

# THE VALUE CREATION MODEL OF PATENT MARKET INTERMEDIARIES

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## ABSTRACT

*In the era of knowledge economy, governments and entrepreneurs place importance on innovation and intellectual property gradually. Because of a shortened product of life cycle, increasing costs of R&D, many managers adopt the concept of open innovation. The market for patent licensing and monetization grows rapidly, as Open Innovation becomes the de facto management philosophy at more and more firms. Unfortunately, there are many obstacles while trading patents; therefore, patent intermediaries join the market. As the patent market grows, there is a diversity of patent intermediaries. However, studies about patent intermediaries are still lacking. Although a few studies mention patent intermediaries, they discuss how patent intermediaries run their business and what roles they play. The purpose of this thesis is to discuss what value patent intermediaries create in the patent market and how they do it. In this study, based on Amit and Zott's (2001) value creation configuration, we discuss the value creation model of intermediaries for the patent market. We used a case study and expert interviews. We choose some representative patent intermediaries from abroad and in Taiwan. The interviewees are executives and directors in the organisations. The result appears that patent intermediaries provide integrated services to their clients. They create value based on four dimensions: efficiency, complementarities, lock-in, and novelty. Building a long-term relationship and trust with clients or members is the key success factors.*

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**KEYWORDS:** Patent Market, Value Creation, Case Study, Intermediary

## INTRODUCTION

Following the concept of Schumpeterian “creative destruction”, innovation provides momentum for economic development. The company's competitive advantages stem from its continuous innovation. Somehow, according to Chesbrough (2006), western R&D laboratories have been downsized, broken up, or redirected to new purposes since the start of the 21st century. Firms are also pressed by shortened product life cycles and the diseconomy of invention. Nowadays, firms realise that there are many ways to acquire innovation. Senior managements have adopted an open approach to create innovation efficiently (Tietze and Herstatt 2009). Firms started to open their innovation processes to acquire intellectual property in order to access the rights to operate technologies. They license and purchase intellectual property beyond business boundaries when they need to. At the same time, many companies invest huge sums of money on innovating new products to market, but for some reasons such as business focus changing, project leader leaving or no discernible reason at all, the products may never get to the market. If the firm is not selling the product disclosed and claimed in its patent, it makes sense that it might be willing to sell it to another firm to recover some of the sunk costs and to generate an ongoing licensing stream.

Previous papers have discussed what obstacles exist in the patent market, why patent intermediaries join in, what roles they play, and what risks they can reduce. Chesbrough (2006) mentions the difficulties of

patent transactions, and Troy and Werle (2008) highlight the uncertainties between companies who are willing to sell and buy their patent in the process of patent transactions. In order to solve the inefficiency and illiquidity of the patent market, intermediaries join in this market. They provide specialised service in a specific domain, just like the broker's role in the real estate and stock markets. They bring sellers and buyer to meet each other. We believe patent intermediaries not only reduce uncertainties and risks in patent transaction process, they also provide services beyond patent transactions.

Intellectual property can include patents, trademarks, trade secrets, copyrights, and semiconductor masks (Sullivan 1998). Our study focuses on patent monetization market because patents give owners the possibility to exclude other companies from the market. A consequence result of a patent litigation can therefore be the prohibition of competitors to sell their products in whole areas. Patents play an important role in various business fields. Firms leverage their patents to gain revenue and competitive position through legislation, spin-offs, licensing, or commercialisation. Though patents bring many benefits to firms, there are many obstacles and risks when it comes to patent transactions.

From the perspective of value creation, the aim of this paper is two-fold. Firstly, we want to discuss what value patent intermediaries create for their clients. According to previous studies, we know patent intermediaries do not just match supply and demand; they provide value to the transaction (Benassi and Minin 2009). Secondly, how do patent intermediaries deliver value? Patent intermediaries try to implement more standard governance to diminish transaction costs (Tietze and Herstatt 2009). Also, they design mechanisms to offer value-added services to their clients in order to sustain their long-term relationship. We expect the contribution of this paper is to analyse different value creation modes and forecast how patent intermediaries will develop in Taiwan.

In order to achieve our aims, we use a case study and expert interviews. This paper is structured as follows: First, we discuss the uncertainties during a patent transaction, patent intermediaries, and value creation. Second, we talk about how we conduct this paper. Third, we elucidate value creation from four sources. The paper concludes with a discussion of the findings and the future direction.

## LITERATURE REVIEW

### Obstacles in the Patent Market

*Information:* One of the major difficulties transaction participants face is the alignment between patents for sale and the number of willing corporate buyers. Chesbrough (2006) mentions that one of the issues in accessing external technology is asymmetric information. They are assessing not just technical properties but also intangible issues regarding the difference between technologies, the future performance of the technology. The asymmetric information is particularly complex when the technologies are new and emerging.

Additionally, Troy and Werle (2008) highlight the uncertainties and risks that companies will encounter during the patent transaction process. There are two types (strategic and fundamental) of uncertainties are relevant. The former type is fundamental or substantive uncertainty, the companies lack information necessary to make decisions with predictable outcomes. The other type is strategic uncertainty, which relates to the situations of asymmetric information. Asymmetric information will cause moral hazard and other forms of defective action (Troy and Werle 2008). Troy and Werle (2008) point out that patents contain knowledge in codified form, but it doesn't mean there will be no problem with content. Because of a tricky patent claim and complex data, potential buyers and licensees often have difficulties figuring out what the future product will be like and what value it will have.

*Traders:* Another obstacle is that patent sellers (licensors) can't find potential buyers or licensees easily. Identity exposure is one of the issues during a patent transaction (Chesbrough 2006). Patent owners don't know who is interested in their patent or how to find buyers or licensees. This will decrease liquidity for the patent market, and the value patent can't be extracted as owners want. On the other hand, if sellers or licensors know who is interested in a patent, they may raise the deal price. That will cost buyers or licensees more to acquire the patent. Patent buyers or licensees will ask an agent to find a suitable patent for them. Chesbrough (2006) notes that patent intermediaries should foster a two-sided market. Millien and Laurie (2007) think patent intermediaries are not patent creators or consumers but market creators. They also gain revenue from matching patents.

*Specialisation:* The third obstacle is the complex process of patent transactions. According to Benassi and Minin (2009), there are three parts of the process that patent intermediaries are involved in: intellectual property (IP) asset evaluation, market identification and selection, and negotiation. Technological experts evaluate the value of patents and select suitable patents. To find the potential opportunities of commercialisation, licensing, or transaction, patents are analysed based on technology, law, industry, and the business field.

Large-sized companies might establish an intellectual department to cope with intellectual assets. On the other hand, small and medium-sized companies prefer to cooperate with intermediaries. There are many phases to go through the patent monetization process. Companies have to hire experts in different fields to work for them and build a database of industries and patents. For general companies, they will find it very difficult to know where to start and will be very willing to pay someone to help them navigate the world of patent monetization. Small and medium-sized companies will not internalise IP function (Benassi, Corsaro et al. 2010).

### Patent Intermediaries

There is a variety of intermediaries in the market. Basically, intermediaries bring both the supply and demand sides to meet each other, and can reduce inefficiency in the market (Biglaiser 1993). Benassi and Minin (2009) attribute the reason patent intermediaries exist to transaction costs. They think incomplete information would make the patent market inefficient. Many studies talk about inefficiency in the patent market. Chesbrough (2006) claims there is one solution to these problems, and intermediaries are the answer.

Previous studies discuss how to cope with uncertainties and transaction costs. Troy and Werle (2008) note that patent intermediaries increase credibility and a trusting atmosphere by providing accurate information, specialising in patent trading and contracting. As we mentioned previously, symmetric information is an obstacle in the process (Chesbrough 2006). In order to accomplish a patent transaction, patent intermediaries not only need to know about the status and context of a patent, but also the industry and market. When patent intermediaries provide accurate information to their clients, they will know exactly what patent they buy and what to do about the patent in the future. There are many steps to go through in a patent transaction: searching, market identification, selection valuation, due diligence, and negotiation. Patent intermediaries have the specialisation to deal with those with their expertise. Because of their specialisation and experience, customers could rely on them for help.

We believe intermediaries may reduce uncertainties and risks, as well as offer added-value services to clients. Sometimes patent intermediaries discover the potential value of patent. Companies leverage their patent to gain more profit.

Some studies talk about transaction modes of patent intermediaries. McLaughlin and Moss (2009) discuss different roles patent intermediaries can play. They separate patent players from buyers, sellers, and

intermediaries. They further consider the role of patent aggregator who purchase patents and then provide defensive protection service in case of an infringement lawsuit and license patents they bought to generate profit. Millien and Laurie (2007) describe thirteen established and four emerging modes of patent intermediaries. There are many modes that patent intermediaries existed. Benassi and Minin (2009) discuss how economic and sociological theories explain the existence of patent intermediaries and classify patent intermediaries according to the value they add to the transactions. They provides a taxonomy of different types of intermediaries as enforces, aggregators, deal makers, shields, technology promoters, consultants, and evaluators. Bessant and Rush (1995) note that consultants can improve the operation of the innovation process. Their specialisation and experiences also speed up the transaction process. Some inventors have good ideas or patents, but they do not have enough resources to commercialise. Patent intermediaries may give them financial support or connect them with firms who are interested in them.

### Value Creation

In the previous section, we talked about patent intermediaries reduce uncertainty and transaction costs for their clients and focuses on the efficiency enhancement. This section we will focus on the value creation role of patent intermediaries. The traditional view of value was introduced by Porter (1985), who explains that value is customers' willingness to pay for service that is provided by firms. He believes firms offer their value through a series of activities called a value chain. Stabell and Fjeldstad (1998) extend Porter's value chain concept into three distinct value configuration models configurations which are the value chain, the value shop, and the value network. These three value configurations provide a foundation for a theory of value configuring for competitive advantage. From this point of view, patent intermediaries are not patent creators but facilitators and assistants in this market. They solve problems and match patents for their customers.

Chesbrough et al. (2006) mention the sources of value drivers which are efficiency, convenience, enabling and complementary goods. From another angle of value creation, Amit and Zott (2001) note the value creation structure consists of efficiency, complementarities, lock-in, and novelty. They think efficiency is consistent with transaction cost theory (Williamson 1975). This will help to speed up the transaction process. Complementarities are present whenever having a bundle of goods and services together provides more value than the total value of having each of the goods and services separately(Amit and Zott 2001). Teece (1986) also points out the importance of complementarity. He thinks that although a company has the advantages of first mover, without control the complementary assets may lose the market. Imitators who have critical complementary assets may have a better position in the market.

We believe complementarities include not only goods but also physical and human resources. From the aspect of a strategic network, firms can build their competitive advantage from integrating external resources well.(Dyer and Singh 1998) Gulati et al. (2000) explain that once firms' relationships occupy a more central position in the strategic network they enjoy superior returns. They will have better information and opportunities than others that are peripheral (Gulati, Nohria et al. 2000). Another firm's critical resources may span firm boundaries and may be embedded in interfirm resources and routines. Dyer and Singh (1998) identify the four sources of interorganisational competitive advantage that are relation-specific assets, knowledge-sharing routines, complementary resource and capabilities, and effective governance. They note that after long-time interaction between firms, they will know each other enough to know who knows what and where to find the expertise (Dyer and Singh 1998).

Normann and Ramirez (1993) point out another value creation concept — value constellation. They think a value creation system should be created by the participating firms. They also note two things are matters of the new logic of value: knowledge and relationship or a company's competencies and its customers.

Basole and Rouse (2008) point out that value includes the tangible and intangible. The former involves the price, quality, design functions, choices, customisation, and variety. The latter involves convenience, style, trust, security efficiency, and ease of life. During the patent transaction, patent intermediaries need to consider both the tangible and intangible dimensions of value.

**RESEARCH METHODOLOGY**

The topic of patent intermediaries is rarely discussed. Given the early stage of research on the topic, a qualitative approach was chosen because of its explorative character. Eisenhardt (1989) thinks a case study can be adopted to build fundamental theories and explore new phenomenon. Yin (2014) points out that a case study is a research strategy to deal with questions about “how” and “what”. Our aim in this paper is to study what value patent intermediaries provide and how patent intermediaries create value for their client through patents. Therefore, we adopted a case study as our research strategy. We chose seven patent intermediaries who had experience in patent transactions since their establishment. Table 1 lists the research samples included in this study. The samples that we picked devote themselves to matching patents for demand and/or supply sides. We collected secondary information from official websites, reports, and magazines. Because of the lack of public data about patent intermediaries, we also used expert interviews. For the purpose of knowing how patent intermediaries work, we interviewed executives or the top manager of patent intermediaries in Taiwan. The second reason we interviewed experts was because of the lack of primary sources on foreign patent intermediaries. The experts who we contacted had experience cooperating with them. We expected to gain more information about foreign patent intermediaries from them. We also used a snowball technique to build our samples. For this study, over ten open semi-structured interviews were conducted. The interviewees in this study are listed in Table 2. The interviews each lasted between one and two hours, and were conducted between April 2010 and Sep 2012.

Table 1: Research Samples of the Case Study

Name	Website
yet2.com	<a href="http://www.yet2.com">http://www.yet2.com</a>
ICAP Ocean Tomo	<a href="http://icapoceantomo.com/">http://icapoceantomo.com/</a>
InnovationXchange	<a href="http://www.ixc.com.au/default">http://www.ixc.com.au/default</a>
Allied Security Trust	<a href="http://www.alliedsecuritytrust.com/">http://www.alliedsecuritytrust.com/</a>
RPX Corp	<a href="http://www.rpxcorp.com/index.html">http://www.rpxcorp.com/index.html</a>
TWTM	<a href="http://www.twtm.com.tw">http://www.twtm.com.tw</a>
ITRI	<a href="http://www.itri.org.tw/chi/ttc/">http://www.itri.org.tw/chi/ttc/</a>
APIPA	<a href="http://www.apipa.org.tw/">http://www.apipa.org.tw/</a>
CBEX	<a href="http://www.cbex.com.cn/">http://www.cbex.com.cn/</a>
	Preventive maintenance

*Table 1 provides a summary of the research samples and data sources included in this study.*

**RESULTS**

In this section, we try to explain how patent intermediaries create value based on the value creation configuration introduced by Amit and Zott (2001).

Efficiency

From the literature review of this paper we know there are uncertainties during a patent transaction. Information is very critical in a patent transaction. Asymmetric information will be an obstacle to finding potential buyers and searching for patents. All patent intermediaries would try their best to search for

information and data they need. APIPA builds an IP related multi-purposes databases to serve the industries in Taiwan through World Wide Web and provides services that include patent information, prior art search and analysis, and integration of databases from other countries.

Table 2: Interviewees

Position
Managing Director of Asia Pacific Intellectual Property Association
President of Gainia Intellectual Asset Services
Director of ITRI Technology Transfer Centre
Division Director of ITRI Technology Transfer Centre, IP International Business Div.
Division Director of ITRI Technology Transfer Centre, IP Business Div.
Vice Director of National Chiao Tung University Innovation Incubation Centre
General Manager (Taiwan) of Transpacific IP group
Director of Peking University Science and Technology Law Centre
CEO of WISPRO Group
President of Cornerstone Intellectual Property Foundation
Director of China Beijing Equity Exchange

Table 2 shows the interviewees in this study

When patent intermediaries have the ability to collect more information and integrate databases, they can quickly offer more details to clients. They collect multiple dimensions of information for their clients' convenience and to reduce search costs. *“Our existence is to decrease supply and demand sides cost and provide economic benefit. More and faster information is better.”* This will speed up the progress of data searching.

The information provided by patent intermediaries is not only about the patents themselves but also the patent underlying invention and industry. They should analyze the patents to understand how well positioned does the patents and to examine how to extract value from the patent and match suitable buyers or sellers. The intermediaries, such as ITRI, RPX, AST, and IXC, make use of professional employees to provide compelling information. Because of their expertise, experience, and abundant resources, the intermediaries cope with a deal faster than general companies or individuals. They know how to operate the process of a patent transaction, who the possible buyers and sellers would be, and which patent would be the suitable one. This enhances the quality of a patent transaction. We also know that specialisation is crucial to patent intermediaries. Without specialisation and domain knowledge, they cannot provide efficient service.

### Complementarity

Complementarity in this paper includes services and patents. Based on the angle of a strategic network, when an organisation can use its external resources properly its gains more advantages and value. There are complicated and cross-field tasks needing to be done, including analysis, valuation, and due diligence inquiry. The tasks can't be accomplished by a single field of personnel and be accomplished by the experts own the cross-domain knowledge from legislation, technology, valuation, and business. *“Patent intermediaries should offer cross-domain services. We need cross domain personnel of technology, business, analysis, and IT to join.”* Integration can be internal and external. Usually, large-sized intermediaries have integrity of personnel. When they have better integration, they will enhance their performance. ITRI has its own R&D team to provide technological consultation, a center of technology transfer respond for patent transaction.

Sometimes patent intermediaries can't deal with all of the transactions by themselves. Based on the theory of strategic network, they need to integrate external resources to accomplish the task. Small-sized patent

intermediaries may need to cooperate with external experts. *“Sometimes we need other professional areas of technical experts’ help to find pearls in patents.”* ITRI also cooperates with foreign patent intermediaries in order to enlarge the patent list for sale and the number of potential buyers. Its partners include IXC and AST, among others. TWTM has yet2.com, Tynax, BTG, and IPTJ as its partners. By building a relationship with other patent intermediaries, they have more information and patents.

Aside from the complementary assets of service and personnel, finding the complementary patents is important too. Individual patents are like bricks and a portfolio is like a collection of bricks. Figuring out the proper complementary patents and building a patent portfolio is the important task to create, protect, and grow value for shareholders. It’s different from just matching patents. Building a good patent portfolio can enhance the patent’s strength and enhance value more than a single patent. Patent intermediaries have to do their best to extract, and maximise patent value. Managing a patent portfolio requires much effort, and they should thoroughly analyse clients’ patents and forecast the future. Patent intermediaries explore how to exploit a patent portfolio in the market.

### Lock-in

There are two important concepts of lock-in: repeated purchase and switching costs. Here we want to discuss how patent intermediaries design a lock-in mechanism. The following is how our research samples design their lock-in mechanism.

RPX gives early joining members a discount with a reduced rate for their annual fee. The later members receive the same benefit as early joiners. ITRI contracts in long-term cooperation with its clients with a two-part tariff scheme. The initial membership fee is based on the service category corresponding to the service level. The annual fee is due each year at the end of their anniversary month (the month of their initial allocation). The members can get a greater discount rate if they pay the initial and annual membership fee in advance.

Above we talked about discounts and contracts that are tangible between patent intermediaries and their members or clients. Now we want to discuss intangible things like relationships, trust, and reputation. When patent intermediaries cope with a patent transaction, they need to know some private and confidential information about clients’ technology and needs. *“Generally speaking, the needs of the supply and demand sides are indefinite. Without specific instruction, we barely offer satisfied service. Sadly, it is not easy to know clients’ needs truly. We still try best to align to clients’ interests.”* How to build a strong connection between them is an important issue. *“In an atmosphere of trust, there will be better interaction between clients and us.”* Because patent service is a customization, it is important to know your clients’ needs. *“Patent intermediaries would like to spend lots of time building relationships with their clients and win their trust.”* IXC would send so-called *trust intermediaries* to clients’ companies to facilitate the secure and sensitive knowledge or information. They sign non-closure agreements with their clients, and guarantee not to leak information to a third party who is not in IXC and help them to purchase patents. Building a long-term relationship with clients is beneficial to increase the quality of matching.

*“There are two ways to win a client’s trust. The first one is to name some important or heavyweight clients that you have served. Secondly, show them your achievements.”* Generally speaking, accomplishing a patent transaction would take about a year; no one wants to waste a long time on someone who can’t get things done. When a patent buyer and seller choose a patent intermediary, they will take their trades of record into consideration.

ITRI does something different to win clients’ trust. Nowadays, patent litigation is recognized by many companies as a valuable tool to maintain exclusivity and create profit margins. The outcome of litigation coupled with the advent of non-practicing entities has resulted in a flurry of patent litigations in recent

years. In this scenario, firms face the need to formulate an effective strategy to tackle patent infringement accusations. It came up with a service for helping clients deal with lawsuits, which is also a way to win clients' trust. ITRI collects the list of infringement lawsuits and finds potential clients from the list. It also collects data to do some preliminary analyses before meeting target clients and planning how to deal with the lawsuits that the accused faces. Once the accused becomes ITRI's client, ITRI analyses the information in detail and searches for patents to acquire for defensive purposes. In Taiwan, ITRI assists many companies in settling.

### Novelty

As we mentioned in the previous section of this paper, there are various types of transaction modes created by patent intermediaries. "*The patent transaction model should change along the time axis.*" Our research samples are representative modes of patent transaction. ITRI and Ocean Tomo developed a patent auction to trade patents. They would evaluate patents before the auction started and potential buyers could ask for limited information about the patent they wanted. This mode shortens the transaction time.

If a firm or individual gets the authorization of a patent, they must pay a maintenance fee to the office to keep their patent valid. It would cost a lot if a firm has many patents in different countries. In order to provide greater convenience to clients, APIPA offers a patent management service first. It monitors the date of the maintenance fee notice for the clients to prevent from been extinguished. To provide superior services, APIPA cooperates and integrates its database with others.

Because patent trolls boom in the market, many companies face lawsuits, which cost a significant amount of money. Some patent aggregation intermediaries such as AST, RPX and ITRI try to buy out all the patents that might be asserted against their members. They will assist members with the creation of patent portfolios and later assist in defending them from suits and in expanding their market share. A member fee will be used to purchase patents to build patent aggregation; every member has the right to be a licensee. Every member in AST is also a member of the board of directors. They are all involved in deciding which patent should be acquired. RPX uses a mode similar to AST. ITRI brings the concept of insurance into the service it offers. Members pay an annual fee for patent protection. Once a member faces a patent lawsuit, ITRI has to do an infringement analysis and patent research.

Yet2.com created an online platform to transact patents, which is the first in the world. Users put their preliminary patent information on the board, search for patents, and have a simple valuation. Yet2.com wants to create an efficient way to attract numerous buyers and sellers to make licensing transactions and then charging a percentage commission on each transaction. Although yet2.com is unable to achieve a sufficient volume of transactions and create sufficient 'IP liquidity', their concept is new. TWTM was established by the government of Taiwan provides a similar service to its members. The government wants TWTM to be a central of platform for patent transactions. TWTM is just like a catalyst for patent transactions. It connects patent providers, buyers, and technology service agents.

We believe there are connections between these four value creation drivers. At the beginning, we talked about efficiency and complementarity. When patent intermediaries provide critical complementarities and have a strong strategic network relationship, they can offer more information to clients at greater speed, as well as increase their benefits. For examples, APIPA supplies patent related information included by varieties of related patents, technology, and academic literature. Users can have multiple dimensions of information. ITRI internally integrates departments to increase value creation and efficiency. AST and RPX establish patent aggregation clients' risk of a lawsuit to reduce their costs. When patent intermediaries offer efficiency to clients, they also make the patent market more profitable. A profitable market will attract more strategic networks and providers of complementarities to establish a relationship with patent intermediaries.



We believe patent intermediaries exploit their strategic networks to increase the quality of service. Patent buyers and sellers take the success of a transaction seriously. *“Your clients just give you one chance. They will not cooperate with you if the transaction fails once.”* In order to handle the tasks well, patent intermediaries offer them a high level quality of services such as accurate information, professional consultation, and skilled negotiation. When they have abilities to provide quality services, they will gain a reputation and build a brand base on their records. *“Building a brand will be another issue to patent intermediaries.”* When patent buyers and sellers choose patent intermediaries, they will take their brand and reputation into consideration, as do patent intermediaries to find strategic networks.

IXC adopted a different way to build a relationship with their clients — beer, bonding, and being there. It calls them the “three Bs”. As we mentioned previously, IXC sends trust intermediaries to clients’ organizations to implement the three Bs and make an agreement. IXC usually spends about three months building a relationship and gaining trust from clients. It emphasizes trust and relationships. One of our interviewees said: *“I think patent intermediaries who are non-profit and semi-official are promising. They can build a good relationship and trust.”* AST and RPX, because of their value proposition, should always align with clients’ interests and be on the same side with them. AST designed a good mechanism. Its members share the risks, benefits, and patents. AST and RPX must know their clients to arrange patents they may need in the future.

Some patent intermediaries’ new modes create greater efficiency in patent transactions. Ocean Tomo’s auction mode makes accomplishes deals faster. They do not go through lengthy negotiations. The service APIPA offers first is to monitor the date of the maintenance fee. *“Doing patent maintenance has lots of costs, including time, human, and physical resources.”* Its service is a great help to its members. *“APIPA asks for cheaper payment than a general agent because of their role of non-profit foundation.”* The mode adopted by AST and RPX is helping members to reduce their risk of a lawsuit. Firms usually don’t want to be in court because it will cost at least \$100,000, not to mention indemnity. They protect their members from lawsuits, which greatly helps to avoid risks and reduce costs.

## DISCUSSION

From the relational view of competitive advantage (Dyer and Singh 1998), we found that the patent intermediaries should develop inter-firms relationship and effective governance that result in the sustainable competitive advantage. Lichtenthaler and Ernst (2008) note that patent intermediaries in the internet market should have internal and external integrated services. This will enhance customers’ benefits from relying on intermediaries. Patent intermediaries should do more than one domain task. In order to accomplish the transaction, they would have their strategic network, which will be a great help. Patent intermediaries are not the same size. We believe they should build an external network to at least acquire more information in a variety of areas and have more chances to deal. A sufficient source of patents is import to be successful patent intermediaries. Small-sized patent intermediaries can have the same benefits by building a network with other intermediaries. Patent intermediaries try to integrate horizontal complementarities to offer a one-stop shopping service.

*Proposition 1: Patent intermediaries should build strategic network and integrate horizontal complementarities to offer a one-stop shopping service.*

Patent intermediaries try to build a relationship and trust with their clients and members. *“Building trust is a very significant and critical way to know what your clients need.”* Patent intermediaries use many methods to achieve this goal. More opportunities for successful transaction and cooperation come from building trust relationship. Trust between firms and intermediaries helps to reducing transaction costs (Williamson 1979). Normann and Ramirez (1993) explain that the secret of value creation is building better relationships. Troy and Werle (2008) also mention that increasing atmosphere between both sides will

enhance efficiency. When patent intermediaries build a relationship and trust, they maintain a long-term cooperation opportunities. Howells(2006) notes that collaborations last for periods of year, intermediaries will understand clients better. It involves a deep understanding of their needs and core competences.

*Proposition 2: Building a long-term relationship and trust with clients or members is important. By doing so there will be positive feedback*

## CONCLUSION

The aim of this study was to examine the value creation model of patent market intermediaries and to find out what values patent intermediaries create and how they do so. We adopted a case study and expert interviews. The results show that patent market intermediaries should build strategic networks, as well as a long-term relationship and trust with clients. Patent market intermediaries create value based on four dimensions: efficiency, complementarity, lock-in, and novelty. They integrate horizontal complementarities to offer a one-stop shopping service. They increase economic efficiency by reducing transaction costs, integrate internal and external personnel, information, and sources of patent, and build strategic networks. Furthermore, the value proposition of intermediaries should adapt with the changing business environment and customers' needs. They must always align with customers' interest.

This study has some limitations. The first limit is that our expert interviews were limited to experts in Taiwan. We could not control whether all the relevant patent brokers were included in our list of interviews. Besides, we could not carry out a comprehensive study of the patent market intermediaries. Therefore, future research can verify the critical success of the value creation model for the patent market intermediaries with more case studies or use empirical data for further research.

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