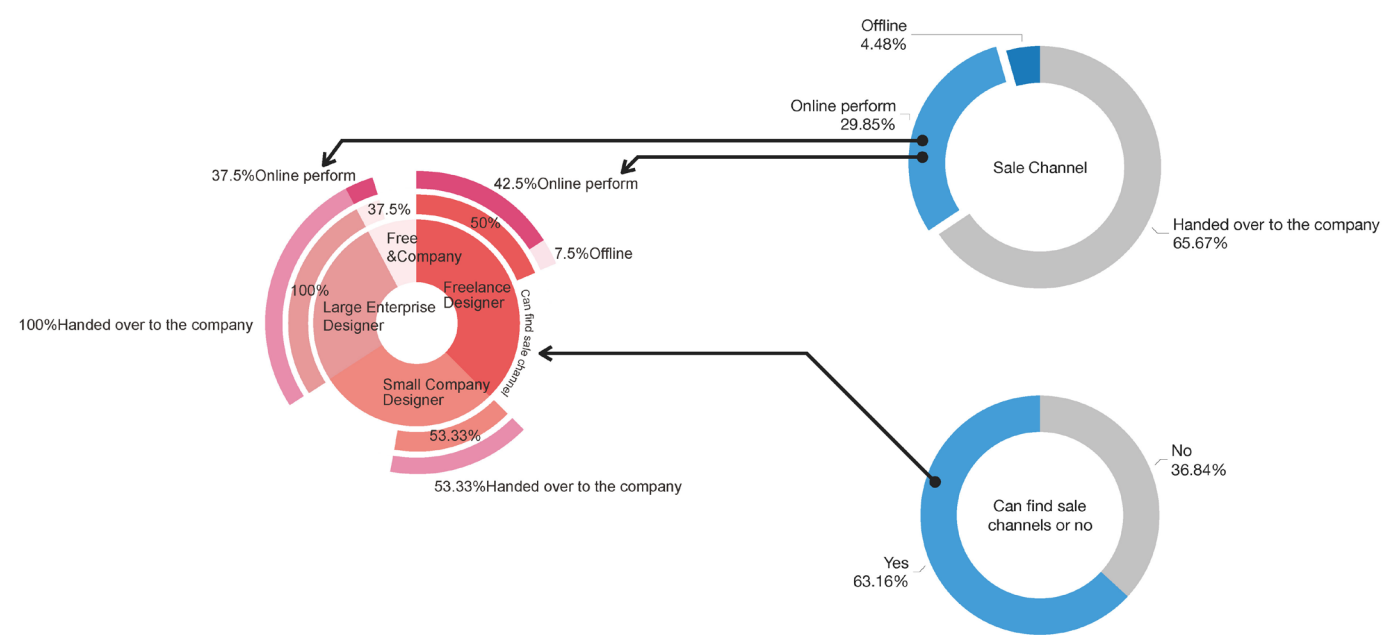
6. When designers can get the payback, nearly 80% of them are willing to open source. Among them, 85% of freelance designers are willing to open source, 80% of small company's designers. 78.57% of large enterprise's designers. The designers who work freelancing while still work full-time, just half of them willing to open source.



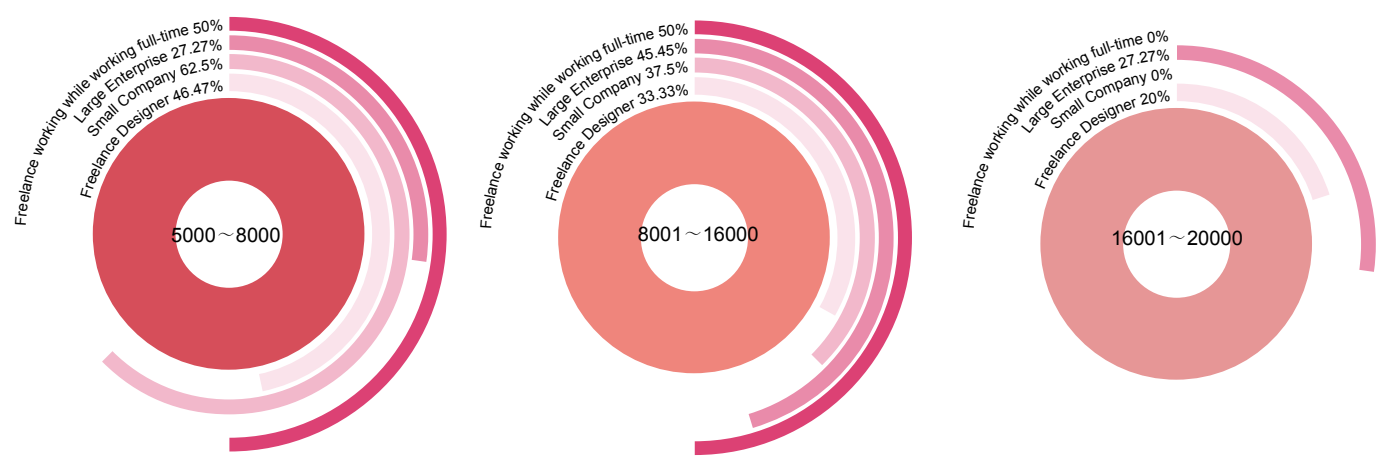
7. About the production way, There are 30.19% of designers tend to produce their own products, which can make them more profitable. There are also as many designers chose to hand over to the company to product, that saves their time and effort. 26.64% of them chose the large-scale manufacturers, which can guarantee product quality, but the price is higher. Only 16.98% of designers choose to hand over to small-scale producers because of the cheaper price, but lower level of



production. This also reflects that Chinese small-scale manufacturers are in a difficult situation, difficult to survive, and lack of authorization.



8. Designers who were satisfied with their choice of production methods accounted for 75.47%, The designers who choose to hand over to the company and large-scale manufacturers account for the majority. Of the unsatisfied 24.53%, mainly are small-scale producers and self-production.

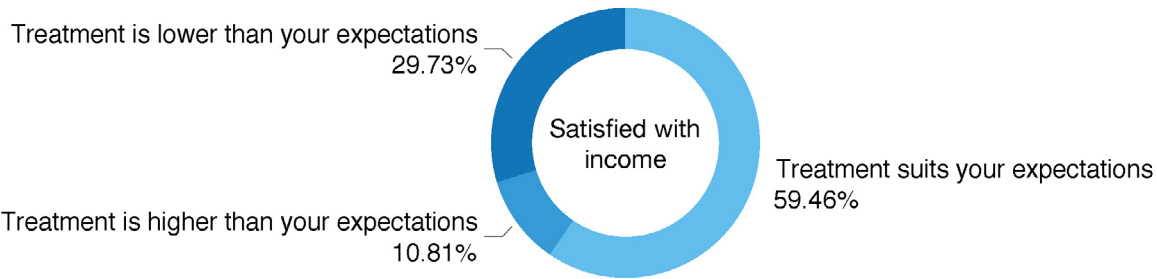


9. It is the company's designers, and some freelance designers who can find sales channels. The other freelance designers cannot find sales channels.

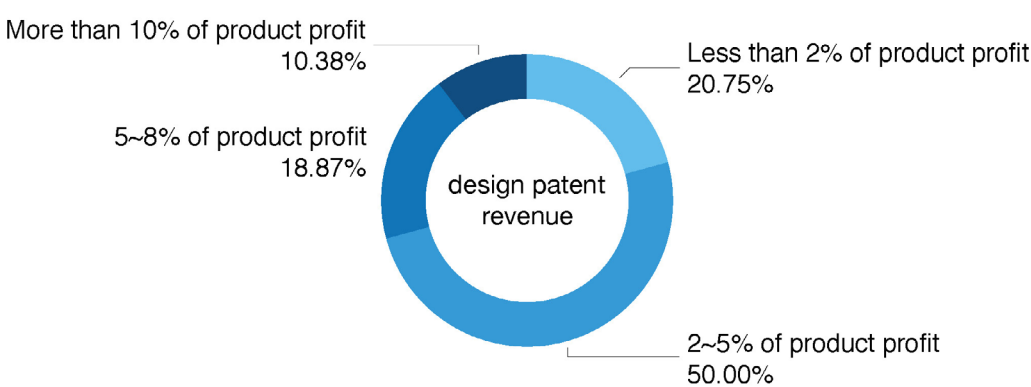
10. The company's designers, sales channels are all provided by the company. Most freelance designers, mainly through online perform to sell their products.

11. Designers' salaries are mainly in 5000-16,000 RMB. Among them, 46.67% of freelance designers' income is in the 5000 ~ 8000 RMB, 33.33% of them is

in 8001 ~ 16000 RMB, 20% is in 16001 ~ 20000 RMB. 62.5% of small company designers' income is 5000 ~ 8000 RMB, 37.5% is 8001 ~ 16000. The income of large companies' designers, 27.27% is in the range of 5000 to 8000 RMB, 45.45% is in the range of 8001 to 16,000 RMB, and 27.27% is in the range of 16001 to 20,000 RMB. The designers who work freelancing while working in the company, 50% of them get the wages from 5000 to 8000 RMB, and 50% is from 8001 to 16,000 RMB. Overall, the salary of designers in large companies is higher than other designers' salary, and the average income of the small company's designers is less than that of freelance designers.



12. Of the designers with income between 5,000 and 8,000RMB, 35.29% think it is in line with their expectations. More than half of the (58.82%) designers think that their salary is lower than their expectations. Only two people think that it is higher than their expectations. Among the designers with income ranging from 8001 to 16000 RMB, 66.67% chose to meet their expectations, 20% considered it higher than their expectations, and 13.33% considered it lower than their expectations. Designers with wages above 16001 RMB have all chosen to meet their expectations.



13. Half of designers believe that the value of designing intellectual property should account for 2% to 5% of profit amount. Therefore, designers think that the value of designing intellectual property is not need to be as high as possible. This data could be used to the rebate for the IP creator.

3.4.7.3. Analysis of interview (Appendix 3)

According to the results of the previous research, we interviewed a marketing manager of a B2C e-commerce platform Suning Tesco and summarized the conversation of the market manager, We conclude that his views are as follows:

- 1, Now the e-commerce platform combines B2C, C2C mode, through the media, social software, network events and other platforms to interact with the platform in order to achieve the purpose of product promotion.
2. The e-commerce platform can actively restrict merchants through taxation certification, credit rating, etc.
3. Infringements such as imitation are not common in large-scale enterprises. Although some small-scale enterprises have established their own brands, they still make profits through imitation and use supervision loopholes.
- 4, For enterprises, generally do not tend to compete for patent in the field of product design, because such designs are easy to copy, high cost of rights protection, while iterative fast. Using price advantage to quickly seize market share can be more profitable.
- 5, For manufacturers, the logistic cost of return/change goods through online selling is high, and sometimes even exceeds the value of the products. The reasons for returns are mainly due to mass production defects, personal needs such as color and size, or distribution errors and damage.

6, although there is a demand market, but e-commerce platforms itself can not complete the customization needs of consumers because there is no subordinate production companies, resulting in consumers do not have custom channels.

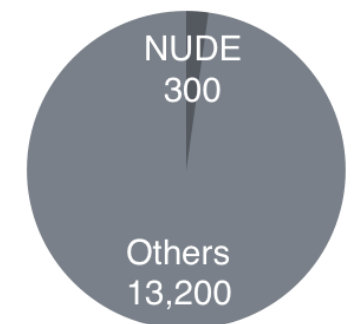
3.4.8 Case study---NUDE Coat Rack Taobao Counterfeit product Event

As shown in Figure (?), the NUDE Coat Rack is designed by SoSo Studio. Public profile shows that the SoSo Studio was created by former creative director of the Ogilvy & Mather Inc. 沈文蛟, and positioned as a designer brand incubator platform. Through BDH (brand+design+handmade) model, innovating traditional craftsmanship to make brand. The studio has hatched three brands: PIY、CU 希有堂 and 两个. They opened a "SoSo Studio Self-operated Store" on Taobao, which mainly sells racks, stools, tables, chairs, lamps and other furniture.

宝贝详情	累计评论 66	成交记录 104	专享服务 @ 般上竹室 weibo.com/u/2186952683
宝贝详情	累计评论 110	成交记录 378	专享服务 @ 般上竹室 weibo.com/u/2186952683
宝贝详情	累计评论 241	成交记录 547	专享服务 @ 般上竹室 weibo.com/u/2186952683
宝贝详情	累计评论 124	成交记录 168	专享服务 @ 般上竹室 weibo.com/u/2186952683

Monthly Transaction Records of Some Counterfeiters in Taobao

Sale Volume/Month



The coat rack won the Red Dot Best of best Award, was selected for the 20th Milan Satellite Exhibition, won the China Hongmian Design Award and Taiwan Golden Dot Award. The design, with its simple and stylish appearance and interesting assembly method, became famous China overnight and appears in many TV series and advertisements.



Since 2014, NUDE coat racks have been faked in public view right after it was published. According to the statistics of SoSo Studios, Taobao had reached 288 counterfeit merchants at most serious period. After SoSo Studios seeking legal assistance, hundreds of counterfeit merchants were shutted down with the help of Taobao. However, there are still dozens of counterfeit merchants active on Taobao, and some are trying to evade legal supervision by changing the assemble method, increase or decrease the number of accessories.

We use the basic model of NUDE Coat Rack as example. The material is FAS Beech, consisting of three 1740mm long, 33mm in diameter wooden sticks, and three 385mm long, 20mm in diameter wooden sticks, a Tenon structure assembled. FAS Beech prices is 3,500 RMB / cubic meter, a rough estimate, each cubic meter of wood can produce 206 sets of coat racks, the raw material cost is about 17 RMB a

set. Counterfeit products on the other hand, without R&D investment, the profits of one rack can be as high as 200 RMB or more. According to statistics published by SoSo Studios in February 2016, there are 44 Taobao pirated merchants whose monthly turnover 100 - 500 pieces at a price of 200 - 500 RMB. If we count with the average number, then the monthly sales of counterfeit merchants totaled was 4.62 million, and the net profits reached 4 million, while the monthly sales of SoSo Studios were only about 150,000, even if it has the same profit rate as counterfeit products (actually lower because of Initial investment for genuine product), it profits only about 110,000. Under such circumstances, NUDE racks have piled up a large amount of products in just 4 months, and the production line has been shutted down.

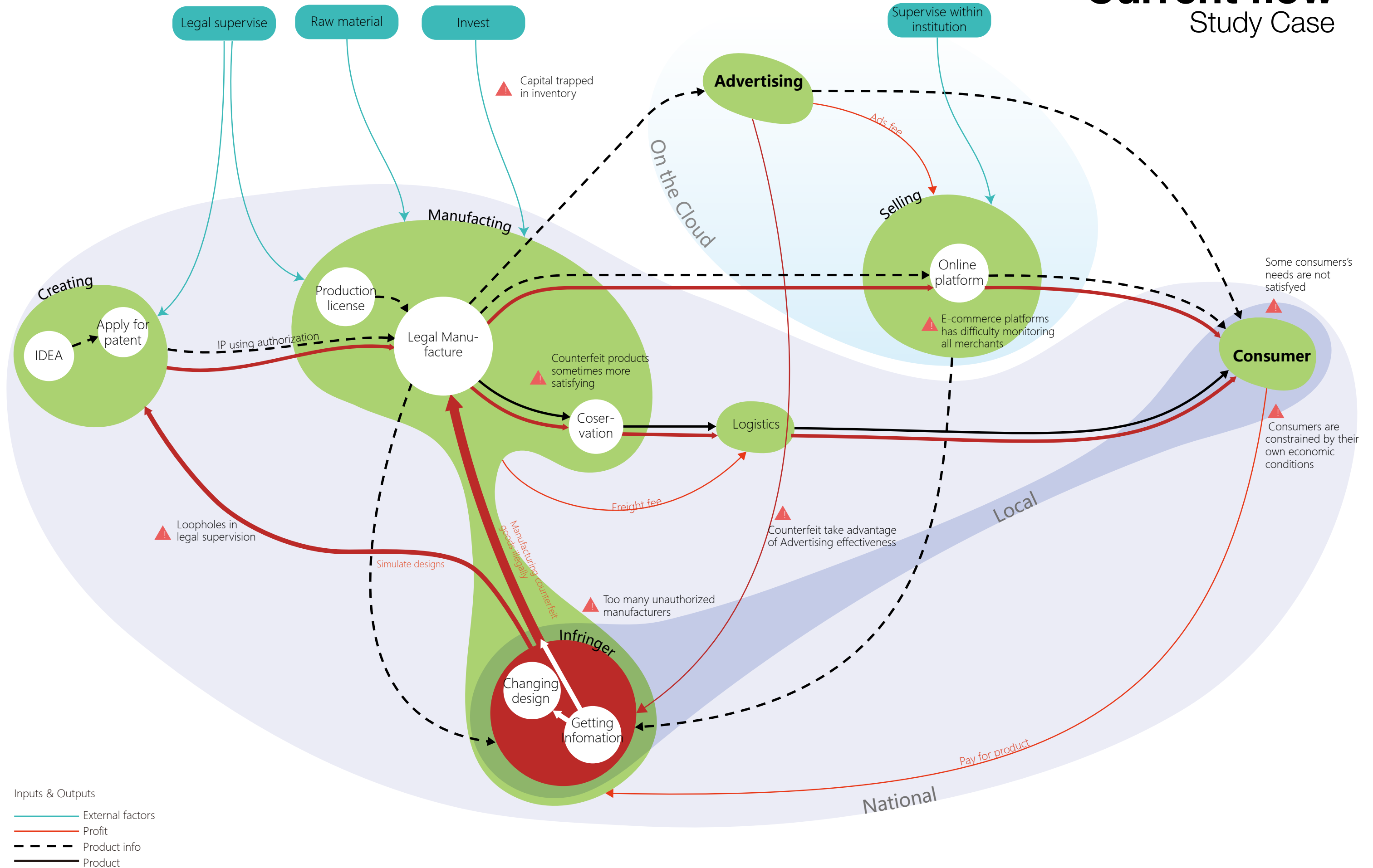
This case is a typical example in China' s industrial design in recent years that infringing manufacturer seized the interests of IP owners. Because this type of design product is not difficult to manufacture and does not involve high-tech patents, it is difficult for legal supervision to determine the scope of the patent. Therefore, a large number of similar products cannot be included in the scope of penalties. At the same time, they can be manufactured in large quantities at low cost, so that a lot of unauthorized small manufacturers sales after manufacturing rapidly online. After consumers discovered the rack on TV and advertising, they habitually search for the same type on Taobao. Or because of misleading information (such as online shopping products ranked by sale volume, automatic info from website generated by consumer search history, etc.) and lower prices, consumers bought non-genuine rack. Of course, some consumers that has a clear standard purchasing genuine products.

In a blog published by SoSo Studios for the defence of their products¹⁹, some users leaved comment says that they think somehow genuine products are too dependent on the popularity of awards. No improved series was developed, and some non-genuine products did. This coincides with the conclusion of the product update and patent protection relationship that the market manager discussed in our interview.

19 沈文蛟, 原创已死 original is dead, 2017.9.6 www.weibo.com

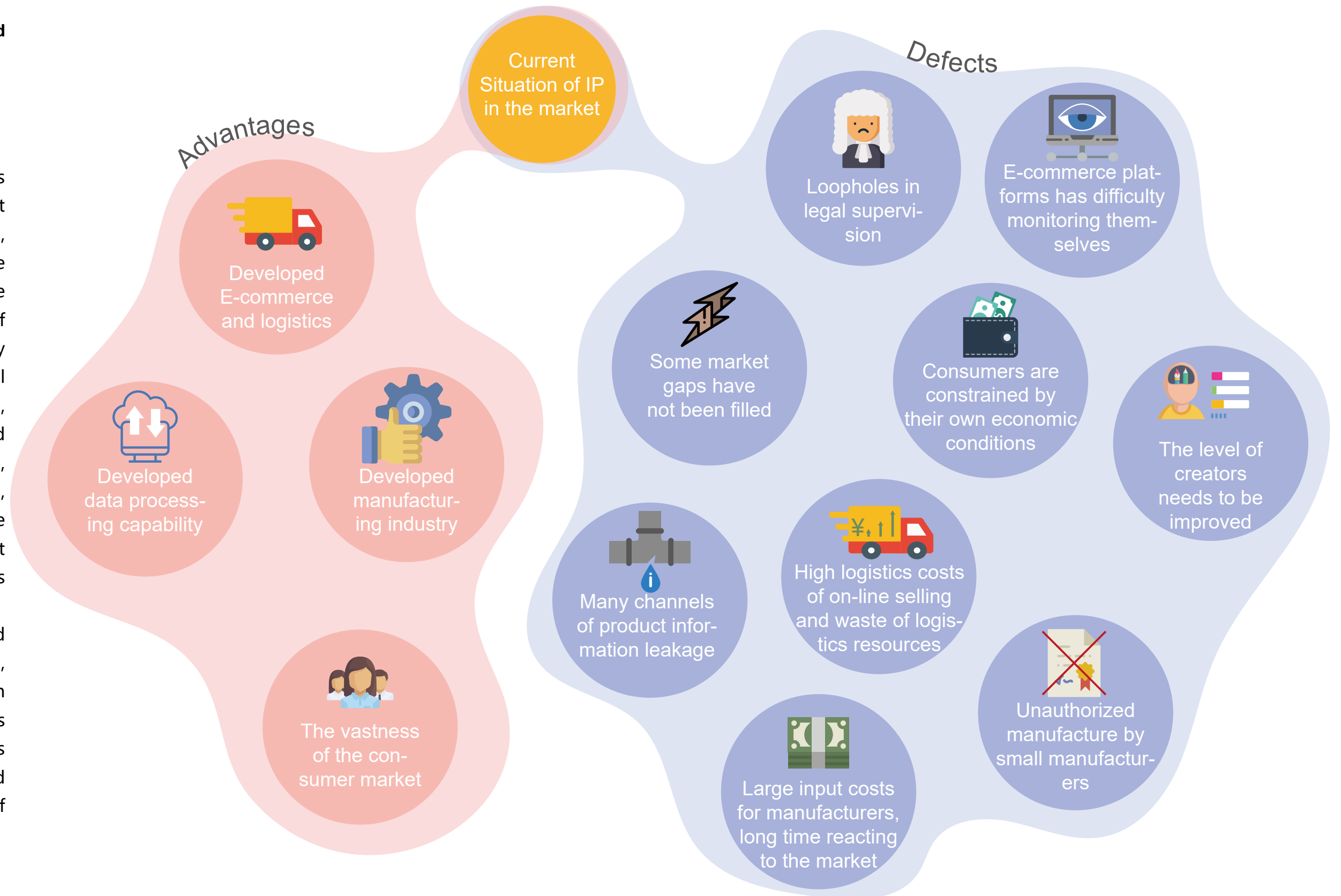
Current flow

Study Case



3.4.9. Advantages and Defects of Current situation

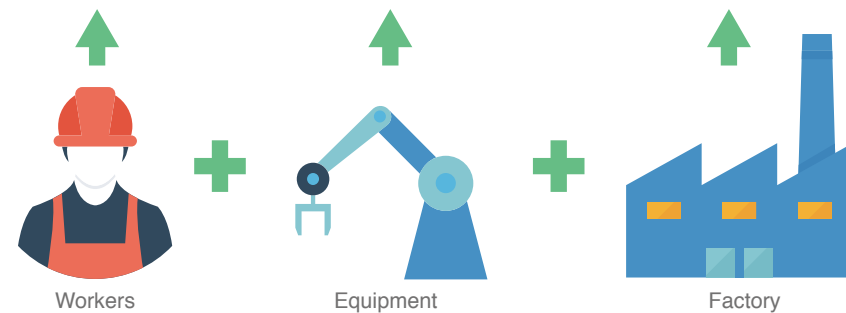
Combining the analysis of causes of current market operation mode, the Questionnaire and the interview we have done before, the advantages of current mode are mainly the advantages of social economy, in another word, the advantages of developed manufacturing, e-commerce, logistics, market demand, data processing and the accumulation of talent reserve. Among the defects there are “side effects” of manufacturing and e-commerce development, legal loopholes, difficulties in law enforcement, restrictions on talent standards, interests between manufacturers and IP creators, and disclosure of IP information and so on.



3.4.9.1. Advantages

① Developed manufacturing industry

As mentioned earlier, since the 1990s, due to the expansion of OEM companies in the East coastal area of China, the manufacturing capacity of the manufacturers in the region has increased, and many small/medium-sized manufacturing companies have also been created under this wave, most of them are eliminated or have



formed a better production capacity and therefore laid a good foundation for the manufacturing industry nowadays. A large number of OEM companies that originally produced electronic components, plastic products, clothing and daily necessities for overseas companies have accumulated raw production materials and capital as the "world factory".

② Developed E-commerce and logistics

Overall, China's e-commerce development ranks the first echelon among the world, and the number of online shopping users has ranked first in the world for many years since June 2008 when it surpassed the United States for the first time. Online retail transaction volume has also ranked first in the world since 2013²⁰. the distribution speed ranks first in the major countries.



The early development of e-commerce in China was dominated by the C2C (Taobao) mode, because a large number of small manufacturers had rapidly expanded the market, and later the B2C (Jingdong) e-commerce also gradually expanded, and in the competitive environment, several major e-commerce platforms have gradually

developed into hybrid platforms with both C2C and B2C modes. In addition, the maturity of the third-party payment methods such as Alipay and Wechat Pay, and the development of e-commerce mobile platform have also made e-commerce development faster in recent 5 years. For example, e-commerce platforms (such as Taobao) are no longer simply a online selling platform, it also provides various social and entertainment functions (like live broadcast); social software (such as WeChat) is also not just a social platform, users can also use it to buy and sell products (micro-business). The Taobao and WeChat APPS have evolved into a one-size-fits-all application for shopping, chatting, calling taxis, remitting money, buying tickets, paying bills, recharging, and more. These integrated platforms are easy to promote consumption with advertisements. According to statistics, on average, Chinese consumers spend nearly 30 minutes per day visiting Taobao, which is three times longer than the US consumer spends on Amazon.

Some e-commerce platforms are also intensifying their crackdown on infringements. Taobao as example, adjusted the rules for selling counterfeit goods. According to the changed "Taobao Rules" , Article 50 "Sell Counterfeit Goods" has added a "three-shot out" rule²¹. for the sale of counterfeit and pirated goods, depending on the circumstances of the case, Taobao will shut down stores, supervise store or individual commodity, limit Delivery, limit goods release, limit site login, limit the use of Ali chat channel and sending letter, extend the transaction timeout, block store and lower screening priority of store goods, product release qualification control, restrictions on the release of specific attributes of goods, restrictions on the number of goods issued and other measures. It also has the right to impose Alipay account enforcement measures on sellers including cancellation of money collection and cash withdrawal functions, prohibition of balance payments, and prolongation of trading accounts.

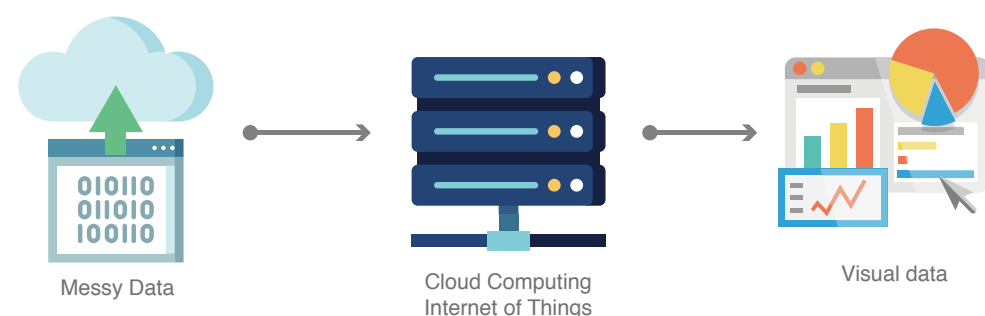
For online shopping delivery services, the cost is lower and free postal standards are lower in China, and delivery speeds are fast. U.S. e-commerce platforms uses third-party logistic companies like UPS to deliver goods. It usually takes a week for goods to reach consumers. Taking the basic delivery timelines of major e-commerce companies as example, Amazon delivers 4-5 work days, Walmart delivers 6-9 work days, and sears.com is 8-10 days. Some e-commerce providers also offer Same-Day Delivery or Next-Day Delivery, but consumers need to pay extra for it. The land

²¹ Each time a seller sells counterfeit or pirated goods, the behavior is counted as one time. If a seller sells counterfeit and pirated goods for three times, it the account will be permanently blocked. It came into effect on February 21, 2017

area of China and U.S. are similar, but the deliver speed of Chinese e-commerce is much faster. In China, goods delivered by general logistic companies can generally be delivered to consumer in about 3 days. The self-operated e-commerce which has their own warehousing and distribution system are even faster, and even turned the Same-Day Delivery into a standard service . This is Suning Tesco²². As an example, in 2016, over 70% of self-operated orders in the east coastal areas of China were delivered on the same day or the next day, which is currently more than 95%.

③ Developed data processing capability

Although the current data processing and analysis capabilities have not been extensively applied to IP protection, it is of great significance for it' s development in the future, opinions has also put forward on this type of protection on the national level : using big data, Information technologies such as cloud computing and the Internet of Things strengthen intellectual property protection for online



creativity and research and development results, and improve early warning and prevention capabilities. (Executed by the Intellectual Property Office and the Internet Information Office)²³. Analyze the similarity between products, product supply chain and other related items through big data, classify and establish data warehouses, help identify intellectual property infringements, accelerate the practice of legal supervision, increase the cost of infringement, and even use Predictive Analytic Capabilities to prevent and stop infringement. These possibilities are based on efficient data processing capabilities. In 2016, the total size of public cloud computing in China reached 17.01 billion RMB, with an increase rate of 47.5%. It is estimated that the total scale of public cloud computing will reach 60.18 billion

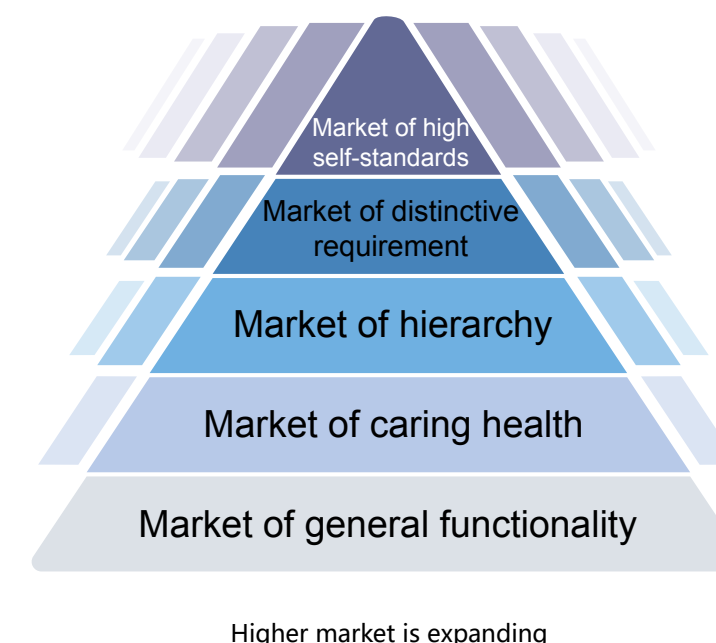
²² Suning Tesco, a new generation of B2C online shopping platform under Suning Yunshang Group Co., Ltd., which now covers traditional home appliances, 3C appliances and daily necessities.

²³ Article 28 of the 《国务院关于新形势下加快知识产权强国建设的若干意见》

RMB in 2020²⁴, which provides the basis for big data analysis and use on intellectual property protection at the national level.

④ The vastness of the consumer market

According to data from the National Bureau of Statistics, total retail sales of goods reached 36.6 trillion RMB in 2017, a net increase of 3.4 trillion RMB from 2016, a year-on-year increase of 10.2%, and double-digit growth for the 14th consecutive year. The final consumption contributed 58.8% to the economic growth²⁵, has been the first driving force for economic growth for the fourth consecutive year and the market development has the following characteristics²⁶:



First, the effect of innovation and transformation in the retail industry is obvious, online and offline markets developing and merging. Retail companies uses the Internet, big data, artificial intelligence and other new technologies to integrate with traditional retail and develop new models and new formats. The share of online retail sales continues to expand. Online retail sales of physical goods in China amounted to 5.5 trillion RMB, a year-on-year increase of 28%, accounting for 15% of the total retail sales of consumer goods, an increase of 2.4% over the previous year. The analytical capacity, attractiveness and dissemination ability can attract and transform more potential consumption.

²⁴ <http://news.west.cn/29879.html>

²⁵ Ministry of Commerce: The steady and rapid development of the Chinese consumer market in 2017

²⁶ Data source MOFCOM

Second, the economy development of rural areas and central and western regions in China is accelerating, and the demand for consumption has soared. The retail sales of consumer goods in rural areas reached 5.2 trillion RMB in 2017, an increase of 11.8% year-on-year. According to the prediction of McKinsey & Company, by 2022, the middle-class families in inland third-tier cities will account for more than 30% of the country, and in 2002 this proportion was only 15%²⁷. With the growth of these middle classes and the changes in their consumption patterns (more online transactions), the potential consumption market stock is also expanding.

Third, the consumption structure has been upgraded, and high-quality goods and services are in great demand. In 2017, China's Engel's Coefficient²⁸ was 29.3%, a decrease of 0.8% from 2016 and a decrease of 3.7% from 2012. The consumption structure of residents continues to improve, and the demand for high-quality, personalized products continues to increase. Sales of green, smart, and mid-to-high-end products have grown significantly, and smart goods such as sports bracelets, sweeping robots, have been favored by consumers.

Fourth, prices rise moderately. In 2017, the national consumption price rose 1.6% year-on-year. The prices of edible agricultural products in big and medium cities fell by 3.3% year-on-year. Consumer behaviors are more savvy and mature, and they are willing to pay premiums for product quality, and the proportion of non-necessities consumption is increasing. The same result was also showed in our analysis of questionnaires for consumers. (See Consumers' online shopping behaviour Question 5,6)

3.4.9.2. Defects

① Loopholes in legal supervision

The protection of intellectual property rights was divided in large sections, when facing the problems of new industries, there are gaps in the existing IP legal system. In addition, there are overlaps and contradictions in the scope of various IP laws. Insufficient punishment can not deter infringement. Intellectual property offices, patent offices, trademark offices and other departments manage different IP rights cases separately so that they often cannot cope in time when dealing with infringement disputes. Problems in legal supervision system, Just as we talked in the previous part of The history of Intellectual Property, the history of intellectual

²⁷ The middle class reshapes the Chinese consumption market, By McKinsey China | Month 22, 2013

²⁸ Food expenditures accounted for the proportion of total personal consumption expenditure.

property development in China is short. However, because this process involves many industries and new forms of business, it will take some time before it can be perfected.

② E-commerce platforms has difficulty monitoring themselves

Due to the integration of social platform and e-commerce platform, it is hard for the C2C platform and some B2C platforms to Investigate all the merchants on their platform. Take Taobao as an example, the behavior of "selling counterfeit goods" is mainly determined by the following two methods²⁹:

【Manual investigation and judgment】: Arrange personnel to investigate the suspected counterfeit and pirated goods in the store upon receipt of complaints, reports or obtaining credible clues and evidence. Take complaint materials and merchant's evidence for comprehensive evaluation, if the merchant sold counterfeit, pirated goods, will be punished according to the verdict .

【System investigation and judgment】: Because the massive quantity of merchants and commodities on Taobao, Based on the data of the platform, it has developed a "counterfeit-product model" system to investigate suspected counterfeit goods and accounts from multiple dimensions such as accounts, commodities, transactions, and logistics. Further verification and judgment are made on the data suspected of selling counterfeit and pirated goods. Among them, the system will make a decision on whether they sell fake or pirated goods based on their pre-set logic algorithm.

If the merchant believes that the platform has incorrectly determined the sale of counterfeit or pirated goods, he may provide a reasonable proof such as authorization verification materials, legal purchase receipts etc to prove the goods are genuine.

²⁹ Taobao rules



At present, Taobao's supervision method is actually difficult because it is impossible for all product links to be subject to prior investigation. In most cases, the product is on-line and then processed. Mostly platform-based proactive investigating, the cost of manual investigations is high, the efficiency is relatively low, and rely heavily on reports and complaints. Although the efficiency of the system investigation is higher, but it is difficult to avoid fraudulent in the procedure. On the other hand, Taobao's impetus for combating piracy and counterfeit goods is actually not quite sufficient, because this will inevitably affect the sells on Taobao, including transaction volume, where it's income is linked, so combating piracy and counterfeit goods is in conflict with it's own interests.

Another problem is that, the e-commerce platform reputation itself needs to be improved. This part needs to strengthen the legal supervision. Taking B2C platform Jingdong³⁰ as an example, according to the report released by the China Anti-Counterfeiting and Counterfeit Work Network, Jingdong self-operated store counterfeited Shell Lubricants in 2016, imitation of liqueur Incident in 2018 and many involved in selling fake events, and "Jingdong Global Purchase" Shop selling fake international brand event. As described in "Case Q". The e-commerce platform confuses the B2C and C2C modes. The "JD.com self-operated" shows misleading explanation. Consumer can hardly defend themselves. The supervision of e-commerce platform itself is also a key point in the supervision system.

③ Some market gaps have not been filled

As we stated in the Advantage 4), China's middle class is increasing, the consumer market continue to expand, and the diversity of consumer needs is increasing. Many companies' successful strategy in the past was based on the production of standardized products for mass consumers and mass distribution, this should be adjusted today. According to Maslow's Hierarchy of Needs³¹. Based on five levels of needs, can separate five consumer markets:

1. To meet the minimum level of demand in the market, consumers only require the product to have general functionality.
2. Consumers considers the influence of the product on the body.

30 <http://www.ipraction.gov.cn/article/xxgk/tpxw/201801/20180100171896.shtml>, <http://www.ipraction.gov.cn/article/xxgk/tpxw/201606/20160600096888.shtml>

31 "A THEORY OF HUMAN MOTIVATION" BY A. H. MASLOW,1943. In the book, human needs are divided into five levels, from the low to the high: Physiological needs, Safety needs, Love and belonging needs, Esteem needs and Self-actualization

3. Consumer concerns whether products Helps Improve their social Image and hierarchy.

4. Consumers considers symbolic meaning of products, products satisfy the market which has distinctive requirements.

5. Consumers needs their own fixed brands, Satisfy the market where consumers has their own judgment standards.

(see diagram in Advantage ④)

The higher the level of needs, the less likely consumers will be satisfied. The new market environment is that millions of Chinese consumers are upgrading their consumption idea and have higher expectations for products. On the one hand, a large number of consumers' concept of consumption has gradually shifted from buying products to buying services. On the other hand, the consumption expectations have not only been satisfied with the products' quality and value, but also the non-use attributes such as cultural value and products' individuality. At present, this one-way consumption pattern from manufacturing to purchase can no longer meet the individual consumer needs. How to allow consumers to participate independently is also a trend in the development of new consumption patterns.

④ The level of creators needs to be improved

Now, Chinese design talents is globally advanced in terms of volume, more than 1,000 institutions have set up design disciplines. However, the quality of design talent still needs to be optimized. Many foreign designers have both basic design skills and engineering knowledge, they can combine arts, and technology to create distinctive designs. In contrast, Chinese design practitioners are relatively lacking skills in this way.

⑤ Many channels of product information leakage

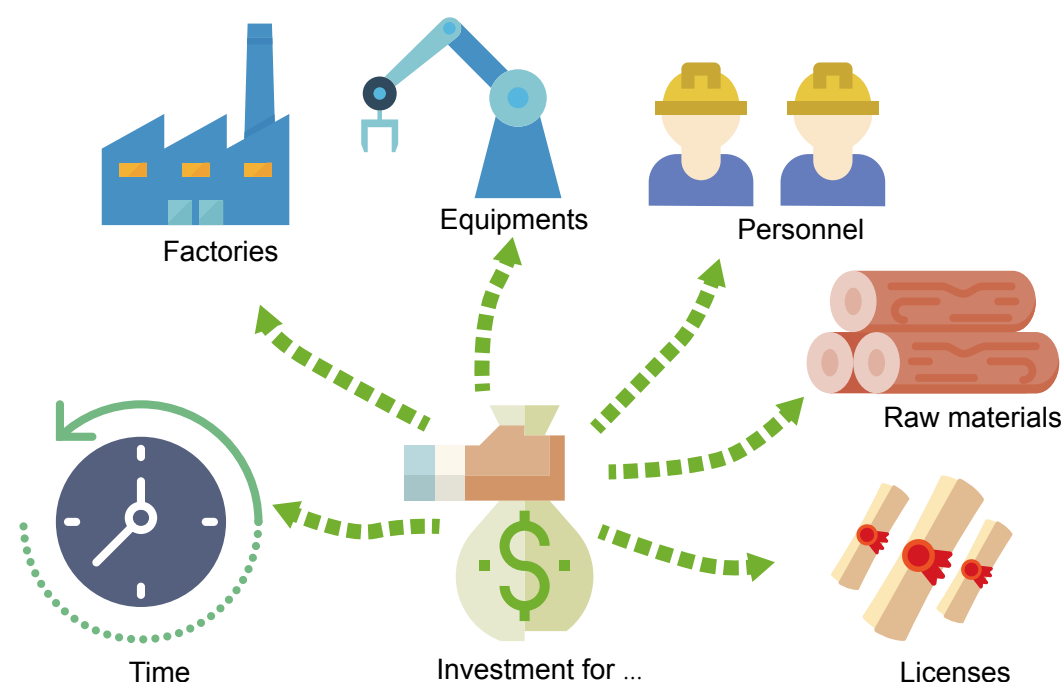
As shown in the diagram linear, the channels for product information leakage exists at almost every stage³². In the process of design, in transaction of design, manufacturing, and on the market. Like the design buyer gratis the design results, or the design is stolen after bidding, the employee quits and steals the unpublished designs. This kind of infringement in the process of design and transaction is very common, because intellectual property is an intangible property, and the IP owners often suffers from no evidence.

32 The main leakage and theft channel of business intelligence, author unknown, <http://wenku.baidu.com/view/04ed8e4db8f67c1cfad6b8a9.html>

Leakage in manufacturing, due to the period of patent applications or other reasons, others preemptively registered or start produce the IP. In sales, some product information (appearances, etc.) that are normally spread, together with means of propaganda and consumer Cognition deficiency, counterfeiting and other infringements will appear.

⑥ Large input costs for manufacturers, long time reacting to the market

Manufacturers need to invest a lot of time and money in production materials, including equipment, factories, raw materials, personnel, etc. and also need to



negotiate with the IP owner for authorization prices, and apply for a production license, ECO label, CCC certification and other procedures to the government as described in 3.4.2. Manufacturer's formalities and production licenses, in the market that needs are rapidly changing, it is hard to produce the products that the market needs in time.

⑦ Unauthorized manufacture by small manufacturers

Regardless of the size of the manufacturer, making benefit is their first goal. Although China has the largest number of manufacturers in the world and is called the "world factory", but it is not mainly China's own domestic companies, but the massive inflow of foreign direct investment has transformed China into a "manufacturing center" of the world, or we can say, the main import and export manufacturing trade base³³. Manufacturers have experienced many

³³ Zhang Jun, "Why Chinese Enterprises Haven't Become Internationalized" 《中国企业为什么还没有国际化化》, 《文汇报》, 2004.4.7

years in this trading mode, and have restructured and integrated capital to form many large-scale manufacturers (Take Foxconn as an example) cooperate with foreign companies. Some large manufacturers have successfully transformed into enterprises with a complete industrial structure and manufacturing products with independent IPs.

However, with the current increase in labor prices in China, domestic consumer needs has risen sharply and supervision capabilities have not been followed up. Some manufacturers that didn't transformed successfully and many small manufacturers attracted by interest shows, but without advanced production equipment. Therefore they are even more difficult to cooperate with foreign companies or creators. In order to obtain more benefits, they started unauthorized manufacturing. Thus formed an infringement industry chain.

⑧ Consumers are constrained by their own economic conditions

In economics, consumers are often considered as "rational economic participant"³⁴. We believe that this hypothesis is justified in a sense. As reflected in our questionnaire, among the consumers who have bought counterfeit goods, the consumers with lower economic ability are all choose for the low price. (See Consumers' online shopping behaviour Question 4) Currently, the economic level of Chinese consumers is still relatively low. In 2017, China's per average annual income was 8865.99 dollars, equivalent to 55412.49 RMB³⁵. The stock for many low- and medium-income consumers accept the premium paid for intellectual property is still small. (See Consumers' online shopping behaviour Question 6)

⑨ High logistics costs of on-line selling and waste of logistics resources

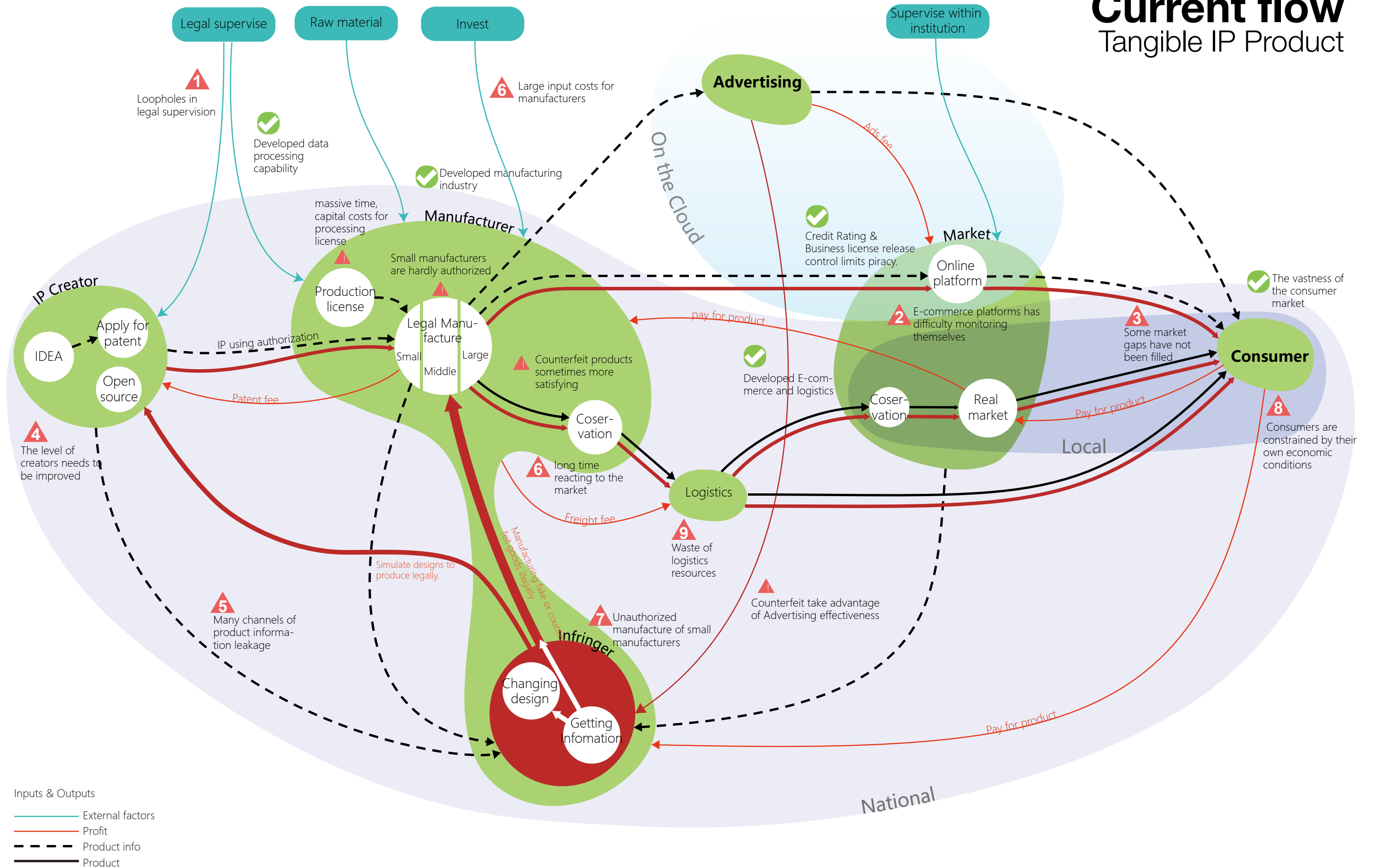
In the interview, it was mentioned that the e-commerce platform has a high return rate, resulting in high logistics costs. Due to the fact that China's current light industry is concentrated in the southeast coast and has excess capacity but degradate in other regions, the consumption market is spread all over the country. This also increased logistics costs. The more important reason for the waste of logistics resources is that, consumers living in the southeast coast choose non-local products for the advantage of a non-local manufacturer (low prices, improved design, etc.). The reason behind this is that, even if the manufacturers have same manufacturing capabilities, local production cannot be achieved because of certain

³⁴ rational individuals, companies, social groups, and governments that can use their limited resources to maximize their utility, profits, or social benefits.

³⁵ Data sources <http://www.chyxx.com>

Current flow

Tangible IP Product



restrictions (IPR, raw materials, labor, etc.).

3.5. Intangible IP Operation Mode

3.5.1 The classification of intangible products

Intellectual property (IP) and intangible asset (IA) issues abound throughout the business world, touching nearly all aspects of a company, from product development to human capital, and staff functions such as legal, accounting, finance to line operations such as R&D, marketing and general management. This wide diversity of IP applications and stakeholders is a leading contributor to the complexity of managing IP, as each field has its own legal, regulatory and practitioner history³⁶.

Intangible products include copyrighted and trademarked intellectual property products such as movies, music, books, articles, pictures, graphic designs, and trademarks. Since trademark IP deals with more complex economic systems, its value is not limited to its copyright itself. The related protection policies and options channels are also quite different from other copyright-based intangible products. Intangible products under copyright protection, due to the huge differences in production costs between different types, from industrial production of film music to personal expression of pictures and articles, the relevant legal supervision and law enforcement efforts have been gradually reduced. In addition, because of the convenience of Internet communication, such content-based products are more prone to information disclosure such as pre-publication information disclosure, plagiarism, imitation after published, and other infringements. [The relevant judgement standards have always been controversial.

3.5.2. IP Creator&Spreading Channel

Intangible IP creator

The content producers are generally original IP owners, and the intangible IP attributions in different fields have different subjects. For example, music composition and lyrics are often divided into different IP owners. However, there is a IP transfer behavior between intangible IP of trademark and commercial using graphic design in the transition from the creative process to the use process, that is, by the content creator assigned to the user, IP infringement in this part is basically

similar to tangible IP. The main research content here is the product's Intangible assets. Because it does not involve the behavior of IP transfer, copyright has long been an IP creator, and the infringement who faces has a greater impact on IP creators.

Publisher

The relationship between publishers and IP owners is more of a commissioning relationship. Although the profit model of industrialized intangible IP production such as movie music books is similar to tangible IP(see 3.4), the legal power relations involved are not the same. The main profit channel for publishers is sales, and the revenue for the copyright section belongs to the original author.

Online platform

Most of the independent IP creators use the Internet platform to publish content, especially pictures, short articles, videos, etc. Some content creator on social networking sites can only protect their copyright with public opinion pressure, crying on the social network to attract attention. On contrary, for users in charge-based websites, consumer insufficiency, and secondary transmission problems are their serious problem.

3.5.3 Current flow

See the figure below

3.5.4. Advantages and Defects of Current Situation

Economic problem

A large number of publications have the problem of unrecoverable production costs, and even rely on government subsidies to maintain revenue. In those kinds of industrialized intangible products(movie/music/book), the propaganda costs are often greater than the production costs. Under the influence of the Matthew effect, the creators of small costs often cannot seize enough market position and enter a vicious cycle. On the other hand, in areas such as print, image creation, and articles, creators lack a benign revenue channel and valuation system. They often can only be forced to become free content providers. Even after free content is provided, their copyrights will be violated by plagiarism and impersonation.

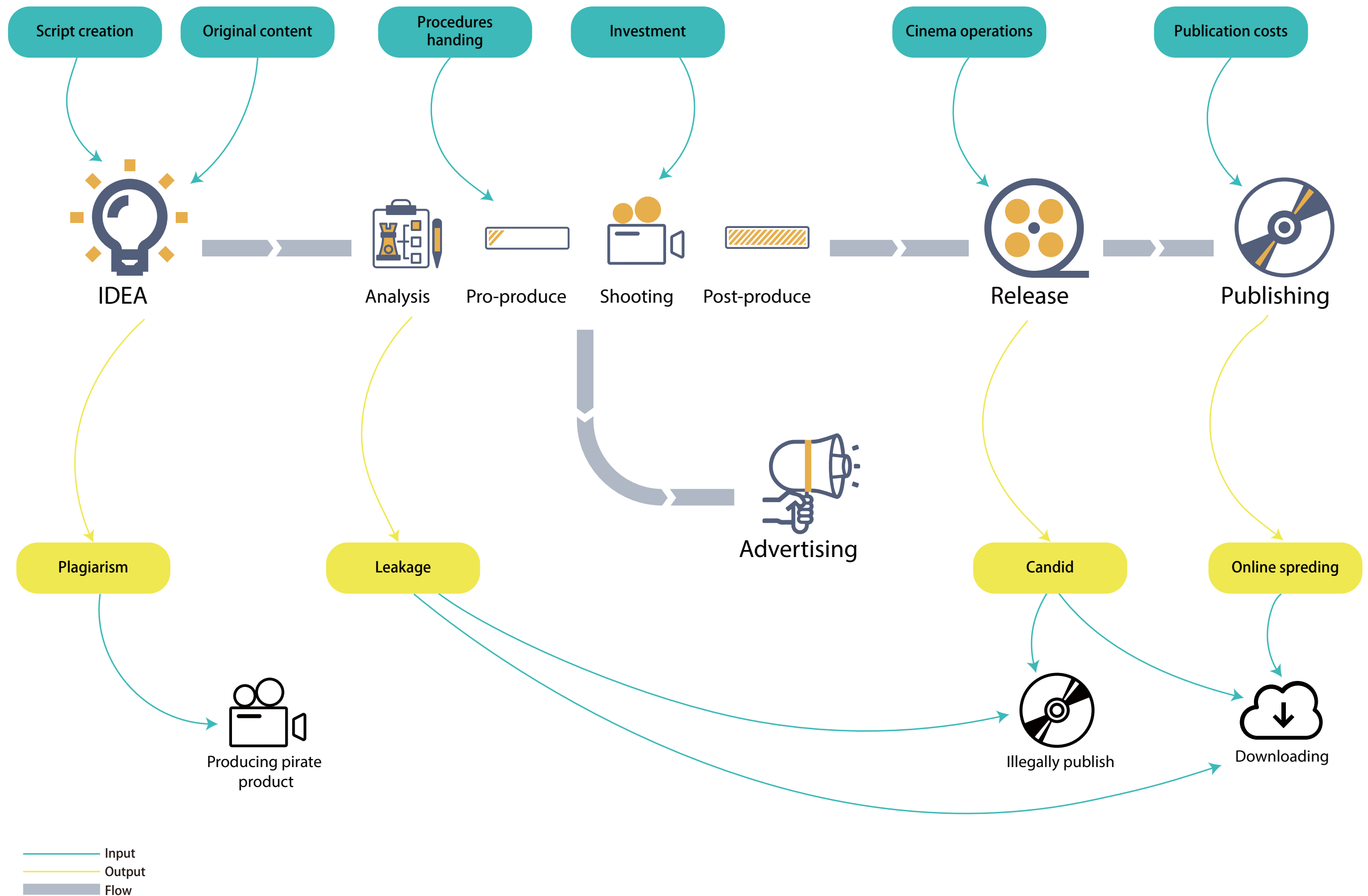
Spread wide

Due to the nature of intangible product content, it can be easily digitized. With the development of technology, the content dissemination channels have been greatly

36 Intangible Asset & Intellectual Property Valuation: A Multidisciplinary Perspective

Current flow

Intangible products



enriched, and there are no obstacles between different media. This has led to a large number of infringements. In terms of publications, most of the infringements originate from the second transmission. Some infringers obtain and record content through a single consumption, and then use online channels to disseminate or piracy and other acts to gain benefits. In other fields, a large number of content creators nowadays publish their works through the Internet. The popularity of the works and their benefits are in conflict with each other. Most users are unaware of the lack of maximum value for content providers and prefer to use free content or through technical means. Bypassing the charging link to achieve the purpose of free use, at the same time, such content is also faced with the same issue of the second dissemination on copyright infringement.

Piracy judgment difficulty

In terms of content definition, there are disputes in various countries' laws. Most laws mainly protect content expression means rather than the content itself. However, in terms of specific implementation, its boundaries are difficult to define, and even subject to subjective judgments in many aspects such as language and culture. Taking the layout design as an example, the relevant provisions of the Copyright Law on publisher's layout design rights are very general and vague, and there is no provision on the specific content and scope of the protection of layout design rights. At the same time, only the layout design that bans the use of publishers and periodicals is clarified, but the connotation and extension of "use" are not defined, generally, judicial practices considering it is copying behaviors. However, with the rapid development of the Internet and the rapid increase in the number of netizens, the publishing design of the publishing house has been rapidly disseminated, and the probability of being used "legally" and illegally has increased. How to define the format, the design content and the identification of "use" copyright design in the Internet environment have become the main issue.

Advantages of the model: The information subject is more easily identified for infringement or not.

3.5.5. Case

Samsung' s user interface design in "Century Incident between Apple and Samsung" is similar to that of Apple' s iphone and ipad, so Apple' s lawsuit claims infringement and claims a high amount of money. Finally, the California Regional Court ruled that Apple had won the case and Samsung did violate Apple's design patent rights. In fact, how to select and match interface elements is a key point for

designers of electronic product user interfaces. Designers therefore have a variety of design solutions and create novel design ideas. These design works are precious achievements of the designer and an effective resource for industry competition. Can they be legally protected as works? The case led to in-depth discussions. Chinese scholars have focused more attention on the status quo and existing problems of legal protection of user interface design in China³⁷.

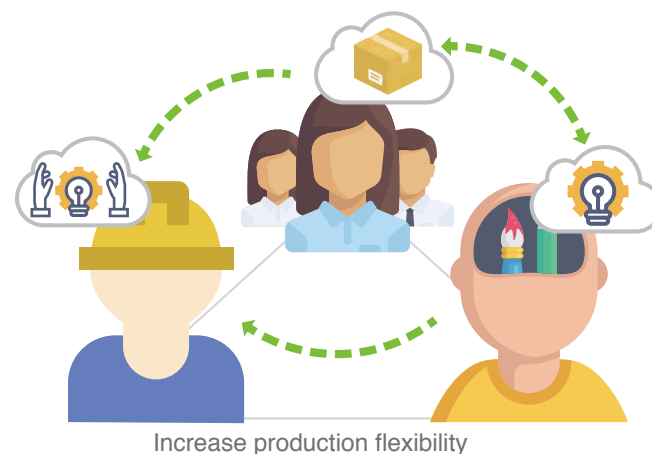
4. The systemic approach for intellectual property market

Combining questionnaires, interviews, our analysis of the current situation and the results of other scholars' research, we believe that IPRs with higher value (such as technology patents and trademarks rights) should still be strengthened with legal supervision and more stringent IPR protection. The relatively low-value IP (such as design, part of the utility model), the legal supervision has difficulty in this area, and the cost of infringement is relatively low, it is more inclined to protect by changing the service model and changing the profit model. In areas where the law is difficult to monitor (such as "Shanzhai" manufacturers), promotes their legality through free market competition instead of direct banning. For those who are infringed, first guarantee their profit, not to adhere to strict IPR protection. The new service system is based on this concept.

4.1. System improvement directions

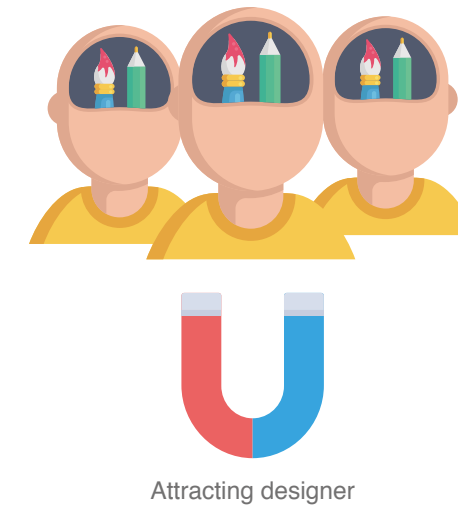
4.1.1. Increase production flexibility

The design market and the manufacturing market operate in parallel. Consumers propose design requirements undertaken by the designer or the designer propose their own designs, then the designer or consumer can choose the manufacturer who meets the requirements. The design requirements and production requirements can be undertaken by different parties.



4.1.2. Attracting designers

Due to the characteristics of the IP type being faced (conclusions in Various IP features), IPR protection does not protect the designer's interests effectively, so attracting designers through the form of rebates/rewards and encourage open source solutions through a series of IP value rating mechanism combines product



sales volume for designers' final rebates, enabling designers to independently gain benefits through open source IP. Encourage IP to improve and localize production.

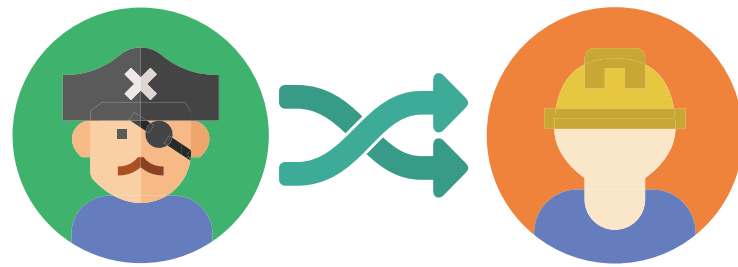
4.1.3. Lead the restructure and merge of manufacturers

Guiding personnel and excess manufacturing power separated from traditional manufacturing to restructure into a relatively independent technology and manufacturing alliance.



4.1.4. Transfer the infringers

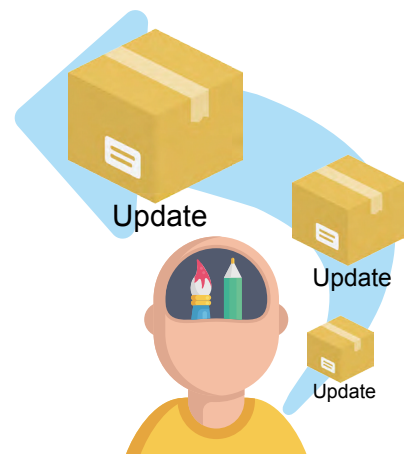
Providing more convenient and low cost access to acquire IP, which reduced the difficulty of entering the genuine market. Simultaneously, the faster product evolving speed and the system of product certification increased the cost of piracy. For small manufacturers, guide them to get access to larger markets / reach more kinds of IP and try to become maker-type producers. For large manufacturers, saving licensing costs, product can be updated faster, and expansion of product categories.



Transfer the infringers

4.1.5. Accelerate product evolving speed

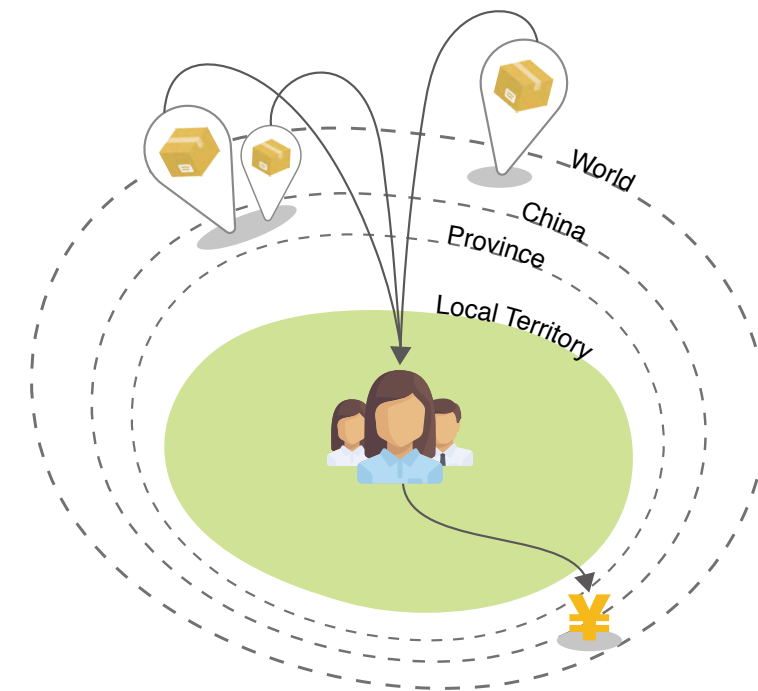
Open source IP market would draw the fragmentation development of similar type of popular IP product and enhance competition. Due to the competition, the same type of product iteration speed will be accelerated. Meanwhile, manufacturers have to contend for market share with more similar producers under the influence of open source IP market, thereby enhancing their own production quality or expanding their manufacturing lines.



Accelerate product evolving speed

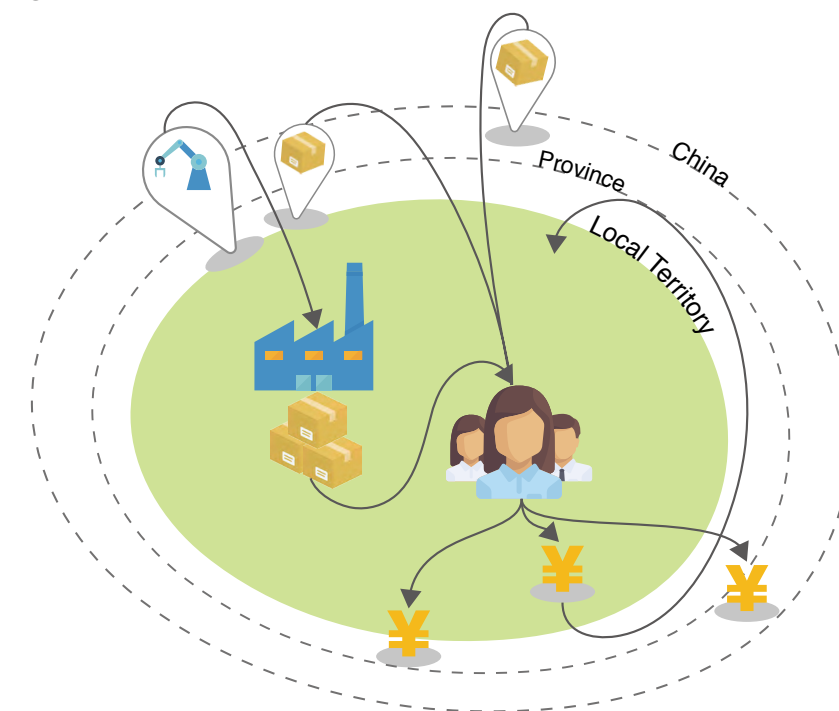
4.1.6. Stimulation on local economy

Applying provincial production distribution strategy which aim to stimulate the development of localized products and production processes and recover regional economy. Consequently, guiding the conversion of local small producers /handicraft industry practitioners / small workshops, especially in areas where piracy is rampant, enables them to take advantage of superiority to produce legally.



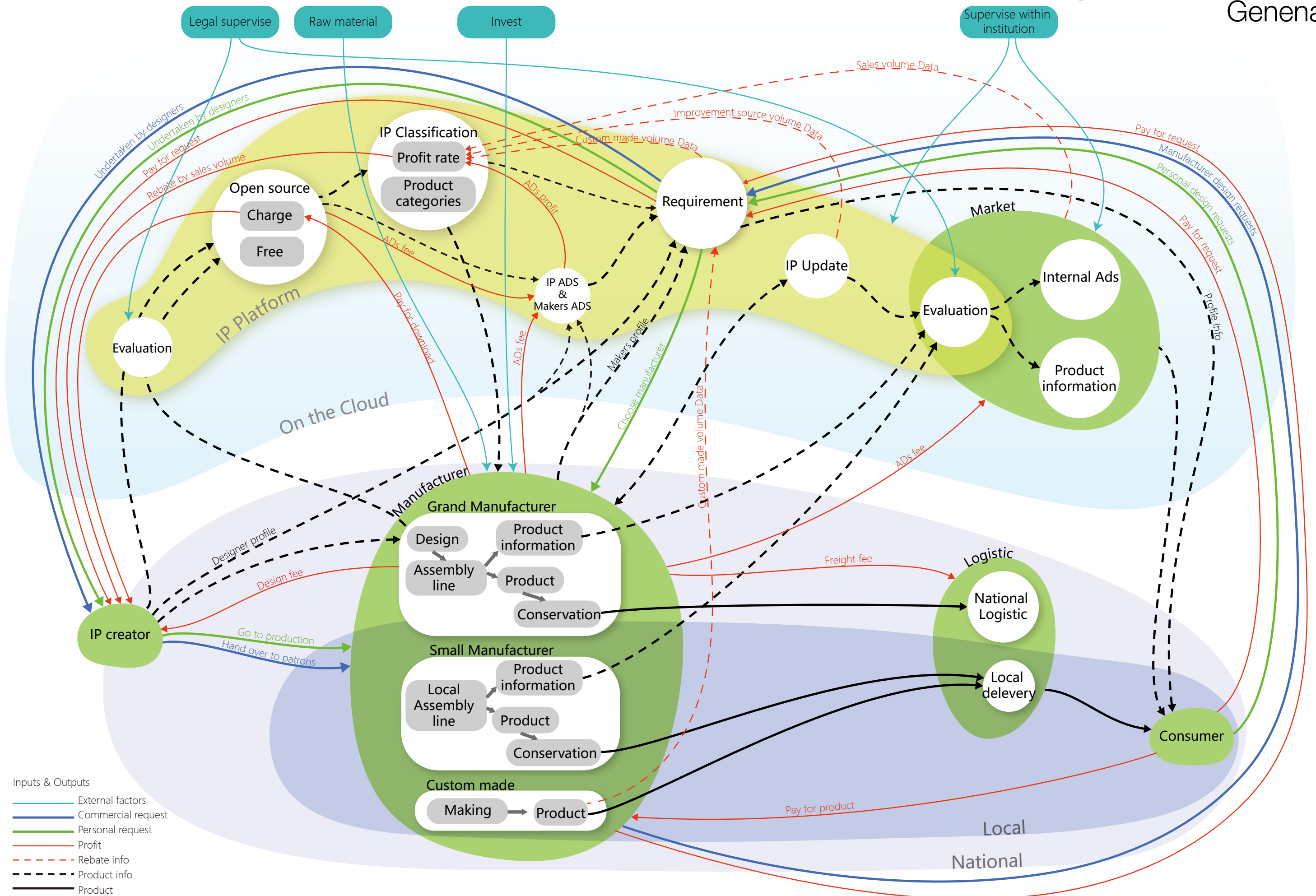
Current

Systemic



Stimulation on local economy

Systemic flow



4.2. The systemic operating mode

In systemic operating mode, the original market stage remains basically unchanged. Only the sale is biased toward the online market because products and their information can be handled separately. Also, because of the nature of the specific IP (as described in 3.3. Various IP features), IPR protection cannot play a role in protecting benefits. At the same time, the economic value of a single IP is relatively low (as described in the interview), we use the IP platform as a means to reduce the need for legal supervision in the course of IP transactions, and to increase the importance of supervision within institution, while greatly reducing the cost and difficulty of obtaining IP for all manufacturers, and by encouraging them to enter the market equally, according to their current conditions (In-line or manual) Restructure and merge to big, small or custom manufacturers, according to their own production advantages (intensive manufacturing advantages of large manufacturers, localization and flexible assembly lines advantages of small manufacturers, small amount, diversification advantages of custom manufacturers) Satisfying diversified markets, under the conditions of equal competition for all manufacturers, production quality and reputation becomes the decisive factors. Low-quality manufacturers will naturally be eliminated or reorganized, and advertising is a necessary means to gain popularity. It is also a source of profit for IP creators.

4.2.1. IP Sharing Platform

In addition to the original market stage, a platform for publishing and acquiring IP has been added, through which we will change the mode of IP usage and the mode of IP profitability.

The IP creator (or the manufacturer/company that masters the IP) open source the IP and publishes on the platform after the evaluation, and can choose whether to charge according to their judgment of the IP value, and then classify and publish the IP according to the category for manufacturers or consumers to choose. The platform also provides a requirement part where the consumer or manufacturer can choose creators and manufacturers to fulfill their individual needs. In order to be selected, the creators and manufacturers will advertise and generate revenue for the platform. The IP can be improved after manufacturer acquired the IP, but it must be registered on the platform so that the original IP gets the IP using data. Ultimately, before going to the market, it must be evaluated, product information without IP certification from the IP platform or without other authorization documents will not

be released on the market.

4.2.2. New Behavior Pattern of Participants in systemic mode

4.2.2.1. IP Creator

In addition to the normal trading of their IP, creators can choose to publish their IP on the platform based on their categories under the premise of ensuring originality (pass Evaluation). In this mode, creators can save a large amount of time and fees³⁸ for applying the patents which cannot protect the interests of creators (appearance patents, etc.).

If creators expect a higher IP value, they can choose to charge a small amount of download fees. Other IPs are directly released and can be downloaded, used, and improved for free. These open source IPs can be selected and manufactured by manufacturers and consumers. The manufactured/used volume data will be recorded by the platform as the basis for the final rebate to the creator. High-quality free IP will get more usage and thus gain more profits. This strategy is aimed to encourage creators to open their IPs free of charge to prevent manufacturers from infringing.

Creators can also promote themselves as a brand on REQUIREMENT to undertake design requests from manufacturers and consumers. After creating, they can directly produce or hand over the design to patrons according to their production capacity (with or without production capacity) or patrons' requests.

In order to make it easier to undertake requests, the published IP is easier to be used, the creators can pay for the platform for advertising and increase their promotion priority on the platform.

4.2.2.2. Manufacturer

Manufacturers that have obtained IP authorization in traditional ways will continue to manufacture without restrictions, while unauthorized manufacturers who exist as infringers (as defined in 3.4.3. Tangible IP product infringers) before, can now choose to undertake Manufacturing requests, or obtaining IP from the platform (Choose published IP or Choose IP creator) for production. They can improve the IP according to market needs, but the source of the improvement must be recorded on the platform, and the improved product sales data will be counted to the

³⁸ apply for patents need to submit a large number of documents, each year must pay fees to maintain patents. Refer to "the form of submission of a patent application" <http://www.sipo.gov.cn/zhfwp/zlsqzn/zlsqspcxjs/zlsqxsxjs/>

original IP creator.

Since there is no dispute over IP authorization in the new mode, the competition between manufacturers of the same volume is focused on quality and reputation. Consumers' assessment for the manufacturer and the platform's qualifications for the manufacturers will naturally lead the less-qualified manufacturers eliminated, while other manufacturers with manufacturing capabilities can only switch to custom production or localized production to dig the profits of the custom market that were not being utilized and the wasted investments in logistics, and reduce the risk of investment stagnation in inventory.

As mentioned before, manufacturers of various volumes make products based on their own production advantages. In order to obtain more sales and manufacturing opportunities, similar manufacturers seize the market through advertising. Their investment in advertising becomes a platform income as source of rebates for creators.

4.2.2.3. Consumer

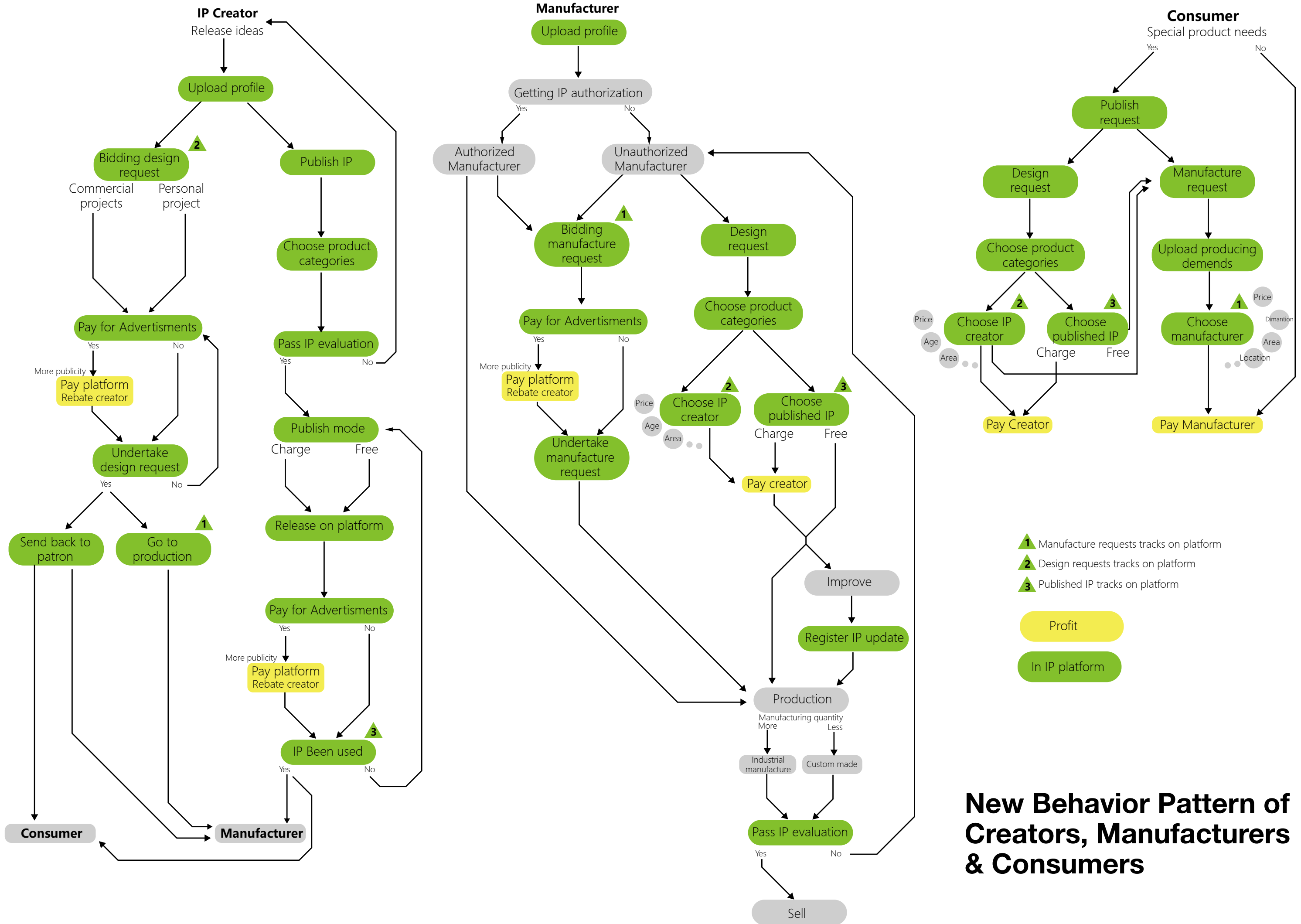
In previous analysis, increasing of consumers' demand for personalized products has been mentioned. In order to meet their needs, they can publish their requests on REQUIREMENT on the IP platform. They can choose the creators to complete the design requests or choose the IP already published. They can also choose manufacturers to complete their manufacturing requests, and the premium that personal design/manufacturing requests brings is paid by consumers. It is also another source of income for creators and manufacturers.

4.2.2.4. Logistic

In the new mode, logistics is divided into two types. For intensive production goods and certain products requiring special production conditions, they will be transported nationwide through general logistics. Due to changes in manufacturing structure, more customized, localized produced products will be delivered locally, with lower freight costs and faster delivery to consumers.

4.2.2.5. Market

The market will be basically the same as the developed e-commerce market in the linear mode. It will directly contact consumers as a passive sales platform, but some of the shares will be occupied by the requirement part of the IP platform. This market will shrink as consumers' individual needs increase and be replaced by Requirement.



4.2.3. Functions of the platform

4.2.3.1. IP Update

In order to prevent the loss of the benefits of open source creators and increase the adaptability of IP to the market, the original IP can be improved after being downloaded by the manufacturer to ensure its market competitiveness, but it must register the IP improved source in the IP update part of the IP platform. Since there is no need to pay the creator, the manufacturer no longer needs to change the design in an infringing manner (the third type of infringer in 3.4.3.), and only needs to indicate the source of the improvement to legally enter the market through evaluation. The improved product sales volume data is also included under the original IP creator's name to provide rebates.

The manufacturers who seeks the creator to improve IP through the Requirement, the final sales volume data will be counted to the original IP creator, while the creator who undertakes the improve request, directly charges the manufacturer for the design fee. The creator improves the IP from other creators, the rebate obtained from the improved IP will be distributed to the new and original creator proportionally (the criterion is based on whether the improver has product sales volume data).

4.2.3.2. Evaluation In Platform

The evaluation is divided into two parts, targeting different objects: The first part, before the IP release, through the legal supervision and data review within the IP platform, the non-original IP is removed, and the controversial IP (modified and unregistered) is limited on advertising distribution, lowering of priorities, etc. (Original IP on the platform may have gained the advantage of download volume and advantage of consumer assessment due to its original advantage, imitators are hard to profits).

The second part is targeting manufacturers, cooperates with the sales platform to evaluate before the manufacturer's product information is published on the sales platform, no IP authorization or not labelling the used IP from IP platform will not be released. This strategy is aimed at guaranteeing each amount of IP usage can be recorded to ensure the creator's rebates.

4.2.3.3. Requirement and customization

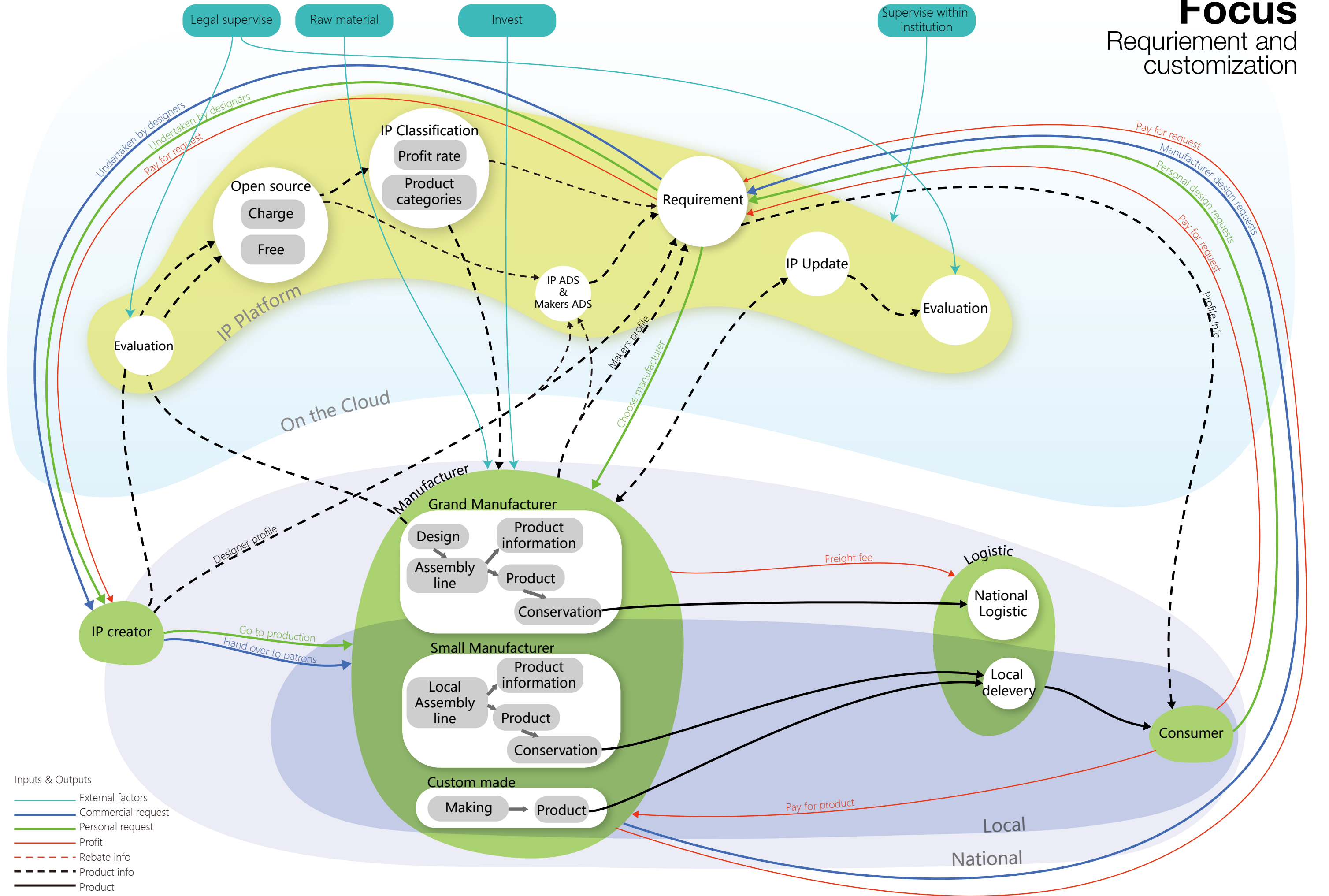
In addition to the general consumption mode, we have added a requirement in the IP platform based on consumer demand trends. According to previous analysis,

the personalized and customized consumer market is expanding, and meanwhile, the manufacturing structure changes in the system mode just filled the gap in personalized manufacturing.

Consumers and manufacturers can publish their own design requests and manufacturing requests (consumers only) on the platform. In addition to the choice of the IPs that has been released on the platform, they can also choose the creators and manufacturers to undertake the design and manufacturing tasks directly. Pay them to complete custom tasks. In order to undertake the request, the creators needs to upload their own credentials (design experience, portfolio, achievements, etc.), and the manufacturer must upload a complete proof of production capacity (Tax payment certificate, manufacturing license, production conditions, etc.). In this link, the competition within creators and manufacturers will also be expressed through advertising and become a source of income for platform to rebates.

Focus

Requieiment and customization



4.2.3.4. Economic profiting method

In the service system protection, the most important goal is to ensure that creators profit by creating IP. In addition to being able to profit from traditional methods (sold to manufacturers), these highly irritating IP creators can now profit from the new model of open source their IP:

First, using the micro-charge mode (charge for open source) in the IP platform, a small fee for each download³⁹. This method is effective for IPs with higher infringement cost. It is possible to increase the probability that IP will be used, but due to charges, the profitability results are not good.

Second, undertake design requests from consumers and manufacturers. On the one hand, the design fee (usually lower than the normal design acceptance cost) can be charged. On the other hand, they can open source the IP after the project is completed, the subsequent sales volume rebate can be obtained. Since the IPs on the platform are not high technology patents, there may not be a lot of specific design requests, so that the creators tend to combine the manufactures to form an improve-manufacture alliance.

Third, rebates through IP usage/sale volume. As the most common profit mode for creators on the platform, by canceling IP licensing (using open source IP) to force manufacturers to transform, for the original authorized manufacturers, the new mode eliminates the investment of buyout/developing IP, more investment goes to advertising promotion. For unauthorized manufacturers, the price advantage through counterfeiting no longer exists, they can only be profitable by transforming into manufacturers that fills market vacancy (see 4.2.2.2.). In a relatively fair competitive environment, each type of manufacturer should decide how much to advertise according to its own profitability. Through Rate extraction method and Advertising fee ratio method⁴⁰, we could study the ratio of advertising by each manufacturer:

$$\frac{\text{Advertising fee in a selling period}}{\text{Total sales income in a selling period}} \times 100\% = \text{Advertising budget rate}$$

39 Such as Youtube’ s movie channel product, will be charged at a low cost for each movie to obtain more play volume. https://www.youtube.com/channel/UClgRkhTL3_hlmCAmdLfDE4g

40 Advertising budget method,2011.4.20, <https://wenku.baidu.com/view/acb48121482fb4daa58d4bf5.html>

According to the network data⁴¹, the advertising budget ratio in manufacturing is generally between 1% and 5%, and some companies may reach 10%. Referring to the results of the 13th question of our Designer Questionnaire, more than half of the designers believe that in their design area the IP Yield should be between 1% and 5% of the total sales profit:

$$\frac{\text{IP revenue}}{\text{Total product profit}} \times 100\% = \text{IP Yield}$$

Comparing the formulas, first the company's Total sales income must be greater than Total product profit, so when the Advertising budget rate is the same as the IP Yield (that is, between 1% and 5%), the advertising fee is greater than the IP revenue, plus new In systemic mode, there will be more investment in advertising (original investment in R&D of IP), and the investment creators themselves put in advertising, then it is feasible to rebate the creators through advertising revenue in the platform. The specific IP Yield should be determined by specific product category and market operation.

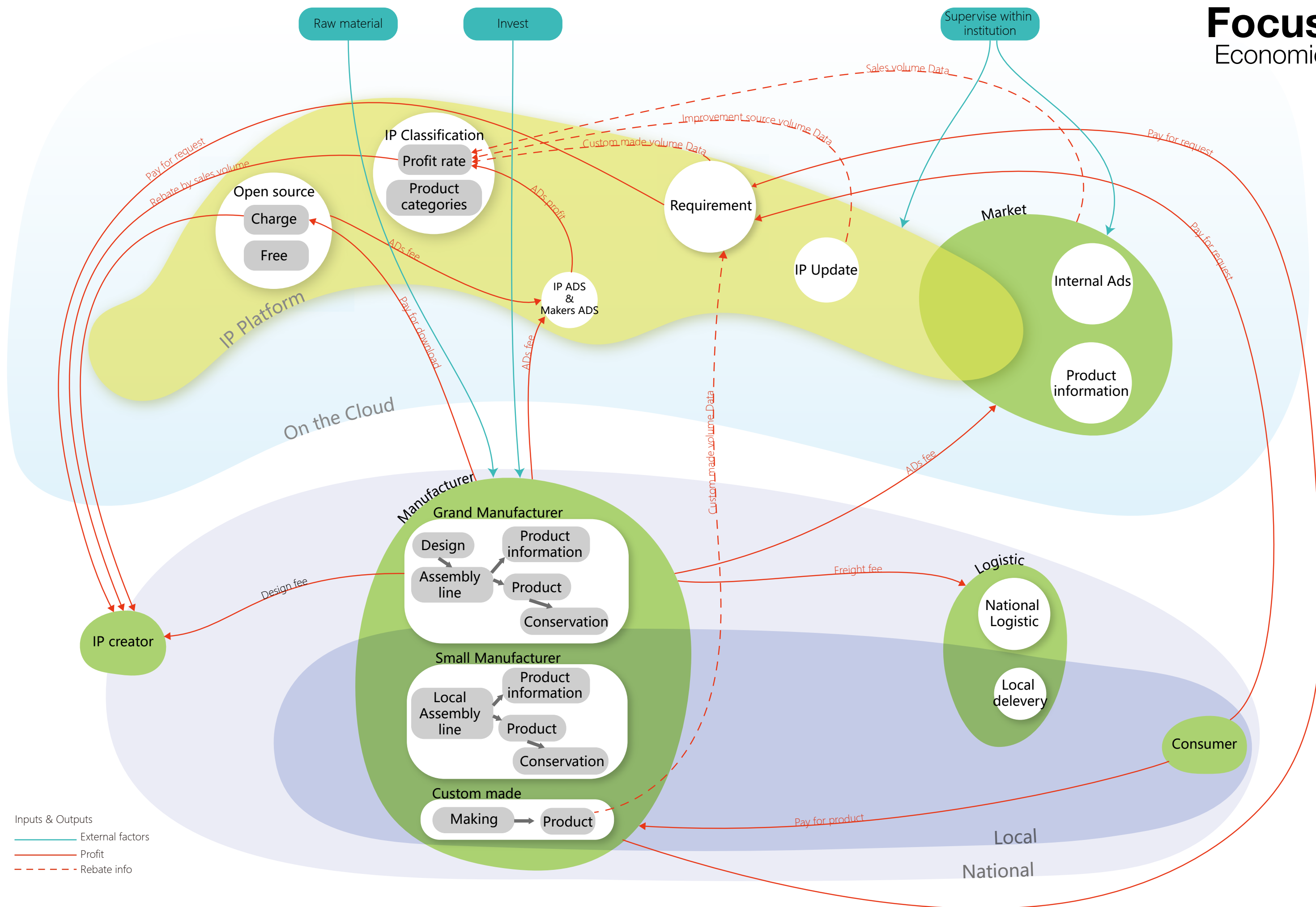
The specific rebate amount is based on the IP Total sales volume data(product sales volume of IP, the improved product sales volume and IP custom made volume) referring to IP profit rate (IP Yield of specific category × IP revenue of specific category).

$$\text{IP Total sales volume} \times \text{IP Yield of specific category} \times \text{IP revenue of specific category per object} = \text{Creator income}$$

Finally, The more the IP was manufactured and sold. the more creator profits.

Manufacturers can also choose to pay for advertising on regular sales platforms. These costs will be mainly paid by large manufacturers in the system mode, because other manufacturers will not have to compete for the market for intensive productions. Manufacturers also need to pay for logistics, as talked in 4.2.2.4. Different Manufacturers also pay different logistics. Their income comes from the purchase of consumers. Consumers and manufacturers also pay for the creator's design fees if they have proposed design request.

41 <https://www.zhihu.com/>



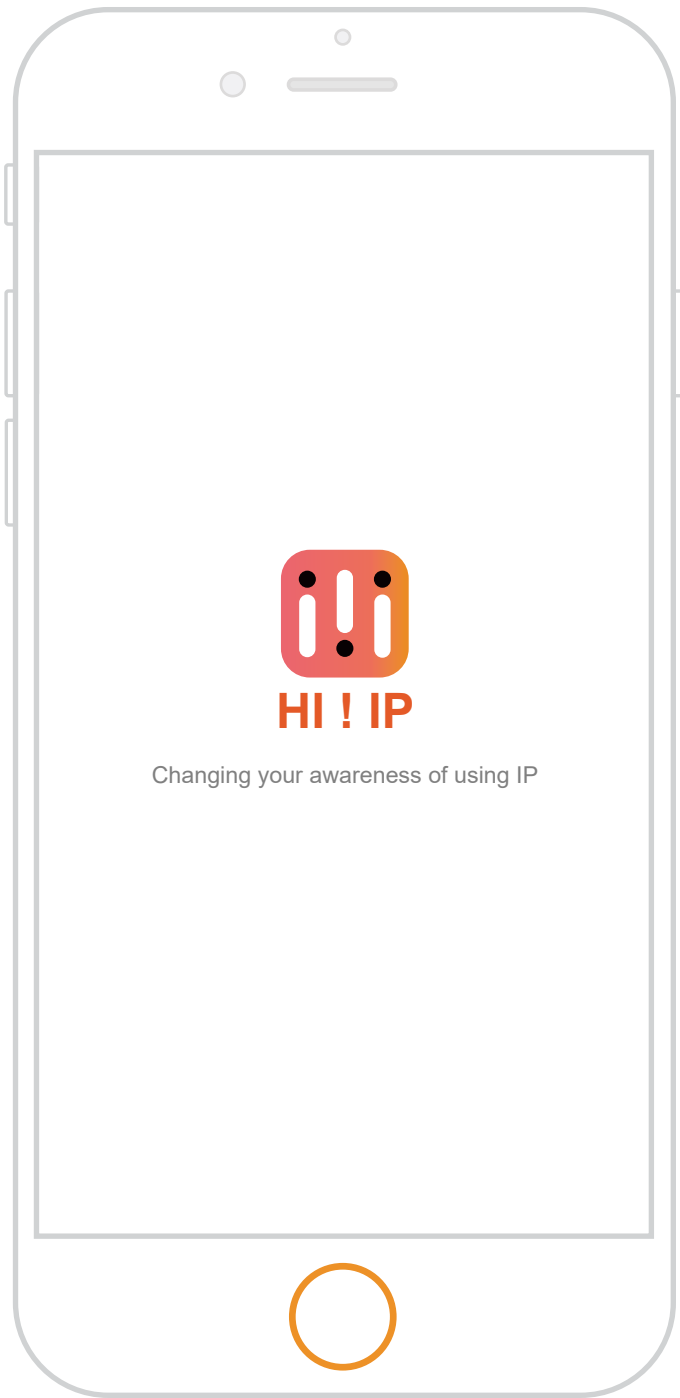
4.3. Conclusion

In the new system, through open source IP, infringers are forced to change, many excess productivity is redistributed. New ways to make profits also enable creators to change from passively protected IP to actively sharing IP. Increasing the enthusiasm of creators while make product updates develop faster; and ample new markets (customized, localized market) will attract more creators and manufacturers, spontaneously combine into design and manufacturing alliances or joint manufacturing groups under market operations. At present, the application of the service system is still relatively narrow, targeting low-infringement cost products. However, as the operating mode is firm and the relationship between supply and demand in the new market changes, the scope of application of this mode will likely gradually expand and become more and more compatible to higher infringement cost industries and more intangible industries.

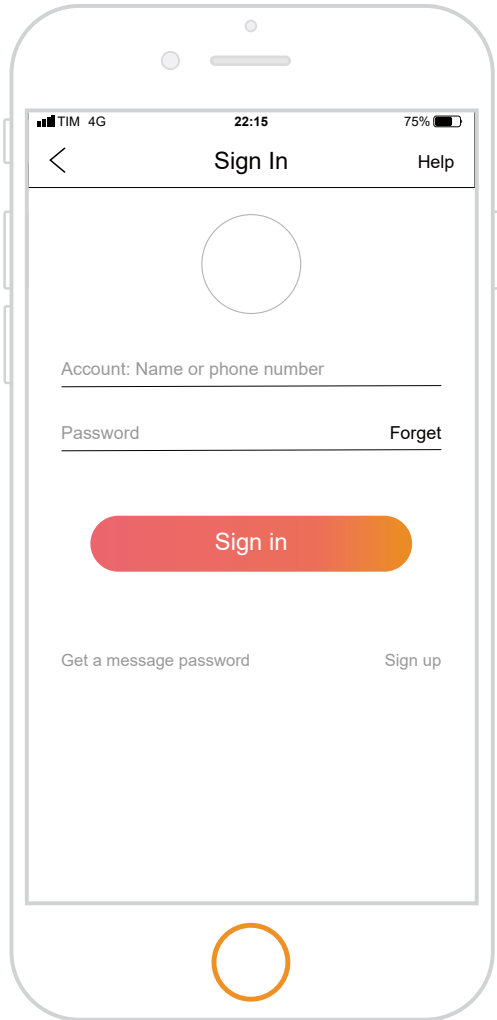
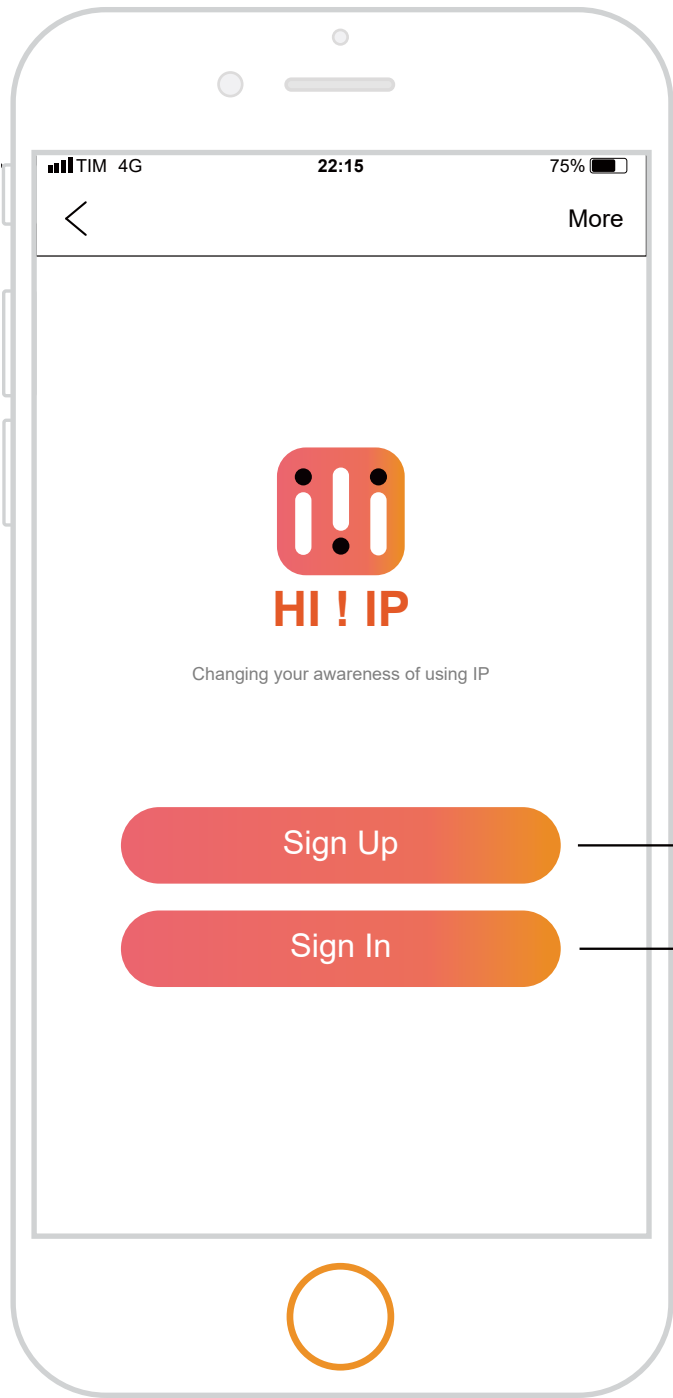
5. Project

In this chapter, we provide a concrete solution to the practice of the systemic operating mode, namely the specific model of the IP platform, the specific logic of this IP platform refers to **4.2.2. New Behavior Pattern of Creators, Manufacturers & Consumers**, in which the creators, manufacturers and consumers will interact within the IP platform, Thereby generating revenue and promoting IP to develop, and finally avoid infringement in this special intellectual property area.

IP platform in form of APP:



Default Homepage



Sign Up pages:

TIM 4G22:1575%

<

Creator

Sign up

Help

Your full name

Design area

Work experience / year

If you want to upload your CV now, [click here](#)

Country / Region

+39 >

Please enter your phone number

Please enter verification code

Get Code

Agree & Sign Up

You should read the agreements

“Privacy policy”

“HI IP service agreement”

TIM 4G22:1575%

<

Manufacturer

Sign up

Help

Company Name

Address

Legal Person Name

Contact

Uplaod Business License

Uplaod Legal Person's ID Card

Your Keywords

Your could write 6 words

Computer, 3D Printer, Metal...

Your Options

3D Printer

Assemble & Install

Makers

Metal

Plastic

Home Applainces

Toys & Games

Agree & Sign Up

You should read the agreements

“Privacy policy”

“HI IP service agreement”

TIM 4G22:1575%

<

Consumer

Sign up

Help

Country / Region

+39 >

Your full name

Please enter your phone number

Please enter verification code

Get Code

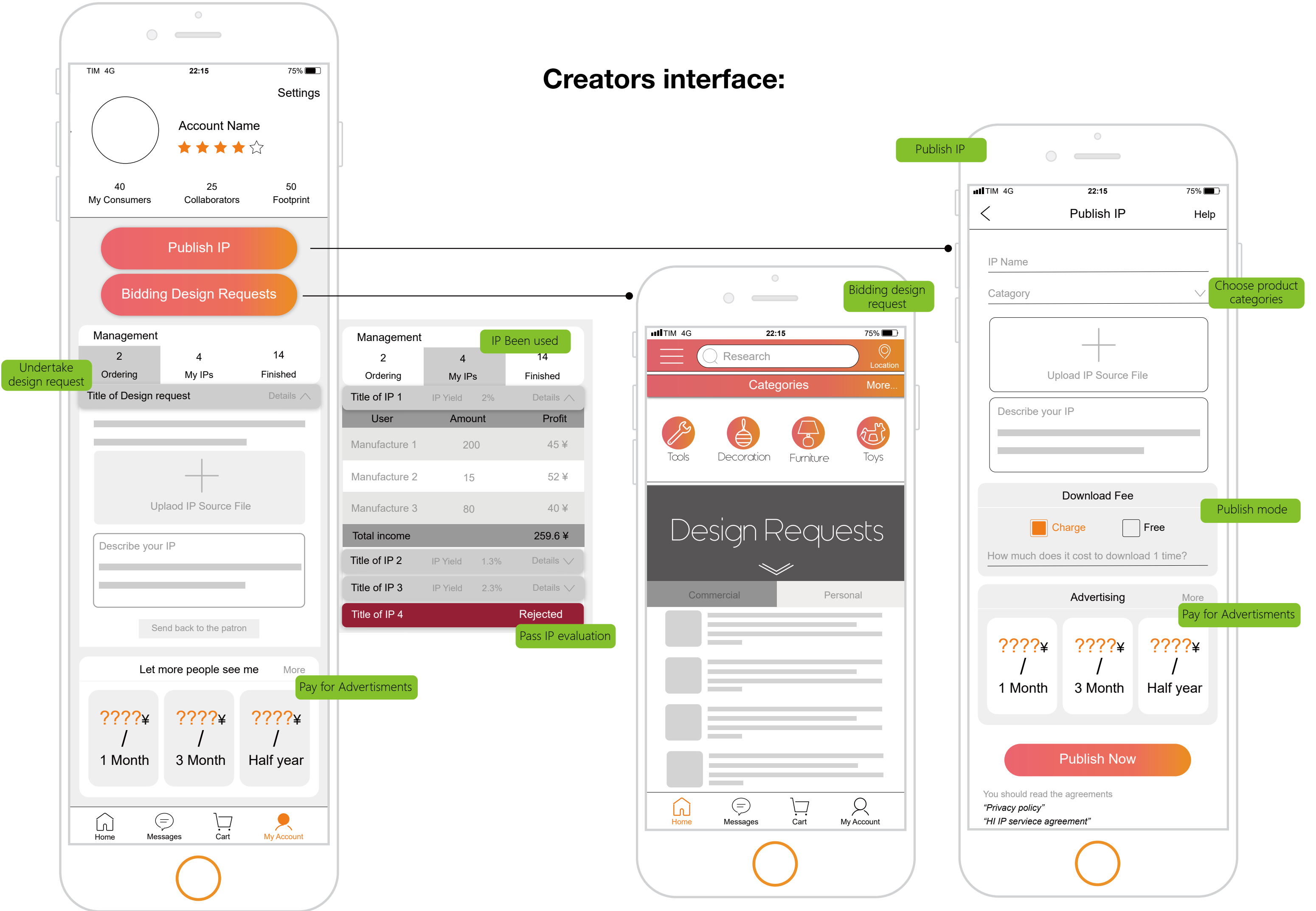
Agree & Sign Up

You should read the agreements

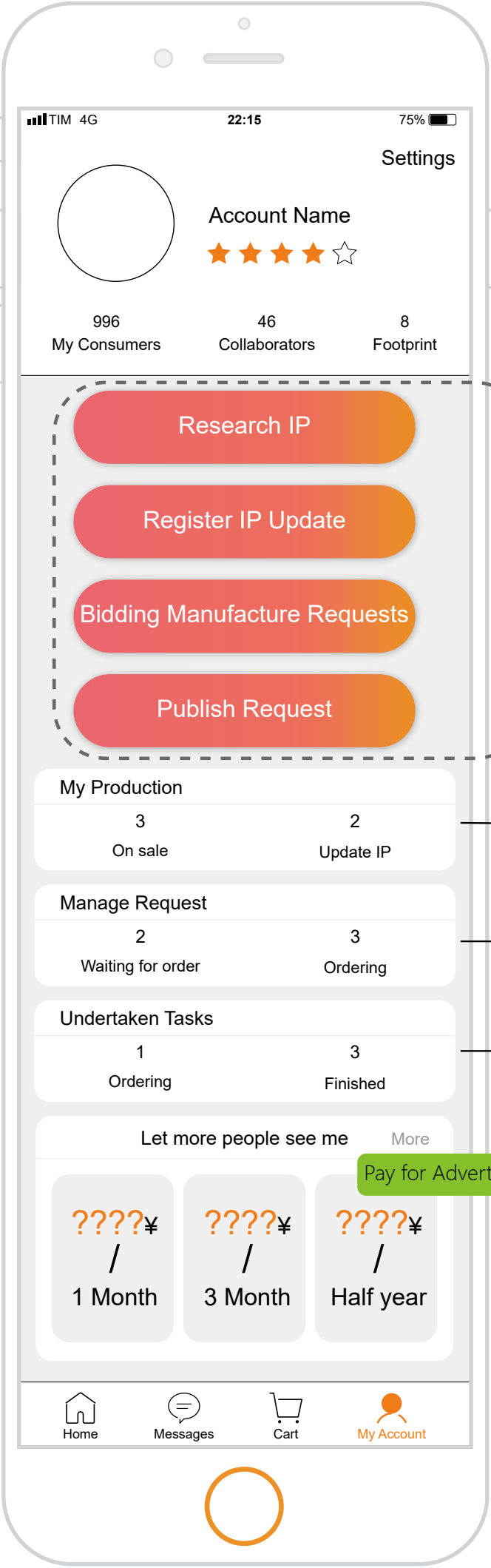
“Privacy policy”

“HI IP service agreement”

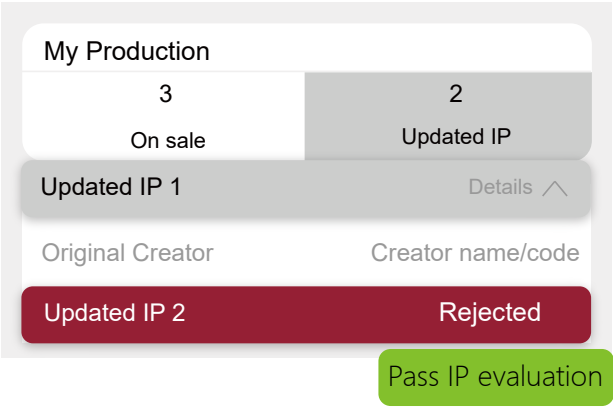
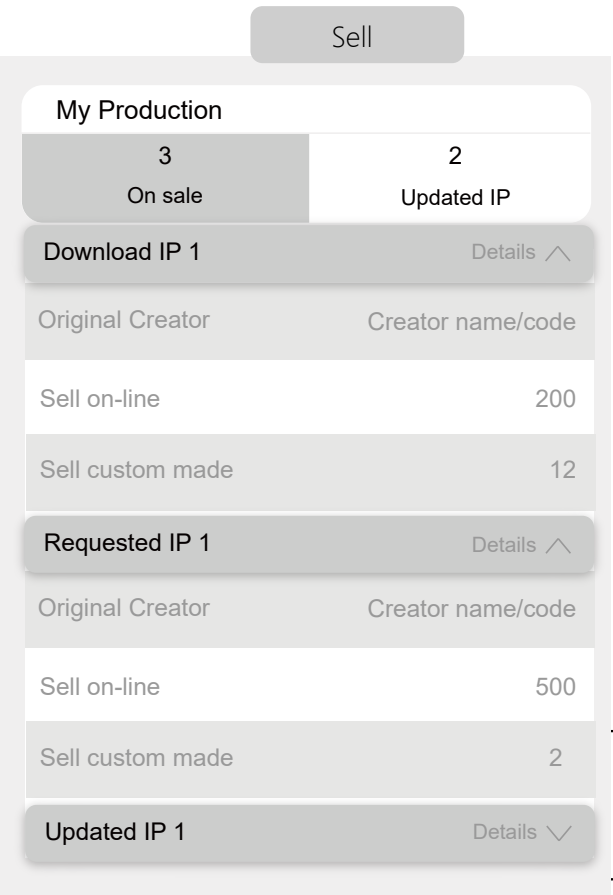
Creators interface:



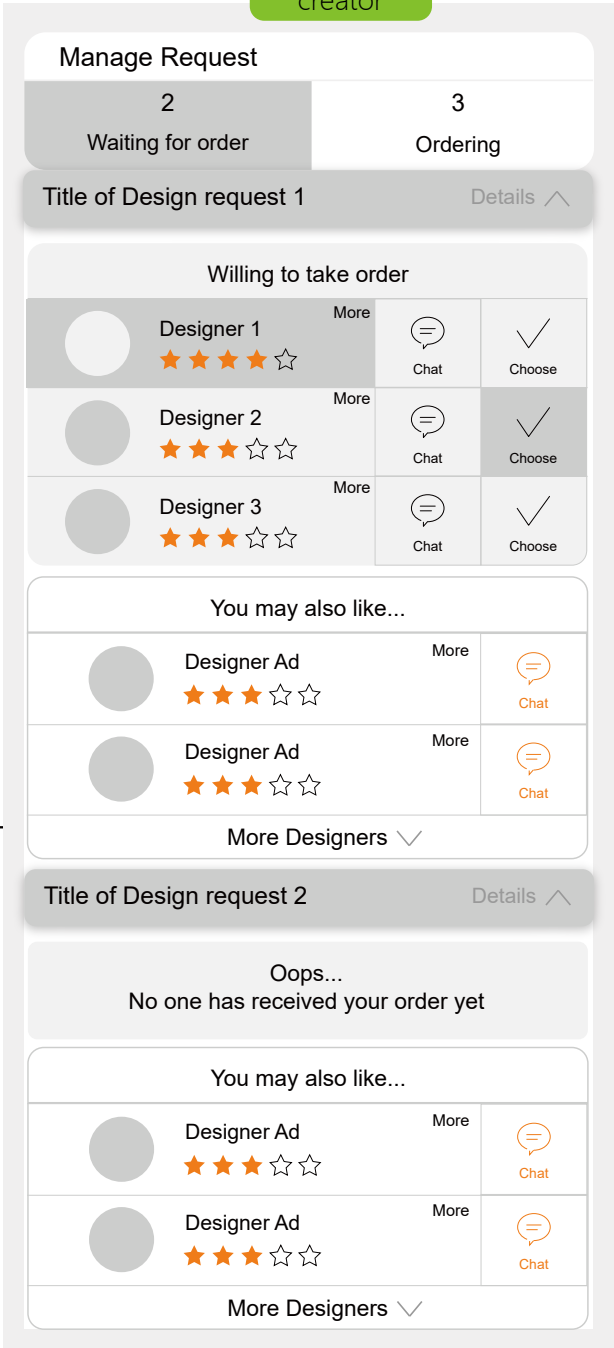
Manufacturers interface:



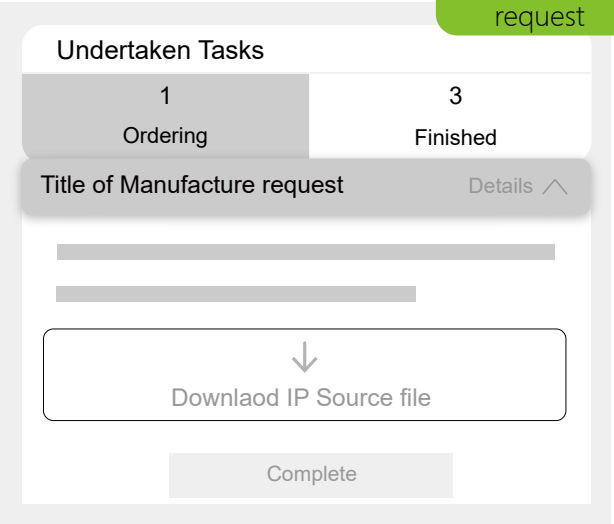
See next page



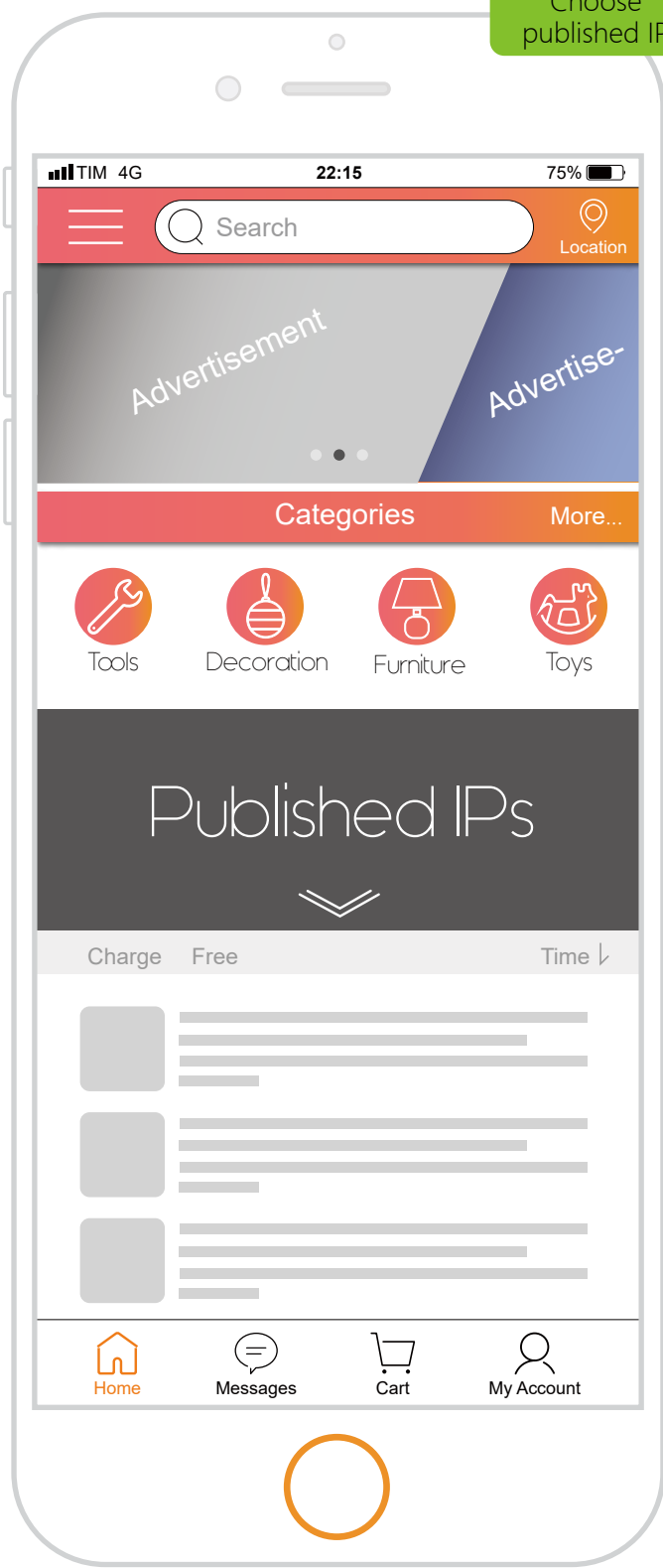
Choose IP creator



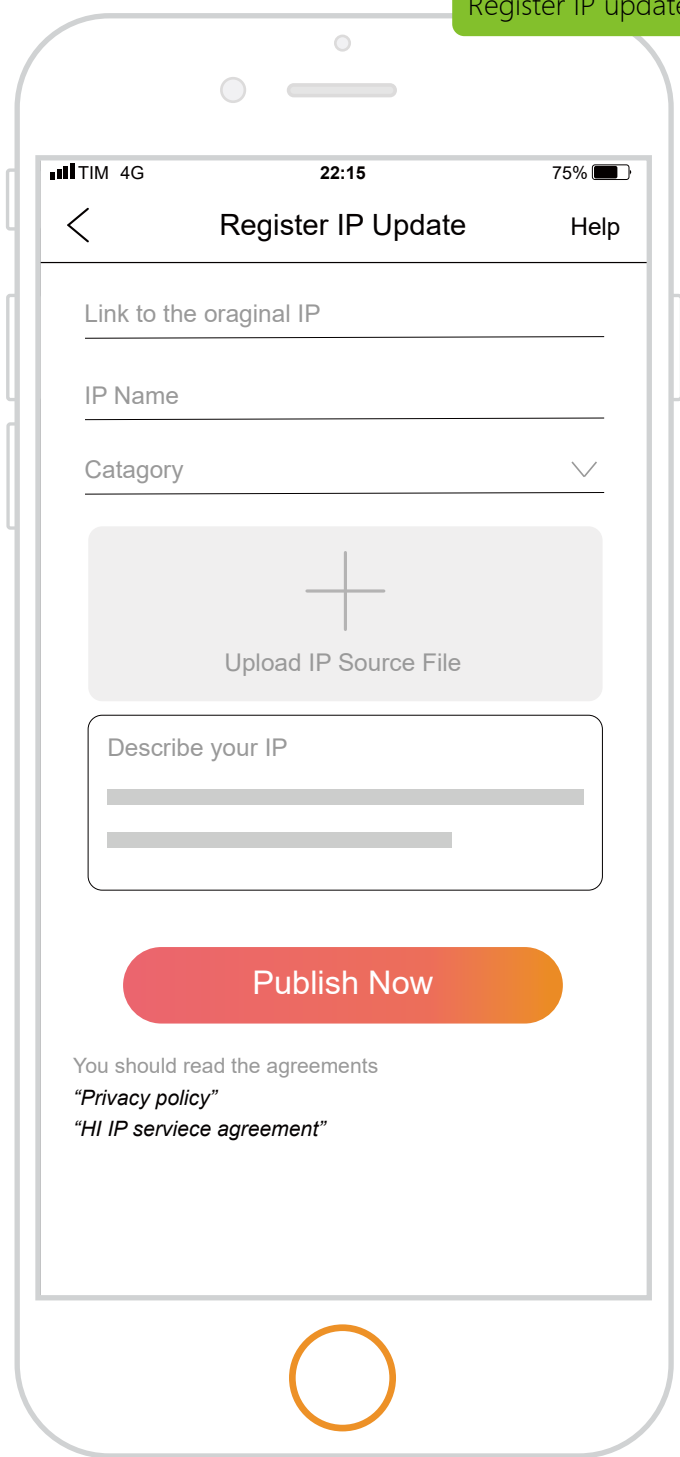
Undertake manufacture request



Choose published IP



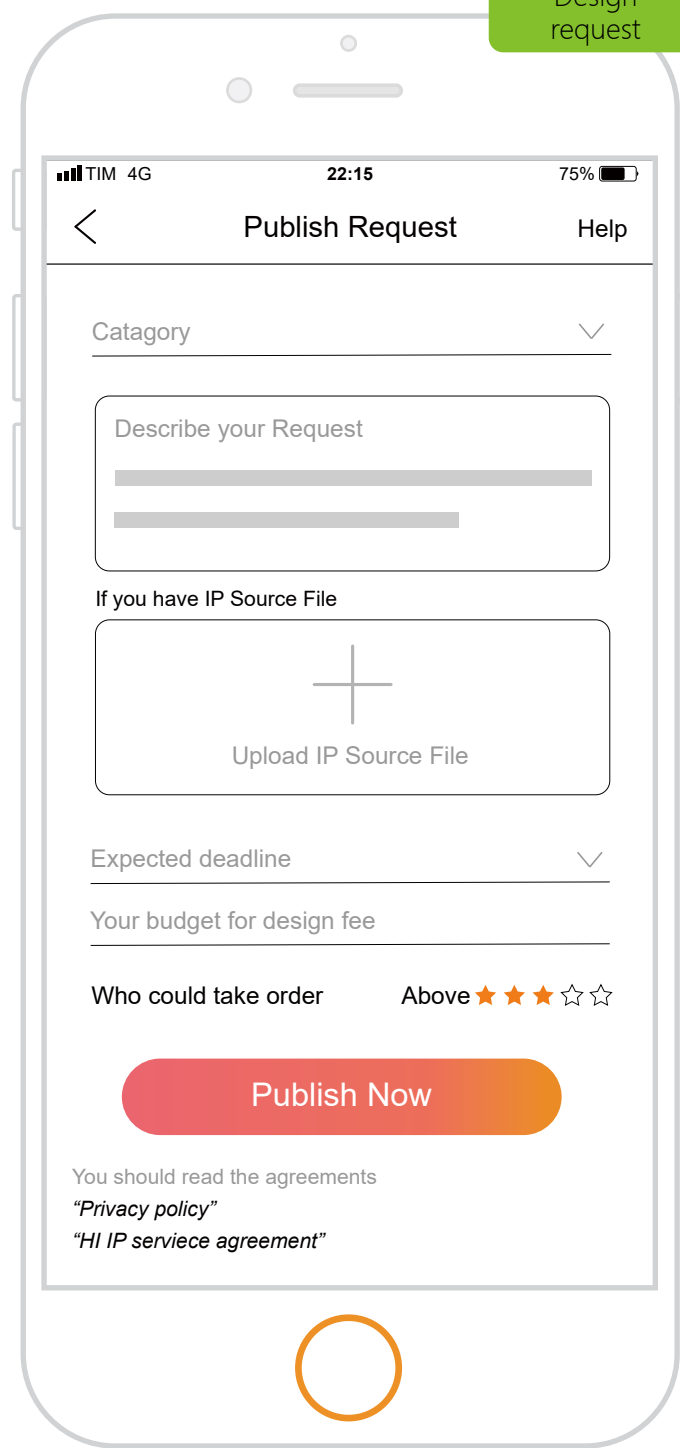
Register IP update



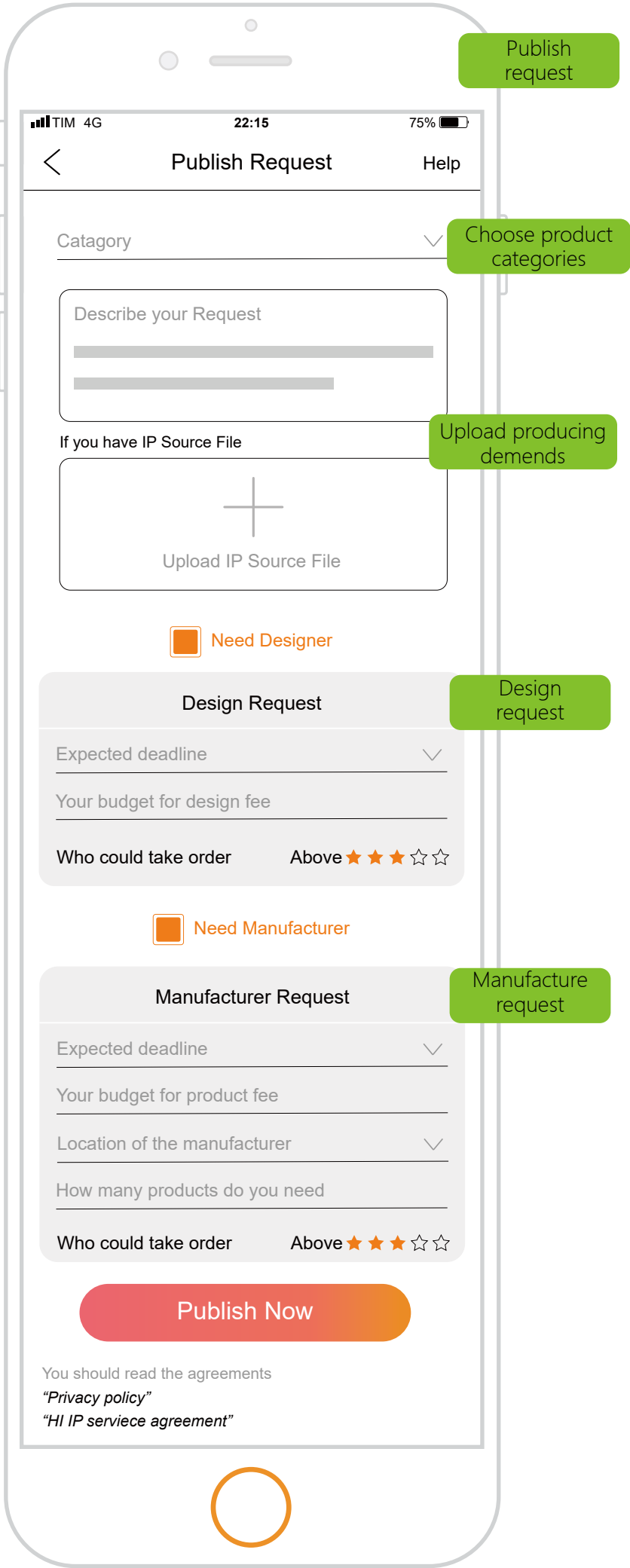
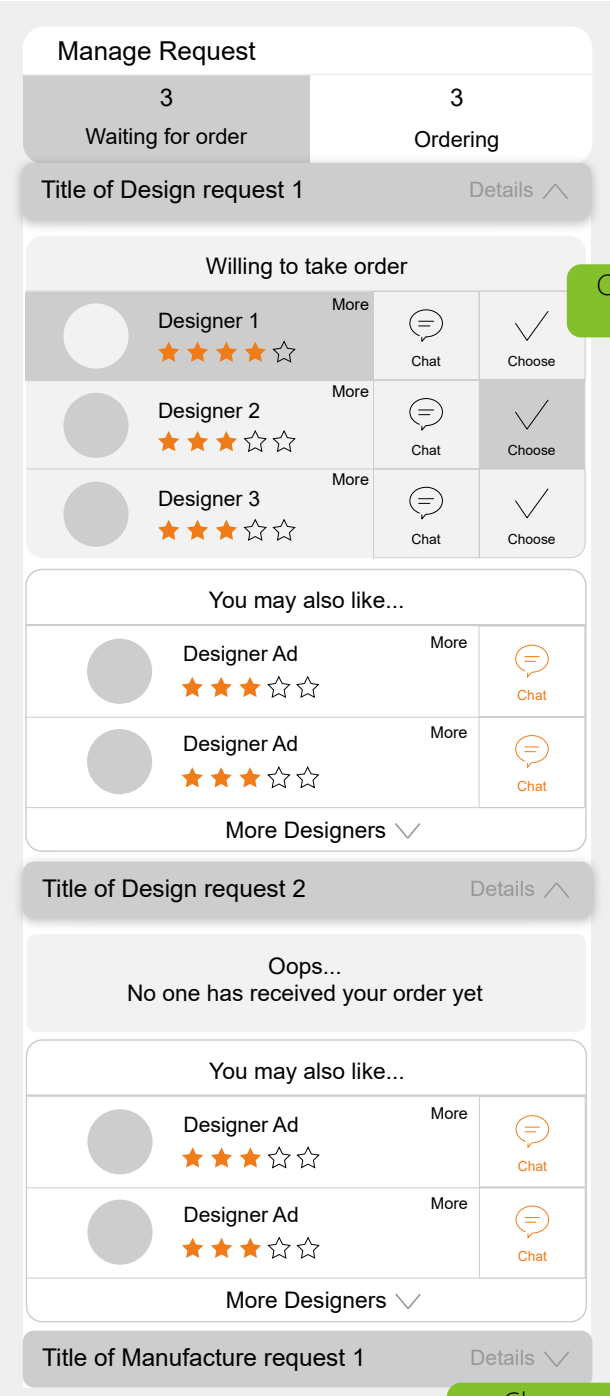
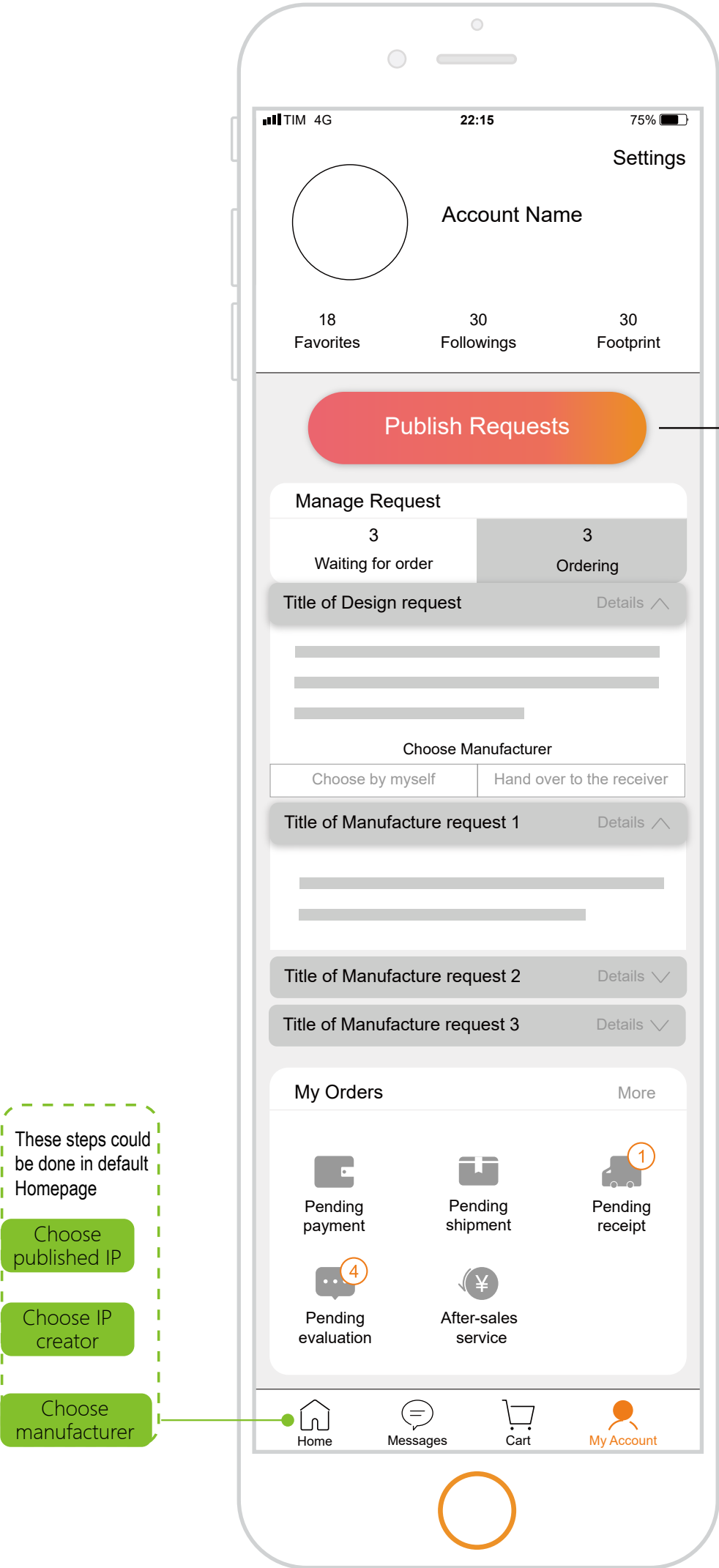
Bidding manufacture request



Design request



Consumers interface:



These steps could be done in default Homepage

Choose published IP

Choose IP creator

Choose manufacturer

Appendix

1. Consumer Questionnaire

1. How much money do you spent on online shopping in a year?

Options	Subtotal	Percentage
less than 3000 RMB	10	<div><div></div></div> 17.86%
3001 ~ 6000 RMB	16	<div><div></div></div> 28.57%
6001 ~ 10000 RMB	16	<div><div></div></div> 28.57%
10001 ~ 15000 RMB	6	<div><div></div></div> 10.71%
more than 15000 RMB	8	<div><div></div></div> 14.29%
Valid fills	56	

2. What kind of product you prefer to buy online? (Multi-choice questions)

Options	Subtotal	Percentage
Home/Furniture	24	<div><div></div></div> 42.86%
Home Appliances	26	<div><div></div></div> 46.43%
Bags	6	<div><div></div></div> 10.71%
Apparel	30	<div><div></div></div> 53.57%
Makeups	8	<div><div></div></div> 14.29%
Food	38	<div><div></div></div> 67.86%
Valid fills	56	

3. Have you ever bought non-genuine products ?

Options	Subtotal	Percentage
Yes	38	<div><div></div></div> 67.86%
No	18	<div><div></div></div> 32.14%
Valid fills	56	

4. Why did you bought non-genuine products? (Sorting questions)

Options	Average score
Lower price	2.53
Don't know if it is genuine	1.95
Meliorate from the original	1.53

(1) Top option :

Options	Subtotal	Percentage
Don't know if it is genuine	14	<div><div></div></div> 36.84%
Lower price	22	<div><div></div></div> 57.89%
Meliorate from the original	2	<div><div></div></div> 5.26%
Valid fills	38	

(2) 2nd option :

Options	Subtotal	Percentage
Don't know if it is genuine	8	<div><div></div></div> 21.05%
Lower price	14	<div><div></div></div> 36.84%
Meliorate from the original	16	<div><div></div></div> 42.11%
Valid fills	38	

(3) 3rd option :

Options	Subtotal	Percentage
Don't know if it is genuine	16	<div><div></div></div> 42.11%
Lower price	2	<div><div></div></div> 5.26%
Meliorate from the original	20	<div><div></div></div> 52.63%
Valid fills	38	

5. Are you willing to buy genuine products , even if the price is higher?

Options	Subtotal	Percentage
Yes	34	<div><div></div></div> 60.71%
No	22	<div><div></div></div> 39.29%
Valid fills	56	

6. If you choose Yes, how much more of the price do you accept to pay for personalised products ?

Options	Subtotal	Percentage
10% or less	14	<div><div></div></div> 41.18%
10% ~ 30%	16	<div><div></div></div> 47.06%
30% ~ 50%	4	<div><div></div></div> 11.76%
50% or more	0	<div><div></div></div> 0%
Valid fills	34	

7. Do you want more personalized products (custom)?

Options	Subtotal	Percentage
Yes	50	<div><div></div></div> 89.29%
No	6	<div><div></div></div> 10.71%
Valid fills	56	

8. Can online shopping meet your needs now?

Options	Subtotal	Percentage
Yes	28	<div><div></div></div> 50%
Mostly no	0	<div><div></div></div> 0%
Partially satisfied	28	<div><div></div></div> 50%
Valid fills	56	

9. What do you think is not enough to make you satisfied with online shopping? (Multi-choice questions)

Options	Subtotal	Percentage
Product quality	48	<div><div></div></div> 42.86%
Price	4	<div><div></div></div> 3.57%
Service	16	<div><div></div></div> 14.29%
Logistics	28	<div><div></div></div> 25%
Product variety	16	<div><div></div></div> 14.29%
Other	0	<div><div></div></div> 0%
Valid fills	56	

2. Designer Questionnaire

1. What is the status of your career ?

Options	Subtotal	Percentage
Freelance Designer	40	<div><div></div></div> 37.74%
Small Company	30	<div><div></div></div> 28.3%
Large Enterprise	28	<div><div></div></div> 26.42%
Freelance working while working full-time	8	<div><div></div></div> 7.55%
Valid fills	106	

2. What is your design area?

Options	Subtotal	Percentage
Furniture Design	22	<div><div></div></div> 20.75%
Product Design	32	<div><div></div></div> 30.19%
Fashion Design	28	<div><div></div></div> 26.42%
Other	24	<div><div></div></div> 22.64%
Valid fills	106	

3. Do you have open source designs ?

Options	Subtotal	Percentage
Yes	32	<div><div></div></div> 30.19%
No	74	<div><div></div></div> 69.81%
Valid fills	106	

4. Why don't you want to open source? (Multi-choosing)

Options	Subtotal	Percentage
Worry about being stolen	22	<div><div></div></div> 29.73%
I cannot tolerate the work being changed	30	<div><div></div></div> 40.54%
There is no return	38	<div><div></div></div> 51.35%
Other	14	<div><div></div></div> 18.92%
Valid fills	74	

5. If you had open source experience, are you willing to continue to open source?

Options	Subtotal	Percentage
Willing	18	<div><div></div></div> 56.25%
Other	0	<div><div></div></div> 0%
Unwilling, because there is no return	8	<div><div></div></div> 25%
Unwilling, because I cannot tolerate the work being changed	4	<div><div></div></div> 12.5%
Unwilling, worry about being stolen	2	<div><div></div></div> 6.25%
Valid fills	32	

6. If you can get a certain payback, are you willing to try open source?

Options	Subtotal	Percentage
Willing	84	<div><div></div></div> 79.25%
Unwilling	22	<div><div></div></div> 20.75%
Valid fills	106	

7. How do you tend to manufacture your product?

Options	Subtotal	Percentage
Self-producing	32	<div><div></div></div> 30.19%
Small-scale manufacturer	18	<div><div></div></div> 16.98%
Large-scale manufacturer	24	<div><div></div></div> 22.64%
Handed over to the company	32	<div><div></div></div> 30.19%
Valid fills	106	

8. Are you satisfied with the products produced after you choice?

Options	Subtotal	Percentage
Satisfied	80	<div><div></div></div> 75.47%
Not satisfied	26	<div><div></div></div> 24.53%
Valid fills	106	

9. Can you find sale channels for products you designed?

Options	Subtotal	Percentage
Yes	67	<div><div></div></div> 63.16%
No	39	<div><div></div></div> 36.84%
Valid fills	106	

10. Which is your sale Channel?

Options	Subtotal	Percentage
Handed over to the company	44	<div><div></div></div> 66.67%
Online perform	20	<div><div></div></div> 29.85%
Offline	3	<div><div></div></div> 4.48%
Valid fills	67	

11. How much is your monthly income range?

Options	Subtotal	Percentage
5000 ~ 8000 RMB	47	<div><div></div></div> 44.74%
8001 ~ 16000 RMB	42	<div><div></div></div> 39.47%
16001 ~ 20000 RMB	17	<div><div></div></div> 15.79%
20001 RMB above	0	<div><div></div></div> 0%
Valid fills	106	

12. Are you satisfied with the remuneration as the company's design staff?

Options	Subtotal	Percentage
Treatment suits your expectations	44	<div><div></div></div> 57.89%
Treatment is higher than your expectations	8	<div><div></div></div> 10.53%
Treatment is lower than your expectations	22	<div><div></div></div> 31.58%
Valid fills	76	

13. How much do you think the design patent revenue is appropriate in you design area?

Options	Subtotal	Percentage
Less than 1% of product profit (10000-50000)	22	<div><div></div></div> 20.75%
2-5% of product profit (50000-100000)	53	<div><div></div></div> 50%
5-8% of product profit (100000-300000)	20	<div><div></div></div> 18.87%
More than 10% of product profit (300,000 or more)	11	<div><div></div></div> 10.38%
Valid fills	106	

3. Interview

Interviewee: Suning Tesco Marketing Manager Zhu Qiming

Q: What is your job's responsibilities?

A: I am responsible for Suning's Sales on suning E-business platform selling channel marketing.

Q: What are your channel selling?

A: clothing, shoes and hats, Furniture, home textiles, accessories, beauty makeup, bags, small household appliances, and many other various of product manufacturers that cooperate with us in fact.

Q: What are the sales methods for Suning as a B2C platform?

A: We have two modes, one is Suning self-operated and another is distributors operated stores.

Q: What is the difference between sales of self-operated stores and other distributors?

A: The channel I work, sales are basically Suning self-operated. The self-operated products are purchased directly from suppliers and sold by ourselves. They will be tagged with Suning's self-label. The discount is greater than other dealers because the purchase price is lower. Dealers and agents of a particular brand can open stores on Suning platform, but the prices will be different. We will also negotiate with these distributors to ask them to cut prices.

Suning Tesco is a service-priority enterprise. In any business cooperation, both parties benefit in a mutual way. Suning does promotion and can give merchants the resources they want and help them increase brand fame. Merchants only need to provide high-quality products and fully cooperate with us. Suning also cooperates with the popular celebrities, App and other platforms to promote.

Q: Will the products of these sales channels be infringing IP or have counterfeit products problems?

A: First, Suning self-operated stores are all branded products. It is directly supplied by large suppliers, directly authorized by the brand and is able to guarantee

genuine products. Brand owners, agents will not go to small suppliers. As for distributors operated stores, all of them are qualified companies, have tax payment certificates, and have completed formalities to open stores on our platform. As for counterfeit products, some merchants have this kind of situation, but they are all imitating big brands and changes in the style, cannot be identified as counterfeit products.

Q: Does product patents have a big impact on a brand's sales? Are the vendors you working with has strong awareness of IP rights protection?

A: From the products on our platform, I think that the impact of patents on sales is not very obvious. The products are mainly small household appliances and clothing. For example, the patent for ball-shaped pot bottom rice cookers is very good indeed, But it can not be too expensive, because although other brands can not use this ball-shape patent, but still can find a patent loophole, change the appearance of the design, such as making a vertical pot edge and curve bottom of the rice cooker to apply for a patent. New products will enter the market at a low price, occupy the market share of rice cookers, and soon the next wave of new designs will cover this generation of products. There is no time for a patent to go to court. Another example is the early MI phone to engage the users with hunger marketing strategy, the price is around 1,000 ¥, this smart phone performance is not bad, although the profit for single phone is not high, but rely on marketing without leaving inventory, ensured their profit and also started the brand's good fame. So these products are still a fast-selling model, and manufacturers will not waste time competing for a patent.

Q: How is your customer satisfaction?

A: The average customer satisfaction is above 85%, but the initial transaction success rate is very low. For example, clothing, footwear, the average Returns rate is about 25%. We previously handled a store with a return rate as high as 40%.

Q: Why is the Return rate so high? Is the product quality problem?

A: Not completely, first of all, we have "seven days no reason return service", and secondly, there are a lot of size problems returned; then, many small defects, such as thread on the clothing, color differences and so on that do not affect use. There are also cases that the supplier sends the wrong goods, or the damage to the distribution process, are the main factor for return. Really there aren't many

unqualified products.

Q: With such a high rate of return, is the cost of returning high?

A: Yes, our self-operated footwear store as example, the cost of a pair of shoes is just a few tens of RMB. If you return or change it, the logistics fee is 7 ¥ each time, that is, if a customer changes the product twice, The cost of returning and sending in logistics quickly catches up the cost of shoes.

Q: Is there a custom service on the platform?

A: No, what businesses are selling, what consumers buy, there is only room for choice. And it also leaves consumers with no channels for demands. The official store may have that, but it is also limited to certain style or patent customization rather than product customization.

Q: Is it necessary to have customize service?

A: If there is such a way, Suning is willing to develop, which is a direction to meet customer needs. However, the current situation cannot satisfy all the people, because Suning's users are hundreds of millions, and they cannot be 100% satisfied. This will result in loss of customers.

Q: If smart manufacturing can meet this new consumption model, Suning will try to integrate manufacturing to try this model?

A: I think it will. We now have many attempts in the logistics and retail industry. Currently, Suning Express delivery robots are on trial, and Suning Supermarkets fully open the no-maneuvering model, facial scan payment, if smart manufacturing can be developed, It will be a good echo with our new retail system.

4. Cases A~Q

A. "Wang Tiancheng accusing Zhou

Yezhong infringement of copyright"

The plaintiff Wang Tiancheng that the defendant Zhou Ye's book "Constitutional Interpretation" plagiarized the paper "On the Republic", the court excluded that the part plaintiff advocated plagiarism in total of 5298 words "academic point of view description" at 46 places by the reason "belong to the ideological content" from the plagiarism scope. In court's decision there is "the defendant involved book hold same or similar academic point of view with the plaintiff's description, belonging relevant academic point of view, does not constitute the copyright law infringement." In other words, if there is plagiarism accused of the court, can claim that he is in the analysis of the same ideas with the plaintiff, as the expression of the way even the wording are exactly the same, it is naturally because "description is similar to the reference point".

After the court excluded more than five thousand words similar to plaintiff papers in the defendant' s involved book by the reason "ideological content", Only 1398 words in seven parts"expressions basically same". The court's determination is "comparison with the total number of plaintiff papers more than forty thousand words, and 220,000 words of "Constitutional Interpretation", the proportion is low; the 7 parts does not constitute the essence of the book " Constitutional Interpretation " , and scattered in the "Constitutional Interpretation of". Based on the specific circumstances of this case which should not be identified as infringement." , " the defendant should note the seven sources, but consider that the amount of words is less, which should not be identified For infringement ". In other words, the defendant plagiarize plaintiff works by the proportion large and intensive enough, it will be identified by the court as plagiarism.

B. "Li Zhicheng and Shenzhen Trade and Industry Bureau copyright infringement disputes"

In the case when the court determining whether the plaintiff's investment advertising originality, the advertising was split into advertising headlines, sponsors, support units, The names of the co-organizers, the supporting activities, the scope of the exhibition and the advertising language, respectively, to examine their originality, then concluded that in the investment advertisements there are two slogans expressed by text could reach the standard which could called "works"by China Copyright Law. The result of this method of identification is that "the original expression in the work" is equivalent to the work itself. The defendant add a little more creative content in the plaintiff works, could turn into "original works." Unless the defendant could one by one without any changes plagiarizing, the plaintiff's chance of winning is actually very low.

C. " Popular Idol "& "Super Girl"

2005 British television program production company Fremantle media announced "Super Girl "copied its program "Popular Idol", declared to bring legal proceedings, the result is the case end up with nothing definite.

D. Jiangsu TV and Hunan TV dispute about format copyright of "You Are the One"

Hunan TV according to the introduced British television program "take me out" produced "Let us date", and Jiangsu TV also launched a same programme "You Are the One".

But its dispute only stay in verbal disputes, imitators can not use legal rights.

E. China Hunan TV new variety show "Chinese restaurant", was accused copied South Korea variety show "Yin canteens".

Recently, the "Chinese restaurant" finalized guest, get the formal preparation, began to produce. Prior to this, China's largest television station Hunan Satellite TV claimed that the plan will be launched in the third quarter of 2017 new variety show "Chinese restaurant", which is a star operating class food reality show, about five artists in a foreign country operating a seaside restaurant The story of the Chinese food to the world.

However, the "Chinese restaurant" program form and South Korea tvn variety show "Yin canteens" exactly the same, not only the name is similar, even the program content is a total plagiarism "Yin canteen."

"Yin canteens" recorded in Bali near a small island, four artists operating Korean restaurant mentality, as well as the size of the process of this story, this block by the majority of the audience favorite.

"Chinese restaurant" suspected of plagiarism "Yin canteens" message, immediately caused both Chinese and Korean fans of the attack, but Hunan Satellite TV is still its own way, selected five guests, on June 29 to Thailand for program recording,

In view of the intensification of the South Korean variety show in mainland China, South Korea's Broadcasting Committee said it would seek a case of plagiarism. If plagiarism continues, South Korea will take action from the government level.

F. Dongjin Company & Intel Corporation

software copyright' s tort

December 2004, Intel Corporation Company accused that the DN voice card of Dongjin Company infringed their SR5.1.1 products' IP.

23/03/2005 Dongjin made a counterclaim, accused Intel of technology monopoly, they

know that China has no anti-monopoly laws, so they found the law' s loophole to do the technology monopoly, and attack competitors.

Then the media come in to guide the public opinion. They gave Dongjin a "National high - tech enterprises" image, to criticize Intel in a moral way.

14/05/2007 They settle out of court.

30/08/2007 China issued the "Anti monopoly Law of the People's Republic of China".

G. Group Danone& Wahaha

Trademark dispute

In 1996 Group Danone and Wahaha joint venture In 1999, Peregrine transferred the shares to the Group Danone, Group Danone owns 51% of the shares, Wahaha has 49%, but Zong Qinghou grasps the real management rights of the company

Wahaha illegally set up a large number of non-joint venture companies later

In 2005, both parties signed a trademark amendment agreement, Group Danone allowed the trademark using in non-joint venture companies, but some companies should on the list of

non-joint venture companies provided by Zong Qinghou was hidden. Then things brought to light, Group Danone request acquisition of Wahaha.

02/04/2007 Hangzhou Wahaha Group CEO Zong Qinghou broke the news: France Group Danone want to acquit Hangzhou Wahaha Group's other non-joint venture 51% stake by 4 billion RMB, if not, Group Danone will suit Wahaha non-joint venture The companies using the Wahaha trademark without permission.

Zong Qinghou said: "Because unclear understanding of meaning of brand, trademark, the development of Wahaha involved the trap set by Group Danone. Because of my ignorance, Wahaha brand development meets troubles and obstacles. If we don' t make further remedy, it could be guilty to business and country! "Incitement of public opinion, and there is lesson of Bright Food Group.

At the end of 2000, Group Danone entered into an agreement with Bright Food Group, which bought the use of Group Danone trademark at a price of 1 Yuan symbolically, but provides that Bright Food Group can only use Group Danone's trade-mark in two varieties of yogurt. After that, Bright Food Group unauthorized breach of agreement, but Group Danone has not expressed dissent, Bright Food Group continues to use the Group Danone trademark in other varieties. As a result, in April 2006, Group Danone accused the Bright Food Group's "Violation of the Trademark Rights Agreement" to achieve the purpose of holding shares while share reforming. Bought shares at low prices and becoming the third largest shareholder of Bright Food Group..

Therefore, because the history of the Bright Food Group, most people think that Wahaha has been trapped.

The 29 litigation of Group Danone are all lost. The reason is insufficient evidence. (Or pressed by government media)

30/09/2009, Reconciliation, Group Danone sell Wahaha at a price of 3 billion Yuan for a 51% stake in the joint venture. An acquisition becomes an anti-takeover.

In this war, public opinion and government became a guide to the law.

H. Cisco and Huawei

High - tech intellectual property disputes

2002, Cisco negotiated with Huawei on the IP, but Huawei denied the infringement.

Huawei has made Cisco suffer a lot of economic losses. So Cisco set up a team to do the lawsuit, and communicated with the Chinese government to keep neutrality.

Then, Cisco started to sue Huawei, but Huawei still denied the infringement.

Huawei reclaimed infringing products secretly, hired public relations firm and law firm. At the same time, researched and developed the new products, removed the infringing code of the products.

Although Cisco believes Huawei was eliminating evidence and FBI expressed willingness to help Cisco conduct criminal investigations on Hua-wei's infringement, Cisco didn't let FBI in to kill Huawei.

07/06/2003 Marshall federal court in United States ruled Huawei to stop using some of Cisco's source code and products. In this case, Cisco think that their litigation position was affirmed, Huawei think that their economic losses was minimal.

Finally, the end of the case looks like a win-win situation, but if you think about this sentence and connect with the earlier cases, you will find the government has a big power to affect them, even under the law. This is the big problem.

I. "Junk" Patent

In Shanghai, a candy factory has found a patent agent, want to apply their triangular eucalyptus sugar for a patent. The patent agent said that the shape had been used for many years and doesn't meet the inventive requirements, so the candy factory gave up the plan. Two or three years later, somebody else applied the shape's patent and accused the candy factory.

The original intention of "Patent Law of the People's Republic of China" is to encourage the technological innovation and to promote the dissemination of technology.

Here, we find that the Junk patent block the innovation and even threaten the development of the industry.

J. Ipad case

Proview Technology (Shenzhen) Co., Ltd filed a lawsuit to the iPad products in China's sales channels, many provinces has banned the Apple Co. iPad. Origin of this case could date back to 1998, Proview Technology Co. claimed that the trademark "iPad" was applied on the products that has been designed and produced since 1998, and Apple sells its products in China in the absence of "iPad" trademark, trademark infringement was approved.

In 2010, Apple Co. requested the the court to judge "iPad" trademark ownership, and charges Proview Technology (Shenzhen) Co. related costs. July 2, 2012, the Guangdong Provincial Higher People's Court announced that Apple Co. and Proview Technology (Shenzhen) Co.

"iPad" trademark case reached a settlement, Apple Co. paid 60 million US dollars for this.

K. Iphone6 case

Apple in June this year by the Beijing Intellectual Property Office ruled that its two mobile phone iPhone6 and iPhone6 Plus design infringement. In September 2014, Shenzhen mobile phone company Bai Li sued Apple released iPhone 6 two products, involving plagiarism Bai in April 2014, July approved the design of mobile phone patents. Apple was once the stock fell, the market value of 12.16 billion US dollars a day evaporation.

L. Jordan case

the ex NBA star Michael Jordan is also into the Chinese trademark storm.

In 2012, Jordan sued Fujian sportswear brand "Jordan Sports", pointed out that the company unauthorized use of his translated name

"Jordan", the shape of the trademark is more close to the Jordan's flying logo. After the lost of the first and second instance, The High Court of Beijing do the final judgment—Michael Jordan still lost to the "Jordan Sports".

M. New Bailun case

Has been imitated by the cottage brand NEW BALANCE (hereinafter referred to as "NB") has become an infringing party. (Hereinafter referred to as "New Balance") was awarded the "New Balance" trademark by the seller of the American sports brand "NB", which was

sentenced by the first instance of the Guangzhou Intermediate People's Court. The right of Guangdong shoe boss Zhou Moulun 98 million yuan. Beijing Commercial Daily reporter in the NB official website and NB days cat flagship store and Jingdong flagship store browse found that the store did not have the Chinese name. This is not a case. Previously, Bottega Veneta and AIR JORDAN, and even Apple, have encountered in China was the embarrassment of the brand was registered. According to the law, NB will also be in the Chinese mainland farewell New Balance brand.

N. Yu Zheng&qiong Yao

April 15, 2014, Qiong Yao through microblogging release "Qiong Yao wrote to the SARFT an open letter" refers to the "Palace 3" a large number of plagiarism "plum baked" plot and cited more evidence, insisted to recover justice , Hope to off the air "Palace 3". Followed by an hour or so, in the fire is in the microblogging on the text, denied plagiarism. Events in a short time caused a large-scale concern, which, Phoenix first time to make a survey to see how friends look at Qiong Yao approved in the plagiarism, the SARFT requested off the "Palace 3". As of April 15, 2014 at 22 o'clock, a total of 21,031 people participated in the survey. Of which nearly 9% of the respondents support Qiong Yao approved in the plagiarism, that "Palace 3" plagiarism significantly.

April 28, 2015, Qiong Yao officially sued for the infringement, while the broadcast unit - Hunan Satellite TV together with accountability. December 25, the Beijing Third Intermediate People 's Court sentenced the case. The court ruling "Palace Lock City" violated the "plum baked" the right to adapt, is being asked to open to apologize to Qiong Yao, the five defendants are a total compensation of 5 million yuan.

O. Guo Jingming Zhuang Yu case

Writer Zhuang Yu said, spring art and literature press in November 2003 published by Guo Jingming book "dream of how much flowers," a book, to face-lift, character misplaced, reverse order and other methods, plagiarism in her November 2002 creation The completion of the novel "circle circle" originality of the idea, the story of the main clues, most of the plot, the main characters, works of language style. To this end, will Guo Jingming, spring art publishing house and the seller Beijing book building to court.

December 7, 2004 by the Beijing Municipal Intermediate People's Court of Guo Jingming and Zhuang Yu copyright dispute case made a first instance verdict, ordered Guo Jingming, spring art press immediately stop the "dream of how much flowers," a book published, common Compensation for the plaintiff Zhuang Yu economic loss of 200,000 yuan in the newspaper openly apologize to the plaintiff Zhuang Yu, the defendant Beijing Book Building Co., Ltd. to stop selling "dream how much" a book.

In December 2004, after the first instance verdict, Guo Jingming said that he would

continue to appeal, but also said that he had never been out of any outraits with Zhuang Yu, nor did he consider resolving disputes through reconciliation.

On December 20, 2004, Zhuang Yu formally appealed to the Beijing Higher People's Court. May 2006, the Beijing Municipal High Court final verdict found that Guo Jingming's novel "Dreams know how much" plagiarist Zhuang Yu works "circle outside the circle", Guo Jingming and Chunfeng Literature and Art Publishing House jointly compensate Zhuang Yu economic loss of 200,000 Yuan, the pursuit of mental damage solatium 10,000 yuan, to stop selling "dream how much", open apology, etc., deadline 15 implementation.

P. Chanel sues Wendaxiang and Ramada Pearl Hotel Guangzhou for trademark right infringement

Chanel is a French company established on August 27, 1954. The Chanel brand is a luxury brand worldwide. The company owns its figurative marks for such products as clothes, shoes and scarves and the CHANEL logo mark. Wendaxiang signed a leasing contract with the Ramada Pearl Hotel Guangzhou to sell clothes and leather products and promised that no fake and shoddy goods would be sold. Chanel came to believe that Wendaxiang had used its registered logo and infringed upon its trademark right. It applied to the court to have the two defendants stop the infringement and compensate its loss with 300,000 yuan.

Q. Jingdong "self-operated" case of counterfeit products

On May 13, 2016, Mr. Fan purchased Jingdong' s self-operated watch at Jingdong Online Mall for a total price of RMB 147,000. At the time of purchase, the description of the web page shows that the material of the watch glass is sapphire crystal. However, after receiving that, Mr. Fan found that the watch was made of sapphire crystal glass. Fan sent the watch to the China A&F jewellery jade testing center for testing. The test result was synthetic sapphire.

Fan sued Jingdong E-commerce Company to the court and accused the company of fraud. However, Jingdong argued that there is no relationship between the two parties. The company only provided a trading platform and did not participate in the buying and selling activities.

After the final court hearing, it was held that there was no valid evidence to prove that Jingdong(JD) used its platform to infringe upon the legitimate rights and interests of consumers. The court rejected Fan' s appeal with a "defendant not suitable" ruling.

This case involves the "self-operation" and "non-self-operation" of China's current online sales platform. The "self-operated" goods announced by Jingdong Mall are no counterfeit, so the consumers trust the "self-operated" product quality and after-sales service, JD has obtained a more prominent competitive advantage. However, JD and other e-commerce

platforms and their affiliates’ “self-operated” sellers have increased the difficulty of maintaining consumer rights through inadequate and inconspicuous information disclosure.

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