

# From Quanta v. LGE to Patent Licensing Management Strategies

從廣達與 LGE 案看專利權耗盡之專利授權管理策略



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## 摘 要

自從美國最高法院在廣達與 LGE 案中作出解釋後，便將權利耗盡理論亦稱為第一次銷售理論帶往另一個層次。此案已被普遍認為對於美國過去的判例影響甚鉅，對於產業界的商業活動發展更是具有深遠的影響。智慧財產權旨在保護發明及創造公眾利益間取得一平衡點，權利耗盡理論長久以來已被視為專利法中重要的一環，並藉以杜絕專利權人的過當控制。而最高法院對於第一次銷售理論的解釋，則進而撼動專利權人長此以往對限制性銷售策略的仰賴。

即便銷售後限制(Post-sale restriction)確實提供了專利權人避免耗盡其權利的好方法，但專利權範圍則限縮了專利權人所享有的權利控制範圍，換言之，專利權人僅能擁有專利法所賦予的權利，且其加諸於被授權人的購買條件限制僅限於該專利之功能及使用目的。而超越該專利功能及使用目的的過分限制，則可能導致專利權濫用。而在開放 WTO 框架下，國際貿易的頻繁也使得權利耗盡衍生出了在散佈等方面的相關討論，平行輸入/輸出的議題亦隨著跨國交易的興盛而隨之重要。

故此篇論文的研究目的不僅僅探討權利耗盡理論及其相關議題，更旨在藉由廣達案的啟發，提供台灣的 IT 產業一有效的專利授權策略，並提供不論專利權人或被授權人於制定授權契約時，能有一更具有策略性的思考方向。

**【中文關鍵字】：**權利耗盡、第一次銷售理論、限制性銷售、銷售後限制、專利權濫用、平行輸入、散佈、廣達、專利授權策略、契約法。

## Abstract

The Supreme Court's current decision in *Quanta Computer, Inc. v. LG Electronics, Inc.* brings the exhaustion doctrine also known as first sale doctrine up to a new phase. This case is believed significantly overcome quite a lot of past precedents and will effectively influent industry business operations in the future. The core goal of intellectual property right aims to find a balance between protecting the incentives to create and innovate, and providing the benefits to public interests. Exhaustion doctrine has been long standing as part of patent law to prevent patentees' over control. The interpretation made by Supreme Court regarding the first sale doctrine does vibrate the conditional sale strategies long believed by patentees. Now the Supreme Court brings the issue from the phase of patent law down to the contract law level. Subsequently, the litigations of antitrust and fair trade are therefore involved while patentees are tempting to make an "end-run" control over the downstream purchasers.

Though applying post-sale restriction provides a way out for intellectual property owner from triggering the exhaustion, however, the scope of the patent claims determine how far the privilege is given to the inventors. A patent owner or licensor can only enforce its patent right while the right is truly granted by the patent law. Subsequently, the restriction set forth to limit the licensees or purchasers must be accordance with the function or feature of the patent claims for. On the contrary, the patentee intends to restrict its purchasers by holding the exclusive right which beyond the scope of the patent granted may result to patent misuse, for instance, the resale price maintenance, prohibition of manufacturing the competing products, the conditional license which incorporates another license, and overwhelming royalties on the price of the whole product instead of the actual usage

of the patented article.

Under WTO, the concern of intellectual property protection has become more critical in the perspective of international trade, different issues and disputes regarding exhaustion have also been generated. Not alike the traditional domestic exhaustion, the discussion regarding distribution has therefore been derived. Moreover, the issues related to parallel import/export are generated in accordance with the frequent cross-border transaction.

The purpose of this research does not merely lead us look into the doctrine and restriction patentees used to impose for avoiding exhaustion. But I intend to further illustrate a guideline based on the inspiration from Quanta and the explanation of the Courts. This guideline should provide both patentees and licensees an orientation while considering making a licensing agreement.

**【Key Words】** : Exhaustion doctrine, First sale doctrine, Post-sale restriction, Patent law, Quanta v. LGE, Mallinckrodt, Conditional sales, Licensing strategy, Parallel Trade, Contract law

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## Chapter 1 Introduction

### 1. Inspiration of the Research

The Supreme Court's current decision in *Quanta Computer, Inc. v. LG Electronics, Inc.* brings the exhaustion doctrine as known as first sale doctrine up to a new phase. This case is believed significantly overcome quite a lot of past precedents and will effectively influence industry business operations in the future. On the other hand, Post-sale restrictions have been commonly adopted by patentees on contracting and licensing especially in the field of computing technologies. The Courts have cautiously discussed about the conditional sales or restricted sales and tried to draw a scope of the limitations in order to prevent patentees from end-run monopoly. However, in the case of *Quanta v. LGE*, the Supreme Court reversed the Federal Circuit's decision and looked back into the initial purpose of patent right and first sale doctrine solely. The Supreme Court brought its opinions standing from the jurisprudence of patent law. However, the Court did not grant its ruling based on the perspective of patent exhaustion in stead of emphasize that LGE failed to make a powerful contract to restrict the sale made by Intel.

Although the discussion about patent exhaustion is not new to patent law, relative fewer Taiwanese scholars have looked in depth of the jurisprudence of this doctrine and its impacts. Even less people are studying about the decisions and effects of *Quanta* while the global economy and environment are critical to Taiwan's IT industry. Nonetheless, as a country with its economy highly depends on the OEM and ODM of IT industry, we seem under value the influence of the issues related to post-sale restriction may cause to our industry. *Quanta's* case should not only remind us to think about the legislations but also inspire us to reconsider about the strategies while making licensing management. This research is going to grant an insight into exhaustion doctrine and post-sale restrictions. There are, besides,

some suggestions to the management and practical strategies will be provided for companies no matter intending to grant their patent license or obtain the rights from patentees.

The core goal of intellectual property right aims to find a balance between protecting the incentives to create and innovate, and providing the benefits to public interests<sup>1</sup>. Exhaustion doctrine has been longstanding as part of patent law to prevent patentees' over control. On the other hand, post sale restrictions have been supported by Courts in some past cases such as *Mallinckrodt, Inc v. Medipart, Inc.*<sup>2</sup> and *General Talking Pictures Corp. v. Western Electric Co.*<sup>3</sup> which allows patentees to contract around the exhaustion. The Supreme Court in Quanta's case is controversial about whether it has overruled the decisions made in *Mallinckrodt*. It has raised the discussions regarding whether the post sale restrictions merely imposed on the transfer of patented products or products embodying patent inventions will no longer accepted. Though the Supreme Court in fact did not mention about *Mallinckrodt* in its ruling, rather granted its decisions based on the contractual limitations instead of exhaustion doctrine. The interpretation made by Supreme Court regarding the first sale doctrine does vibrate the conditional sale strategies long believed by patentees. Now the Supreme Court brings the issue from the phase of patent law down to the contract law level. Subsequently, the litigations of antitrust and patent misuse are therefore involved while patentees are tempting to make an "end-run" control over the downstream purchasers.

U.S. has been playing a key role in global economy with its strong consuming power that is considered as the first priority market for most of industries up to date. Most transactions would therefore take U.S. regulations into account at the first place. Besides, doctrine of exhaustion is expressly stated in U.S. intellectual

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<sup>1</sup> Saami Zain, *Quanta Leap or Much Ado About Nothing? An Analysis on The Effect of Quanta VS. LG Electronics*, 20 Alb. L.J. Sci.& Tech. 67,69 at 2 (2010).

<sup>2</sup> *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700 ( Fed. Cir. 1992)

<sup>3</sup> 305 U.S. 124 (1938)

property law. More than that, Federal Circuit in U.S. have been long recognized as patentee-friendly that results to patentees seek to raise litigation in U.S.. Hence, litigations referred hereinafter would be mainly cases in U.S.. Nonetheless, in order to provide the management and licensing strategies enforceable to global market, the major economic entities around the world includes European Union, Japan, and China laws will also be inducted for providing comparative perspectives. This research primarily focuses on the jurisprudence of the exhaustion doctrine under the U.S. patent law. Following to the perspective of international exhaustion, further discussions regarding the related legislation and comparison laws will be roughly mentioned.

## **2. Description of the Chapters**

The research method adopted in this research will be continually introduced and explained for the reasons of choosing these methods and strategies. In Chapter 2, the jurisprudence of exhaustion doctrine will first be stated and explained. The litigations related to post-sale restrictions and interpretation of the previous Courts will be stated in the following. Additionally, the major types of post-sale restrictions have commonly adopted on licensing and purchasing agreements will meanwhile be illustrated. Followed by the literature reviews discussing about the enforcement and limits of patent exhaustion will then point out the key elements of the doctrine and its limits. The derived issues regarding international doctrine will also be discussed within this chapter.

The decision of *Quanta v. LGE* will be studied individually in Chapter 3. This study will bring an insight into the decisions made by each Court and further analyze the factors considered. Following I will discuss about the impacts on patent law post Quanta and the issues arisen since then. And Chapter 4 will discuss about the further development of international exhaustion doctrine in U.S. and its

influences on global market. The major economic entities of world will also be introduced about their legal status of exhaustion theories and how it has been applied in each region.

As mentioned in the earlier section, this research does not only provide a detail understanding about exhaustion doctrine and its effect on business world, but also to suggest a practice instruction for patent licensing management and strategies applied on Taiwan's IT industry or even others. I will roughly overview the background and current circumstances of Taiwan IT industry in the beginning of Chapter 5. The present business environment in Taiwan, the current technology level, and business model running presently will also be taken place within this chapter to provide us a better vision about how this industry work and how good it has been managed up to day. Some discussions about how the current industries make their patenting and licensing decisions and agreement will also be stated. According to the current limitations in IT industry while licensing, I will therefore provide a guideline for licensing strategies based on the earlier studies in the previous chapters. Here we can develop effective and enforceable legal and management suggestions on licensing which may possibly benefits the entities in Taiwan's IT industry to achieve their ultimate goal.

### **3. Methodology of the Research**

This research is emphasizing on figuring out a clear concept of patent exhaustion which enables to consequently bring the patentees and licensees an instruction regarding their licensing strategies. Patentees and licensees are normally recognized as affiliates, however, in many cases, are found standing at opposite position in terms of business. Patentees grant the license to licensees and expect to get the consideration in return, on the other hand, the licensees expect to earn the profit from manufacturing, selling, or using the patented articles in order to cover

the royalties paid to the patentees. Patentees would expect to receive as much as royalties or consideration through license. Licensees, in contrary, would expect to pay the patentee as little as possible. This is also the reason why exhaustion doctrine nowadays becomes more important.

### 3.1. Research Philosophy and Approach

In terms of law research, Interpretivism is most common which can be often seen in the rulings of the Courts. The grounds of the legal proposition are not about the legal requirements in any jurisdiction but the question of what makes the content of the law as what it is. On the other word, to find out the concept of why the law is interpreted in certain form that we needs to first explain the factors and to understand the virtue of the law<sup>4</sup>. Although this research is not aimed to generate a new legal proposition, we are still required to review and analyze the past rulings granted by Court in order to understand the concept of the Patent exhaustion. Therefore, Interpretivism will still be accepted to orientate us to see the whole phases of the proposition and to understand the purpose of the legislation.

Two standard approaches of research, deductive and inductive, have been normally accepted respectively to fulfill research. The purpose of this research is ultimately to generate a framework of strategic licensing for Patentees and Licensees by primarily reviewing the existing Court cases and literatures. Furthermore, this framework is expected to be able to apply on general circumstances and meanwhile to meet the proposition of patent law. Hence, deductive approach is taken into account which was defined as “[R]esearch approach involving the testing of a theoretical proposition by the employment of a

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<sup>4</sup> Stavropoulos, Nicos, & Interpretivist Theories of Law, *The Stanford Encyclopedia of Philosophy (Fall 2008 Edition)*, Edward N. Zalta (ed.), <http://plato.stanford.edu/archives/fall2008/entries/law-interpretivist/>

*research strategy specifically designed for the purpose of its testing.*”<sup>5</sup>

Deductive research tends using data to test theory in accordance with the path it implements the whole research cycle<sup>6</sup>. I will therefore first collect the past Court rulings regarding Patent exhaustion and Post-sale Restrictions to present a clear jurisprudential concept. And the case of *Quanta v. LGE* will be discussed after to further point out its impact on U.S. Patent Law and the entities of the transactions.

### **3.2. Research Strategy**

Legal research is somehow relative subjective due to regulation proposition and concept can be varied depends on the culture and politics of respectively countries. As mentioned in the previous sections, this research will emphasize on the concept of exhaustion doctrine and its philosophy related to patent law. No Judges can give their decisions or verdicts interfering with the other existing laws, therefore Interpretivist turns out becoming a significantly important method for Judges to analyze the factors and to grant their opinions. When matters are involved with law or regulations, most of time we can only consider the factors case by case and issues of Patent exhaustion have no exception. Therefore, Qualitative research will be employed here in order to implement this research. Qualitative research is based on a phenomenological paradigm which holds that reality is socially constructed through individual or collective definition of the situation<sup>7</sup>. The following chapter will first start from explaining the concept of the legislations regarding to Patent exhaustion and Post-sale Restrictions through some most recognized and significant litigations thereof. Accompanied with some discussions

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<sup>5</sup> Saunders et al, *Research Methods for Business Students*, 3<sup>rd</sup> Edition, Harlow: Financial Times :P Prentice Hall, at 476 (2000).

<sup>6</sup> Eisenhard, Kathleen M., & Graebner, Melissa E., *Theory Building From Cases: Opportunities and Challenges*, 50 *Academy of Management Journal* 1, 25-32 (2007).

<sup>7</sup> Taylor, S.J., & Bogdan, R., *Qualitative Research Methods: The Search for Meanings*, 2<sup>nd</sup> Edition, New York: John Wiley (1984)



of scholars will then give an overview of this research and insight of the philosophy and proposition of exhaustion doctrine.

For the purpose to provide an instruction for patent licensing and management strategies suit to Taiwan's IT Industry, to understand the present challenges the industry is facing to will be first taken into account. Quanta as one key player of Taiwan's IT industry, winning the suit in U.S. Supreme Court against to LGE have been seen as an achievement in the development of Taiwan's IT industry. Yet, Quanta was the only defendants in this litigation brought the suit to Supreme Court, rest of defendants either had chosen to settle or pay the penalty before or after Federal Circuit. Therefore, the case study of *Quanta v. LGE* will be hold as a research strategy to point out how licensing strategies is important to business. Additionally, case studies can be used to accomplish various aims such as to provide description, test theory, or generate theory.<sup>8</sup>

Primarily, the Quanta case will be inducted to explain why this case has brought so much discussion and arguments. The effects to Patent Law and to the other legislations extended from exhaustion doctrine based on Quanta's decision will be then taken into account for us to get the idea about what Quanta might or may impact the nowadays and future global market. Subsequently, I will have a study about the background of IT industry in Taiwan and to illustrate the challenges and limitations of the present licensing strategies. Based on the previous studies, we will accordingly introduce a practical guideline or framework for Patent Licensing in order to provide patentee a better protection from triggering the exhaustion and grant licensee an understanding about how to avoid the end-run monopoly intended by patentees.

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<sup>8</sup> Eisenhard, Kathleen M., *Building Theories from Case Study Research*, 14 *Academy of Management Rev.* 4, at 532-550 (1989).

#### **4. Research Limitation**

The disputes between exhaustion doctrine and post-sale restrictions are seen as a cliché which has tangled with the issues of jurisdiction, anti-competition, parallel trade, and contract law due to the complicated global economy. More importantly, behind these, certain international associations have been supporting free tariff to achieve the fare trade, eliminating the discrimination to improve the wealth fare, and enforcing the treaties to establish a harmonized agreement beyond individual laws in order to bind the member countries. However, there are always conflictions occurred for the considerations about politics and economic that results to no solutions can be made to fit all.

The arguments related to fare-trade, anti-competition, and contract law will only be roughly mentioned in the later chapter. Nevertheless, each of these topics may deserve a full scale of research and study to reach the core. As mentioned earlier, a guideline enable Taiwan's IT industry to follow when considering their patent licensing and management strategies is my ultimate purpose in this research. With the very limited scope and the specific goal, the theory discussed within this thesis will be concentrated on exhaustion doctrine and post-sale restrictions hereinafter.

Exhaustion doctrine although has been developed to many different phases of theories in accordance with diverse jurisprudence of each country. Moreover, it has been interpreted differently in common law and civic law. Within this research, U.S. law is chosen as the main jurisprudence due to the tight trading relationship between Taiwan' IT industry and U.S. market. Most importantly, some Taiwanese companies have lately been involving in the law suit in U.S. that U.S. law does play a more significant role. Therefore, exhaustion doctrine and rules of post-sale

restrictions practiced by EU, Japan, and China law are only mentioned roughly and taken place as a comparison to bring a more comprehensive idea to the readers.



## Chapter 2 The Development of Exhaustion Doctrine and Post-Sale Restriction

### 1. Principle of Exhaustion Doctrine

Intellectual property rights grant the inventors or authors the right to prevent others from duplicating, copying, producing, selling, marketing, and any other means infringing the IP owners' rights. In the other words, IP rights enable the IP owners to monopoly their inventions and creations legally prior sold. In perspective of the ultimate purpose of IP rights law, which aims to encourage the incentive to create innovation in order to benefit the public interest. Therefore, exhaustion doctrine is evoked to balance the dominating power of IP proprietors.

The concept of exhaustion doctrine is accompanied by Chattel Law. As soon as the IP right holders sell or release the products into the market, their rights to control the articles would have been terminated. This rule has formed to the basic concept of exhaustion doctrine or as known as first sale doctrine. In general, exhaustion doctrine is existed in IP Laws of every nation though the interpretation may be slightly different due to the diversities of the jurisprudence. Two major discussions regarding exhaustion doctrine are the scope of the right on use and the distribution. In terms of the right of use, post-sale restrictions are often adopted to extend the control and avoid exhaustion. U.S. emphasizes exhaustion doctrine on the principle of "first sale". Once the goods are placed in the market or past hand to the purchasers, the IP owners then are forfeited the right to control the goods and the purchasers obtain the right to resell, use, or operate the goods. EU law then tends to more focus on the activity to put the goods in to the market circulation. As long as the goods are lawfully sold or launched inside anywhere of the member states, the monopoly of IP right owner

would be exhausted.<sup>9</sup>

The issues of distribution occurred by the frequent trading activities then raise the controversial opinions regarding parallel trade and the jurisdiction. Exhaustion doctrine is therefore developed and divided into three phases of theories:<sup>10</sup>

- **National exhaustion:** The fundamental theory of exhaustion and is also recognized as domestic exhaustion. As long as the goods are sold within the national territorial market with the consent of the IP right holders, IP right owners subsequently lose their control power within the said territory. Yet, the IP right holders can still block the unauthorized products parallel imported from outside of the territory.
- **Regional exhaustion:** This theory is normally adopted by a region consisted of certain nations for instance EU. Once the goods are put into the market within the region, the IP right holders can no longer claim the monopoly of the goods. However, the unpermitted goods parallel imported from outside the region are still prohibited.
- **International exhaustion:** This theory supports an absolute termination as long as the goods are sold into anywhere of the global market under the permission of the IP right owners. IP right owners cannot prevent any other persons from selling or operating the goods regardless where they are.

U.S. emphasizes exhaustion doctrine on the principle of “first sale”. Once the

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<sup>9</sup> Tommaso M. Valletti & Stefan Szymanski, *Parallel Trade, International Exhaustion and Intellectual Property Rights: A Welfare Analysis*, LIV J. Indus. Econ. 499, at 500 (2006).

<sup>10</sup> Marco M. Slotboom, *The Exhaustion of Intellectual Property Rights – Different Approaches in EC and WTO Law*, J. World Intell. Prop. 421, at 422-423.

goods are placed in the market or past hand to the purchasers, the IP owners then are forfeited the right to control the goods and the purchasers obtain the right to resell, use, or operate the goods. EU law then tends to more focus on the activity to put the goods in to the market circulation. As long as the goods are lawfully sold or launched inside anywhere of the member states, the monopoly of IP right owner would be exhausted.<sup>11</sup>

Although the philosophy of exhaustion doctrine seems simple and plain, it has turned to more critical when the cross border transaction is involved. The thriven international affiliates and associations which promoting an open market have simultaneously raised more disputes regarding the exhaustion. Therefore, the Article 6 of TRIPS explicitly states that “[F]or the purpose of dispute settlement under this Agreement, subject to the provisions of Article 3 and 4 nothing in this Agreement shall be used to address the issue of the exhaustion of intellectual property rights.”<sup>12</sup>

## **2. Fundamental to U.S. First Sale Doctrine**

In order to understand exhaustion doctrine in-depth, this research will be focused on the U.S. case law hereinafter. The U.S. doctrine of exhaustion was initially defined by Court in 1852 prior to state it in Intellectual Property Law and aims to prevent the patent, copyright or trademark owner from over controlling the disposition of an article after it has been sold by or under the authority of the IP owner.<sup>13</sup> Here in this thesis, exhaustion doctrine under patent law is what the research intends to discuss about. After the discussion through a series of case law, the exhaustion doctrine has been officially stated in Patent Act in 2011 as:

**“[T]he sale or other disposition of a useful end product produced by a**

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<sup>11</sup> *Supra* note 9, at 500.

<sup>12</sup> See Agreement On Trade-Related Aspects of Intellectual Property Rights (TRIPS).

<sup>13</sup> James B. Kobak, Jr., *Exhaustion of Intellectual Property Right and International Trade*, Hughes Hubbard & Reed LLP & Fordham University School of Law, at 2.

**patented method, by a person entitled to assert a defense under this section with respect to that useful end result shall exhaust the patent owner's rights under the patent to the extent such rights would have been exhausted had such sale or other disposition been made by the patent owner.”<sup>14</sup>**

The theory behind this doctrine refers to the interpretations made by the past precedents. In this chapter, some of the significant courts cases in the past will be conducted and studied for leading us an insight into the interpretation of judges and the principle of the law. Furthermore, the post-sale restriction is often recognized as the key strategy by the patentee. I will also discuss through subsequently in order to direct an effective guideline of patent licensing strategies. In light of the following study, we can be taught how post-sale restrictions have been applied in the past and also categorize the common restrictions up to date.

The exhaustion doctrine as named as first sale doctrine was first applied in the decisions made by Supreme Court in *Bloomer v. McQuewan* in 1852<sup>15</sup>. Same to what it was written, this doctrine emphasized on the action of the first time sale taking place which would terminate the patent owner's monopoly. The doctrine is thereafter standing in U.S. Patent jurisprudence as a principle to balance the insentive to innovate, and the limitation of the patentee to control the downstream purchasers with their exceeding power.

In the case of *Bloomer v. McQuewan*, McQuewan was granted a patent license from Barnet for Woodworth's planning machine which was owned by Bloomer. Barnet was the assigned for a limited right to construct and use the machine during the residue of the patent right terms for fourteen years. Barnet later assigned all his "right, title, interest, and claim of the within patent for Woodworth's planning

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<sup>14</sup> 35 U.S.C. §273 (Defense to infringement based on earlier inventor)

<sup>15</sup> See *Bloomer v. McQuewan*, 55 U.S. 539, at 549 (1852)

machine” to McQuewan. The disputes occurred due to the act of Congress to extend the patent for 7 years from 27<sup>th</sup> of December, 1849. The question in this case, therefore, is whether the right McQuewan was authorized can also be extended along with the 7 years extension granted to the patentee.

This extension is congressionally passed which gives the patentee extension right for monopolizing its patent for a longer time. However it comes with the argument about whether this act also legally grants the licensee an equally right for using the patented machine during the extension. The Justices held that the act of Congress does ensure the extended right of patent but never expressly interfere the general law. More importantly, the Congress shall not happen to have the intension to design a law to injure the existing right and interests of public and individual.

In order to better solve the disputes in this case, the Court therefore distinguishes the right to make and vend the machine, and the right to use it. The Court explains the purchaser buys the franchise for exclusively manufacturing and vending the machine which obtains continually profit or interest from selling the patented machine. This right of franchise is limited under certain period that patent is valid for and the value of this right is based on the duration of this purchase and privilege. On the other word, the privilege of the exclusive right would increase the value of this transaction itself.

On the contrary, the purchasers buy the machine for the purpose to use it that the value is embodied with the machine itself in the ordinary pursuit of life. The Court stated that “[w]hen the machine passes to the hands of the purchaser, it is no longer within the limits of the monopoly. It passes outside of it, and is no longer under the protection of the act of Congress.”<sup>16</sup> This concept since then has been

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<sup>16</sup> *Id.* at 549



cited as the fundamental principle to exhaustion doctrine. While the patented subjects are purchased and passed hand to become individual properties that simultaneously terminate the monopoly, and the value of this purchase is attached to the usage of this subject or the implement. The Court consequently claims that the machines after purchased would become private property protected by the laws of the State instead of the Federal Laws.<sup>17</sup> The purchasers pay the price for using this machine as long as it is capable to use and found to be profitable but not only limited for certain duration conditioned by the patentees under the exclusive right.

Besides, in the case of *Bloomer v. McQuewan*, there's no set forth limitation about the duration of time to use the machine while purchasing and paying taken place for the right to construct and use this article.<sup>18</sup> The inventor obtains the fair consideration for the duration of exclusive privilege granted to the franchiser, and the franchiser receives his compensation from selling this patented article to the buyers who purchase for the purpose to use.<sup>19</sup> After the distributors vend this machine to McQuewan, the only value consists in their use. The Supreme Court held that there's no any reason to convince any body to believe the Congress would authorize any inventor to recall the right has been granted.<sup>20</sup>

The Supreme Court again affirmed similar opinions in *Mitchell v. Hawley* (1872)<sup>21</sup> by claiming that the patentees who have made one or more articles patented and later vend such right to others for authorizing them to exclusively make, vend, and use these articles. While the patentees grant assignee the parted

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<sup>17</sup> *Id.* at 550 (The implement or machine becomes his private, individual property, not protected by the laws of the United States, but by the laws of the States in which it is situated.)

<sup>18</sup> *Id.* at 550 (the value of the implement or machine in the hands of the purchaser for use, does not in any degree depends on the time for which the exclusive privileges is granted to the patentee; . . .)

<sup>19</sup> *Id.* at 553 (The right to construct and use these planning machines, had been purchased and paid for without any limitation as to the time for which they were to be used. They were the property of the respondents. Their only value consists in their use.)

<sup>20</sup> *Id.* at 553-554 (that Congress may, from time to time, as often as they think proper, authorize an inventor to recall rights which he had granted to others; or reinvent in [sic] him rights of property which he had before conveyed for a valuable and fair consideration.)

<sup>21</sup> *See Mitchell v. Hawley*, 83 U.S. 544, at 547 (1872)

privilege rights, the patentee himself has **extend the monopoly** and obtains the royalty in return from each parted exclusive privilege authorized. Although the patent proprietor make and vend the patented article himself instead of authorizing such right to any others, he still receive the consideration from purchasers for the purpose to practice or use this article. Hence, the Supreme Court clearly pointed out and affirmed the idea of separating the patent right in different phases. The Court believes that the patentee must have understood the extent of his exclusive right which is limited and segmented. That has simultaneously exhausted the interest of control at the time regardless when the patented article so sold, delivered, or authorized to be constructed and operated. Therefore, the owner of the patented articles regardless he constructs or buys it, as long as he also purchases the right to use and operate this article during the lifetime of the patent, may continue to use it until the time is terminated.<sup>22</sup>

In *Mitchell v. Hawley*, the Court also cited the distinction first made in *Bloomer v. McQuewan* and held that purchaser for implementing or operating the patented articles for the purpose of using them can only obtain the benefits from using. The Court has also stated in *Mitchell* that [w]hen it rightfully passes from the patentee to the purchaser, ceases to be within the limits of the monopoly.<sup>23</sup>

The exhaustion doctrine as known as first sale doctrine refers to exhaust the patentee's monopoly after the patented articles are passed hand lawfully without any set forth conditions to the purchasers. This solid rule has therefore been established to limit the patentees' exclusive privilege. On the other hands, the Court has been emphasizing the unconditional sales would trigger the exhaustion to

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<sup>22</sup> *Id.* at 547-548 (...but when they have made one or more of the things patented, and have vended the same to others to be used, they have parted to that extent with their exclusive right, as they are never entitled to but one royalty for a patented machine, ...);(Patented implements or machines sold to be used in the ordinary pursuits of life become the private individual property of the purchaser,...)

<sup>23</sup> *Id.* at 548

terminate the patentee's consequent control over the patented article.<sup>24</sup> The development of trading structures have subsequently carried out diverse disputes and further generated the set forth conditions. Nonetheless, exhaustion doctrine of U.S. has also been shaped and developed through these disputes incurred from these conditional transactions. The cases arguing about post-sale restrictions and its relative matters are studies hereinafter.

### 3. Post-sale Restriction

Like mentioned in the earlier section, the complicated trading structures have generated various forms of business models intending to waive the exhaustion. The patentees tend to impose barriers and conditions on the right granted in ahead which is recognized as post-sale restriction. Such restrictions would limit the right of licensees and assignees and further extend the patentees' control over the passed-hand patented articles.

#### 3.1 Restriction on Territory

According to *Mitchell v. Hawley*, patent right is recognized to consist with parted rights and to contain different extent depends on the contractual conditions. The very early common limitation is to restrict the licensees or purchasers to make, vend and use the patented articles within geographic territory. *Adams v. Burke*<sup>25</sup> raised the question of whether an assignment of a patented invention with a limit on specific district grants the assignee the right to sell the articles to be used outside of the limited territory<sup>26</sup>. The assignee was authorized the exclusive right to make, use,

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<sup>24</sup> *Id.* at 547 (when he has himself constructed a machine and sold it without any conditions, or authorized another to construct, sell, and deliver it, or to construct and use and operate it, without any conditions,...,the rule is well established that the patentee must be understood to have parted to the extend with all his exclusive right,...)

<sup>25</sup> 84 U.S. 453 at 457 (1873)

<sup>26</sup> *See Adams v. Burke.*, 84 U.S. 453, at 457 (1873) (The question raised in this case is whether an assignment of a patented invention for a limited district, . . . , confers upon the assignee the right to sell the patented article to be used outside of such limited district.)

and vend the patented coffee-lid within the restricted territory described under the contract; but was not granted the right to make, use, and vend the same outside of the limits that constructed a conditional license. However, the assignee can easily defeat the contractual limitation after the patented articles are lawfully made and sold for example by authorizing the other parties to use them outside of the district. And this subsequent authorization or transaction might diminish the patentee's remaining in-hand monopoly value.<sup>27</sup>

Furthermore, after the assignees make the patented article and later sell or authorize to the other parties to enable them to further vend or use this article outside the limited territory. It emerges the question of whether the assignees can lawfully grant such rights to the other parties that they have never been given. On the other hand, it was also considered by the Justice about whether the limits would be solid enforced to the parties who purchased from the assigned manufacturers or vendees and have chance to bring the patented articles to outside of the district. As the example made by the Justices of *Adams v. Burke* concerning whether a consumer would be recognized to infringe the patent by wearing a clothes with a patented button which is geographical restricted.

Nonetheless, in *Adams v. Bruke.*, the Supreme Court still made the decision to reverse. Judge Bradley although acknowledged the opinion of the Circuit Court whom referring *Bloomer v. McQuewan*. He, however, commented this opinion is based on the timeframe of the patent residue but not geography restrictions as in this case.<sup>28</sup> Also, the protection for the patentee by limiting territory will be worthless if

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<sup>27</sup> *Id.* at 457-459 (As the assigned right to make the lids was a restricted right, limited to the territory; so the assigned right to use them was a restricted right limited in the same manner....For if the assignees, after making any number of lids within the limited district, could use them or authorize others to use them outside of the district, the balance of the monopoly remaining in hands of the patentees might be rendered of little value.)

<sup>28</sup> *Id.* at 460 (He was speaking of time, not territory; of the right to use a machine after the original patent had expired and a renewal had been granted, not of using it in a place outside of the grant.)

obeying the doctrine to exhaust patentee's right after passing this article to assignee within the limited district. Judge Bradley furthermore affirmed that the assignee should not grant any right to the other parties over the patented articles while they have never be given such right to.<sup>29</sup> In the other words, the assignee should have been aware of the right they purchased from the patentee only contains the limited value that both parties have agreed from the beginning. The geographic restrictions are since after affirmed by the Supreme Court.

Though the Supreme Court did not made a clear comment about whether it is lawful for the purchaser to use the patented articles what he purchased from outside of the contractual territory. In *Hobbie v. Jennison*<sup>30</sup>, the Supreme Court has affirmed the licensees granted restricted geographic right are not liable for vending to the customers who later move the articles outside the limited districts and use them out there. Supreme Court disagreed with the patentee by referring the earlier *Adams v. Burke* that in fact made the proposition holding the assignee is only given the right and is allowed to sublicense based on what the patent proprietors grant. Instead, *Hobbie v. Jennison* discusses about whether the purchaser who intends to use a patented article outside of the restricted territory may infringe the patentee's right.<sup>31</sup> The Supreme Court found the transaction were taken place lawfully within the restricted territory, although the goods were end up shipped to outside of the territory and were used there by the real buyer. The Court also considered the geography restricted right has provided the patentees the right to protect themselves and bind every licensee or assignee.<sup>32</sup> While the patentees grant the exclusive right

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<sup>29</sup> *Id.* at 460 (it was limited in locality, both as to manufacture and use, and that he could not convey to another what he did not have himself.)

<sup>30</sup> *See Hobbie v. Jennison*, 149 U.S. 355 (1893)

<sup>31</sup> *Id.* at 363 (But we are of opinion that the case of *Adams v. Burke* cannot be so limited; that the sale was a complete one at Bay City; and that neither the actual use of the pipe in Connecticut, nor a knowledge on the part of the defendant that they were intended to be used there, can make him liable.)

<sup>32</sup> *Id.* at 363 (It is easy for a patentee to protect himself and his assignees when he conveys exclusive rights under the patent for particular territory. He can take care to bind every licensee or assignee, if he gives him the right to sell articles made under the patent, by imposing conditions

to anyone and permitting them to sell patented articles which also prevent any licensee or assignee from being interfered with. The questioned articles here in this case were sold lawfully under the condition, and the purchaser only bought for the purpose of use and necessarily perished in the using.<sup>33</sup> Therefore, the Supreme Court upheld that this transaction was made lawfully and has effected to the exhaustion.

### 3.2 Restriction on Price

A condition set forth to restrict the sales price is also an ordinary restriction but meanwhile a very tricky one. In most transactions, if not all, the price restriction is prohibited and lead to a violation of the common law and antitrust law. However, in terms of the disputes arisen in patent law referring to violate exhaustion doctrine, the opinions given by the Supreme Court in *United States v. General Electric Co.* are carried out here to bring us a clearer picture<sup>34</sup>.

General Electric Co. (GE) owned a patented lamp and assigned certain layers of distributors to sell the lamps with fixed price decided by GE. The distributors were divided into B agent and A agent. The business model of GE in this case was also divided to three classes.<sup>35</sup> At the first class, GE had its own employees so called sales team to deal directly with large consumers. The negotiation would be done directly by GE's sales team and products would be delivered to consumers directly from GE's factories and warehouse. At the second class, the large consumer might also deal with the agents which are identified as B agent and had contract

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which will prevent any other licensee or assignee from being interfered with.)

<sup>33</sup> *Id.* at 363 (because he had a right, under the patent, to make, use, and vend the patented article in the state of Michigan, and the article was lawfully made and sold there....but were merely used there, and necessarily perished in the using.)

<sup>34</sup> *See* *United States v. General Electric Co.*, 272 U.S. 476 (1926)

<sup>35</sup> *Id.* at 481 (The plan of distribution by the Electronic Company divided the trade into three classes.)

with GE. The deliveries were made from the stock in agents' custody. Interestingly, B agent did not own those goods though the goods were stock in their warehouse. They were merely in charged of taking care of those goods and had to report to GE every certain period for the sales and stock volume. And the unsold stock must be returned to GE after the for-sale period. The agent would, on the other hand, earn the commission from selling those goods which also covered the expenses of delivering the goods to consumers' place. The third class of sales consists of authorized A agent which bought those goods from either GE's sales tram or the B agents. The A agent would therefore sell the goods to normal individual consumers.<sup>36</sup>

In terms of the custody of the B agent, the period of time to sell, to stock, and to return the goods was determined by GE. The company, GE, owns the right of the products until they were sold to the consumers. No matter under which class the products were sold to consumers, the prices were specified by the company. The United States as the appellant argued the transaction between GE and its agents have triggered the patent exhaustion that GE shall not control the selling price any more. The Supreme Court, therefore, had to deconstruct the distribution structure in order to figure out the real ownership of the patented subjects.

The Court also emphasized on the spirit of patent right that is to monopoly the rights derived from the patent granted. The patentee owns the right to make, to sell, to use and to dispose the patent and the patented articles which allow him to exclusively or non-exclusively license such rights to its licensees.<sup>37</sup> Patentees seek for money reward by setting conditions to secure his status of monopoly was seen normal and reasonable by the Court. On the other hand, the patentee may also earn

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<sup>36</sup> *Id.* at 481-483.

<sup>37</sup> *Id.* at 485 (But under the patent law the patentee is given by statute a monopoly of making..., [a]nd the comprehensiveness of his control of the business in the sale of the patented article is not necessarily an indication of illegality of his method.)

the profit in return by granting the right of patent to licensee, and more powerful of the right granted would bring more profit to patentee.<sup>38</sup>

In terms of this case, though there were contracts between GE and its agents for authorizing them to sell the product, no any given right were entitled in the patent.<sup>39</sup> GE authorized those agents to vend the products but only gained the profit from the price sold instead of from the license on the patent. Although the products are patented, the Justice distinguished between the right of selling the patented products and the right of merely selling products would represent different levels of profit return to the patentee.

Moreover, the agents were not entitled to own the goods although the goods are in their custody, therefore no such pass-hand transaction took place as in *Adam v. Bruke*. In light of the contract, no any evidence showed the agreements were made to give the licensee the right of patent, in turns no patent exhaustion issue should be concerned here<sup>40</sup>. Based on the domination of the patent right and under the circumstances that GE did not grant the right away to others, the fixed selling price determined by GE simply referred to its power of monopoly over its patent. Every patentee should have the right given by patent law to decide the value of its patented inventions including to secure his proper reward.<sup>41</sup> The Supreme Court therefore implicitly held GE's price-fixing business model does not violate the exhaustion doctrine by referring *Adams v. Burks*.<sup>42</sup>

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<sup>38</sup> *Id.* at 490 (One of the valuable elements of the exclusive right of a patentee is to acquire profit by the price at which the article is sold. The higher the price, the greater the profit, unless it is prohibitory.)

<sup>39</sup> *Id.* at 489 (is a license giving the licensee no title in the patent and no right to sue at law in his own name for an infringement.)

<sup>40</sup> *Id.* at 484-486.

<sup>41</sup> *Id.* at 493 (price fixing is usually the essence of that which secure proper reward to the patentees.)

<sup>42</sup> *Id.* at 493-494 (already referred to that a patentee may not attach to the article made by him or with his consent a condition running with the article in the hands of purchasers limiting the price at which one who becomes its owner for full consideration shall part with it.)



In the later case, *United States v. Univis Lens Co. , Inc.*,<sup>43</sup> which was also involved in price restriction and moreover interfered the Sherman Act. The Supreme Court intended to explicitly distinguish the long-standing ambiguity between patent monopoly and antitrust. Univis Lens had a downstream distributor channel which seems similar to GE's but technically worked in different way. Univis Corporation was entitled the interest in the patents and trademarks which in fact owned by Univis Lens Company. The corporation then licensed Univis Lens Company to manufacture lens blanks and to sell to the indicated licensees appointed by the Corporation. The Lens Company, on the other hand, agreed to pay royalty of 50 cents a pair upon the sales to the Corporation.

Referring to the sixteen patents that Univis owns, that includes three irrelevant and five for methods of producing lenses blanks implemented by the Lens Company instead of the process or method employed by licensees for completing the lens blanks. The rest of eight patents relates to only the size, shape, composition and disposition of the pieces of glass of different refractive power in the blanks into which they are fused. Be more specific, the each lens blank can only be functional and wearable after completing the combination.

Despite the royalty the Lens Company paid to the Corporation, the Lens Company once finished the manufacturing then subsequently sold the lens blanks to licensed wholesaler for \$3.25 a pair, and to those finishing retailers for \$4 a pair. The finishing retailers would grind and polish the lens blanks then sold to final customer directly with a set price of \$16 a pair for white, and \$20 for tinted. The prices were decided by Univis Lens Co. On the other hand, the licensed wholesaler would also grind and polish the lens blanks into the final lenses and sold to licensed prescription retailers for a set price of \$7. The retailers would later resell the lenses

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<sup>43</sup> See *United States v. Univis Lens Co., Inc.*, 316 U.S. 241 (1942)

to final customer with the same price of \$16 and \$20.<sup>44</sup>

In the GE case which related to the goods that were in the custody of distributors only instead of being sold or patent licensed. Therefore, the Court did not consider the goods were *de facto* passed hand. Contrary to GE, Univis Lens case referred to the lens blanks that manufacturer has practiced the patents while producing and were purchased by the wholesaler and retailers with fixed price set by the Company. Nonetheless, the wholesaler and distributor subsequently sold the ground and polished lens to consumers with fixed prices decided by the Company. As mentioned earlier, the subsequent patents referring to the size, shape, composition, and others which are owned by Univis Company. A distributor or retailer without the licenses would have infringed Univis' patents by practicing the grind and polish. The license that the distributors and the prescription retailer were required to sign had bound the set forth price and patent rights together.<sup>45</sup> In the other words, the licensee would only be granted the right to franchise by accepting the clause of the retailing price decided by the Company under the license. The question arisen here is whether the Company can remaining its control power over the subsequent price making and sales after the original blanks have been sold.

The Court claims that regardless the sale of the blank is done by the patentee or his licensee, to the finishers, the only use of the lens blank is to enable the distributors to grind and polish it for use as a wearable lens. Though Univis argued about the novelty of the combination of shape, size, and arrangement, the Court has found no other function in the blanks besides of being ground and polished. The

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<sup>44</sup> *Id.* at 243-244; also see Yina Dong, *A Patent Exhaustion Exposition: Situating Quanta v. LGE in the Context of Supreme Court Jurisprudence*, Stan. Tech. Law Review 2, at 2-3 (2010)

<sup>45</sup> *Id.* at 244-245 (The retailers are licensed to purchase the blanks of the Lens Company and to sell them to their customers at prices prescribed by the Corporation licensor.) ([i]n return for which the prescription retailer agrees to sell finished lenses only to customers and only at prices prescribed by the Corporation.)

only novelty feature claimed by the patentee *id de facto* embodied in the lens.<sup>46</sup> Take a step further, regardless whoever sells the lens blank, the only purpose of the sale is to enable the later party to grind and polish is for the wearer. The Court therefore stated “[t]he authorized sale of an article which is capable of use only in practicing the patent is a relinquishment of the patent monopoly with respect to the article sold.”<sup>47</sup>

Following to the principle, the Court held the transaction between Univis and his distributor has consequently completed the transfer of ownership of the blank and has also permitted a license to practice the final stage of the combination. This action was protected under the patent law and had triggered the exhaustion.<sup>48</sup> Moreover, the Court emphasized that the patentee has received the full compensation and consideration of its patent reward through selling its patented articles. Hence the patentee shall no more control the resale price of patented articles which he has already sold.

Price restriction normally is not only involved with patent law but also Sherman Act and Antitrust Act that may only be roughly mentioned in the later chapter in order to provide a comprehensive understanding. However, it is not hard to find from the above two cases which results into two different verdicts, whether the patented articles are virtually transferred or passed hand through purchase is the key to determine the exhaustion. And price restriction on the subsequent sale is anyway unlawful while the monopoly on the patent has been broken.

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<sup>46</sup> *Id.* at 248 (each blanks, as appellees insist, embodies essential features of the patented device and is without utility until it is ground and polished as the finished lens of the patent.)

<sup>47</sup> *Id.* at 249

<sup>48</sup> *Id.* at 249 (Sale of a lens blank by the patentee or by his licensee is thus in itself both a complete transfer of ownership of the blank, which is within the protection of the patent law, and a license to practice the final stage of the patent procedure.)

### 3.3 Restriction on Use

An alternative post-sale restriction is to limit the right of licensees and purchasers to specify the function and purpose of use. This was also supported by the Supreme Court in *General Talking Pictures Corp. v. Western Electric Company, Inc.*<sup>49</sup>. General Talking Pictures purchased the patented amplifiers from a company called Transformer Company to apply on its equipments offering to theater for commercial use. However, Transformer Company was granted the right by Western Electric to make and sell the patented amplifiers only for radio amateur reception, radio experimental reception, and home broadcast reception within the scope of private use only. Transformer Company had aware of the equipments made by General Talking Pictures are for theater at the time the sales transaction was taken place. General Talking Pictures also had aware of Transformer Company only have limited right to sell for private use. Furthermore, Transformer Company had also attached a “license notice” on each amplifier to claim the restriction on use<sup>50</sup>. The intention to break the restriction seemed clear, but the controversy is whether the boundary of use set forth by Western Electric is enforceable.

General Talking Pictures questioned that the patentee should have terminated the monopoly after the device has been passed into the hands of purchaser after the consideration has been paid.<sup>51</sup> By emphasizing that the sale between the Transformer Company and General Talking Picture were actually beyond the scope of its authority and both parties have acknowledged this in advance. The Court pointed out the limited right granted to Transformer Company as mentioned earlier

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<sup>49</sup> See *General Talking Pictures Corporation v. Western Electric Company, Inc., et al.*, 304 U.S. 175, 58 S.Ct. 849 (1938).

<sup>50</sup> *Id.* at 179-180

<sup>51</sup> *Id.* at 180 (The owner of a patent cannot, by means of the patent, restrict the use made of a device manufactured under the patent after the device has passed into the hands of a purchaser in the ordinary channels of trade and full consideration paid therefore.)

in *Mitchell v. Hawley*, that the right granted to Transformer Company is merely a non-exclusive right to make and sell for private use. Transformer Company is not entitled to grant the license to any licensees for such rights that he *per se* has never owned.<sup>52</sup> Therefore, the disputes of whether the imposed notice enforceable is irrelevant under the phenomenon that both parties were aware of the infringement of the patent when the transaction was taken place.<sup>53</sup>

### 3.4 Restriction on Frequency of Use

The other lately case indicating another category of restriction is regarding to the frequency of use. In *Mallinckrodt, Inc v. Medipart, Inc.*<sup>54</sup>, the Federal Circuit reversed District Court's decision which favored in Medipart. Mallinckrodt sold hospital with its patented apparatus for diagnosis and treatment of pulmonary disease. This device was manufactured by Mallinckrodt itself and vended to hospitals as unitary kit consists of a nebulizer, a manifold, a filter, tubing, a mouth piece, and a nose clip. The device fit into a lead-shielded container provided by Mallinckrodt to minimize exposure and for safe disposal after use. Each device was marked with the patent number, and bore the trademarks "Mallinckrodt" and "UltraVent", and most importantly, the inscription "Single Use Only". Moreover, each package that contained a device was also stated "For Single Patient Use Only" and along with instruction of disposal procedure on the package.<sup>55</sup>

Medipart Inc. collected the used manifold and nebulizer from hospitals and shipped them to Radiation Sterilizers Inc. for disinfection. Medipart subsequently

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<sup>52</sup> *Id.* at 181 (The Transformer Company could not convey to petitioner what both knew it was not authorized to sell.)

<sup>53</sup> *Id.* at 182 (As petitioner at the time it bought the amplifiers knew that the sales constituted infringement of the patents embodied in them, petitioner's second questions, as to effect of the license notice, need not to be considered.)

<sup>54</sup> *Mallinckrodt, Inc. v. Medipart, Inc.*, 976 F.2d 700 (Fed. Cir. 1992)

<sup>55</sup> *Id.* at 702

assembled those disinfected parts with a new filter, tubing and put them together in a bag. Medipart Inc. then sent those “reconditioned” units back to the hospitals whence they came without applying any test for residual biological activity or for radioactivity. More than that, the reconditioned units still bore the inscription “Single Use Only” and even the trademarks of Mallinckrodt as the brand-new one. Mallinckrodt accordingly filed the action for infringement in violation of the restriction on reuse against Medipart Inc.<sup>56</sup>

District Court was favor in Medipart by erroneously stated that no restriction whatsoever could be imposed under the patent law without taking some other laws into account.<sup>57</sup> Instead, the Federal Court emphasized that patent grants the right to exclude by citing 35 U.S.C. § 154.<sup>58</sup> This right to exclude may be waived in whole or in part depends on the conditions<sup>59</sup>. The Federal Circuit had also referred to the opinions in *E. Bement & Sons v. National Harrow Co.* as objection against the first trial rulings.<sup>60</sup>

The Appeal Court also pointed out some misinterpretations made by the District Court. First, the price-fixing condition is contrary to general law and to violate the antitrust which is considered *per se* illegal.<sup>61</sup> This restriction should not be analogous and does not hold that all other restrictions accompanying the sale of patented goods are deemed to be illegal. The Federal Court subsequently

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<sup>56</sup> *Id.* at 702.

<sup>57</sup> *Id.* at 701 (the district court held that no restriction whatsoever could be imposed under the patent law, whether or not the restriction was enforceable under some other law, and whether or not this was a first sale to a purchaser with notice.)

<sup>58</sup> *Id.* at 703, 35 U.S.C. § 154, (“Every patent shall contain... a grant.... for the term of seventeen years of the right to exclude others from making, using, or selling the invention throughout the United States....”)

<sup>59</sup> *Id.* at 703 ( The conditions of such waiver are subject to patent, contract, antitrust, and any other applicable law, as well as equitable considerations such as are reflected in the law of patent misuse.)

<sup>60</sup> *Id.* at 703 (“The rule is, with few exceptions, that any conditions which are not in their very nature illegal with regard to this kind of property, imposed by the patentee and agreed to by the licensee for the right to manufacture or use or sell the [patented] article, will be upheld by the courts.” *E. Bement & Sons v. National Harrow Co.*, 186 U.S. 70 (1902))

<sup>61</sup> *Id.* at 704 (These cases established that price-fixing and tying restrictions accompanying the sale of patented goods were *per se* illegal.)

controverted the District Court regarding to misinterpret the transaction made by the patentee and by the limited authorized licensee.<sup>62</sup> The first-sale transaction can be implemented by patentee-purchaser or licensee-purchaser. The right granted to patentee can be whole or parted upon his/hers decision of conditional or non-conditional licensing or sale. The patentee would in turn of receiving the compensation reflecting to the value of right he gives away. The Appeal Court claimed that the restrictions should only be concerned with the structure of the transaction instead of emphasizing on its formalistic distinctions.<sup>63</sup>

Furthermore, the Federal Court explicitly stated its position that although a patentee may intend to obtain its remedies from no matter “contract law”, “property law”, or “equitable grounds”, there is no ground to withhold the protection of the law and to restrict a patentee access to statutory remedies. In the other words, no matter the condition is based on contract law, property law, or equivalent law which allows the patentee to receive the remedies as the licensee break the contract, it does not conflict with the patentee to claim its patent right while the licensee meanwhile infringing the patent.<sup>64</sup> The Federal Court also discussed about the “single use” which was considered to violate competition law by the first trial. The Federal Court disagreed and stressed on the principle that private parties have the freedom to contract with conditions of sale as long as *per se* legal.

In terms of determining whether the restriction to only allow for single us breach anticompetition law, the purpose of the restriction set forth should be considered. The condition, however, imposed by Mallinckrodt was based on safety concern which should not be recognized as patent misuse.<sup>65</sup> Along with the opinion,

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<sup>62</sup> *Id.* at 705.

<sup>63</sup> *Id.* at 705 (That the viability of a restriction should depend on how the transaction is structured was denigrated as “formalistic line drawing”)

<sup>64</sup> *Id.* at 707 (We agree that a patentee may choose among alternate remedies. But to deny a patentee access to statutory remedies is to withhold the protection of the law.)

<sup>65</sup> *Id.* at 708.

the single use here was recognized as a lawful category of restriction within the scope of patent right granted to Mallinckrodt. Most importantly, the Court had explicitly approved the lawful status of post-sale restriction which is enforceable to avoid first-sale exhaustion.

### 3.5 Repair and Reconstruction

The other interesting dispute also discussed in *Mallinckrodt v. Medipart* was whether the action to combine the manifold and nebulizer with the components made by other suppliers met the criterion of repair. The Federal Court stated here that a patented device is subject to the prohibition against “reconstruction” of the article patented no matter unconditioned or conditioned sale is taken place. However, repair is permissible. And the question arise here was how to distinguish between repair and reconstruction. The Court of *Wilson v. Simpson*<sup>66</sup> first interpreted the distinction through an unauthorized replacement of the worn cutting elements of a patented lumber planning machine which they legally obtained from the patentee. By adding the materials part of the invention or to aid the efficiency of one originally embodied for it to function as the same is considered as repair. However, if the invention as the whole happened to be broken or dismissed, and the worn parts cannot be replaced or readjusted, the purchasers then are not allowed to replace it otherwise it will consist to reconstruction.<sup>67</sup> The key element of the distinction is whether the changes in fact make a new article which becomes the second creation of the patented entity.<sup>68</sup>

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<sup>66</sup> See *Wilson v. Simpson*, 50 U.S. 109 (1850)

<sup>67</sup> *Id.* at 123-124 (From may be given to a piece of any material, ..., or to aid the efficiency of one already know, and that would be the subject for a patent. It would be the right of a purchaser to repair such a thing as that, so as to give to it what was its first shape, ....But if, as a whole, it should happened to be broken, so that its parts could not be readjusted, or so much worn out as to be useless, then a purchaser cannot make or replace it by another, but he must buy a new one. The doing of either would be entire reconstruction.)

<sup>68</sup> *Supra* note 55, at 709.



In *Mallinckrodt*, the Federal Court subsequently explained that a lawfully repair would only be recognized when the replacement is made in a structure under the circumstances that original manufacture and sale have been authorized by the patentee. The device was however only valid for single use which result to the extension of the frequency of use is *per se* default. There is no need to concern whether Medipart's action of combining the devices with un-licensed and un-permissive components consists to repair or reconstruction.<sup>69</sup>

### 3.6 Discussions

The development of technology is based on inventors' contribution of their time, money, and equipments that benefit the public interests. The Patent Law is established for protecting inventors to obtain the considerations from the public who are benefited. On the other hand, the reward for inventors' hard work may also inspire their incentive to continually throwing back to the research. The governments grant patent to the inventor to secure their monopoly over the creations and also the potential lucrative right. In contrary, the public would expect to be charged for fair price of the real value (even minus) of the patent. The trade between patentee and public in fact meet the economical curve consists with market demand and supply. However, the intellectual property law (IPR) should not been seen as a vest of granting patentees the exaggerated privilege to withhold the public interests. The impropriate operation is in opposite to the initial goal of IPR for encouraging innovation by giving the minimum protection.<sup>70</sup> Therefore patent exhaustion is playing the role as the balance to free the patented goods from patentees' monopoly.

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<sup>69</sup> *Id.* at 109 (If the UltraVent device is valid licensed for only a single use, any reuse is unlicensed and an infringement, and there is no need to choose between repair and reconstruction.)

<sup>70</sup> Mark A Lemley, *Property, Intellectual Property, and Free Riding*, 83 Tex. L. Rev. 1031, at 1031 (2005).

Started from *Bloomer v. McQuewan*, the Court officially settled a ground for exhaustion doctrine by explicitly defining that as long as the patented goods have passed hand to the purchaser then consequently exhaust the patentee's monopoly. Followed by *Adams v. Burke*, the Court drew a concept of post-sale restriction in order to distinguish the conditional and unconditional sales. By claiming the patent right is enable to be parted and granted to licensees partially, the limitations of the right granted would consequently reflect to the royalty or consideration that patentee may acquire. The Court hence affirmed the post-sale restrictions as territory effective. Nonetheless, the jurisprudence of chattel law has inducted to the principle of once the patented article is sold would therefore turn it into private property, and the only benefit the purchasers can obtain from the patented article is from using it. Therefore, the exhaustion would effect to the transaction and terminate the patentee's dominant over the articles no matter whether they are used within or outside of the territory as long as this sale is implemented lawfully under the conditions.

It is not hard to find how significant the patent exhaustion has been tied with contract through the earlier cases. However, the technology improvement simultaneously results to a more sophisticated relationship between patentees and their licensees or distributors. The patentees intend to seek broader economic profit by expanding the market scope through intensive licensing and wilder distribution which cause litigations involved with more other laws such as antitrust and anti-competition.

Through comparing the decisions made in GE and Univis, the Courts show opposite rulings. Though the diffusion systems were designed similar, the different structures of licensing strategies had led to different ownership status of the patented articles. Restrictions on price-fixing for sale is *per se* violate antitrust,

nonetheless, the structure design of the transaction is the key element to determine whether the selling price instruction given by patentees have breached the exhaustion rule. In GE case, the licensed agencies were only the custody of the patented articles and earned the commission in return for the products sold. And the licensing contract was only entitled the right to use the product which is patented but not straight to grant the patent right to licensee. Therefore, the exhaustion was not triggered due to no such action of purchase was taken between patentee and licensees. Secondly, not even issues of patent law were occurred since this contract showed no evidences regarding to license the right over the patent to GE's agencies.

Univis, contrarily, was found violate the first-sale doctrine through over expanding its control over the downstream distributors by restricting the retailing price. Although Univis argued the blank lens sold to wholesalers and retailers were uncompleted part and can only be functioned after being grinded and polished. The patents which Univis insisted to are regarding the shape, size, composition, and disposition that can only be practiced by combining the blanks. The primary patents related to the manufacturing process, however, had been implemented and embodied with the blanks sold to the wholesalers and retailers. Take a step further, the blanks also have carried the essential features of these above subsequent patents. The purchasers had paid the full considerations accordance with the contract for obtaining the patented articles. Naturally, the purchasers should expect the blanks would be functioned for what it is doomed to be as wearable lenses what they paid for.

The Court handled this case in different segmentations by firstly claiming the patent embodied articles that Univis sold to its licensed wholsalers have triggered the exhaustion. The patentee no longer owns the right to control either the later resale prices or the forms of the lenses may be sold. Consequently, the condition of

price fixing bound with the patentee's licensing system is not protected by the patent law and *per se* violates Sherman Act. Apparently the Court here drew a clear line between the post-sale restriction and antitrust depending on the status of ownership of the patented goods.

Section 2.3 discussed about the other category of restrictions which limits the function of use. The Court held the form of attached notice adopted by General Talking Pictures effective to bind the licensees whom have agreed with the conditions set forth in advance. The decision made by Federal Court in *Mallinckrodt v. Medipart* took a step forward to explain the distinction between patent law and contract law. By emphasizing the right to "exclude" granted by patent law and embedded in property law which allows the patentees to sever, split, reserve, or waive the right, the Court claimed the private parties are free to contract for all or part of the rights as long as no law is violated.<sup>71</sup> The Court furthermore asserted that the patentee can bring a patent infringement suit against the purchaser for breaching the conditions as long as the conditions are not violating other laws.<sup>72</sup>

Exhaustion doctrine enables the IP owner to receive the fair reward for granting its right to reserve a product from the market but thereafter authorizes free disposition and movement of chattels.<sup>73</sup> Apparently, we can clearly find how exhaustion doctrine has been maturely defined up to day through the precedents and how the patentees could have effectively contracted around with post-sale conditions to waive the exhaustion. The patent licensing strategies cannot be isolated from the principle of contract law and most of time the subject patents are embodied within the property. The Court nowadays has been facing more challenges

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<sup>71</sup> *Supra* note 55, at 708 (Patent owners should not be in a worse position, by virtue of the patent right to exclude,...); also see Jared Tong, *You Pay For What You Get: The Argument For Allowing Parties To Contract Around Patent exhaustion*, 46 Hous. L. Rev. 1711, at 1718 (2010)

<sup>72</sup> *Id.* at 709 (and if the restriction on reuse was within the scope of the patent grant or otherwise justified, then violation of the restriction may be remedied by action for patent infringement.)

<sup>73</sup> *Supra* note 14, at 2

to deal with the tangled issues between patent law and other common laws.

As mentioned in elsewhere, the nature of exhaustion means to terminate the right of control granted to patentee by law. By restrict the right on “use” in order to avoid exhaustion that results to hard to split exhaustion doctrine from the post-sale restriction. This meantime forces the Court being more cautious while interpreting the distinctions between patented articles and normal property in questions. Regardless how complicated the licensing terms have been designed, the substantial transaction will have to be taken into account.<sup>74</sup> The certain feature to trigger the exhaustion is depends on whether the patented articles are *de facto* sold, in the other words, passed hand to the others and become individual property lawfully.

Notwithstanding the diverse contracting strategies, the controversies are consequently arisen since the more complex business association and wilder business extent. For instance, the patentees may rather to reduce the royalty by granting conditional license instead of giving the unconditional license which earns them full royalty for the purpose of waiving the exhaustion<sup>75</sup>. The patentees can also pursuit the litigation for patent infringement while the licensee breaks the contract which contains lawful conditions. This may further result to duplicate remedies claimed from both patent violation and breaching the contract. On the other hand, the high penalty enables the patentees to double the withholding for potential infringement. However, a valid and effective post-sale condition must not interfere with the other laws. It is followed by the question of whether a patentee who owns comprehensive global scale may eventually dominate the market. Moreover, its strong patent portfolio may substantially result to anti-competition

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<sup>74</sup> Leonard J.Hope, *The Licensed-Foundry Defense In Patent Infringement Cases: Time To Take Some Of The Steam Out Of Patent exhaustion?*, 11 Ga. St. U. L. Rev. 621, at 627 (1995) (In fact, the Supreme Court has outlined a test that emphasizes substance over form in determining whether a sale has occurred.)

<sup>75</sup> Kyle M. Costello, *The State Of The Patent exhaustion doctrine, Post-Quanta v. L.G. Electronics*, 18 Tex. Intell. Prop. L.J. 237, at 256 (2010)

and antitrust violation although the contractual conditions are made *per se* lawful.

#### 4. International Exhaustion

The other core discussion of exhaustion doctrine explored the distribution which inducts to parallel trade. In the earlier case of *Hobbie v. Jennison*, the Court held the exhaustion enforceable as long as the purchaser obtains the patented article lawfully within the restricted territory. So far as the patentee has received the consideration from granting the right to others for using the article, then it was no longer within the monopoly of the patent. When the restricted territory is extended to cross the border of countries, it raises up the sensitive and controversial discussion regarding the multiple jurisdictions and international laws. No matter whether patent law or copy right law is involved, exhaustion doctrine becomes extremely complicated especially in terms of jurisdiction as the cross-border transaction is taken place. The discussion regarding international exhaustion, therefore, is generated.

The issue becomes more complicated as the patentee holds global patent right and international transportation is involved through parallel importation.<sup>76</sup> Under the theory of international exhaustion, a good sold in one country is free to be sold in another regardless the border. However, this would directly challenge the domestic jurisdiction of the country. The US Supreme Court has never granted the ruling regarding international patent exhaustion.<sup>77</sup>

*Boesch v. Graff* had discussed some regarding whether the article patented by foreign country and legally purchased in oversea can therefore be imported into

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<sup>76</sup> Harold C. Wegner, *International Patent Exhaustion: Whither the Supreme Court?*, at 2,4 (2010) <http://www.grayonclaims.com/storage/InternationalExhaustionApr19.pdf> (The matter becomes more complicated when the patentee holds global patent rights through parallel patents in several countries.)

<sup>77</sup> *Id.* (The Supreme Court has never ruled on international patent exhaustion.)

United States without the permits of the owners of the United States patent.<sup>78</sup> Although the Court had stated, “A *prior foreign patent operates under our law to limit the duration of the subsequent patent here, but that is all*” and even firmly commented, “*The sale of articles in the United States under a United States patent cannot be controlled by foreign laws.*”<sup>79</sup> The Court had just affirmed the jurisdiction of the U.S. patent law instead of dealing with the international exhaustion disputes. Here is no such wording found in this case.

Nonetheless, *Boesch v. Graff* has been incorrectly cited in *Jazz Photo Corp. v. Int’l Trade Commission* as the support to the opinion of protection of first sale doctrine would occur only when the authorized first sale taken place under the U.S. patent.<sup>80</sup> Furthermore, the Court had also cited *Boesch* in *Microsoft Corp. v. AT&T*<sup>81</sup> to support the principle of patent territorially<sup>82</sup>: [O]ur patent system makes no claims to extraterritorial effect; these acts of Congress do not, and were not intend to, operate beyond the limits of the United States; and we correspondingly reject the claims of others to such control over our markets.<sup>83</sup>

## 5. Conclusion

Through the series of case laws in U.S., a completed theory regarding exhaustion doctrine has been well established. The development of post-sale

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<sup>78</sup> *Boesch v. Graff*, 133 U.S. 697, at 702 (1890) (whether a dealer residing in the United States can purchase in another country articles patented there, from a person authorized to sell them, and import them to and sell them in the United States, without the license or consent of the owners of the United States patent.)

<sup>79</sup> *Id.* (quoting *Boesch v. Graff*, 133 U.S. 697(1890) at 703)

<sup>80</sup> *Jazz Photo Corporation v. International Trade Commission*, 264 F.3d 1094, at 1105 (2001) (United States patent rights are not exhausted by products of foreign provenance. To invoke the protection of first sale doctrine, the authorized first sale must have occurred under the United States patent.)

<sup>81</sup> *Microsoft v. AT&T*, S. Ct. 1746, 1752 (2007).

<sup>82</sup> Harold C. Wegner, *Post-Quanta, Post-sale Patentee Controls*, 7 J. Marshall Rev. Intell. Prop. L. at 696- 698 (2008).

<sup>83</sup> *Supra* note 82 (quoting *Deepsouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 531 (1972))

restriction is based on Contract Law and dragged lot attention of Supreme Court due to the confliction with patent law. The Courts have always sought to a mutual interpretation in order to balance the power in between. As the set forth principle, an enforceable post-sale restriction must not violate the common law. And the patentee shall clearly state the limitation based on the scope of the patent right while drafting the contract.

Along with the interpretation made by the Courts regarding post-sale restrictions, the concept and scope of exhaustion doctrine have been shaped and defined simultaneously. The doctrine has therefore been further developed into various phases in accordance with the sophisticated trading activities. In terms of the disputes about international exhaustion, it is clear that U.S. is still remaining a conservative attitude in sustaining domestic exhaustion in the perspective of patent right. By supporting the principle of patent territorially, Supreme Courts is still insisting on an independent jurisdiction status up to day.



## Chapter 3 Quanta v. LGE and Its Influences

The Supreme Court granted its opinions regarding exhaustion doctrine through Quanta aims to switch the twisted application back to the initial purpose of patent law. The Court's decision had taken the relationship between exhaustion doctrine and post-sale restriction into a new era. Some ambiguous zone between patent right and contract law were therefore indicated. However, more disputes based on this decision were appeared especially concerning the specific industries relates to their unique business models. Hereinafter, the case of Quanta will be illustrated with the verdicts made by each Court and discussed about its further impact.

### 1. Decisions Made of Quanta Computer, Inc. v. LG Electronics, Inc.

LGE owns several patents relating to personal computers and granted its license to Intel covering the entire portfolio of patents on the systems and components. The questioned patents in this case include system patents embedded to the Intel devices and method patent implemented by combining those patented devices. Intel as its self brand owner then was authorized to sell the microprocessors and chipsets to Bizcom, Compal, Quanta, and some other personal computer manufacturers. However, Intel did not sell whole patented system altogether but the components respectively. The license agreement between LGE and Intel allowed Intel free to sell under the set forth condition that prohibits the licensed parts to be combined with non-Intel components. This agreement also required Intel to impose a notification about the scope of the license to its customers who purchased the parts. The defending companies including Quanta were alleged infringing LGE's patents due to combine the licensed parts with non-Intel memory and buses in ways that practice the LGE's method patents.<sup>84</sup>

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<sup>84</sup> See LG Electronics, Inc. v. Asustek Computer, Inc., 248 F. Supp. 2<sup>ND</sup> 912, at 914

Two major disputes raised here were, first, whether the method patent embodied to the article cannot be exhausted, and, second, whether the conditional sale in this case would effect on the exhaustion. Interestingly, the Federal Circuit and the Supreme Court held different points of view that I am going to take an in-depth review respectively.

### 1.1. District Court

LGE first argued the license granted to Intel is conditional, and Intel did accord with the instruction to inform his customers about the limited scope which restrict to combine the components with other non-Intel products. The Court, however, found the purchase between Intel and its customers are unconditional. Though Intel was required to inform its customer with the limited usage of the components, the affixed notice did not render conditional sales from Intel to its customers.<sup>85</sup> The customers purchased the patented devices from a licensed source. With merely a note attached on the components was insufficient to transform the unconditional sale into a conditional one. The Court, therefore, held the sale of the essential components of the subjected devices exhausted LGE's patent right.<sup>86</sup>

However, the District Court affirmed LGE's claim that the sale of a device cannot exhaust the separate implementing method patent. There was no such indication under the circumstances to authorize customers to practice the method patents while Intel had expressly imposed the notice. Thus, the District Court decided the defendants had infringed the method patent of LGE.<sup>87</sup>

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<sup>85</sup> *See Id.* at 917 (Nor does the fact that Intel informed its customers that its license with LGE “does not extend, expressly or by implication to any product that [they] may make by combining an Intel product with any non-Intel product” render conditional the sales from Intel to Defendants.)

<sup>86</sup> *See Id.* at 917 (Therefore, LGE's licensee's unconditional sale of the essential components of the patented devices to Defendants exhausted LGE's patent rights.)

<sup>87</sup> *See Id.* at 918 (Finally, the Court claim that neither the patent exhaustion doctrine nor the implied

## 1.2. Federal Circuit

The Federal Court affirmed District Court's decision referring to that the separate method patent could not be exhausted but reversed the holding respect to the exhaustion occurred on device patents.<sup>88</sup> The Court held that exhaustion does not apply to conditional sales by citing *Mitchell v. Hawley*. The limited "use" right would have been reflected on the price value negotiated by parties.<sup>89</sup> Although Intel was free to sell its microprocessors and chipsets, the Intel-LGE licensing agreement was still conditional and expressly prohibits computer system manufactures to combine Intel's licensed components with non-Intel parts.<sup>90</sup> Furthermore, Intel had expressly notified its customers with the prohibition from infringing LGE's combination patents. Accordingly, the Federal Court reversed the District Trial's decision and held the sale between Intel and its customers is conditional which waives the exhaustion.

## 1.3. Supreme Court

Quanta was the only defendant who brought the suit to the Supreme Court after Federal Circuit granted its decision favor on LGE. Dramatically, the Supreme Court accepted the certiorari and end up reversing the Federal Circuit's decision.<sup>91</sup> The

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license doctrine provides Defendants with a defense to LGE's claim that they infringed LGE's method patents.)

<sup>88</sup> See *LG Electronics, Inc. v. Bizcom Electronics, Inc.*, 453 F. 3d 1364, at 1369 (Fed Cir. 2006) (We reverse the trial court's holding with respect to the system claims and affirm with respect to the method claims.)

<sup>89</sup> See *Id.*, at 1369-1370 ("In such a transaction, it is more reasonable to infer that the parties negotiated a price that reflects only the value of the 'use' rights conferred by the patentee." quoted from *Mitchell v. Hawley*.)

<sup>90</sup> See *Id.*, at 1970 (The LGE-Intel license expressly disclaims granting a license allowing computer system manufactures to combine Intel's licensed parts with other non-Intel components.....Although Intel was free to sell its microprocessors and chipsets, those sales were conditional, and Intel's customers were expressly prohibited from infringing LGE's combination patents.)

<sup>91</sup> See *Quanta Computer, Inc. v. LG Electronics, Inc.*, 128 S. Ct. 2109, at 2113 (2008) (We disagree on both scores. Because the exhaustion doctrine applies to method patents, and because the license authorizes the sale of components that substantially embody the patents in suit, the sale exhausted

Court held few rulings: (a) The patent exhaustion doctrine provides that a patented item's initial authorized sale terminates all patent rights to that item.<sup>92</sup> (b) Here is not such category in the Court's approach to support LGE's argument that method claims are never exhausted. (c) Governed by *Univis*, exhaustion was triggered by the sales as the part purchased can only be used by practicing the patent and the key features of the patented invention are embodied with the product itself. (d) According to the License Agreement between LGE and Intel did not restrict Intel sell to the customer who were intend to combine the product with non-Intel components, the exhaustion is therefore triggered as the sales authorized by the patentee.<sup>93</sup>

By citing *United States v. Univis Lens Co.*, the Court disagreed with the Federal Circuit's holding of treating the method patent claims as a category which is excluded from the exhaustion doctrine. The Supreme Court stated that "[a] patented method may not be sold in the same way as an article or device, but methods nonetheless may be 'embodied' in a product, the sale of which exhausts patent rights."<sup>94</sup> As LGE licensed Intel to sell the microprocessors and chipsets which contain the patents of the LGE's technology, it had triggered the exhaustion when the action of sale had taken place. Adopting the two-steps prong indicated in *Univis Lens*, the Court applied the test on *Quanta* to demonstrate the method claims triggering the patent exhaustion doctrines.

The Court first explained the purpose of using this article sold and its relation to the patented process. Similar to case of *Univis*, the Court found the

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the patents.)

<sup>92</sup> See *Id.* at 2115 (The longstanding doctrine of patent exhaustion provides that the initial authorized sale of a patented item terminates all patent rights to that item.)

<sup>93</sup> See *Supra* note 76, at 249 (Furthermore, through its reading of the contract terms, the Court found that LG Electronics had authorized the sale of the microprocessors and chipsets, and therefore the company was prevented from bringing a patent infringement suit against companies that purchased Intel articles that substantially embody LG Electronics' patents.)

<sup>94</sup> See *Supra* note 92, at 2117.

microprocessors and chipsets embodies the patents that cannot function itself until they are connected to buses and memory. The licensed Intel products lead to the result of “no other use than incorporating them into the computer systems that practiced LGE patents.”<sup>95</sup> The only step to implement the patent merely requires common application or addition of standard parts. The Court concerned that eliminating method patent from exhaustion would seriously undermine exhaustion doctrine and may result to patentees seeking to avoid exhaustion by drafting their patent claims as method instead of apparatus claims.<sup>96</sup>

Second, following the line of *Univis* case, the microprocessors and chipsets have considered to “be embodied with the essential features of the patented invention” and the sales considerations of the microprocessors and chipsets should be able to cover the invention on the patents. The Court agreed with Quanta that the only purpose of Intel’s sale to Quanta was to permit the parts be incorporated into computer for consequently practicing the patents. The microprocessors and chipsets Intel sold were authorized under the agreement and this transaction was also made for the purpose of practicing LGE’s patents by combining them all. Moreover, the Court found it is the only step instructed by LGE that enables Quanta to follow for practicing the patent. No any alternative innovative or creative decisions would possibly be adopted by Quanta to function the parts purchased from Intel.<sup>97</sup>

In order to decide whether the Intel-Quanta transaction had exhausted the LGE’s patent rights, the Court thus looked through the agreement between Intel and LGE. The Court emphasized on distinguishing the sale authorization implied in the

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<sup>95</sup> *See Id.* at 2120

<sup>96</sup> *See Id.* at 2117 (Eliminating exhaustion for method patents would seriously undermine the exhaustion doctrine. Patentees seeking to avoid patent exhaustion could simply draft their patent claims to describe a method rather than an apparatus.)

<sup>97</sup> *See Id.* at 2120 (Quanta had no alternative but to follow Intel’s specifications in incorporating the Intel Products into its computers because it did not know their internal structure, which Intel guards as a trade secret.)

License Agreement and the Master Agreement. The License Agreement broadly authorized Intel free to “make, use, or sell” products of LGE’s patent without specifically restricting the customers who may intend to combine the articles with other non-Intel parts.<sup>98</sup> Though Intel was required by the Master Agreement to attach notice to its customers about that the customers are not licensed to practice LGE’s patents. Intel, however, was not considered as one of those who breached the agreement in this case by either party. Moreover, the LGE-Intel agreement did not suggest that a breach of the Master Agreement would result in a breach of the License Agreement.<sup>99</sup> In short, the agreements were seen separated and independent. Therefore, the authority of Intel to sell the LGE’s patent embodied products did not contain the restriction through the notice attached. Quanta’s decision and action to obey LGE’s instruction were not limited by this notice, either.

In terms of the License Agreement, no any conditions set forth to limit Intel’s ability to sell the product substantially embodies LGE’s patents for its further practicing.<sup>100</sup> As mentioned above, the implementing step only required incorporating the Intel products with other ordinary extra components in order to practice the patent. Therefore, the Court held that Intel was authorized to sell its products to Quanta unconditionally which triggered the exhaustion of the LGE’s patent monopoly.

## 2. The Effects of Quanta

The Supreme Court’s decision regarding Quanta brought some new rules on exhaustion doctrine and interpreted the enforcement of post-sale restriction within a

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<sup>98</sup> *See Id.* at 2121 (Nothing in the License Agreement restricts Intel’s right to sell its microprocessors and chipsets to purchasers who intend to combine them with non-Intel parts. It broadly permits Intel to “make, use, [or] sell” products free of LGE’s patent claims.)

<sup>99</sup> *See Id.* at 2122 (and LGE does not suggest that a breach of that agreement would constitute a breach of the License Agreement.)

<sup>100</sup> *See Id.* at 2122 (Nothing in the License Agreement limited Intel’s ability to sell its products practicing the LGE Patents.)

narrower way. In the following section, I would further discuss about the rules defined through Quanta's case and also its further influences on exhaustion doctrine and Patent Law.

## 2.1 Method Patent is Exhaustible

In Quanta, the Court affirmed that the method patent can be exhausted by emphasizing the "substantially embodied" on the article. In the other words, the Court focused on the substantial function of the patent which embodied on the article. To apply a two-step method, the Court deconstructed the components constituted the patent and found the microprocessor and chipsets sold by Intel in fact content the essential features of the patent. Similar to Univis, the purchasers all need to do for practicing the LGE's patent is to combine the devices with buses and memory of the computer. Additionally, there were no other purposes found for buying the Intel products besides for practicing the LGE's method patent.

The Court expressly emphasized its position of not encouraging the end-run control around exhaustion through narrowly interpreting this doctrine and to prevent the patent owners from over extending their right of patent monopoly.<sup>101</sup> It would end up rendering an extremely power to patentee to dominant the downstream distribution and market by allowing method patents to be divided from the patented products. In the other word, most kinds of inventions can be operated as method patents. By authorizing the sales of the articles solely which embedded the method patent, but requiring an extra purchase or charge enable to practice that may harm the purchasers' servitudes with chattels. To waive method patent from exhaustion would seriously undermine and violate the long-standing principle of exhaustion

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<sup>101</sup> See *Id* at 2118 (This case illustrates the danger of allowing such an end-run around exhaustion...Such a result would violate the longstanding principle that, when a patented item is "once lawfully made and sold, there is no restriction on [its] use to be implied for the benefit of the patentee.")

doctrine.<sup>102</sup> Most importantly, the Supreme Court has redefined the exhaustion doctrine via *Quanta* as a substantial rule instead of a formal rule determined by the type of the patent.

## 2.2 The Scope of Post-sale Restriction

Beyond the standard of how exhaustion can be triggered, how to prevent the exhaustion is more significantly concerned by patentees. Since *Adam v. Bruke*, the Court has been holding that only non-conditional sale can exhaust the patent right. The Federal Court in *Mallinckrodt* subsequently held that a patentee can enter into a conditional sale through imposing a “single use only” notice and enforce the restriction under the patent law.<sup>103</sup> Respect to *Quanta* decision, it has been argued all the time that whether the LGE-Intel’s license agreement could validly construct the restrictions to waive the exhaustion.

In light of *Mallinckrodt*’s decision that have been heavily relied by the Federal Circuit in *Quanta* and other earlier precedents to support post-sale restrictions. However, some aggressively voice had considered the Supreme Court’s decision may be seen as an implication to overrule *Mallinckrodt*.<sup>104</sup> LGE did intend to contract around the exhaustion in the Master Agreement by requiring Intel to notify its customers about the license limitation of not to combine the Intel products with non-Intel products. Though not clearly stating its status of whether agree or disagree with post-sale restriction, the Supreme Court found this contract lacking of indication shows that the breach of the agreement would constitute the infringement

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<sup>102</sup> *Supra* note 1, at 11 (2010).

<sup>103</sup> Jared Tong, *You Pay for What You Get: The Argument For Allowing Parties To Contract Around Patent exhaustion*, 46 *Hous. L. Rev.* 1711, at 1722 (2010).

<sup>104</sup> *See Id* at 1723 (The *Quanta* Court hinted at its disagreement with the *Mallinckrodt* decision.); also see Andrew T. Dufresne, *The exhaustion doctrine Revived? Assessing the Scope and Possible Effects of the Supreme Court’s Quanta Decision*, 24 *Berkeley Tech. L.J.* 11, at 40 (2009) (Though *Quanta* may not affect *Mallinckrodt* directly, the opinion should nevertheless sound alarms for patent owners relying on *Mallinckrodt*-type sales restrictions. ... But several observations suggest the Supreme Court may disfavor using patent law to enforce post-sale restraints on purchasers.)



of the license patent. The LGE-Intel transaction did not state the limitation of the patent usage or function embodied on the products. Instead, the condition to restrict the purchasers to practice the patent by combining the parts lawfully bought from Intel with non-Intel products which had been seen out of the scope.

Conditions to restrict the use, places, time of duration, market segmentation, or other specific purposes of patented articles have been upheld by Supreme Court. Notwithstanding, responding to LGE's citing of General Talking Picture, the Court indicated that it would only support the post-sale restriction under the circumstances when both parties are clearly aware of that the transaction has been beyond the scope of the limitation.<sup>105</sup> In accordance with such conditions if considered as valid, the authority for Intel to sell the patented products would indeed become impracticable. The purchasers must continually buy the other Intel's products and combine them together can therefore lawfully implement the function of the patented product meant to be.

Base on the interpretation of the Supreme Court, the flaws made in the LGE-Intel contract seem opposite to LGE's real purpose of making such conditions which in fact aims to ask the purchasers buying other Intel products which is irrelevant to the restrains on use of the patent. LGE granted Intel an unconditional authority to make, use, and sell its licensed products which conflicted to its real intention. To assume the previous condition enforceable to limit the purchaser, but LGE did not bind its licensee under the agreement to sell the compatible products simultaneously which turned the contract inconsistent and therefore invalid. Neither an explicitly territorial or scope of restriction bundled the patent nor any specific limitation to restrict Intel's sale, the Court accordingly considered LGE has assigned an unconditional license to Intel on selling the microprocessors and

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<sup>105</sup> See *Supra* note 92, at 2121 (Intel could not convey to Quanta what both knew it was not authorized to sell.)

chipsets.<sup>106</sup> Based on the longstanding principle, unconditional sale would exhaust the monopoly and results to the part of restriction terms invalid. However, the clauses regarding the sale transaction were still enforceable. The allowance granted Quanta the right to combine the patented articles with non-Intel products was based on the exhaustion of LGE's patent right.

Interestingly, the Court is seemed highly relying on the contents of the agreement more than patent law. With the broader interpretation of the exhaustion doctrine and the narrower enforcement of restriction, the patentees' rights were seen challenged by the more critical contractual requirements. The disputes of whether breach of the post-sale restriction should be considered as violating patent law or contract law are now dramatically arisen after Quanta. Patentee may determine between drafting a sole licensing contract wrapping all patents together or spending more efforts on designing the conditions to restrain the licensees in order to avoid exhaustion.

### **2.3 The Further Impacts of Quanta**

There has been some arguments along the exhaustion doctrine for years, and hereinafter I am going to illustrate the impact occurred by Quanta's decision.

#### **3.1.1 Innovation**

Intellectual Property aims to find a middle place between protecting the incentives to create and innovate, and benefiting public interests.<sup>107</sup> Intellectual Property Law grants innovator the exclusive rights to protect their idea and further to obtain their rewards. To limit the patentees over-expanding their monopoly,

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<sup>106</sup> Yina Dong, *A Patent exhaustion Exposition: Situating Quanta v. LGE in the Context of Supreme Court Jurisprudence*, 2010 Stan. Tech. L. Rev.2, at 14 (2010)

<sup>107</sup> *Supra* note 1, at 3 (2010)

exhaustion doctrine therefore terminates the monopoly once the patented articles are passed hand to the purchasers. However, the patentees are allowed to contract around and avoid exhaustion with post-sale restrictions which do not breach common laws. The opposing sides argued about its effect on innovation based on very different opinions.

The Quanta Court had been repeatedly emphasizing that the post-sale restriction should not be adopted to grant patentee an end-run monopoly power. Particularly in the industry such as computing science and mechanic technology that a product may happen to consist of complicated and massive components, a small patented component may easily bundle the whole product chain. To imagine a patented bicycle pedal without any other use besides of being placed on a bike, an end-run patent monopoly may consequently block the design of the whole bike and even the price.<sup>108</sup> The strong exhaustion doctrine, notwithstanding, may encourage the patentees to charge the full value of its patent at one time instead of separating the sales. The clear cut sale is believed to be helpful for the downstream manufacturer to practice their consequently innovation and production.

However, those who favor on strong post-sale restriction argue that the “full value” of the patent sometimes is hard to evaluate. The transgenic seed industry concerns that to grant the right of use a patented item does not mean to meantime give the authority to create a new item. Sticking to the line of Quanta, the only feature and purpose embedded in seed is to be planted and to grow the second generation.<sup>109</sup> In other words, to plant the seed is the essential step to practice the patent. Such disputes have also extended to the other bio-products involving with

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<sup>108</sup> Supra note 107, at 4-5.

<sup>109</sup> Tod Michael Leaven, *Recent Development: The Misinterpretation of the Patent exhaustion doctrine and the Transgenic Seed Industry in Light of Quanta v. LG Electronics*, 10N.C.J.L. & Tech. 119, at 133 (2008).

the sale of self-replicating living invention.<sup>110</sup> It is almost impossible for patent owner of these forms of inventions to charge the full value at the first time sale even if the price could really be counted. The weak post-sale restriction would definitely attack the inventors' interests and also willingness for the innovation. Yet, the idea of obtaining the "full value" or "rewards" of the patent in fact is legally inaccurate. The inventor should only be entitled to what the patent law grants it. The jurisprudence should take place at the middle no matter in any circumstances and fairly harmonize the interests of inventors and downstream users instead of favoring in any side.

### 3.1.2 Efficiency and Costs

As mentioned above, the value of a patent sometimes is just hard to count. However, its value in the most of time is varied depending on the demand of the market. In the other words, the market preference plays a key role to decide the value of a patent. Along the fast developing technology, industrial products tend to be constituted with more sophisticated components and invention. On the other hand, more and more inventors now tempt to seek for the maximum value from the sale of patented article or royalty of the patent. By segmenting the patent into different rights, territories of use, and categories of downstream purchasers enables the patentees to charge the different rate of royalty or consideration. That would also boost the demand of licensee and purchaser as they only need to pay for what they need.

However, it has also been controverted that a narrower interpreted post-sale restriction may then force the patentee to obtain as much consideration as possible at the time to license or sell. Moreover, the patentee may rather charge the full price by selling the integral products. The downstream purchasers or licensees may be

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<sup>110</sup> *Supra* note 83, at 694-696

deterred from the full price consequently involved with more than what they actually need and willing to pay for.

The Court hereby concluded the process patent embodying on the components to be exhaustible and disagreed with LGE's conditional sale which lacks of restriction on the transaction between Intel and its customers. Whether a stronger or weaker exhaustion doctrine can help to increase the efficiency has also been wild discussed. The lump sum consideration is no doubt to be convenient for manufacturers and distributors even for the end users. However, the total cost in some industries such as computer or engineering would become critical which has involved with loads of components. The integral costs may turn the selling price unaffordable in market. The unaffordable technology would consequently threshold the acceptance of market.

Alternatively, allowing the patentees to charge the royalties from distributing chain for their specific use or function may possibly more satisfy the various customers' demands. However, the downstream distributors or manufacturers may subsequently spend more time on searching for patents to avoid the infringement and occur extra time for necessary negotiation and settlement.<sup>111</sup> The inventors may then spend more efforts to break down the inventions to separate different patents in order to claim full royalties from each part, or rather to keep the key features as trade secrete and to bind the downstream licensee with non-disclosure agreement. It does not only take more time for each party to deal with the transaction but also effect on the innovation withholding in long term while inventors tend to keep the technology in secrete.

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<sup>111</sup> *Supra* note 1, at 3-4 (2010).

### 3.1.3 Freedom of Contract

In *Quanta*, the Court found flaws from Intel-LGE's agreement which exhausted the patent right of LGE. Under the common law, which grants parties the freedom to contract as long as it does not breach the other common laws. While contract law has been set forth as substantial law, whether the exhaustion doctrine under patent law can take the place superior to the contract law? The Court hereof interpreted exhaustion doctrine more rigidly than that it used to be applied. In light of *Quanta*, the Supreme Court implied the exhaustion doctrine a default rule and only the explicitly expressed restrictions can prevent from exhaustion.<sup>112</sup> By citing *Bloomer v. McQuewan*, the Court returns to the very fundamental ground of the patent right by taking the meaning of "exhaustion" and the nature of patent right in to account.

With the support of prior precedents upholding the post-sale restriction, patentees were than spoilt to find every mean to contract around exhaustion. Patent infringement seems become merely a strategy to strike the downstream licensees or purchaser through sophisticated contract language or cross licensing agreement. Besides, while a party breaks the terms in the licensing agreement would result to simultaneously breach both the patent law and contract law. The remedies occurred would not be just as stated in the contract but possibly duplicate the penalty under patent law.<sup>113</sup> More importantly, the parties may choose to bring the suit up to the federal level and seek to force the settlement that has been well recognized as the ultimate purpose of claiming patent infringement. All the downstream purchasers and distributors would therefore encounter the treble damages for violating the conditions and bearing the risk of infringement liability.<sup>114</sup> The Supreme Court, indeed, intended to distinguish the patent law and contract law through *Quanta*. In

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<sup>112</sup> F. Scott Kieff, *Quanta v. LG Electronics: Frustrating Patent Deals by Taking Contracting Options off the Table?* Cato Supreme Court Review, 315, at 329 (2008).

<sup>113</sup> *Supra* note 1, at 4

<sup>114</sup> Andrew T. Dufresne, *The exhaustion doctrine Revived? Assessing the Scope and Possible Effects of the Supreme Court's Quanta Decision*, 24 Berkeley Tech. L.J. 11, at 46-47 (2009).

order to pull the twisted strategy back to the initial goal of patent law, the Court therefore emphasized on distinguishing the conditional and unconditional license made by parties themselves that determines the termination of the patent monopoly. To draw a clear line between the patent infringement *de facto* and breach of contract clauses, the parties should seek for the state law to solve the disputes as the parties only breach the contracts.<sup>115</sup>

However, the Supreme Court remaining the door open for contract issue by stating [W]e note that the authorized nature of the sale to Quanta does not necessarily limit LGE's other contract right.<sup>116</sup> Quanta's purchase from Intel though had exhausted the patent right of LGE, it might still breach the contract by combining the chipsets with non-Intel components.<sup>117</sup> The concern left to the patentee is whether the penalty of violating the contract could effectively threaten the licensees and downstream purchasers from infringing the patent and to sufficiently fulfill the loss caused by the damages of patent rights.

### 3.1.4 The Interference of Law and The Implication of Quanta

Though applying post-sale restriction provides a way out for intellectual property owner from triggering the exhaustion, however, the scope of the patent claims determines how far the privilege is given to the inventors. A patent owner or licensor can only enforce its patent right while the right is truly granted by the patent law. Subsequently, the restriction set forth to limit the licensees or purchasers must be within the scope of function or feature that the patent claims for. On the contrary, the patentee intends to restrict its purchasers by holding the exclusive right

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<sup>115</sup> *Id.*

<sup>116</sup> *Supra* note 92, at 2121 (n.7.: Whether a patentee may protect himself and his assignees by special contracts brought home to the purchasers is not a question before us, and upon which we express no opinions. It is, however, obvious that such a question would arise as a question of contract, and not as one under the inherent meaning and effect of the patent laws.) *Id.* (quoting *Keeler v. Standard Folding Bed Co.*, 157 U.S. 659, 666(1895)).

<sup>117</sup> *Supra* note 83, at 694.

which beyond the scope of the patent granted may result to patent misuse, for instance, the resale price maintenance, prohibition of manufacturing the competing products, the conditional license which incorporates another license, and overwhelming royalties on the price of the whole product instead of the actual usage of the patented article.<sup>118</sup>

Along with the Supreme Court's rulings regarding post-sale restrictions, the controversies relate to antitrust have arisen simultaneously. The U.S. patent law has explicitly stated that the privileges of patentee are not given the immunity against the [c]ivic or criminal liability, or to create any defense to actions, under any antitrust law.<sup>119</sup> The early Supreme Court focused more on defining enforceable post-sale restrictions, nonetheless, the current Court tend to define the proper scope of exhaustion for preventing the parties from over relying on making complex conditions while contracting around the patents. United States held the suits against General Electronic, Univis Lens, and Ethyl Gasoline Corp. for breaching the exhaustion doctrine and antitrust law. Exhaustion doctrine is now commonly seen as a default rule under patent law, and post-sale restriction is accepted as a waiver. However, the prohibitions *per se* illegal under antitrust law such as fixing-price restriction would automatically invalid that has been affirmed in *Mallinckrodt*.<sup>120</sup> Fail to obey the exhaustion doctrine does not necessarily accomplish antitrust law, but antitrust law does increasingly giving pressure on exhaustion.<sup>121</sup> In addition, the patentee's interference with downstream manufacturing or distribution has been highly alerted to the antitrust law. The misplaced conditions would not avoid the exhaustion and may further break the anti-competition law.

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<sup>118</sup> *Supra* note 1, at 10-17

<sup>119</sup> 35 U.S.C. §211 Relationship to antitrust law (Nothing in this chapter shall be deemed to convey to any person immunity from civic or criminal liability, or to create any defenses to actions, under any antitrust law.)

<sup>120</sup> *See Supra* note 55, at 704 (These cases established that price-fixing and tying restrictions accompanying the sale of patented goods were *per se* illegal.)

<sup>121</sup> Ariel Katz, *What Antitrust Law Can (and Cannot) Teach About the First Sale Doctrine*, University of Toronto - Faculty of Law (2011).



The Quanta Court implied the parties should be more cautious about contract making by upholding a stronger exhaustion. Despite the issues regarding jurisprudence, the impacts to the remedies of the litigation are more dramatic and influential. Following the line of the Supreme Courts' interpretation in the prior cases, therefore, few categories of litigation outcomes involving exhaustion doctrine can be distinguished. As the post-sale restraint is both valid and within the scope of the patent right granted, the remedies can hence be claimed for patent infringement such as *Mitchell v. Hawley* and *General Talking Pictures Corp. v. Western Elect. Co.* If the exhaustion was triggered due to flaws of the contract such as the Quanta case, the other parts in the contract are still enforceable that enable the patentees to receive the remedies against the contract breaching. However, while the restrictions have fallen out of the scope of patent, it will not only trigger the exhaustion but may potentially interfere with the other laws such as patent misuse and antitrust law restrictions. The patentees will also be forfeited the right to claim remedies entitled for patent law or contract law under this circumstances of that the contract is recognized illegal. *United States v. Unis Lens Co.* mentioned earlier is seen within this category.<sup>122</sup>

### 3. Conclusion

U.S. Federal Courts had been recognized as patent holder friendly.<sup>123</sup> Until the Supreme Court of Quanta drew a fine line between the patent exhaustion and contractual restrains that enable the downstream users to find a solid ground to stand. The initial nature of patent law defined in U.S. constitution aims to encourage the progression of useful arts and science which stands from the perspective of public's interests instead of protecting holders' private fortunes by granting them

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<sup>122</sup> See *Supra* note 1, at 15-17.

<sup>123</sup> Leija Javier M., *The Patent Exhaustion Doctrine: Patent Holders' Rights versus The Public's Interests In Using The Invention*, 2 Phoenix L. Rev. 163, at 189 (2009)

rights to monopoly. Court of Quanta grants the ruling based on *Bloomer v. McQuewan* to support the unconditional sales would exhaust the patent right that indicates to a more delicate contract is required. The Supreme Court indirectly supports the application of post-sale restrictions as long as applied properly.

By considering the acceptance of market, patent holders might attempt to first hook up the interests of purchasers by promoting part of the components that cost relative lower than buying the whole, for instance, the microprocessors and chipsets in Quanta's case. With the purpose of collecting all the value of the patents, the patent holders seek to separate contracts and draft the sophisticated contractual conditions to limit the use that in fact results to extra costs on downstream users. Moreover, the uncertainty transaction causes the risks of infringing the patent right and litigations.

Along with the decisions of Quanta's Court, patent holders shall wrap the patents within a sole contract in order to secure the full value of the patents. Though the overall price would be increased, downstream purchasers will always transfer the cost down to final consumers. Nothing will be changed eventually and consumers still have to pay for the bill at the end, but less risks of infringement liability that downstream purchaser may have to bear. Furthermore, value is always defined through bargaining that makes no difference on the negotiation between patent holders and licensees. The real value of the innovation shall be decided by the market and public instead of the contractual tricks played by patent holders. Patent law should be standing on the side of public instead of the atypical patent holders. The inventors are supposed to be given the rights to obtain the rewards from public for their contribution but not to rip the public.

## Chapter 4 International Exhaustion Doctrine and Its Future Impact on Global Market

### 1. The Future Development of International Exhaustion

As stated hereby, what the patentee intends to control with conditional license is normally the downstream sales. To extend the domain of exhaustion doctrine as broad as it can, the disputes of parallel sale are unavoidable consequently. In case of *Quanta v. LGE*, the transaction between Quanta and Intel was in fact international sales related that Quanta combined the patented components in oversea. Though the Supreme Court refused to go that far to further explain whether international exhaustion is applied here it does not decline the importance of the issues relating to distribution. As stated earlier in Chapter 2, there is not yet clear ruling made by the Supreme Court regarding the international patent exhaustion.<sup>124</sup> However, the Court has dealt with international exhaustion through some cases involving copyright and trademark law.

The latest precedence involving international exhaustion is the case of *Omega v. Costco*.<sup>125</sup> Omega first sold the branded watches to authorized distributors outside of United States. Those watches were subsequently sold to some unidentified third parties and then a New York company, ENE Limited, purchased them from the so called “grey market”. Ultimately, those watches were sold to Costco and displayed for sale. Omega argued that it did not authorize no matter the importation into U.S. market or the sales made by Costco although the initial distributors bought those watches lawfully in overseas market.<sup>126</sup>

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<sup>124</sup> *Supra* note 77 at 2, 4 ( The matter becomes more complicated when the patentee holds global patent rights through parallel patents in several countries.)

<sup>125</sup> *Omega v. Costco*, 541 F.3d 982.(Fed. Cir. 2008)

<sup>126</sup> *Id.*, at 984.

The interpretation of copy right law §109 exceeds the scope of this research. However, the Court does present its standard to determine whether universal exhaustion is valid.<sup>127</sup> What is concerned here relates to the place wherein the goods are originally manufactured. In light of the U.S. copyright law, there is no extraterritorial application. The Court further considered that the copyright law may be over extended by providing copyright protection to foreign-made copies. This may encourage the copyright owners seeking to produce overseas to waive the exhaustion. Moreover, the copyright owner may be granted overwhelming power to control the distributors in the domestic market even the products have been sold and transferred for multiple times.<sup>128</sup>

Even though the case of Omega concerned irrelative to patent law, the attitude of the Court regarding the interpretation of first-sale doctrine should still be considered. In the terms of extraterritorial issue, the Court rather chose to remain a conservative status instead of defining the exhaustion by only concerning the protection that copyright owners are granted by law. Therefore, we wonder such interpretation and its concept of jurisprudence whether may be potentially analogized on patent law in the future.

The literatures and precedents studied hereinbefore have brought us an insight into domestic exhaustion doctrine. This policy still full of controversies but has been well acknowledged as important and effective to the real business world. In light of sophisticated parties and technologies nowadays, the patentees become more cautious on making contracts to satisfy the considerations which echo to the value of the patent. On the other hand, the licensees would seek for maximizing the economical benefit granted from the patent owners. In order to further achieve the goal for international business, the exhaustion doctrine which is operated in the

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<sup>127</sup> See *Supra* note 122.

<sup>128</sup> *Omega v. Costco*, 541 F.3d 982 (2008).

other regions should also be taken into account for arranging a global strategy. The following section will lead us to overlook the doctrine of exhaustion in EU, Japan, and China where are weighted as important markets for global business.

## **2. The Impacts of Exhaustion Doctrine on Global Market**

Although the Court in U.S. draws a line between antitrust and contract law to accommodate post-sale restriction that enable patentees to license around for avoiding exhaustion, not every other nation has developed such jurisprudential freedom applying for patentees and regular contractual parties. However, the global market consists with linkages and incorporation of the legislations in different jurisdiction regions. As discussed above, in order to practice exhaustion doctrine in the real time business nowadays, we must also consider the other major economy regions wherein international trade normally practices. Under WTO, the concern of intellectual property protection has become more critical in the perspective of international trade, different issues and disputes regarding exhaustion have also been generated. Not alike the traditional domestic exhaustion, the discussion regarding international exhaustion has therefore been derived. Moreover, the issues related to parallel import/export are generated in accordance with the frequent cross-boarder transaction have been taken place. Hereinafter, the regulations and jurisprudences of few major trading regions related to exhaustion doctrine and Post-sale restriction will be mentioned and roughly outlined.

### **2.1 European Union**

#### **2.1.1 The Perspective of EU on Exhaustion Doctrine**

Distinct from the U.S. market, EU is absolutely a more complicated trading region which involves complex nations and multiple domestic laws. The priority of EU law consists with the principle to harmonize the member states from every

dimension. Therefore, parallel importation has been often discussed along with the exhaustion regarding the possible impacts to patentees, independent jurisdiction, and technology development.<sup>129</sup> Not like U.S. to explicitly state it in law, exhaustion doctrine is still remaining on uncertainty about its status of law in Europe. Exhaustion doctrine seems are operated by ECJ as a model for reaching the principle of establishing the harmonization and aggressively applying it to all goods sold within EC country. Within the territory of EU member states, it is difficult to obstruct parallel trade unless the goods are first placed outside of EU and imported without the permission of the domestic patentees.<sup>130</sup> Under such principle, European exhaustion is therefore transformed into the part of national laws and operated through secondary legislations.<sup>131</sup>

Different to the definition of exhaustion imposed by the U.S. Supreme Court, ECJ in turns emphasizes the market circulation in accordance with the free movement of goods principle.<sup>132</sup> The understanding about exhaustion has been interpreted as every act of putting a good into market circulation at the first time would have triggered the exhaustion. Furthermore, the exhaustion will anyway effect regardless whether or not the inventor or product owner has the right for the intellectual property or be able to get the reward in the country where the first circulation took place.<sup>133</sup> This theory of exhaustion, however, is only supporting the regional exhaustion within the boundary of EU.<sup>134</sup>

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<sup>129</sup> Christopher Heath, *Parallel Imports and International Trade*, World Intellectual Property Organization Annual Meeting, at 12-14 (1999).

<sup>130</sup> Alexander J. Stack, *Trips, Patent Exhaustion and Parallel Imports*, J. World Intell. Prop. 657. at 676 ( This has led the European Court of Justice (ECJ) to aggressively apply an exhaustion doctrine to all goods sold in an EC country. As a result, it is difficult to block parallel importation between European countries, unless the good is placed on th foreign market without the domestic right-holder's permission.)

<sup>131</sup> Guido Westkamp, *Intellectual Property, Competition Rules, and The Emerging Internal Market: Some Thoughts on The European exhaustion doctrine*, 11 Marq. Intell. Prop. L. Rev. 292, at 293-294 (2007).

<sup>132</sup> *Supra* note 128, at 6-7.

<sup>133</sup> *Supra* note 130, at 308-309 (every act of putting a product into circulation resulted in exhaustion,...)

<sup>134</sup> *Supra* note 129, at 681 (Noted that the European Community's internal exhaustion rules do not apply to goods that originate outside the EEC, even if they were legally imported into one of the

In light of the discussion between international and national(domestic) exhaustion, the sophisticated geography boundaries within EU resulted in different treatments up to the respectively regulations. Based on Paris Convention, patent application and obtaining should be dependent on individual countries.<sup>135</sup> The member countries such as Germany, France, and Italy therefore hold national exhaustion by containing in their own patent law. Only the patented products are lawfully put into market circulation inside the countries will exhaust the patent right to against to parallel importation. Hence, the products are parallel imported from other countries without permission of the patent holders will infringe the patent law within the market country although the exporter has lawfully obtained the products or authority outside the scope.<sup>136</sup> However, the scholars who hold international exhaustion doctrine consider that the international patent right are definitely all related, for instance, a patent granted in one country will effect to the novelty of the other inventions in the other country. The exclusive right granted by patentee should not be seen individually depending on only territory; and it is also insufficient to support national exhaustion merely with the principle of territory imposed by Paris Convention.<sup>137</sup>

### **2.1.2 Practice of the Post-sale Restriction in EU**

The strategies of the post sale restrictions commonly accepted in U.S. are, however, practiced differently in Europe. Along with rules of the U.S. precedents, post restrictions are supported to extent the patent holders' right of control. In terms

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EEC countries.)

<sup>135</sup> Jerry Gen-Yu Fong, *International IP Conventions and Development Trends*, Taiwan I.P.O., at 16-24 (2007). (馮震宇, 國際智慧財產權公約及國際發展趨勢, 經濟部智慧財產局, 2007年2月)

<sup>136</sup> Yu Xian, *Patent Exhaustion and Parallel Importation – The Implementation and Analysis of EU Law*, 64 Taiwan L. Rev. 115, at 119-121(2000). (余翔, 專利權之耗盡與專利品之平行輸入—歐體法律、實踐及相關理論剖析, 月旦法學雜誌第64期, 2000年9月)

<sup>137</sup> *Id.* at 124.

of Quanta, the Court's ruling might result in different if the LGE-Intel agreement has been conditional. Although the quantitative restriction on import and export is written prohibited under the EU Treaty Article 34 and 35,<sup>138</sup> the owners or proprietors of intellectual properties are able to waive the prohibition based on Article 36.<sup>139</sup> Nonetheless, Article 101 referring to the rules involving the action of competition clearly states that some types of conditions on all agreements within the internal market are prohibited. Such prohibitions related to price-fixing, share markets or source of supply, and dissimilar conditions to equivalent transaction.<sup>140</sup> Different to U.S. that post-sale restriction is allowed under contract laws and patent laws, the patent holders would have to seek for secondary regulations supplemented to the EU Treaties in order to play their licensing strategies. The most commonly utilized by patentees are Vertical Restrain Regulation (VRR)<sup>141</sup> and Technology Transfer Regulation (TTR)<sup>142</sup>.

Both VRR and TTR provide some exemptions from Article 101(1) in perspective of licensing agreements. However, the respectively subjects to agreements are placed differently. VRR is applied on the contract for consequent supply and distribution chain, in the other words, the actions of vertical purchase or retailing is taken place as the main purpose of the contract. Some price restrictions are allowed and the territory restrictions are permitted in certain cases to impose on reselling the contracted products under Article 4.<sup>143</sup> The contract products stated in the clause are not limited to patented products in specifically. Instead, VRR is more

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<sup>138</sup> See Official Journal of the European Union C 83/61, 2010 O.J.E.U art. 34 & 35(ex Article 28, 29 TEC) (Quantitative restrictions on imports and all measures having equivalent effect shall be prohibited between Member States.) (Quantitative restrictions on exports, and all measures having equivalent effect, shall be prohibited between Member States.)

<sup>139</sup> See *Id.* art. 36 (ex Article 30 TEC) (The provisions of Article 34 and 35 shall not preclude prohibitions or restrictions on imports, exports or goods in transit justified on grounds of public morality.....; or the protection of industrial and commercial property....).

<sup>140</sup> See Official Journal of the European Union C 83/88, 2010 O.J.E.U art. 101 (ex Article 81 TEC)

<sup>141</sup> See Commission Regulation 2790/1999, 1999 O.J. (L336) 21 (EC) [hereinafter VRR].

<sup>142</sup> See Commission Regulation 772/2004, 2004 O.J. (L123) 11 (EC) [hereinafter 2004 TTR].

<sup>143</sup> *Supra* note 140, art. 4(b) states that "the restriction of the territory into which, or of the customers to whom, the buyer may sell the contract goods or services, except: ...".



emphasizing on the vertical supply agreement rather than on license.<sup>144</sup>

Referring to 1996 TTR, it was specifically applied to the patent and know-how licensing.<sup>145</sup> More specifically, 1996 TTR was designed for the licensee who manufactures or reproduces the licensed products and service himself, or at least investing in the manufacture assets to make the products or service. The restrictions on licensing agreement are exempted under Article 2 of 2004 TTR which is divided to competing and non-competing undertaking licensees. The market share of the competing licensee parties shall not occupy the market share in combined exceeds 20% on the affected relevant technology and product market; and the non-competing parties who accept the conditional agreement shall not exceed 30% of market share in individual.<sup>146</sup> Under 2004 TTR, the licensees without the authority are restricted to export the licensed products into the territory reserved for licensor or licensor's consent. In the other words, the patentees can therefore waive the exhaustion by preventing parallel imports through signing technology transfer agreement with the manufacturers or downstream licensees.

The patentees may decide which type of contracts they would like to draft depends on the categories of patent or technology they own. VRR would allow the proprietor to restrict the territory of sale within the contract, but in turns the distributor who imports the licensed products out of restricted scope would only be entitled to infringement of the contract. Alternatively, TTR is specifically for intellectual property such as patent, trade secrete, and know-how. However, the licensees are required to invest in the substantial manufacture that may cause higher

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<sup>144</sup> *Supra* note 130, at 300.

<sup>145</sup> See Commission Regulation 240/96, 1996 O.J. (L31) 2 (EC) [hereinafter 1996 TTR]. (...restrictions imposed in relation to the acquisition or use of industrial property rights – in particular of patents, utility models, designs o trademarks- or to the rights arising out of contracts for assignment of, or the right to use, a method of manufacture of knowledge relating to use or to the application of industrial process.)

<sup>146</sup> See *Supra* note 141, act. 3, L123/12

threshold to the transaction. The restriction merely on the downstream distribution is not the subject protected under TTR. Therefore, the patentees intend to apply post-sale restrictions or conditional sales within EU must play differently in order to impose the restraint and avoid exhaustion.

## 2.2 Japan

Like most of other countries around the world, Japan also admits the concept of domestic exhaustion of IPR. As one of major technology developed countries, Japanese Courts have recently facing some litigations referring to the disputes of geography, repair, and distributing exhaustion.

In the case of *BBS Kraftfahrzeug Technik AG v. Kabushiki Kaisha Racimex* which relates to a company owns two very similar patents covering a type of automobile wheel respectively in Germany and Japan. The wheels were manufactured and first sold by the patent owner within Germany. The third party obtained the wheels and imported them into Japan. The Japanese Supreme Court first emphasized the independence of patent and patent right based on its inherently territorial in scope. The international exhaustion shall not be automatically applicable to the respectively patent rights.<sup>147</sup> However, the patentee who transfers its patent right in overseas and explicates its exclusive right to sell, import, and use in the territory of Japan, the patentee thus has the right to restrict the third party to import into Japan without permission. In the contrary, without specific restrictions on the right under the agreement to limit its purchasers or licensors would exhaust the right of the patented article.<sup>148</sup>

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<sup>147</sup> James B. Kobak, Jr. *Exhaustion of Intellectual Property Rights and International Trade*, Hughes Hubbard & Reed LLP and Fordham University School of Law, at 5.

<sup>148</sup> Chia Shuo-Chi, *Study of Interference Between Recycling Product and Patent Infringement upon Litigation of Ink Cartridge*, at 58-60 (Jul 2007) (unpublished Institute of Law and Technology thesis, National Chung Hsing University). (賈碩碩，再生商品與專利侵害關聯性之研究—以噴墨印表機墨水匣專利案爭訟為中心，中興大學科技法律研究所碩士學位論文(2007))

Alternatively, the later case of *Canon v. Recycle Assist Co.* relates to the recycling ink cartridge involving the issues of repair and reconstruction. Recycle Assist Co. happened to collect used ink cartridges from outside of Japan and refilled the ink then importing the recycled cartridges into Japan market and resale them within Japan. Canon therefore sued Recycle Assist for patent infringement covering method claims of producing the ink cartridges. The Courts first argued about whether the action of refilling constructed the reconstruction. The Tokyo District Court ruled in favor to Recycle Assist by commenting the action of refill the cartridge is seen as repair instead of reconstruction which was only to open an exit on the cartridge and refill the ink without deconstructing or adding anything on the used cartridge. The cartridge is possibly reusable and only can be used for the function as a cartridge.

However, the High Court reversed the District Court's decision by defining the action to refill the cartridge as reconstruction which does not trigger the exhaustion. Since ink is the main components to activate the cartridge for achieving its function, and the action to refill the ink turns out to extend the life of the cartridge which was permitted for single use only.<sup>149</sup> The Court subsequently found that Recycle Assist had modified or replaced “the whole or part of the components that constitute an essential portion of the patented article” and modified or replaced “the essential parts of the patented ink cartridge.”<sup>150</sup> The Japanese High Court held the right to manufacture cannot be exhausted by transferring the goods and cannot be infringed by any other parties who reconstruct the patented articles.

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<sup>149</sup> Li Sen-Yen, *Patent Exhaustion – The Principle of the Scope of Patent Right*, 8 Science & Tech. L. Rev. 24, at 31-33(2007). (李森堃，談專利耗盡——一個為專利權畫界的原則，科技法律透析(2007))

<sup>150</sup> Mizuki Sally Hashiguchi, *Recycling Efforts and Patent Rights Protection in the U.S. and Japan*, 33 Colum. J. Envtl. L. 169, at182 (2008)

Moreover, the argued cartridges were first sold in the oversea market without restricting its usage of territory, and the action to refill was taken place outside of Japan. As the cartridges were sold to the consumers in overseas, no any restrictions on frequency of use or territory restrictions were placed. The Courts found the transaction between Canon and its foreign agencies or customers were unconditional that results to exhaustion. Canon did not set forth a limitation to exclude Japan market from its foreign sales, either. Therefore, the Court decided the international exhaustion has been taken place in this case. It is not hard to find the Japanese Court has clearly expressed its attitude to support the patentee's right of control under conditional license.

## **2.3 People's Republic of China**

### **2.3.1 The Status of China regarding Exhaustion Doctrine**

Since 1992, People's Republic of China (China) has aggressively modified the intellectual property law to reach the threshold of WTO. Under the Article 11 of Patent Law, it is written to prohibit the importation of any patented goods into China without obtaining the permission or authorities of the patentee or patent proprietor.<sup>151</sup> However, there is not yet precedent so far in China to define the exhaustion. Whether China is standing for national exhaustion or international exhaustion is now remaining unclear. The significant reason for China holding a *sub silentio* attitude regarding exhaustion and parallel importation is due to its critical position of technology development.

Most of high-end patent granted in China nowadays are still owned by foreign inventors. As a fast-growing developing country with relative lower currency and mass labor powers, China has turned into one of the most important world factories.

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<sup>151</sup> See 2008 Patent Law P.R.C. art. 11 (2008).

The domestic industries are now desperate for technology transferring licenses; on contrary, the western countries as the major technology inventors or proprietors then are eagerly seeking more intensive protection on their technology. These patent owners highly rely on the cheap labor in China to manufacture or reproduce. Most patented articles now manufactured within China tend to be exported back to U.S. or European market. The technology owners would look for enhancing its protection on patent to encourage the invention; however, the technology importing country in this case, China, would seek for minimum limitation to allow the industries receiving the patent authorities and licenses in order to further develop their own technology.<sup>152</sup>

### 2.3.2 Practice IP Protection in China

China as a socialism country that antitrust and competition law had never been the traditional jurisprudence. To catch on the trend of international trade and WTO, the latest Anti-monopoly law (AML) of China is effect since 2008 which details certain prohibitions to the post-sale restrictions relating to the price-fixing, quantitative of sale, territorial segmentation and others which is apparently similar to EU Treaty.<sup>153</sup> Furthermore, AML also contains a specific provision, Article 55, relating to IP and to give IP owner a tolerance of waiving the prohibitions.<sup>154</sup> However, Article 55 is too much in general which subsequently raises the ambiguity on defining the relationship between dominant market position and IP abusing. Microsoft case is currently the most significant one regarding the disputes between

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<sup>152</sup> Yu Xian, *Study of IPR Exhaustion and Parallel Importation of China – Referring to the Latest Patent Law, Trademark Law, and Copyright Law of China*, 4 Science & Technology L. Rev. 48, at 57-60 (2002). (余翔，中國智慧財產權權利耗盡及產品平行輸入體制研究 – 基於最新修訂之中國專利法、商標法和著作權法，2002年4月科技法律透析)

<sup>153</sup> Yijun Tian, *The Impacts of the Chinese Anti-Monopoly Law on IP Commercialization in China & General Strategies for Technology-Driven Companies and Future Regulators*, 4 Duke L. & Tech. , at 4-7 (2010).

<sup>154</sup> See 2007 Anti-monopoly Law P.R.C., art. 55 (states “This Law is not applicable to the undertakings which use Intellectual Property Rights according to the laws and administrative regulations relevant to intellectual property, but is applicable to the undertakings which ‘abuse IP’ and ‘eliminate or restrict market competition.’”)

IP right and anti-monopoly in China. Microsoft launched a system in China market to distinguish the authorized and piratical version of Window XP and Office which would break up the screen when the unauthorized user turns on the computer.<sup>155</sup>

Most scholars in China believe the action Microsoft claimed to protect his copyright with the breakup system shall not be seen as an ordinary strategy under IPR. Microsoft's strategy may potentially cause further damages on consumers' chattel right that has met the criteria of abusing. Besides, the definition regarding the dominant market position of Microsoft accepted by the Court is also argued. The Court believes Microsoft has dominated 90% of market share in China which exceeds the 1/2. Nonetheless, most of those uses are piracy that Microsoft in fact has very small market share in authorized system.<sup>156</sup>

The very limited cases and precedents regarding to intellectual property may not sufficiently lead us a clear picture about the legal status of exhaustion and post-sale restriction in China. The only certainty is whether the IP owner is recognized as "abuse IP" or "eliminate market competition" may be determined accordantly with the market share or the dominant market position of the proprietor.

### **3. Conclusion**

Generally, U.S., Europe, and Japan recognize the concept of the first-time sale of the patented goods would terminate the monopoly privilege granted by patent law. Both U.S. and Japan mainly define this doctrine through the precedents initially. Exhaustion doctrine has been taken into account as part of the intellectual property fundamental rule. By interpreting with "once the good is passed to the hands of a

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<sup>155</sup> Jia-Jun Lin, *The Impacts of China's Antimonopoly Law on Foreign Investment Enterprises Operating Intellectual Property Rights*, (unpublished MA Intell. Prop. thesis, National Chengchi University) (2010).

<sup>156</sup> *Id.*

purchaser, it is no longer within the limits of the monopoly”,<sup>157</sup> U.S. Supreme Court focus on the substantial action of first time sale. Along the longstanding rule, the conditional sales or agreement are essential for patentees to avoid exhaustion. Although the contract law grants the freedom to contract, the post-sale restraints must not violate the other laws such as anti-competition or antitrust as explained in *Univis*.

However, in Europe, the exhaustion is still under debate on its legal status. In light of the complicated relationship between member states and sophisticated internal trading, JEC therefore stressed on “the first time the good is put into the market circulation”.<sup>158</sup> Secondary regulations supplement to the Article 101 enable the patentees to avoid exhaustion through setting conditions on distribution agreement or technology transferring licensing depends on the criteria of technology they own. Japan is pretty much the same to U.S. and emphasizing on the set forth limitations for the use. Japanese Court tends to put the patent right granted by patentee prior to the market circulation. China as the new comer in the perspective of patent law, and the anti-monopoly law is merely established with a formal structure. Although it looks very much the same to EU Treaty on the perspective of outline, the AML still lacks of its detail supplemental regulations for practice in reality.

LGE authorized Intel to produce and label the microprocessor and chipset embedded with LGE’s method patent, and then signed separate contracts to limit the downstream users by requesting them to continually purchase the other Intel components in order to practice the patent. LGE’s licensing strategy has apparently showed the intention to interfere the competition by indirectly pursuing the

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<sup>157</sup> *Supra* note 16.

<sup>158</sup> *Supra* note 128, at 6. (Quoting from *Cebtrafarm B.V. and Adriaan de Peijper v. Sterling Drug Inc.*, 6 IIC 102 (1975)).

downstream users to purchase all for avoiding patent infringement. No matter whether LGE failed to restrict Quanta due to the loosen contract with Intel, the purpose of withholding the market development shall not be encouraged. Take a step further, LGE assigned Intel the global license which has been substantially oligopoly would snowball its control over the market. Under the phenomenal that most countries uphold the conditional license may avoid the exhaustion regardless in international or domestic market, the business model of LGE-Intel may effect unfair competition and further block the progression of technology. The high cost of litigation in U.S. and the remaining patentee-friendly attitude of Courts have appealed lot patentees choosing to raise the suit in U.S. After decades since the last Supreme Court's ruling, the Court now grants certiorari to re-emphasize the fundamental principle of exhaustion doctrine and to stress that the unconditional sales would trigger the exhaustion. Not only the patent law was concerned by the Court, the consequence of the transaction may impact to the downstream industry was also taken into account.



## Chapter 5 Taiwan's IT Industry Research and Licensing Strategies Management

With in-depth understanding about the exhaustion doctrine in terms of the enforcement and the limits of post-sale restrictions, we may have realized how significant a set forth restraint may take place in the licensing or downstream distribution agreement. Along with the rulings of *Quanta v. LGE* and the tremendous penalty involved for patent infringement, it would have been a huge attack not only to the Taiwanese company but further to the whole industry of Taiwan if the U.S. Supreme Court had not favored in *Quanta*. The other companies such as Bizcom, Compal, and Everex Systems had chosen to pay for the penalty after decision made by Federal Circuit favored in *LGE*. Another Taiwanese company, Asus, had made the settle agreement with *LGE* to cease the potential lost from the uncertainty law suit.

The purpose of this research does not merely lead us look into the doctrine and restriction patentees used to impose for avoiding exhaustion. But I intent to further illustrate a guideline based on the prior cases and the explanation of the Courts. This guideline should provide both patentees and licensees an orientation while considering making a licensing agreement. In this research, IT industry is chosen as the entity to practice the guideline for two reasons. First, *Quanta* itself is a company running OEM and ODM business for major PC companies such as Intel and HP. Second, in the past 30 years, IT industry has been playing the most important role in Taiwan which creates the miracle on Taiwan's economy and has led this isolated island step back on the stage of global economy.

### 1. Industry Background of Taiwan

During the 70's, Taiwan had gone through a rocky circumstance. First the government announced to withdraw from UN to against People Republic of China

and this decision caused Taiwan facing extremely high pressure from being isolated by the other members and also losing most of affiliated member countries. Taiwanese were confused and panic about the difficult environment and uncertain future. Besides, the global economy was also facing a serious depression due to the Oil Crisis in 1973. Not even mention how rough the economy of a small island as Taiwan would be. Taiwan was still highly relying on the annual aids from U.S. government which was mostly used for military purchase upon that period. No any industry at that time is seen profitable to feed the poverty people in Taiwan or help this country stand independently. Under such pressure, Taiwan is desperately on finding an exit out. The Government therefore launched ten major public constructions to inspire the inner demands and decided to develop an industry which may carry the economy of Taiwan. Integrated Circuits (IC) was suggested by some talented Chinese-American engineers and soon accepted by the government for the target industry since then.<sup>159</sup>

It was an early stage for the technology of IC. U.S. was one of the very few countries had dedicated on the research for IC at that time and had the most advanced technology about it. The industries in most of developing countries such as Taiwan only OEM for products consisted with low technology level in 70's. In order to develop IC industry and root it in Taiwan, Ministry of Economic Affairs therefore sent a 13 people team to U.S. in 1976 for learning the technology. This is how Taiwan's IC industry first began. Along with the development of IC industry, IC industry and its derivative technology have dramatically changed the world and human behaviors today from the industry computer to personal electronic devices. The aggressive dedication encouraged by government has also turned Taiwan into one of the most important technology headquarter for the works of IC design,

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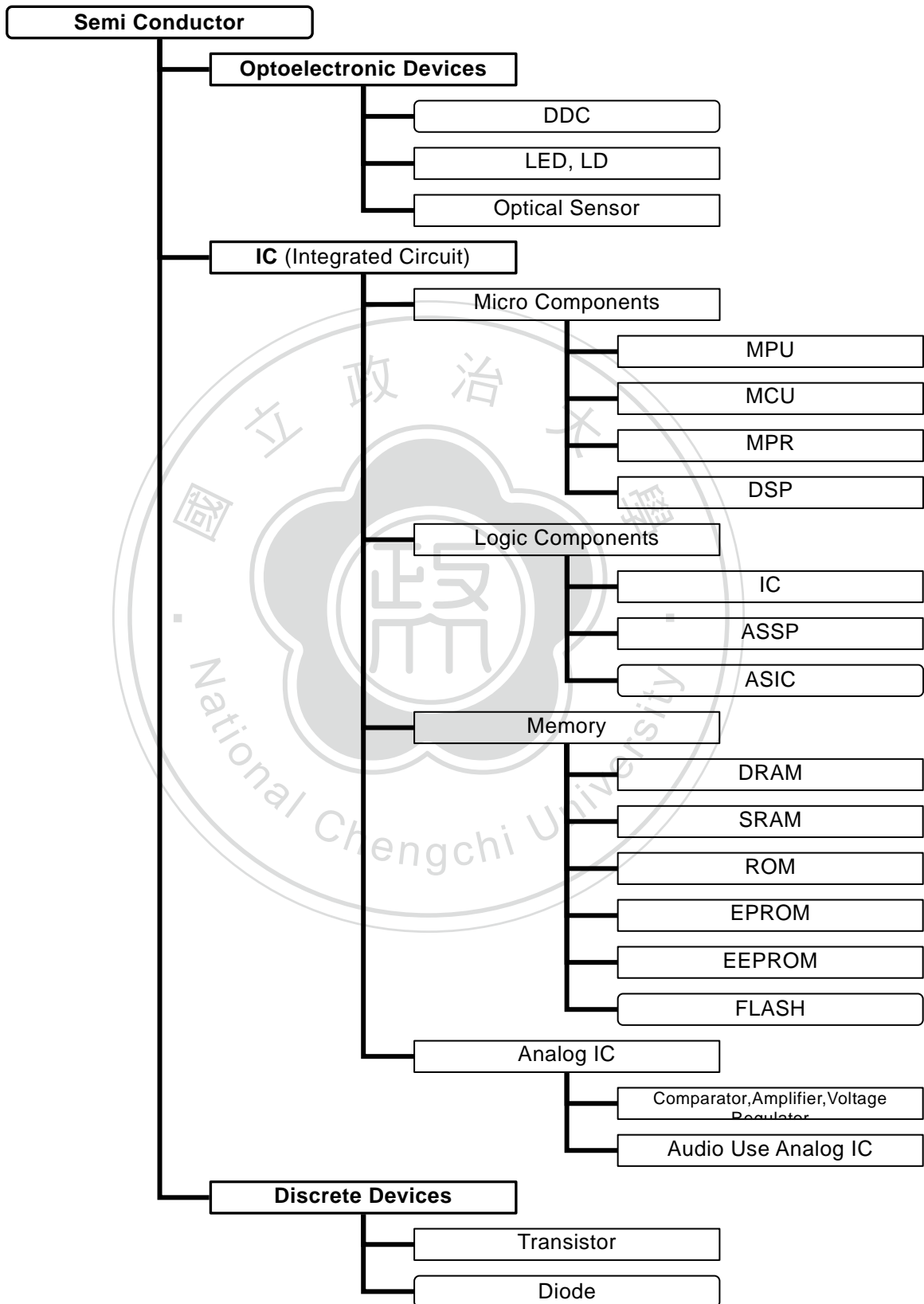
<sup>159</sup> Chan Ju-Hsin & Pan Wen Yuan Foundation, *Silicon in Taiwan – The Legend of Semiconductor Industry of Taiwan*, Commonwealth Publishing Group, at 55-63 (2006). (張如心、潘文淵文教基金會，矽說台灣-台灣半導體產業傳奇，天下遠見出版股份有限公司)

packaging, and manufacturing.

Semiconductor is absolutely most significant to the modern technology nowadays. The present electronic devices operated in our daily life would not be functioned without it. Semiconductor is an electrical conductivity material between conductor and insulator which can control the electron flow. Materials like Si and Ge are known as the semiconductor. IC is derived from the concept of semiconductor and further divided into Micro components, Logic Components, Memory, and Analog IC. Besides IC, there are also Optoelectronic Devices and Discrete Devices derived from Semiconductor what have also been widely applied on present electronic devices in our daily life.

Encouraged by Taiwanese government for up to 3 decades that integrates the industry chain from vertical to parallel which form the Information Technology Industry as known as IT industry. From the software to hardware, semiconductor and its derivational components have been playing an irreplaceable position. The general IT industry in Taiwan has consisted of IC, computer and the related components industry to supply to the worldwide PC, TV, and even personal electronic device market. Most significantly, IT industry has not only achieved the goal of the government expected but also successfully made the sound for Taiwan in the global market.

## Categories of Semi Conductor



Source from: 張順教，高科技產業經濟分析，雙葉書廊有限公司，at 27 (2003).

## 1.1 IC Industry

Within the categories of IT industry, IC has been playing the leading role to direct the development of the whole industry. IC industry is mainly divided into Foundry for wafer manufacturing and other IC manufacturer includes IC design, IC testing, packaging, and further to 3C electronic devices assembling.<sup>160</sup> The industry of Foundry first started during 1980 to focus on integrate device manufacturing (IDM) the wafers for the demands of Fabless. In 1987, TSMC, the first manufacturer of the world was founded in Taiwan which also starts the era of global Foundry business. The present major Foundries in Taiwan are TSMC, UMC, and VIS have been supplying to the global market. The Foundry industry is now expanding to maximize the scale and seeking for the solution to cost down. TSMC invested a manufacture chain in China in 2004 under the permission of Taiwanese government. Later on, TSMC and UMC also shifted partial manufacturing lines to India for the labor cost-down concern. Currently, China has also established its local Foundry manufacturers and interfere the market with its low-cost labor.<sup>161</sup> The following table illustrates the present categories of IC industry in Taiwan and the revenue allocation since 2006.

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<sup>160</sup> Chu Yen Chi, *Analyses of High Tech Industry*, Wu-Nan Publishing, at 60-61 (2007). (朱延智, *高科技產業分析*, 五南出版社 (2007))

<sup>161</sup> Liu Pei Chen, *The Data of IC Manufacture Industry*, Data Base of Taiwan Institute of Economic Research 17794, at 4 -10 (2011). (劉佩真, *積體電路製造業基本資料*, 台灣經濟研究院產經資料庫(2011))

**【Table 1】 Categories of Taiwan's IC industry**

(%)

Year	Categories and Allocation of Revenue						
	Standard Products ( Includ ASSP)				Customized	Foundry	Total
	Memory	Micro	Logic	Analog	(ASIC)		
2006	40.4	0.5	2.0	0	0	57.1	100
2007	36.0	0.8	2.3	0	0	60.9	100
2008	32.0	0.9	2.6	0	0	64.5	100
2009	25.6	1.7	2.9	0	0	69.8	100
2010	27.5	1.6	2.7	0	0	68.2	100

Source from: 台灣經濟研究院產經資料庫 (2011)

According to Moore's Law, the component density and performance of integrated circuits doubles every year, which in fact was revised to doubling every two year.<sup>162</sup> The cost of the IC will subsequently decreased into half as long as certain quantity of production is reached. The solution for the industry is to seek for economic in scale. Theoretically, the manufacturers who participate in the next level of technology as soon as possible would then first meet the goal to cost down. Once anyone in the market first meet the boundary will enable to low down the price to half and dramatically threaten the other competitors who are left behind. This theory has never been broken until now and the up to day IC industry is still developing along the path Moore has predicted.

Referring to the other IC manufactures, UMC was founded under the assistance of Industrial Technology Research Institute of Taiwan (ITRI) in 1979. Since ever, ITRI then conducted on establishing the IC industry in Taiwan by transferring the technology to the companies like Winbond, Utek, and Micronix. In

<sup>162</sup> Scott E. Thompson, *Moore's Law – The Future of Si Microelectronics*, 19 *Materials Today*, at 20 (2006)

2004, the gross revenue of the whole IC industry of Taiwan had reached 225.4 billion dollars and the revenue of DRAM, SRAM, MaskRom had taken place respectively for 21.6%, 10.5%, and 91.1% in the global market. These numbers clearly show how important the role of Taiwan's IC industry has been playing in the world.

During 2005 to 2006, confronting the system changes of PC due to Microsoft launched Vista. The demands for NAND Flash boosted and influence the market of DRAM. The world's major technology holders were forced to shuffle the product focus. Qimonda then decided to withdraw from the DRAM market. The technology of DRAM is then divided into 4 groups. Samsung and Hynix from Korea own technology and manufacture themselves, the others are Micron from U.S. licensed to Nanya and Inotera in Taiwan, Elpida from Japan licensed to Powerchip, Rexchip, Winbond, and ProMos in Taiwan. The battle between groups is just as Moore's Law has predicted. The table below shows how the companies have fallen into the competition of chasing the upgrades on scale.

**【Table 2】 The Allocation Percentage of Transistor Feature Size Scale of World's**

**Major DRAM Manufacturers in 2011**

(%)

Group of Technology	Feature Size Scale	Q1	Q2	Q3	Q4
Samsung	46um	90	70	60	50
	35um	10	30	40	50
Hynix	44um	100	90	80	60
	38um	0	10	20	40
Rexchip	44um	100	100	100	90
	38um	0	0	0	10
Inotera	50um	100	90	50	20
	42um	0	10	50	80
Nanya	50um	100	100	70	40
	42um	0	0	30	60
Powerchip	63um	100	80	50	20
	40um	0	20	50	80

Source from: Fubon Research (2011)

Nevertheless, Elpida, the last DRAM technology holder of Japan, has filed for its bankruptcy in 2012 and officially announced to withdraw from the DRAM battle.<sup>163</sup> Elpida's decision of withdrawal has also indicated that the future development of DRAM will be a competition between U.S. and Korea. In the other words, the survival of Taiwan's DRAM industry will be tied to the survival of parent technology holders. And not even mention about the nearly one to one battle may cause to a more critical phenomenon for Taiwanese DRAM companies.

<sup>163</sup> Mariko Yasu & Naoko Fujimura, *Elpida Memory Filed for Bankruptcy after Chip Prices Plunge*, Bloomberg Businessweek (2012), <http://www.businessweek.com/news/2012-02-27/elpida-memory-files-for-bankruptcy-after-chip-prices-plunge.html>



## 1.2 Computer Industry

The development of personal computer can be traced back to 1977 as the Apple II launched by Apple. Subsequently, IBM made IBM PC which provided an open platform to compact with software designed by the other suppliers. The strategy of IBM was extremely different to Apple and its self designed Macintosh system. IBM PC enables the suppliers from the market to develop their own systems and results to a quick spread of personal computer. Companies in Taiwan like Acer and Asus also grew fast by manufacturing for branded computer such as IBM, Apple, Dell and Compaq. On the perspective of consuming markets, U.S.A., Europe, and Japan are still the major areas whereto the Taiwan's manufacturers mainly export.

Lately, the demands for Notebook have dramatically increased and reached 57.08% in 2009 defeated the demands for Desktop.<sup>164</sup> The computer industry consists with the supply of motherboard, chipset, passive/active components, accessorial components, and LAN. Due to the mature performance of IC industry, that enables the computer industry to easily acquire the key components with lower cost. Most importantly, the supply chains are clustered together in Taiwan which enhances the co-operation between companies for improving the innovation and research.

Acer started producing notebook since 1990 and later launched the products with its own brand. Asus as one of the major supplier of motherboard entered into the notebook market in 1998 by integrating the upstream suppliers and manufactured for HP and Sony. The other suppliers for instance, Quanta, Compal,

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<sup>164</sup> Wang San Min, *The Information of Computer Manufacturing Industry*, Data Base of Taiwan Institute of Economic Research 16994, at 5-6 (2010). (王聖閔，電腦製造業基本資料，台灣經濟研究院產經資料庫(2010))

and Inventec also joined the market in 1990 and 1991. During the time as notebook industry had grown fast, there were up to 20~30 OEM suppliers in Taiwan. However, since 2001, though the demands of notebook were remaining high, the net profit of notebook contrarily dropped. The manufacturers would have to seek for expanding in scale to keep the profit.<sup>165</sup>

Microsoft introduced Windows XP Tablet PC edition in 2002 results to the trend of computer tablet. In 2006, Microsoft and Intel introduced the standard of Ultra-Mobile PC which is smaller and lighter than the previous notebook scales. In 2007, Asus launched its Eee PC targeting to the children market with lower price and contains only basic functions. However, Eee PC and its smaller size surprisingly dragged the attention of the adult market for its mobility. This brave strategy brightened the market and appealed to other notebook companies to follow. The notebook companies are now dedicating to thinner and lighter the notebook which also impact to the demands for smaller but more powerful IC.

### **1.3 Limits and Threaten of IT Technology in Taiwan**

The development of integrated circuit has been the milestone of Taiwan's technology growth, however, the limit of this industry has been determined simultaneously. Due to the sophistication of this industry involving with complex technology and massive components, to separate the production into different phases for minimizing the cost had been the biggest concern since the beginning stage. Taiwan have realized that the strength of labor-intensive should not be relied on as the only element to support the economy of a country should not only rely on the. Hence, Taiwanese government found the opportunity for the domestic

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<sup>165</sup> Wang San Min, The Information of Notebook Manufacturing Industry, Data Base of Taiwan Institute of Economic Research, at 3-6 (2010). (王聖閔, 筆記型電腦製造業基本資料, 台灣經濟研究院產經資料庫(2010))

technology and successfully transformed Taiwan's industry from traditional electronics into professional OEM/ODM for IC products. With the strong supports from the government and outstanding school education, IT industry in Taiwan has grown mature and is performing excellent no matter in the perspective of research, innovation, or manufacturing. Unfortunately, the core technologies are yet still held by U.S., Europe, and Japan. Most of high end patents related to the CPU, chipsets, and some essential method patents are belongs to these countries. The local companies only hold the lower level patents for design, downstream components, and combinations that are bounded by the upward patents.

The patent holders like HP, Intel, and Apple now only focus on research and marketing. The works of manufacturing involving with high investment cost on equipment and labors are all relying on OEM/ODM companies such as Quanta, Acer, Samsung and LGE. The patent owners release the order to the manufacturers and, on the other hand, license out the patents to the manufacturer for granting the rights to produce which requires to implement the patents. The patents may not be formed as an individual product but can be a method or a component essential to constitute the final products. Without the key technology causes Taiwan's industry lacking of the control power on the market and further limits the technology development.

South Korea used to develop its local industry by following the path of Taiwan. Naturally, it had also faced the same bottleneck while expanding its technology. The government hence aggressively interfered into the local companies and transformed the business model through purchasing the patents and dedicating to the patent around innovation with the supports of financial aids and politics. Samsung and LGE now have controlled quite many significant patents and even have established patent pools to against the competition from U.S., Europe, and Japan. Additionally,

Korea's fast growth and compact patent portfolios has also become a strong weapon which has turned it into one highly competitive enemy of Taiwan.

## 2. IP Management for IT Industry

Intellectual property (IP) is given named to transform the human knowledge into assets enable the public to use, to operate, to enjoy the benefit, and to enable the further innovation based on the prior knowledge. The traditional categories of IP which are most commonly concerned are: patent, trademark, copyright, and trade secret. In general, multiple categories would be adopted to enhance the protection by companies in managing their IPR.

Among IT industry, protection of copyright has been commonly adopted for IC design and software application type of products. More often to see is the companies have been taking the strategies of patenting the embedded software or process with the products such as microprocessor chips or measurement instruments.<sup>166</sup> In terms of patent, the strategy of bidding method patent with different components of a product is also very common. The argued method patent in *Quanta v. LGE* is exactly the example of such form of strategies.

### 2.1 Implementation of Patent Management

The discussion about how important the role intellectual property plays has been cliché in other researches. As noted in previous chapters, the issues regarding patent licensing rather more associate to Taiwan's IT industry. The earlier chapters have granted the perspective of law based on the U.S. case laws. In order to offer a more comprehensive guideline for the industry while managing the licensing

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<sup>166</sup> Stuart J.H. Graham, *Intellectual Property Protection in the U.S. Software Industry*, 7 University of California at Berkeley, at 23 (2001).

strategies, the hereinafter section will provide the perspective in respect to the business and management decision on patent management.

With the nature of business, the owners of IPR would seek to maximize the profit through operating the different strategies. And a integrated IP strategy requires to establish the entire “IP value chain” from generating the knowledge created by R&D department, selecting and analyzing the knowledge, to co-ordinate with the legal department for its proper application arrangement, and more importantly to its further use by enforcement attorneys, marketing specialist, and licensing professionals.<sup>167</sup>

IP management should be implemented by internal co-ordination and external comprehension. Only when the decisions making is raised up to the management level would be able to overlook the whole IP map of the company. In decisions of which categories of protection should be taken place, the level of the technology, the barrier of the competition, the segmentation of the market, the current finance status, and the future development of the company should all be taken into account.<sup>168</sup> These considerations are recognized as the internal management.

On the other hand, the external management can be divided into “Proactive” and “Reactive”. The “Reactive” is literally the action of litigation to defense infringement or offense the competitors. In contrary, “Proactive” then includes licensing and learning. Both licensing and learning are highly relying on the firmly and well developed internal management. Regarding to this research aims to provide a practical instruction for Taiwan’s IT industry for designing the patent right strategies. The licensing management and strategies have been spotted in this

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<sup>167</sup> Markus Reitzig, *How Executives Can Enhance IP Strategy and Performance*, MIT Salon Management Review 49, No.1, at 37-43 (2007).

<sup>168</sup> *Id.* at 38.

research. However, the consideration and plan of learning is the necessary complement to licensing. Prior to enter into the decision making of licensing, information gathering and technology analysis are essential for evaluating the patent strength. Further the licensing is made, it is also important to learn from the technology and further develop the consequence technology.<sup>169</sup>

## 2.2 License

Under the license, the IPR owner grants the rights to use, make, sell, or even sub-license the questioned patents and obtain the royalties or considerations as return. Licensing provides an exit for IP owners to explode the innovation and to obtain the paid back for his brilliant idea. On the other hand, the licensee obtained the right would bring the patent to the market and maximize the commercial usage. More importantly, the licensing may enable the improvement of the technology or even create a new modern life style through the initial ideas learned from the patent. A good license may impact the consequent positions between parties, create obstacles to competitors to enter the same market, and prevent potential infringers. Vice versa, a weak license may then lead to a poor enforcement, unprofitable patent right, or even appeal to the challenges from competitors and infringers. On the other hand, licensing may appeal to the competitors to learn or entrap.<sup>170</sup> That is how the mechanics of learning in the companies taking their essential position to analyze the technology in advance would be the key element of a successful licensing decision.

The categories of licenses can be divided into exclusive, sole, and non-exclusive what are differentiated between the scopes of the right granted, amount of licensees, the duration of the right and other types of restrictions

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<sup>169</sup> Robert H. Pitkethly, *Intellectual Property Strategy in Japanese and UK Companies: Patent Licensing Decisions and Learning Opportunities*, Research Policy 30 (2001) 425-442: at 426-427.

<sup>170</sup> *Id.* at 432.

bounded on the license.<sup>171</sup> These conditions determine the level of power given to the licensees and the control power of the IP owners. The scope and limitations of the IP right also reflect on the amount of the considerations and royalties paid off. Yet, the licensing does not always come with the compensation in money. In the industry as sophisticated as IT industry, the companies obtain their own patents not only for preventing the infringements, but also increase the bargaining power of the downstream suppliers to obstruct the initial patent owners. Many litigations end up lead to settlements for cross-licensing.

### **3. Licensing Strategies for IT Industry**

#### **3.1 Decision Making for Licensing**

Though licensing has been recognized as one key strategy of patent management, to license is however not always the most ideal appropriation. A cross-road between whether the innovator should choose to keep the innovation for the self-use or to license out becomes a critical issue. Prior to make the choice of to license out or to keep the invention for self-use, the innovators may first consider whether to patent the invention or just preserve it in trade secret. Not necessarily the patent can provide a better protection to the invention under all circumstances, and vice versa, no secret can be guaranteed to keep itself in confidential. Most of time, the strategies swing between the decisions of be patented or be kept as trade secret. There is a two way arrow to help inventors determine between the choices of patent or trade secret.<sup>172</sup>

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<sup>171</sup> *Supra* note 170, at 139-165.

<sup>172</sup> *Id.*, at 32-36.



**Trade Secret**

**Patent**

<p><b>No information needs to be disclosed for business.</b></p>	<p>Whether the technology is necessarily to be disclosed to public required by the legislation, to downstream manufacture for commercialization, or to consumers for their interests. Alternatively, partial disclosed (elements and components) and remain the recipe in secrete is also considerable.</p>	<p><b>Business requires the invention information be disclosed.</b></p>
<p><b>Difficult to locate the potential infringement.</b></p>	<p>While there are major players in the market can easily interfere or infringe the technology. To protect with patent should be necessary for preventing the potential threaten.</p>	<p><b>Easy to locate the potential infringement.</b></p>
<p><b>Small demands for grand commercialization or licensing.</b></p>	<p>Under many circumstances, the high demands to commercialize the invention would rely on licensing out which therefore increase the risk to leak the technology.</p>	<p><b>High demands for grand commercialization or licensing.</b></p>
<p><b>Invention does not have long life.</b></p>	<p>The patent protection normally remains for 20 years. Theoretically, longer time would higher the risk of others to discover the secret.</p>	<p><b>Invention has long life more than 3 years.</b></p>



### 3.1.1 Licensing Out

Once the invention owners decide to patent the technology, the next question will come to the choices between keep the patent for their own use or license out to others. Here comes with few questions for patent owner to decide whether license out is the better strategy to manage the patents.<sup>173</sup>

1. Whether the innovation is related to the competitive advantage of the IPR owners' business. Greater the advantage the IPR owners have, more incentive to keep the patent for in-house.
2. The level of profit return the IPR owners can extract from the patent. In the other words, in which way the patent owners can gain more potential profit from operating the patent.
3. The consideration about the cost to develop or commercialize the patent should also be taken into account. Whether the cost or risk is high for the patent owners to commercialize the innovation in-house, and vice versa, whether the licensing is bearing high risk to fail on running the patent which may impact to the return of royalty.
4. The competitive advantages and the potential risk in the market environment may also influence the incentive to license out.

The licensing out strategy may further enable the IPR owners to dominant the market by creating the de facto standards. Moreover, the high royalty can even boost the cost and hinder the licensees to make low-price products in order to prevent the potential competition.<sup>174</sup>

### 3.1.2 Licensing In

On the other hand, whether a company should develop its own technology or

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<sup>173</sup> *Supra* note 174, at 437-438.

<sup>174</sup> *Id.* at 433.

choose to license in others' technology is also often hard to decide for the downstream manufactures. However, in the industry stay in the position of lower technology, there seem not too many choices left besides of license in when the upper technology has been blocked by the patent owners. Taiwan's IT industry used to fall into this category. However, license in also enable the firm to decrease the time on investing in the research by acquiring the patent.<sup>175</sup> With the strength of the relative low-cost labor and high technology skills, Taiwan has the competitive edge to commercialize the patent and duplicate the value of the technology.

### 3.1.3 Cross-licensing

The companies own the different patents may even consider to cross-license the patents. This has been commonly adopted in the industry of semiconductors, computers, and telecommunications. Few benefits are generated through this strategy. First, the patent owners can therefore establish the patent pool by affiliating the patents. Once the standards are adopted as the main stream, the patent owners can therefore dominant the markets and influence the future technology development. Secondly, the cross-licensing may avoid the potential litigations and ensure the patent owners free to act especially at the industry involving high patents density.<sup>176</sup> Moreover, the cross-licensing also enable the patentees to more quickly and effectively commercialization through vertical or parallel patent integration.

### 3.1.4 Technology Development

Despite of licensing the technology, the firms intend to invest in technology may also consider to invest in the complementary assets that cannot be easily and efficiently adopted from the market.<sup>177</sup> In the case of LGE, the similar application

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<sup>175</sup> David B. Yoffie, *Intellectual Property and Strategy*, Harvard Business School (2005) at 5-6.

<sup>176</sup> *Supra* note 174, at 433.

<sup>177</sup> Ashish Arora, *Markets for Technology and Their Implications for Corporate Strategy*, 10 *Industrial and Corporate Changes* 419, at 428-9 (2001).

was taken by authorizing Intel to produce and sell the microprocessor and chipset that cannot be functioned *per se*. On the other hand, LGE also held the method patent to combine the components which is actually the necessary complement to function the microprocessor and chipset.

### **3.2 Post-Quanta Strategic Licensing Agreement**

Inspired by the case of Quanta that the key element concerned by the Supreme Court is whether the license agreement is unconditional. Post Quanta, the patentees who hold multiple patents and intend to collect the full value of them all may therefore choose the easiest strategy of binding all the patents together and collecting the full consideration at one time by drafting an unconditional license. However, the nature of market segmentation will impact the demand and further reflect on the price that downstream purchasers are willing to pay. A whole package of patent rights may be unaffordable to the purchasers. To impose the conditions on license may seem more effective to patent holders. The following rules are summarized from the precedents discussed earlier in this research.

#### **3.2.1 Restrictions**

##### **A 、 Duration of the License**

Patent right is granted with limited time, and the duration of license mostly depends on the left time of the patent right. Exclusive license grants licensee the greatest power, the IP owners are not allowed to license the rights to the others regardless any conditions. The most powerful restrictions to exclusive license is the termination of the patent right. Therefore, the limits on duration to use the right usually are taken into account while making agreements.

## **B 、 Geographic Restrictions**

To restrict the right of patent to be used, manufactured, or vended within specific territory directly effects to the amount of royalty and considerations. To restrict the manufacturers to produce within the territory may assist to keep the technology in confidential. Additionally, the nowadays patent owners who market the patented articles with their own brands tend to license to different manufacturers to dilute the risks. On the other hand, the downstream distributors may also consider about the risks to promote a new technology. A limited territory can reduce the consideration, and ease the pressure of the distributor while launching a new technology.

## **C 、 Price Restrictions**

The patent owners intend to secure the downstream sales may seek to restrict the price. However, this strategy can be edgy that may benefit to the patent owners. On the other hand, an improper licensing may lead to violate the antitrust law. The case of GE and Univis Lens have taught us the set forth sale price is prohibited by law. However, in the circumstances when the licensors operate the distributions themselves, the fixed price decided by distributor's own is accepted by law. As long as the licensors can avoid from instructing the price under the license, this restrictions hence place an effective role to limit the licensees.

## **D 、 Usage Restrictions**

A technology can possibly be used for various functions and further leads to different market segmentations. The conditions for the function of use, market to vend, and type of products to manufacture are all common adopted strategies. Normally, a specific limitation on the scope of use is allowed. However, the flaws of the agreement between LGE and Quanta

were caused by the bad drafted contracts and misunderstood about the limit of exhaustion. The Supreme Court re-defined the exhaustion doctrine and affirmed that the method patent can also be exhausted by emphasizing the substantial function embodied on the article.

The contracts made for IT technology are usually complicated. The patent owner shall be cautious about the precise usage or restrict within the scope of the patent right granted.

#### **E 、 Frequency of Use Restrictions**

The frequency allowed to use the patented article is common for the products which can be recycled or reused. Literally, once the patented articles are passed hand, the right controlled by the patent owners would have been terminated. Based on the decision of *Mallinckrodt*, the Federal Court explicitly expressed the attitude to respect contract law. Though the Supreme Court in *Quanta* then implied that the disputes due to contract flaws shall be dealt under contract law. However, it is still a common understanding that restrictions set forth and agreed by both parties are enforceable under patent law.

#### **F 、 Restrictions to Reconstruct**

Similar to the limitations on time to use, the restrictions to reconstruct also directly limit the time to use the patented articles. Differ to straightly instruct times of use, this restriction further limit the purchasers to reconstruct the articles. The distinctions between repair and reconstruct are necessarily to be defined. Repair indicates to fix the worn components of the original article for extending its life. Contrarily, to replace the worn components or to combine with others to achieve the same function of the

patent designed for does violate the patent right. In the other word, the set forth restrictions to fix the article to continue the usage for the left life are lawful. However, the restriction to limit the purchasers to replace, reconstruct, or to remake the key elements to implement the equivalent functions patented would be enforceable under patent law.

### **G 、 Restrictions to Transfer**

As the acquisitions happened, the rights of patent may face the risk of being passed hand to the others or even competitors under the contract. However, even the exclusive license which refers to the exclusive right given to the licensee, it does not mean the patent owners would be glad to grant the same right to the third party especially when the one is competing to patent owner. In the circumstances of acquisition and merger, the license granted to the legal entity may end up to be substantially fell into the control of the third party. Hence, the IP proprietors may like to also restrain the licensees to substantially transfer the right to any other without the consent of the licensor regardless under any circumstances.

### **3.2.2 Vertical Licenses**

Based on Quanta, LGE assigned a vertical license to authorize Intel to unconditionally sell the microprocessor and chipsets. The Court granted its ruling supporting method patent is exhaustible and non-conditional sales have terminated the patentee's control. With the similar licensing model, Qualcomm have designed a more comprehensive vertical license. Following the interpretation in *Mitchell v. Hawley* to segment the right of patent right to make, use, marketing, and sale that can be operated individually, Qualcomm therefore adopted a vertical license strategy as Unis to authorize the manufacturer to only sell to Qualcomm's authorized purchasers. By dividing right to make patented chips from right to use on

final products, Qualcomm signed separate contract to manufacturer and the licensed purchasers.<sup>178</sup>

Through the case of Univis, the fix-price on downstream purchasers is prohibited under antitrust law. There has been such discussion about whether the transaction of Qualcomm to substantially control the manufacturer and purchasers via the two-tiered licensing strategy would have effected anti-competition. Though Broadcom filed suit against Qualcomm by claiming the licensing structure infringing patent misuse and patent exhaustion in 2008, Qualcomm and Broadcom had reached settlement in 2009 and revoked all litigations regarding patent infringement.<sup>179</sup> Therefore, the Qualcomm style licensing strategy seems still effective up to day.

### 3.2.3 Direct Sales License

As Mallinckrodt had applied to sell directly to the hospital by imposing restriction on sales to limit the frequency of use, the conditional sales have been supported by the Federal Circuit. Quanta's decision did not overruled Mallinckrodt but *sub silento* allow the conditional sales to avoid exhaustion. By simply posting the restriction on the sales seem as one of the most convenient way to patentees. However, the decision of Mallinckrodt is presently facing challenges about whether the conditional sales would also effect avoiding the international exhaustion.

### 3.2.4 Post-sale Restrictions through Licensees

The alternative licensing strategy adopted by General Talking Picture is to authorize the licensee to sell a limited right of use to the purchasers. General

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<sup>178</sup> *Supra* note 114, at 37-39.

<sup>179</sup> May, *Wireless Telecom Litigation-Qualcomm Reached Settlement with Broadcom for 891 Million*, STPI (2009), URL = < [http://cdnet.stpi.org.tw/techroom/pclass/2009/pclass\\_09\\_A026.htm](http://cdnet.stpi.org.tw/techroom/pclass/2009/pclass_09_A026.htm)>. (無線通訊訴訟之爭：高通同意付8.91億美元，與博通大和解，科技產業資訊室)

Talking Picture had restricted the function of their patented amplifiers for private use only while licensing to Transformer Company. The limited right of use was therefore tied with the transaction while the licensee passed the patented product to downstream user.

#### **4. Conclusion**

Following the case of Quanta, certain licensing strategies and rules have been indicated and practiced in market. Taiwan's IT industry seems relative weak in light of level of the technology. As a result, we are now standing on an inactive position while making licensing strategies. Contrarily, the patent or technology holders in U.S. or Korea are now having more market power to decide the transaction. However, with the strength of the OEM and ODM capacity that brings the industries in Taiwan a strong bargaining power as licensees.

What we have been taught by Quanta, the sales conditions regarding patent rights shall be placed to restrict the licensees instead of the downstream users. The future patentees intend to restrict the downstream purchasers or users with vertical license must consider the delicate balance between exhaustion and antitrust. On the other hand, the licensees may therefore win the power to bargain for the price discrimination based on their demands in categories.



## Chapter 6 Conclusion

This research has led us an in-depth study through the U.S. case laws of exhaustion doctrine and post-sale restriction. The dig-in study has indicated some effective instructions for IT industry in Taiwan. Along with the technology development and the complicated business association, licensing is therefore applied to extend the market of patented or patent embodied articles. Details and definitions may be emphasized in agreements, but the restrictions to bind the parties are wildly taken to withhold the power granted to licensees. The above studies have granted us the following understanding and conclusion.

### 1. Conclusion of the Research

In the beginning of Chapter 2, the theory of exhaustion has been explained and illustrated into three dimensions. In *Bloomer v. McQuewan*, the Court has first defined the status as the good passed to the hands of the purchaser would have effect to exhaustion which therefore forms the exhaustion doctrine. U.S. Patent Act has also explicitly included doctrine of exhaustion in part of the law. Through series of case laws, exhaustion doctrine has been interpreted by Courts and shaped into a default rule.

Literally, the parties are free to license based on contract law. Patentees, therefore, have been after all means of contractual strategies to sustain their dominance on the patents. The rulings granted by the Courts have also indicating us an experiential guideline for Taiwan's IT industry as stated in Chapter 5. In order to prevent the over-monopoly of patent proprietors through license, the Courts intend to draw a fine line to narrow down the scope of post-sale restriction. The Supreme Court currently made its decision in *Quanta* not only to again interpret exhaustion doctrine but also to emphasize that method patent is exhaustible. Moreover, the

Court reemphasized on the primary definition of patent law to pull the favor-on-patent-holders phenomenal commonly found in Federal Circuits back to the ground of public interests that implies a strong exhaustion. By indicating Intel's authorized unconditional sales result to exhaustion that LGE may seek contract law to solve the disputes, the Court also indirectly allows the post-sale restriction supported by *Mallinckrodt*.

On the other hand, the disputes occurred by distribution have raised the confliction between independent jurisdictions and global economy which results to an unsolvable dilemma on global trading market. This research has included the study about how exhaustion doctrine has been interpreted and practiced in EU, Japan, and China as comparison of U.S. patent law. Although the exhaustion doctrine may be applied differently in copyright or trademark law, most of countries around the world are still supporting national exhaustion in terms of patent law. Significantly, the member states of EU have developed regional exhaustion to allow the goods to flow free within the territory of EU. The member countries of WTO, moreover, have also keened on entering an international like exhaustion (though it is not exactly the same but almost there) agreement to allow parallel trade of patented products. Nonetheless, the developing countries that sustain less protection on patent law in order to develop their own technology. The unequal status of economy has result to discriminations and conflictions between countries that unable to form an agreement on practicing international exhaustion.

According to the current development of Taiwan's IT industry and considering the extremely competitive business environment, Taiwan is standing at the cross road between establishing the own technology or persistently OEM/ODM for these patent owners under their labels. The massive cost is engaged as conducting into the innovation which has been far beyond what I can discuss in this research. However,

an effective and enforceable licensing management strategy provided in this research may at least offer the companies an instruction while making their IP right decisions.

## **2. The Future Development of Exhaustion and Licenses**

Although quite some precedents have been studied in this research, some more legislations and cases related to the violation of antitrust and fair use can still be further discussed. Besides, the arguments to weight between free to contract and post-sale restriction have been raised up currently. Following the rules of *Quanta*, conditional sale was brought back to the table as the principle for exhaustion avoidance. However, this point of view may raise the controversies while applying international exhaustion. Moreover, for those massive patent holders or cross-licensing alliance seeking to design sophisticated conditions and licensing transactions to bind the downstream users may result to a substantial monopoly over the market. Whether the interpretation of Federal Circuit to support the conditional sales have provided an over extended power to patentees. More than that, the over-sized alliance or complicated transaction may even avoid breaking the anti-competition law or patent misuse through drafting a complicated licensing agreement.

In Chapter 5, I have mentioned the modified vertical licensing as the type of *Qualcomm*. Though it creates price discrimination by separating the rights but causes more the cost on transaction, this may also result to “double dipping” that end up the downstream users may have to pay for the over charged bill. Though the Courts not yet give a clearly comments, the future research may like to further discuss through it into details.

The patentees that used to obtain the same strategies as *LGE* to split the

components for seeking price discrimination may face the challenges after Quanta. The Court in Quanta has explicitly affirmed that method patent is exhaustible. The components embedded with the patent function would have exhausted the patent right at the time they are sold. This decision may force the patentees to abandon the roundabout strategies but to only restrict within the scope of patent right.

Despite of defining the scope and giving clear distinctions for IP owners to understand about the limits of each term of resistances, the Quanta and the previous cases have also suggested certain principles to be considered while drafting the licensing agreement.

1. Any restrictions added on the licensing agreement must take the fundamental spirits of IP Law into account by considering the public interests. Only conditional license can possibly avoid exhaustion and make the post-sale restriction effective. Moreover, the post sale restrictions need to be set in forth with specific scope and not to beyond the patent right granted by law.
2. Though the post-sale restriction is allowed by law, the limitation can only be set within the scope of patent. The tip for patentee is to separating the right of sales from use of patented products. Price discrimination based on the segmented right is acceptable, but fixing-price on the downstream distribution is prohibited under anti-competition law.
3. In terms of international trade, the issues regarding parallel import/export would have to be considered. The explicitly limitations on territory or scope of use are essential for patentees who seek to

prevent exhaustion. Accompanying with the terms that meet the domestic laws and rules can therefore practice the licensing strategies more precisely.



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## 2. Cases

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3. Bloomer v. McQuewan, 55 U.S. 539 (1852).
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6. Boesch v. Graff, 133 U.S. 697, 10 S.Ct. 378 (1890)
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10. Mallinckrodt v. Medipart, 976 F.2d 700 (Fed Cir. 1992)
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12. LG v. Bizcom, 453 F. 3d 1364, 79 U.S.P.Q. 2d 1443 (Fed Cir. 2006).
13. Quanta v. LG, 128 S. Ct. 2109 (2008).
14. Omega v. Costco, 541 F.3d 982 (Fed Cir. 2008).
15. Fujifilm Corporation v. Jazz Products LLC, 605 F. 3d 1366 (2010)

### **3. Rules and Regulations**

1. 35 U.S.C. 273 Defense to infringement based on earlier inventor.
2. 35 U.S.C. 154.
3. The Treaty on the Functioning of the European Union art.34, 35 (ex Article 28, 29 TEC)
4. The Treaty on the Functioning of the European Union art.36 (ex Article 30 TEC)
5. The Treaty on the Functioning of the European Union art.101 (ex Article 81 TEC)
6. Commission Regulation 2790/1999, 1999 O.J. (L336) 21 (EC).
7. Commission Regulation 772/2004, 2004 O.J. (L123) 11 (EC).
8. Commission Regulation 240/96, 1996 O.J. (L31) 2 (EC).
9. Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
10. Anti-Monopoly Law (P.R.C.), art. 55.
11. Patent Law of the People's Republic China art. 11.