The Patent Transactions Market – Established and Emerging Business Models

Thesis in the Master Degree Program

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List of abbreviations

IP	Intellectual Property
NPE	Non-practicing Entity (ies)
PE	Practicing Entity (ies)
R&D	Research and Development
US	United States of America
USD	United States dollar
USPTO	United States Patent and Trademark Office
SIPO	State Intellectual Property of the P.R.C (China)
JPO	Japan Patent Office
EPO	European Patent Office
CEO	Chief Executive Officer
PLEC	Patent Licensing and Enforcement Company (ies)
IV	Intellectual Ventures
GDP	Gross Domestic Product
PR	Public Relations
M&A	Merger (s) & Acquisition (s)

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Chapter I Introduction and Overview

1.1 Introduction

A patent is an intellectual property right granted to inventors to exclude others from using the invention for a limited time in exchange for public disclosure of the invention when the patent is granted.[1] Patents are a set of exclusive rights protecting inventions that for centuries have been used as competitive differentiators. Patent owners have traditionally used patents to prevent others from copying a specific technology that they are commercializing. Other activities with patents have involved licensing, selling and acquisitions; however, these transactions have either been a side businesses (even if very profitable) or one-off transactions. It was not until recently that a market started emerging where actors have as their key business to transact with patents, and the number of actors specifically dedicated to this type of business has risen over the last several years. To be able to differentiate what it means to have side business and one-off transactions versus engaging in patent transactions as core business, we can take a look at the example of IBM, since they have been financially very successful with their patent licensing program[2]. However, despite having a significant part of their operations dedicated to this, IBM's core business is to manufacture and sell computer hardware and software along with consulting and hosting services[3], not to transact patents. On the other hand, actors such as Intellectual Ventures, Acacia, Rambus and IPotential are dedicated exclusively to transacting with patents. Business models used by these actors vary such as acquiring patents to establish licensing programs, having their own R&D to then build portfolios and create licensing programs, acquiring allegedly infringed patents to assert them, financing litigation programs on allegedly infringed patents, bringing together buyers and sellers or licensees of patents, and others.

Basic economics establish that a market exists when there are buyers and sellers trading and exchanging goods and services.[4]Therefore, due to the fact that companies have their entire business dedicated to transacting with patents and are engaging in profitable business, one can postulate that the market for patent transactions exists. Nevertheless, well-functioning markets include established and accepted mechanisms for determining price of the transacted goods, communication, and facilitation for distribution and transactions. It is in these key mechanisms that the patent transactions market shows itself to be in its very early stages. Because no formal infrastructure for exchange has emerged, the cost of each transaction differs from one deal to the other and, as a result, can be very expensive. In addition, valuation for the transacted goods – in this case, patents – is a major challenge with no commonly accepted methods for reporting, valuing or assessing risk, and therefore multimillion dollar transactions are held primarily through private channels keeping all the information concealed from the public domain.

Operating companies have as their core business to commercialize their products, such as IBM that manufactures, develops and sells hardware and software. They have complex patent portfolios which they primarily use for defensive means (protecting the technology they are commercializing, avoiding others from copying, lowering potential in-licensing royalties, preventing potential infringement[5]); yet having strong patent portfolios, which means that they have "goods" that can potentially be transacted in a patent transactions market. Thus, operating companies have a need

[1] http://www.uspto.gov/patents/index.jsp
[2] http://www.industryweek.com/articles/ibms_patent/licensing_connection_1228.aspx
[3] http://www-03.ibm.com/ibm/history/
[4] The Embeddedness of Economic Markets in Economics, Michael Callon
[5] Patents: Their Effectiveness and Role – Carnegie Mellon University & National Bureau of Economic Research, Wesley M. Cohen

to better understand this evolving market and the business models used, in order to consider how to make the best use of theirs.

1.2 Study outline

This thesis is structured in seven chapters. The first chapter provides an introduction to the topic and to the specific field of research that the thesis covers including the research methodology and questions. The second chapter provides some background information that has been used along the document as basis and is important for the reader to have as an introduction and theoretical framework. The third chapter is an analysis of the patent transactions market and the identified business models and actors. The fourth chapter presents an analysis of the macro-environmental factors that affect the patent transactions market and its actors. The fifth chapter provides stakeholders analysis for operating companies in the patent transactions market. The sixth chapter presents the results of the exploratory empirical research that was performed through interviews. And finally seventh chapter provides some conclusions, recommended paths to follow for operating companies, some suggested next steps that can be carried on to perform future research in the field.

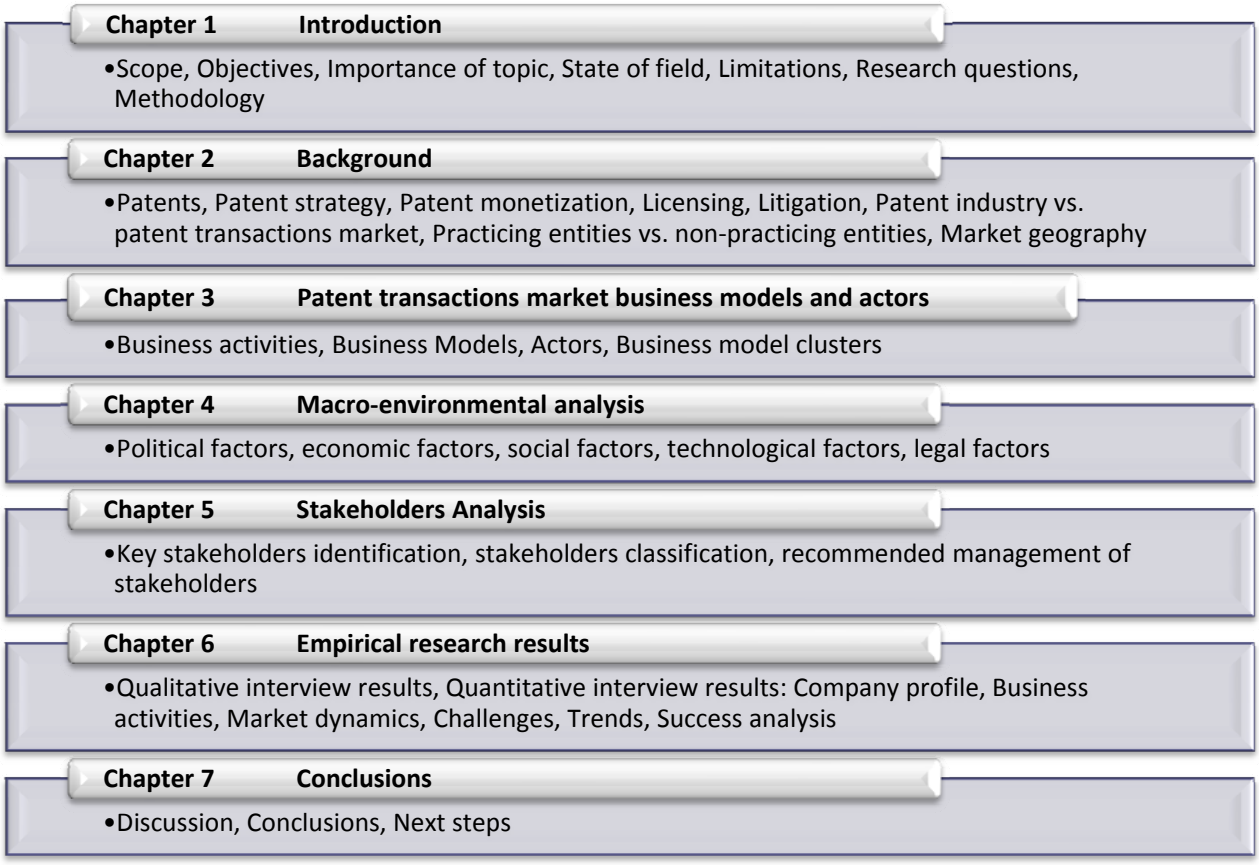

Figure 1 Thesis Structure

1.3 Scope

The present study is focused on analyzing the **Patent Transactions Market** as a business opportunity for **Operating Companies**.

The scope of the thesis covers business models and actors who carry on patent transactions as a core part of their business. Patent transactions include patent sales, acquisitions, licensing, and the intermediation & support services that facilitate these transactions.

1.4 Objectives

This thesis aims to provide a description of the patent transactions market, its actors and the business models they are using with the focus of having it as a base for operating companies to make decisions about how to relate to the market and the actors who engage in patent transactions as their core business.

The first objective of the study is to provide a description of the patent transactions market, its structure, and the business activities held in it.

The second objective of the study is to understand what business models are being used in the market and which actors are active in it.

The third objective of the study is to analyze the macro-environmental factors that affect the patent transactions market and its actors.

The fourth objective of the study is to analyze success factors of business models in this market and what it implies for operating companies to put in practice what is considered to be a determinant of success.

1.5 Importance of topic

Patents are strategic tools that can add value to an organization and can be used in many ways, much more than a mere exclusion instrument. R&D intensive actors and current and potential patent holders are becoming every day more aware that the patents they have (or could have) can be monetized through different business models. Recently a market for transacting patents has emerged, and these actors have the opportunity to monetize their patents in it; therefore, for them it's important to learn about this market and understand how they can become active players in it. For operating companies this means exploiting their patents in other ways than using it for defensive means, and analyzing the paths they can take considering the actors in the patent transactions market that can be either good allies or threatening rivals.

This thesis might be of interest for all actors in the patent transactions market to learn about the market characteristics, actors, business models, and value drivers. And specifically for operating companies it can be a good starting point and analysis to make decisions on how to extract value from their existing and potential patents based on the identified current and emerging business models in the patent transactions market.

1.6 State of the field

Despite there being lots of information on the patent industry, the patent transactions market is new and there is no widespread understanding on how the market works, who the actors are, how companies are structured or how their operations look like. Company names such as Intellectual

Ventures, RPX, Rambus, and IPotential are well-known, but there is no clear grasp (especially for actors outside of the inner circles) on how the market dynamics work.

Some academic and industry literature and internet and desk research have been used as background; however, very scarce documents are focused on the patent transactions market *per se*. Furthermore, getting access to information on transactions in the market is a hard (if not impossible) task, because companies are very secretive and sharing information on their operations is not in their interests.

There seems to be a common understanding in the patent transactions market that transparency is required, and a high number of actors contacted along this thesis were interested in participating and sharing information to contribute to this cause.

This thesis aims to serve as a stepping stone for further research in the field both on qualitative and quantitative outlooks; the latter, can serve as an opportunity to bring clarity into the field and provide the first market overview supported by statistics.

1.7 Limitations

There were some obstacles presented in the way of performing this research; in one way or the other they were mitigated to some extent, but they are worth mentioning as they represent a valid proof of the state of the market.

Secondary sources of information are scarce and when information is found it is sometimes unclear, mainly because company public information sources such as websites and brochures are either limited or sales oriented.

Getting first hand data is also hard because when interviewing, some information could not be provided, this is primarily due to confidentiality reasons amongst the actors. Areas that were hard to cover were the company revenues, financing, payback, and strategic plans. Additionally it was challenging to get information on opinions on specific actors because the interviewees in most cases were reluctant to mention specific names to avoid controversy.

Terminology is a limitation because there are lots of new terms that are exclusively applicable to this field and is further complicated by the fact that even in the field they do not have a standard, accepted meaning or use. A great example of this is the term non-practicing entities (NPEs), the exact description is that is a company that does not practice a particular business activity, meaning a company that transacts IP but does not for example manufacture the product which is protected by the IP which they own; however, when using that term it was sometimes attributed other descriptions such as the so called “patent trolls”, R&D intensive companies in general, and others. There are no commonly accepted definitions, but this was managed in this research by double checking literature and when interviewing subjects, the terms used in the questions were explained and if there were doubts then an immediate dialogue could be established, therefore this obstacle did not influence the results.

Additionally, this is a rapidly changing field, and there are constantly developing news and events that are important to be on top of to make sure that the research and interviews can be followed in the best manner. Despite this being a positive aspect for actors in the market, it also makes it

challenging to perform research in it and it might be the case that when this document is released some of the data is out-dated and requires further research.

1.8 Research Questions

1. Is there a market for patent transactions and what is its structure?
2. Which business activities and business models are used in this market?
3. Who are the major players in this market?
4. How can operating companies become an active player in this market to better monetize their patents?

1.9 Research Methodology

This study is an exploratory research which utilized both qualitative and quantitative methods including literature review, internet and desk research, semi-structured interviews, and statistical analysis of the data gathered through the interviews. The use of multiple data gathering methods allowed the triangulation of the information that led to a higher level of validity of the results. The methodology is detailed more specifically below.

1.9.1 Research approach

The research started with a deductive approach on existing literature, articles, blogs, news, and company profiles. The intention was to start from the more general that could lead to the more specific. There is vast information on fields such as patenting and patent monetization; however, little information is focused on the patent transactions market and its actors. An inductive approach was also utilized when specific observations were found and then further research was performed to acquire broader generalizations. Most of the specific observations came from articles and news on the latest events.

1.9.2 Data recollection & Assessment

Chapters 1 (Introduction) and 2 (Background) are based exclusively on secondary information sources such as books, articles, presentations, previous reports, internet, company profiles, and blogs. References have been used in all sections so that the reader has a clear view of the sources.

Chapter 3 (Patent transactions market business models and actors) includes various assessments on information found on literature, internet and desk research. The analysis starts by compiling and assessing the information following the Building Blocks model by Ulf Petrusson. Furthermore, an analysis on the value drivers of these buildings blocks is performed. Then the model by Alexander Osterwalder on Business Model Ontology is followed to further assess the information. It's important to mention that a paper by Ron Laurie, Existing and Emerging IP Business Models, served in great part as a basis for this assessment; furthermore, the companies' websites were the primary source of information on the actors' details.

Chapter 4 (Macro-environmental analysis) follows the PESTL model and is an assessment based on the information found, and empirical knowledge that the researcher gained along the process of the thesis.

Chapter 5 (Stakeholders Analysis) presents an assessment following Grant Savage's model on Stakeholder Analysis.

Chapter 6 (Empirical exploratory research results) presents the results of the interviews. The qualiltative and quantitative data gathered was used as a basis for assessment on Chapter 5 and is also the basis for the conclusions and recommended next steps to follow with the research.

Chapter 7 (Conclusions) provides a sum-up of the thesis and also has the section of next steps recommended to take in order to take full advantage of this study.

1.9.2.1 Assessment Models

The assessment models utilized were Building blocks from Ulff Petrusson, Business Ontology by Alexander Osterwalder, macro environmental analysis of PESTL, and Stakeholders Analysis by Grant Savage.

The building blocks model served the purpose of deconstructing what it really means to have patent transactions, it provided information that could be used as building blocks for the next chapters; it helped to really understand what it means to have patent transactions, who engages in those transactions and what drives them to do so.

The business ontology model helped to better organize the identified building blocks found with the previous model, clustering them into what they had in common and really showing which were the business models active in the market.

The PESTL analysis was a good model to view from a macro perspective the entire market while going into the various factors that might affect a business, which are politics, economic, social, technological, and legal aspects.

The stakeholders analysis was chosen based on the fact that Savage's model proposes on how to interact with your stakeholders based on levels of potential collaboration or threat, which seems to be very applicable in a market that is emerging.

All the models link to each other in the way that it starts with the deconstruction and identification of building blocks which are used for the clustering of business models and segments, which help as a basis to analyze the market in both macro (PESTL) and micro (stakeholders) levels.

1.9.2.2 Interviews

The interviews were held between April 9th and May 27th of 2010. A total of 14 interviews were completed. The selection of the interviewees was based on influence circles i.e. people part of an organization in the patent transactions market with which a connection could be established. The process started by setting up the list of all actors to contact (Appendix 1 – Interview contact list). The following step was contacting them via email and/or phone to ask for an appointment for an interview.(View Appendix 2 for information on company and interviewees profiles). A general interview guide was created in order to clarify the general topics that needed to be covered (Appendix 3 – General interview guide). Afterwards, research was performed on each actor to add on questions that were specific to their activities and experience; the result was a personalized interview guide for each actor (Appendix 4 – Personalized interview guides). Despite each actor having a personalized interview guide, the results could be compared because the sections of the interview guide remained the same but applied to each case, for example questions to brokers were focused on brokerage transaction deals; while IP development & licensing companies interviews were focused on IP development and licensing plans. Additionally, targeted open questions were posted in order to acquire qualitative data. For example to ICAP Ocean Tomo, who held the first live auction, questions in that area were asked to learn more about it.

The interviews were unstructured with open questions to allow a partial part of the questioning to be led by the responses of the interviewee. Although open questions produce data that is difficult to organize and code, it was preferable to be able to have a good qualitative base and preliminary

exploratory research for the creation of a statistical database and market survey closed questionnaire. The interviews were held through Skype, phone conversation, and in a few cases in person. The duration of the interviews was in average 1.2 hours, being the shortest one 1 hour and the longest one 2 hours.

After the interview was held a transcript report was put together that were then treated from a variable perspective (Appendix 5 – Interview variable identification) and codified in the statistical program SPSS to identify frequencies and have a structured quantitative results (Appendix 6 – Variable Codification & Appendix 7 Variable Tabulation).

The variables were identified after having 75% of the interviews completed. The process was to review all the interview reports and select all the possible answers that the interviewees had given. For example, in a question where we asked the number of direct employees the company had, we had answers such as 5, 12, 17, 45, and others; so the process was to group them to be able to present them in ranges that could be set as variables: Less than 10 to 20, 21 to 50, 51 to 100, and so forth. Other variables were created based on the previous research that had been done. For example, the actors were classified according to company types: Market markers & middlemen, enforcers & litigation financiers, patent aggregators, IP development & licensing, and other model. This was not a question that was asked directly to interviews, but the variable was identified based on previous research and response from actors of various questions, such as type of activities they carry on, so if they acquire patents to enforce them exclusively they would be in the category of enforcers and litigators.

The initial codification led to 136 variables. The large amount of variables is due to two factors: 1. It was expected because of their nature and source that are unstructured interviews with open questions. 2. Some variables of multiple answers had to be separated into individual ones because of the fact that answers don't necessarily fall into one category or grouping. For example in business models, there are a total of 18, and actors in some cases carry on with 2 or more of them, so they couldn't be classified in one specifically; therefore, variables were set with yes/no to be able to clarify which business model the actor did/didn't work with.

1.9.2.3 Variables

The variables fall under five different categories:

Company profile and activities

No.	Variable/Variable Family	Objective
1a	Year of formation of company	Understand when the market started and what kind of growth/decrease it's had over the years.
1b	Annual revenue of company	Categorize the firms and visualize differences there might be according to operations and models vs. revenue.
1c	Number of employees	Understand the differences in number of direct employees according to company type and models
1d	Internal competences	Understand what type of competences companies use internally
1e	External competences	Identify what type of competences companies outsource and why
1f	Legal fees	Understand under which structure they pay for legal services and how they choose a lawyer/firm

1g	Financing model	Identify how companies are financing their operations and what other stakeholders come into the picture
1h	Major costs and expenses	Categorize according to company type and models what are the major costs and expenses related to it
1i	Company headquarters	Identify prominence of geographic regions for central offices
1j	Company operations (geographic)	Clarify in which geographical regions the company carries on operations, showing where there are market needs and potential according to operations that these companies have
1k	Customers	Identify what type and category of customers are transacting in the market
1l	Majority of customers	Categorize according to company type and model the predominance of clientele they handle

Figure 2 Variables - Company profile and activities

Company integration in the market

No.	Variable/Variable Family	Objective
2a	Company type	Categorize companies according to the established types that were distinguished from research done
2b	Business model	Identify which models are carrying on operations in the business models that were previously identified with research
2c	Business activities	Understand what type of activities are being performed by actors when transacting IP

Figure 3 Variables - Company integration in the market

Challenges

No.	Variable/Variable Family	Objective
4a	Challenges	Understand what the interviewees list as challenges that the market is facing

Figure 4 Variables - Challenges

Trends

No.	Variable/Variable Family	Objective
5a	Market trends	Understand what trends the interviewees list as being trends in the market to utilize it as a base for further analysis
5b	Emerging geographical areas	Identify which geographical areas the interviewees catalog as prominent emerging areas for IP transactions

Figure 5 Variables - Trends

Success

No.	Variable/Variable Family	Objective
3a	Successful models	Identify which models the interviewees catalog as successful to then use that as base for deeper analysis on the model
3b	Successful actors	Identify which actors the interviewees catalog as

		successful to then use that as base for analysis on the actors
3c	Success factors	Understand what the interviewees identify as a need to be successful
3d	Measurement of success	Understand what is the base that the interviewees use when mentioning a successful actor or model

Figure 6 Variables - Success

1.9.3 Use of data

Literature, internet and desk research were used as a basis for the analysis in Chapters 3 and 4, and also served as background knowledge for the deployment of the interview sessions on Chapter 6. The data from the interviews was analyzed with qualitative and quantitative models, providing a good basis for conclusions and recommendations.

Chapter 2 Background

This chapter aims to provide the reader with background information and terms that will be used along this entire thesis. It serves as a theoretical framework delimiting the terms and scope of the study. Furthermore, it provides some analysis of the information clarifying how the terms are used and how they are applicable to this specific research.

2.1 Patents

Patents are an established legal tool used to secure a control position that ostensibly has the objective of enabling technology diffusion while also providing the right of the patent owner to exclude others from commercially exploiting the patented invention.[6] Patents are a set of exclusive rights granted for inventions, which can be products, technical solutions to problems, or processes of new ways of doing things. Patents provide the patent owner protection over the invention, which means that only the owner (or those actors who the owner shares its exclusive rights with) can use, distribute, sell or make anyway commercially available what the patent claims cover.[7]The patent claims are the specific clauses in a patent application or a granted patent that define the scope of what is protected by this set of exclusive legal rights. These exclusive legal rights apply only the specific invention described in the patent claims.

2.2 Patent Strategy

Patent strategy is how patent owners decide how their patents should be used. They decide who can or cannot use the patented invention. They may grant permission through licensing to other actors to use the invention covered by the patent; and can also enforce their rights over actors that are using the invention without their permission. Also they can decide to buy or trade their patents. For the time that the patent is valid, the patent owner will have control over the patented invention and has the ability to decide what the best path for them to follow is.

Since patents are a set of rights, complex strategies can be built around them and value can be extracted in many ways. Patents can be used “offensively” through protecting the temporary monopoly that the patent owner has by excluding others from having access to their invention. Patents make the transfer and commercialization of inventions easier, therefore, there are market strategies where technologies are diffused and traded. Another way that a patent holder can use their invention is to agree with another party, who also has patents to cross-license, and in that sense they can have a win-win situation by providing each other access to inventions which they can use in their business activities. Patents are also used as a basis for future developments through collaborations or even open infrastructures for sharing and diffusing technologies. Some patent holders decide to use their patents to block other actors and gain competitive advantage in the field they are in. Additionally some actors are exclusively dedicated to enforcing their patents, meaning that they check who is using their patent without permission (license) and then create a business out of it.

There are many other ways that patents can be used and it depends on the business model of the patent owner and the creativity that they have on how to extract value from them. Some actors may decide to utilize various strategies for one same patent granting rights in certain fields of use or

[6] Lecture Patents and Patentable inventions – Caroline Pamp 15/09/08
[7] WIPO

territories, others might have their patents in a collaboration agreement but also enforce it against other actors… in reality the combinations of strategies are innumerable and that is why actors owning patents must be smart on how the manage their portfolios.

2.3 Patent Monetization

To monetize means to cash something into money or other source of profit[8]; therefore, patent monetization means how patents can be transformed into money or any other type of benefit that brings value to the patent owner. Patent monetization is intertwined with patent strategy, because depending on the strategy that the patent owner chooses for their patents is that their monetization will become a reality.

Extracting value from patents has been traditionally defined as how much money the patent owner can get from it. And even if this idea still remains, the direct relation between patent and money is not as simple as "I have a patent, I sell it or license it and I have a monetary exchange". Patents have many different layers and consequently various business models have emerged.

Patent value can be extracted from the sales or licensing fees; one can use it to block other actors and have "sales" of the "product" that the patent is covering; one can block actors and build a profit center from suing actors who infringe; and, one can extract value from providing access with collaborations, standardization, open innovation, and other, and that can lead to new patents, new sales, new licensing fees, new patent potential sales, and so forth.

2.4 The patent industry vs. the patent transactions market

When studying a specific market it is important to understand to which industry it pertains. It is in many cases puzzling to identify what's being analyzed as the terms industry and market tend to be mixed. The patent transactions market is the place where buyers and sellers are exchanging patents; while the patent industry is the collection of companies that are competing with one another in all patent related activities, not only transactions of the patents themselves, but also usage of them. Specifically, the patent industry is the group of companies that build their business from researching, writing, granting, licensing, and litigating patents.[9]

2.5 Operating Companies

Operating companies are the major patent holders. They are R&D intensive and are focused on developing new technologies to patent to gain competitive advantage in the market by preventing copying, blocking other actors, and establishing monetizing models from their portfolios. It can be assumed that since operating companies are the major patent holders, they are also a very important source of patents that go into the market for sale and licensing.

'09 IPO Rank	'08 IPO Rank	Company/Organization	Patents
1	1	International Business Machines Corp.	4,887
2	2	Samsung Electronics Co., Ltd.	3,592
3	4	Microsoft Corp.	2,929
4	3	Canon K.K.	2,241
5	11	Hitachi, Ltd.	2,146
6	6	Panasonic Corp.	1,759
7	7	Toshiba Corp.	1,669
8	9	Sony Corp.	1,656
9	8	Fujitsu Ltd.	1,615
10	5	Intel Corp.	1,534
11	14	General Electric Co.	1,379
12	15	Seiko Epson Corp.	1,328
13	12	Siemens AG	1,311
14	10	Hewlett-Packard Co.	1,269
15	20	LG Electronics Inc.	1,035

Figure 7 Top 15 US Patent Holders

[8] Merriam Webster Dictionary

[9] http://www.ethipat.org/lexicon:global-patent-industry

Operating companies are the top patent holders[10] (Figure 7) both due to the facts that they engage in technology development and also because their core business is to "practice" through manufacturing or service offering the patents they hold. For example LG's vision is "To deliver innovative digital products and services that make our customers' lives better and easier—happier, even—through increased functionality and fun".[11] Their core business is to deliver products, therefore it can be deduced that the patents they hold are a building block to achieve this vision.

Operating Companies other than being the primary "customer" for licensors, can and have engaged in licensing programs. Many product companies have opened departments especially for this, such as IBM Intellectual Property and Licensing[12], AT&T Intellectual Property[13], Ericsson Licensing Program[14], Phillips Intellectual Property & Standards[15], Xerox Technology Patent Grouping[16], and many others. After all, operating companies are the major patent holders (As seen on Figure 7), so it's a matter of establishing multidimensional patent monetization strategies in an intellectual value chain to extract value out of their intangibles in more than one way[17] even if practicing the patent (manufacturing products covered by the patent and blocking other actors) is their core business.

It would be expected that operating companies' approach to licensing would be by negotiation; however, it can be seen that operating companies are highly involved in patent litigation. It is assumed that operating companies' motives are different than PLECs and single asserters who litigate to have a revenue stream, but that their reasons behind it are to maintain a control position and exclusivity in the technology area covered by the patents.

Important note: Operating companies' activities will not be deeply analyzed in this thesis as it is out of scope, however, they are being presented here because they represent the highest demand for the patent transactions market and are the main customer of the actors in the market. Furthermore, focus is being put in this thesis in analyzing how entities that don't practice their patents perform so that operating companies can better monetize their own patents as well.

2.6 Practicing entities vs. non-practicing entities

Along this entire thesis the terms practicing entities and non-practicing entities will be used therefore it's important to clarify the differences between them. Practicing entities are operating companies who are R&D intensive and generate physical products; along the way they generate patents, but their main purpose and core business is to utilize their IP for their own use either to produce their own products or block other actors from participating in a specific technology area. On the other hand non-practicing entities (NPEs), are companies who are engaged in patent transactions but don't manufacture, and their core business is to transact patents.

The term NPEs in many cases is confused with "patent trolls", which is a derogatory term to describe companies and individuals that acquire patents and monetize them through their enforcement, seeking for payment from alleged infringers. These entities are often viewed as actors that slow down innovation because some argue that they litigate low quality patents that shouldn't

[10] IPO Releases List of Top 300 Patent Holders for 2009
[11] http://www.lg.com/uk/about-lg/corporate-information/overview/index.jsp
[12] http://www.ibm.com/ibm/licensing/
[13] http://www.att.com/gen/sites/ipsales?pid=17704
[14] http://www.ericsson.com/yourbusiness/equipment_manufacturer/licencing_programs
[15] https://www.ip.philips.com/
[16] http://www.xeroxtechnology.com/xt.nsf/p02?readform&unid=451539A915CA424685257728004C0CE3
[17] Intellectual Property & Entrepreneurship – Creating Wealth in an Intellectual Value Chain, CIP, Ulff Petrusson

have been granted in the first place against operating companies, making them lose time and money. For the purpose of this thesis, the term NPEs will be utilized as companies who engage in patent transactions but don't manufacture.

2.7 Patent Transactions from a building blocks perspective

To better understand which transactions are being referred to it's important to deconstruct what it's meant by it; patent transactions are patent acquisitions (buying patents), patent sales (selling patents), and patent licensing (in-licensing and out-licensing). These and all the supporting and intermediation activities that take place are the building blocks of the patent transactions market. Furthermore, patent development (R&D that can lead to patentable inventions) is an activity that defines the market's structure, because despite it not being a primary action classified as a patent transaction, it is the source of where patents come from and there are actors transacting patents that they develop and actors acquiring patents from developers and then transacting them. All the building blocks will be further described in the sections below.

Licensing is the most complex activity of all. It has been identified along the research performed that when licensing there are two approaches: negotiation approach and litigation approach. This means that when an actor wants to license out a technology there is the option to license by negotiation or directly by litigation. Moreover, there might be cases where the process starts with negotiation and turns into litigation because no agreement could be established. Negotiations can end up in licensing deals and settlements; while litigation might end up in licensing deals and settlements, or if no negotiation or settlement is agreed upon, they go to court and the profit or loss will be the damages awarded by the court.

Licensing programs in most cases (does not apply to defensive models that will be further analyzed) are with allegedly infringed patents. The patents transacted are not necessarily those that provide a technological competitive advantage, but are those that are being already used by actors in the market (or supposedly used). In licensing programs in the patent transactions market the notion of "I invented the wheel, do you want to license it?" is not leading; but it's basically focused on "You are using the wheel, now pay for it".

It can be summarized that the activities carried on in the patent transactions market are the building blocks that construct up the market, which are patent development, patent acquisition, patent sales, patent licensing, and all the services that collaborate and intermediate these transactions to take place.

2.8 Market Geography

Most of the activities are in the US; approximately 70% of the actors are there, predominantly in Silicon Valley which is known as the world's best high tech conglomeration[18]. Of the world's total receipts of international licensing 45% pertains to activities in the US with approximately 50 billion USD.[19] Litigation is also a way of analyzing a market's geography, because litigation is a licensing approach used by actors, and despite not having an exact number of world's litigations, there is a lot of information available about activity in the US, showing once more that the market is centered there.

[18] Ashby H. B. Monk - The Emerging Market for Intellectual Property: Drivers, Restrainers, and Implications, Oxford University
[19] Technology and Industry Outlook 2006, OECD Science

There are emerging areas showing some interesting activities. Asia in general is a growing economy, and countries such as Japan and China are becoming relevant actors to this market. Of the world's patenting activities China and Japan combined have 35%. The Japanese Patent Office (JPO) has the goal to become the world's most advanced IP nation[20], and despite them having a slight decrease in patenting, they keep their development plans strong. On the other hand, China had a 23% growth rate[21] and their patent office SIPO has been restructuring their national IP Strategy to become a strong IP player in the world market.[22]

This thesis has been developed focused on the US because it's the region with most activity in the field of interest. Some comments will be made on the emerging areas such as Asia and Europe; however the objective is to deeper analyze the market where it's currently stronger.

[20] http://www.jpo.go.jp/
[21] 2009 IP indicators, WIPO
[22] http://www.sipo.gov.cn/sipo_English/index.html

Chapter 3 Patent Transactions Market Business Models and Actors

This chapter provides an overview of the patent transactions market analyzing the market structure, actors, and business models. In the first section the market activities are deconstructed following Ulf Petrusson's model on Building Blocks Approach; it presents the market activities, the drivers that actors have to engage in those activities, followed by describing the types of actors that engage in such activities. The first business activities that will be analyzed are patent development, patent acquisitions, patent sales, and patent licensing that are the primary (direct) patent activities between patent owner/licensor and buyer/licensee. Then the supporting business activities and actors will be shown, which are the secondary patent activities involving intermediation services, consultancy, and financing. The business models used by these actors will be analyzed focusing on providing information on where they acquire the patents (own patent generation, acquisition, or in-licensing) and explaining how these patents are used (sales, out-licensing). Afterwards a summary of the identified business models utilized in the market will be presented. Then business model segmentation will be presented following Alexander Osterwalder's model on Business Ontology. And to finish up the chapter a conclusion and discussion on how it's recommended for operating companies to interact with these actors to better perform in this market will be presented.

3.1 Primary Patent Business Activities

The primary business activities in the patent transactions market refer to those that are a direct transaction between the patent creators, owners, buyers, sellers, licensors, and licensees.

3.1.1 Patent Development

Technology development is the base for patent generation. Actors engaged in R&D activities are the base for patent development. Patents are the "goods" transacted in the patent transactions market, and the source of them is of utmost importance.

Actors that develop technologies and patent are the ones providing the "goods" to be transacted in the patent transactions market. Operating companies, IP development and licensing companies, institutional patent aggregators (to a certain extent), universities, R&D centers, and individual inventors are the actors in the invention process. These actors provide with the patents that will then be bought and sold and licensed in and out in this market.

3.1.2 Patent Sales

Actors selling patents are patent owners that for one reason or another they have decided to sell all or part of their portfolio. Actors that own patent portfolios are those who either develop their own portfolios and/or acquire patents. As a principle, all actors that own patents can sell them; however, one thing is to have certain transactions than to have it as a business model. The actors that supply patents to the market are those patent owners that wish to divest them. Such patent owners can be individual inventors, operating companies, universities, and other actors that own patent portfolios; however, the only identified type of actor that can be seen as completely dedicated to selling patents are corporate spin-offs from operating companies such as the one that was interviewed for this thesis that asked to remain anonymous. This company was exclusively opened to monetize a family of patents of an operating company through its sale.

The activity of selling patents is part of the supply side of the market, as these actors are providing the marketplace with the "goods" to be exchanged or transferred. Patent sales can be driven by having patents in an area where there is no longer interest in; having the opportunity of potentially

having a better proceeds through the sales of it; the shift of business or technology area on where the patent is; the need of cutting off costs and expenses; liquidity requirements; close-down or bankruptcy of a firm; strategic decision to sell rather than enter a licensing program due to the time and resources it requires.

According to the nature of the identified drivers, it can be deduced that actors selling patents don't have as core business selling patents, but rather sell patents that they don't use, don't want, or just prefer to sell.

A patent sale can be either done directly by the patent holder to the buyer or through an intermediary, such as a patent broker, patent auction, or to be put up on an online marketplace for patents. (These will be described in Section 3.3 Secondary Patent Business Activities).

3.1.3 Patent Acquisition

Patent acquisitions represent the demand side on the patent transactions market, completing the basic market forces of supply (patent sales) and demand (patent acquisition).

It is important to look how actors use patents because that will be directly linked to what drives them to acquire as well. According to a survey by Carnegie Mellon University & National Bureau of Economic Research[23] patents are used for prevention of copying, patent blocking, prevention of suits, use in negotiations, enhancing reputation, licensing revenue, and measuring performance (Figure 8).

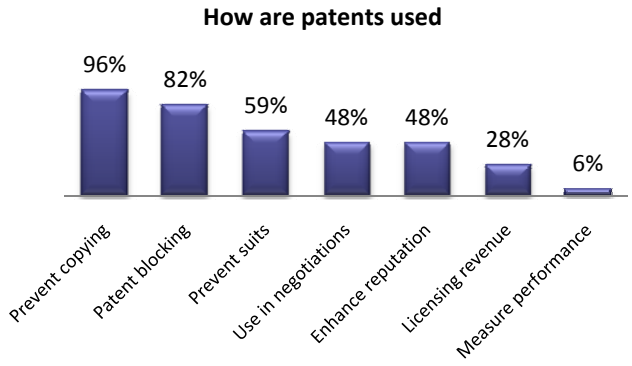

Figure 8 How patents are used

These factors can be divided into internal and external uses. Internal use (own use) if for defensive means: prevent copying, patent blocking, prevent suits, use in negotiations, enhance reputation, and measure performance. While on the other hand the external use is linked to having licensing as a profit center and acquiring patents to obtain licensing revenue.

Patent acquisition is highly related to patents usage and it has been identified that what may drive actors to acquire patents is linked to how they will use them. Some of the drivers for patent acquisition are: obtaining licensing revenues through licensing programs or patent assertion and litigation, improving position in cross licensing deals, filling in gaps in technology to have a better position in the market, blockage other actors and prevention them from patenting a related invention, decreasing royalty payments, prevention of copying, and for defensive means to prevent or decrease risk of patent infringement suits.[24]

Actors acquiring patents are those who want to create, enrich, or compliment their portfolio, either for their own use (defensive, competitive advantage tool, negotiation power) or for the creation of a profit center through licensing programs that can be either through negotiations or patent assertion and litigation approach. Therefore actors who are on the demand side of the patent transactions

[23] Patents: Their Effectiveness and Role – Carnegie Mellon University & National Bureau of Economic Research, Wesley M. Cohen
[24] Intellectual Property & Entrepreneurship – Creating Wealth in an Intellectual Value Chain, Ulff Petrusson CIP

market are operating companies, institutional patent aggregators, defensive patent pools, patent licensing & enforcement companies (PLECs), single asserters, universities, IP development & licensing companies, and other occasional actors. (These actors will be further described in Primary Patent Business Activities: Business Models and Actors)

The reasons for why each one of these actors acquires patents are different. In the case of operating companies, as it was seen before, they are driven to acquire patents for what they most use them, defensive means. On the other hand, defensive patent pools, have built up a business out providing the "defense shield" that operating companies are looking for; they license out the technologies they include in the pool to all of its members. Institutional patent aggregators are dedicated to collect patents and it's still unclear how they plan to monetize it; they have shown recent activity in patent sales but it doesn't seem like it might be their business model but it's more of an opportunistic transaction; they have the option of monetizing their portfolios through licensing with negotiation and/or litigation approach and the market is anxiously waiting to view which path IV will take. Patent licensing & enforcement companies and single asserters acquire patents to build up an enforcement business out of it; their core line is to litigate against operating companies.

Patent acquisitions can be done directly with the buyer and the patent owner or through an intermediary that can be a patent broker, a patent auction or an online marketplace for patents. (Described in Section 3.3 Secondary Patent Business Activities)

3.1.4 Patent Licensing

Licensing is the activity to grant permission (out-license) or receive permission (in-license) to use a specific patent or set of patents. The actor owning the patent or holding the rights to license may license-out the patent to licensees. Licensees receive authorization to use that patent according to the licensing agreement, which describes the scope and field of use, exclusivity, royalties, territory, term, amongst other specifications.

In the patent transactions market licensing represents the most complex activity of the patent transactions market because licensing deals can start with negotiation approach or litigation approach. For the purpose of this study, negotiation approach means those licensing agreements that are settled without any litigation; litigation approach is when it involves suing activities. A deal might start with negotiation approach and if there is no agreement, it might turn into litigation. In other cases, there is litigation from the beginning where the patent holder sues the potential licensee for alleged infringement. To better describe it, let's look at the scenarios where a case can be negotiation or litigation approach:

Negotiation approach: "Patent holder" offers license to "Company"; "Company" accepts the license offer. That acceptance can either be linked to desire to have access to the technology covered by the patent; or because the "Patent holder" can prove infringement and then "Company" decides it's better to negotiate a license than carry on with litigation. Also "Company" might decide to settle despite not being an infringer not to go through the hassle of litigation, that might be more expensive and time consuming. This means that they concluded a licensing agreement without any litigation, but that doesn't mean that the fear of litigation is not involved.

Litigation approach: "Patent holder" sues "Company" for alleged infringement directly. Or also the case where "Patent holder" offers license to "Company", "Company" doesn't take the offer and then "Patent holder" sues "Company" for patent infringement. The litigation approach might be either that the relationship starts with litigation or it ends up in litigation because no agreement could be met.

To be able to have a clear understanding on how licensing is evolving one would have to have access to information on licensing programs performance, settlements, and damages. Unfortunately, the only publicly available information is on litigation and damages, and scarce data is found on licensing programs and settlements. It is unknown the total amount of licensing deals that take place and how many are by negotiation and litigation approach. Even scarcer is information on revenues.

Despite data being limited, some information on litigations can be found and it demonstrates that litigations are vast in the patent transactions market and have increased in the past decade [25](Figure 9). Of the total number of patent litigation cases in the US 85% is presumably between operating companies, and the remaining 15% between non-practicing entities and operating companies[26]. It was in 2003 that the non-practicing entity vs. operating company started to grow stronger and 75% of litigations involving NPEs rose.[27] Of the total amount of litigations approximately 88% end up in settlement[28].

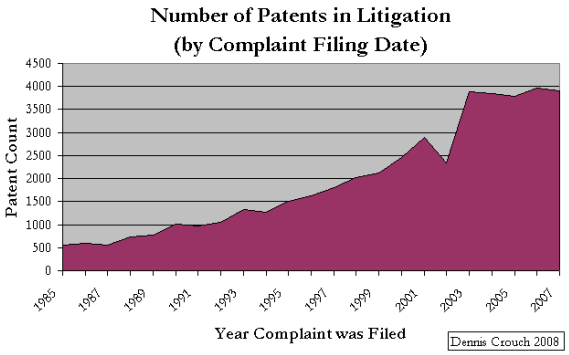

Figure 9 Number of Patents in Litigation 1985-2007

As a principle all actors that develop patents and/or acquire them could potentially engage in licensing activities therefore the identified actors that engage in patent licensing are PLECs, single asserters, institutional patent aggregators, defensive patent pools, operating companies, IP development & licensing companies, and licensing agents (intermediaries).(These actors will be further described in Primary Patent Business Activities: Business Models and Actors and Licensing Agents).

Some are in the business of infringed patents and turn more into litigation, while others are into technology transfer and might start their process with negotiation approach (which might turn to litigation if no agreement is achieved). The primary customers/licensees are operating companies. And while operating companies are the primary customer they are also active in the patent licensing arena and litigations have been an increasing trend.

Actors who have as core business to acquire patents to license are:

- PLECs and single asserters who are focused in litigation
- IP development and licensing companies develop their own IP and license it out to operating companies
- Patent aggregators, who could potentially establish strong licensing programs, but at the moment there is one actor in the market that uses this model and has yet not disclosed the path they will follow with their portfolio
- Defensive patent pools are into patent licensing in a different format such as membership fee to have access to their portfolios

[25] http://www.patentlyo.com/patent/2008/03/patent-litigati.html
[26] http://www.rpxcorp.com/svc_problem.html
[27] https://www.patentfreedom.com/research.html
[28] Preliminary Analysis of IPLC Data: Patent Infringement Cases – Cornerstone Research, Mary A. Woodford

- There have also emerged licensing agents who are actors linking patent owners with licensees as intermediaries.

3.2 Primary Patent Business Activities: Business Models and Actors

This section presents the business models and actors within the primary patent business activities, meaning those actors that have as core business having direct patent transactions.

3.2.1 Institutional Patent Aggregators

Activities carried on: development (not as strong as acquisition), acquisition, out-licensing, in-licensing (to a certain extent, only to have as a basis for future out-licensing)

Institutional Patent aggregators as their name well establishes it are dedicated to aggregate patents. Their business model is twofold. On the one hand they raise capital, from large technology companies, pension funds, venture capital firms, and wealthy individuals, offering them high return over their investment. With that capital they acquire patents in bundles and then create patent monetization programs for the patents they've aggregated. The patent monetization strategies that patent aggregators can use are licensing (either negotiation or litigation approach), patent sales (for better proceeds) like a recent patent portfolio divesture from Intellectual Ventures to Thales Alenia Space[29], or spin-off new companies on specific patents, like TerraPower a spin-off company from Intellectual Ventures focused on improving electricity using nuclear reactors.[30]

Intellectual Ventures[31] (IV) is "the" patent aggregator. IV has raised around 5 billion USD in capital and has acquired over 30,000 patents[32]. Although these numbers cannot be confirmed exactly, it is a fact that IV has a strong position when it comes to capital and patents. When IV started raising capital in 2002, their sales pitch was focused on offering companies the opportunity to acquire patents to protect themselves against lawsuits. Nowadays the defense pitch is no longer their core, but rather they offer investors the opportunity to channel their capital through IV's own inventions or in funds of acquired patents that will be monetized and high return over their investment is foreseen. According to Bloomberg BusinessWeek, some of their investors are Microsoft, Intel, Apple, Sony, and eBay[33]; however, this information is not a fact and has not been confirmed by Intellectual Ventures as they have stated that they don't disclose details about their investors[34] because they could somehow be in disadvantage if their participation is known.[35]

Licensing is a definite option; however, Intellectual Ventures, the single patent aggregator identified, has yet not mounted a well rounded licensing program and it is unclear how they will carry on their operations with their portfolio. It is unclear how IV plans to monetize that "30,000" patent portfolio, and although Nathan Myhrvold, IV's co-founder and CEO, states to be opposed to patent litigation[36], many are hesitant about it, because it's claimed that IV could turn into a dangerous asserter and

[29] http://www.intellectualventures.com/NewsAndInformation/PressReleases/10-06-22/Intellectual_Ventures_Signs_with_Thales_Alenia_Space.aspx
[30] http://www.intellectualventures.com/OurInventions/TerraPower.aspx
[31] http://www.intellectualventures.com/home.aspx
[32] http://business.timesonline.co.uk/tol/business/entrepreneur/article7127608.ece
[33] http://www.businessweek.com/magazine/content/06_27/b3991401.htm
[34] http://www.intellectualventures.com/Home/FAQ.aspx
[35] http://online.wsj.com/article/NA_WSJ_PUB:SB122142717791833671.html
[36] http://www.businessweek.com/magazine/content/06_27/b3991401.htm

litigator backed up by their strength in patent holding.[37] It has also been argued that that IV is building a monopolistic scenario and that it's a scary proposition for companies because it will turn into an offensive situation[38]. Additionally, there always exists the risk of IV either selling or coming into collaboration with an actor that is not opposed to suing.[39]

Due to the fact that IV is acquiring patents in bundles, many of the other actors in the patent transactions market have IV as a primary stakeholder. It has been reported that 75% of the publicly auctioned patents lots were acquired by Intellectual Ventures[40]. Furthermore, that some brokers, such as IPotential have had their top successful transactions with Intellectual Ventures. "Successful… IPotential, due to the fact that they sold 80% to 1 buyer: IV which whom they had a very strong relationship before as people came from Intel" – Interviewee from Interview Sessions (Chapter 6 Empirical Research).

Such large firms like Intellectual Ventures are involved with almost all actors in the market, because they develop patents, acquire patents, sell patents, have licensing programs (which is still to be seen if it will be negotiation or litigation approach), and raises capital from corporations. At the moment there is only one of these actors in the market, but it has been said that there might be enough space for 2 or 3 of them. "There will come other IVs, as there is enough space in the market for 2 or 3 of those players". – Interviewee from Interview Sessions (Chapter 6 Empirical Research).

Additionally to acquiring and licensing, institutional Patent aggregators develop technologies and patent to a certain extent. It might not be their core business as acquisition is, but they do have R&D teams dedicated to it. Intellectual Ventures claims to have internal development and a worldwide network of inventors who "conceive ideas, conduct extensive research, evaluate product feasibility, and determine an invention's market viability"[41].

3.2.2 Defensive Patent Pools

Activities carried on: acquisition, out-licensing (for defensive means), in-licensing (to a certain extent when patents can't be bought the rights are in-licensed for the members).

Defensive Patent Pools are a variation of the abovementioned Patent Aggregators, as they aggregate patents and have it in a pool so that members can use it for defensive means. Defensive patent pools identify and acquire key patents that could be used offensively against operating companies, which is the base of its members. They are not in the business of offensively litigating the rights of the patents in the pool, but only serve as a protective shield to lower litigation risk for its members. Basically what defensive patent pools do is bring together operating companies that have one interest in common, reduce costs in litigation, and by the aggregation of the members so is the collection of capital.

What they basically do is patent licensing but in a different format than the traditional one, because it's only for their members and for defensive means. They collect patents that can be used for protective means and then provide licenses to their members to the entire portfolio. The license in this case is presented as a membership or participation fee.

[37] http://money.cnn.com/magazines/fortune/fortune_archive/2006/07/10/8380798/index.htm
[38] The trolls' game – The Deal, Danny Fortson
[39] http://www.pehub.com/74614/qa-with-nathan-myhrvolds-intellectual-ventures/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+pehub%2Fblog+%28PE+HUB+Blog%29
[40] Inside the world of public auctions – IAM Magazine, Tom Ewing
[41] http://www.intellectualventures.com/Inventors.aspx

There are two variations of defensive patent pools. The first one is based on the defensive patent pool firm bringing together various operating companies and advising them on which patents to acquire for the benefit of the group, the patents are owned by the defensive patent pool and are licensed out to all of its members. The acquisition is governed by the members, not by the defensive patent pool firm. Allied Security Trust[42] (AST) is an example of this. The second type is when the defensive patent pool actor decides which patents to acquire and it's then offered to the members (or in some cases bought because of the need that members or potential members might have). Rational Patent Exchange[43] (RPX) is a firm that has this format. In both cases the patents are owned by the Defensive Patent Pool aggregator (RPX or AST), and licenses are offered out to its members for defensive means.

3.2.3 Patent Licensing & Enforcement Companies (PLECs)

Activities carried on: acquisition, out-licensing (primarily based on enforcement)

Patent licensing & enforcement companies (PLECs) are entities that own patent portfolios and enforce them through licensing programs with litigation approach. They have as core business to acquire patents and enforce them through litigation against operating companies.

The way they operate is that they acquire patents which they believe are being infringed by operating companies, and establish licensing programs targeting those alleged infringers. They contact the allegedly infringing operating companies either through letters or meetings trying to engage on a non-exclusive basis licensing agreement; those who refuse to take license under the terms they're offering are sued for patent infringement. PLECs do not develop technologies; they acquire technologies from third parties and then enforce them. These actors are usually called "patent trolls", which is a pejorative term used for non-practicing entities that enforce their patents in an aggressive and opportunistic matter.

Actors in this category are Acacia[44], Lemelson Foundation[45], Papst Licensing[46] and Fergason Patent Properties[47].

3.2.4 Single Asserters

Activities carried on: development (they might start asserting on patents they developed, but then moved to acquisitions), acquisition, out-licensing (primarily based on enforcement)

Single asserters are just as Patent Licensing & Enforcement companies (PLECs) with the difference that they are individuals and not companies (even if they litigate under company name, they are a 1 to 10 people team). The major difference is that PLECs have heavy organizations and handle high numbers of patents; while single asserters, are in most cases attorneys themselves, and so they handle the cases from A to Z; they don't acquire patents in bulks, but only on a few of them that they consider might be profitable.

Actors in this category are Erich Spangenberg[48] under the LLC Plutus IP, Ronald Katz under the LLC Ronald A. Katz Technology Licensing[49], and Leon Stambler[50].

[42] http://www.alliedsecuritytrust.com/
[43] http://www.rpxcorp.com/index.html
[44] http://www.acaciaresearch.com/
[45] http://www.lemelson.org/
[46] http://www.papstlicensing.com/
[47] http://fergasonpatents.com/

3.2.5 IP Development & Licensing Companies

Activities carried on: development, acquisition (not as core, but may occur in certain cases), out-licensing

IP development and licensing companies are entities that develop technologies internally therefore generate patents and are in the line of business of licensing out these patents. They do not manufacture products, but license out their technologies and patents to operating companies. These actors are R&D intensive because their core business is to establish monetization plans on internally developed patents. Their core business is to develop technologies, patent them, and then establish licensing plans with their portfolios. They develop technologies that have market potential within operating companies since they are their primary customers. **In some cases IP development & licensing companies might also establish acquisition programs to enrich their portfolios and establish better licensing plans.**

Actors in this category are Rambus[51], ARM[52], MOSAID[53], InterDigital[54], AmberWave[55], Qualcomm[56], and Tessera[57]

3.3 Secondary Patent Business Activities

This section presents the business models and actors within the secondary patent business activities, meaning those actors that have as core business to intermediate transactions or provide services to support these transactions.

3.3.1 Intermediation and Consultancy

There are actors in the market who are intermediating and supporting the acquisitions and sales of patents. There are actors serving as middlemen bringing together patent owners and holders with potential buyers and/or licensees. In the patent transactions market the middlemen are patent brokers, patent auction, online marketplaces for the patent divesture and acquisition; while licensing agents intermediate licensing deals.

Various actors in intermediation offer consultancy as one of their services. Some examples are IPotential[58], ThinkFire[59]Marqera[60], and IP Value[61]who offer other than their brokerage and licensing agency services, also IP consultancy. There is also consultancy in the legal arena, having actors specialized in guiding patent owners and potential buyers and licensees in legal aspects. An example of this is Richardon Oliver Law Group[62] and Zacco with their IP Transactions unit[63].

[48] http://www.good.is/post/the-patent-troll/
[49] http://en.wikipedia.org/wiki/Ronald_A._Katz
[50] http://www.iptoday.com/articles/2009-1-bednarek.asp
[51] http://www.rambus.com/us/
[52] http://www.arm.com/
[53] http://www.mosaid.com/corporate/home/index.php
[54] http://www.interdigital.com/
[55] http://www.amberwave.com/
[56] http://www.qualcomm.com/
[57] http://www.tessera.com/
[58] http://ipotential.com/consulting/index.htm
[59] http://www.thinkfire.com/services/ip-portfolio-analysis-and-strategy-development/
[60] http://marqera.com/default.asp?PageID=43
[61] http://www.ipvalue.com/
[62] http://richardsonoliver.com/

Various areas are covered by consultancy groups and service units, such as IP strategy, valuation, monetization paths, legal requirements, marketing, and others.

3.3.2 Financing

How actors are financing their operations vary. Data from the Interview Sessions reveal that some of the financing sources that actors have in the market are: share capital; private equity such as venture capital, corporations, and investment funds, which might be either a strategic investor or financial investor only; and their own capital.

Other than how actors in the market are financing their operations, entities dedicated to financing in the patent transactions market have emerged. These are actors that have as core business to finance activities related to patent transactions and more and more the financial markets are looking at IP as an area to invest in.[64]The identified models in this line of business are IP backed financing, royalty stream securitization, and litigation finance & investment.

The financing sources for actors in the patent transactions market may be share capital, own capital, and private equity through strategic and financial investors. There is also a model in which actors invest in assertion programs hand by hand with the patent owner. Additionally, a set of models dedicated to financing utilizing IP as collateral or royalty securitization have emerged, where patent holders can obtain financing based on the estimated present and potential value of their IP.

IP has traditionally been illiquid because of its intangible nature; however, more and more financial options are opening for patent holders who are able to transact their IP.

3.4 Secondary Patent Business Activities Business Models and Actors

3.4.1 Patent Brokers

Patent brokers are actors who serve as middlemen in selling and buying patents. They do not own patents, but are agents bringing together buyers and sellers. These actors can be compared with real estate brokers, who help home owners to sell their properties, and home seekers to find a house to purchase. Patent brokers search for patents in the market that might be for sale and then offer it to potential buyers. They study the patents and then prepare a list of actors who could be interested in acquiring the patents based on many reasons, such as providing a competitive advantage, lowering licensing costs, avoiding potential litigation, filling in gaps in technologies, avoiding potential infringement, or in some cases simply based on common technology area where the patent is e.g. they have a patent on semiconductors for brakes, they offer it to actors in the automotive industry. Brokers send information on the patents to their potential buyers and focus on why it's important for them to acquire it. Their income is the broker's commission that is around 25% of the entire sales price and it comes out of the patent owner's proceeds.[65]

Patent brokerage has been rapidly increasing and it is no longer a one-shot-deal activity, it is an occupation that is recognized by the US Census Bureau.[66] Some of the identified patent brokers are: IPotential[67], Inflexion Point[68], ThinkFire[69], Bramson & Pressman[70], ILeverage[71], Lava Group[72],

[63] http://www.zacco.com/practiceareas/
[64] The expanding market for IP finance – IAM Strategy 250, 2010
[65] http://patentmatchmaker.com/AboutPatentMonetization.html
[66] http://www.census.gov/hhes/www/ioindex/cens_050_095.html
[67] http://ipotential.com/
[68] http://www.ip-strategy.com/
[69] http://www.thinkfire.com/
[70] http://www.b-p.com/
[71] http://www.ileveragegroup.com/

Pluritas[73], Red Chalk[74], Semiconductor Insights[75], Marqera[76], IP Value[77], amongst others. The great majority of them offer IP consultancy as a service and some of them also are moving towards not only offering patents for sale, but also licensing.

3.4.2 Patent Auctions

Patent Auctions provide the option to place patents for sale and bid on them for their acquisition. Patents are collected by the auction firm to be put in the auction, and potential buyers are invited to participate and bid. There are live patent auctions where previous to the event, an information kit is sent to the potential buyers containing non-confidential information on title clearance, market potential value, technology and patent description, and other details on the lot. The patent owner and the patent auction firm agree on a minimum sales price (reserve price), and in most cases set a minimum amount on the increase of bidding. During the event, the potential buyers will bid (if interested) to buy the patents, and if the reserve price is met, then the patents are sold to the highest bidder. This auction format historically been used for various goods such as art, antiques, cars, real estate, etc… and was first used for patents in 2005 in Chicago by the firm Ocean Tomo.[78] Another format that is being introduced to the market is online patent auctioning service, a type of "ebay for patents" where patent owners can upload patents to the online infrastructure and potential buyers will do online searches and bid on the patents they're interested in. The patent auction's firm income is a commission of ranges from 10%[79] to 25%[80] from the total sales price of the patents.

Ocean Tomo was the firm that started live auctions in 2005, and it was acquired by ICAP an interdealer broker and post trade in 2006 and it is now called ICAP Ocean Tomo[81]. IP Auctions GmbH is another firm involved in live auctions.[82] Firms providing online patent auctions are IpAuctions.com[83], LynxStreet.com[84], and Sciencecentral.com[85].

3.4.3 Online Marketplaces for Patents

Online marketplace for patents is a platform where patent owners can upload their patents into a website and potential buyers will visit the site and buy the patents that they are interested in. It is similar to the online brokerage, but in this case the listings are not up for auction but have set prices. This format is an equivalent to what amazon.com is for books and other goods. Firms involved in this model are yet2.com[86], Tynax[87], Open-ip.org[88], and soon ICAP Ocean Tomo will also be launching their own online marketplace.[89]

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[72] http://www.lavagroup.net/home.html
[73] http://www.pluritas.com/
[74] http://www.redchalkgroup.com/
[75] http://www.semiconductor.com/index.asp
[76] http://marqera.com/
[77] http://www.ipvalue.com/
[78] The New IP Marketplace: Patent Auctions Michelle Tyde and Andrea Bates – Greenberg Traurig
[79] http://www.iam-magazine.com/blog/Detail.aspx?g=2052b9b1-18c7-4827-8edf-e4bd4c2c5478
[80] http://ipassetmaximizerblog.com/?p=71
[81] http://icapoceantomo.com/
[82] http://www.ip-auction.eu/index.htm
[83] http://www.ipauctions.com/
[84] http://www.lynxstreet.com/site/index.html
[85] http://www.sciencecentral.com/site/4536830
[86] http://www.yet2.com/app/about/home
[87] http://www.tynax.com/
[88] http://www.open-ip.org/
[89] http://icapoceantomo.com/coming-soon

3.4.4 Licensing Agents

Licensing Agents offer services to connect patent owners with licensees, they are like a "broker" but rather than for buying and selling, for licensing. The way they work is that they search for patent holders who might have the need to better monetize their patents through licensing and look for potential licensees. They can establish licensing programs both on the negotiation and the litigation approach. Examples of this type of actor are IPotential[90] and ThinkFire[91].

3.4.5 IP Backed Financing

IP backed Financing actors are either direct financial institutions providing loans with IP as collateral or are actors linking IP owners looking for financing with financial actors. Despite IP being an intangible asset, it is increasingly becoming "Intellectual Capital" that can be transacted and used as security for financing. Paradox Capital[92] is a great example of this model that provides loans to individuals and companies utilizing IP as collateral[93]. There are actors that don't provide the financing themselves, but bring together patent owners with financing actors, such as Marqera with their Transactions Capital service[94] that helps patent owners find financing and commercialization opportunities.

3.4.6 Royalty Interests Securitization

Royalty Interests Securitization is a model on which patent owners with established licensing royalty streams can have access to financing secured by their royalty interests; basically they are selling future royalty incomes from their licensing agreements. A recognized actor in this model is AlseT IP[95].

3.4.7 Litigation Financing & Investment

Litigation Financing & Investment are actors that strategically finance and/or invest in litigation, with the goal of having an income over the outcome of the suit. These actors work together with the patent owner in the assertion programs and then share the awards and settlements with them. Actors utilizing this model are Rembrandt[96] and Altitude Capital Partners[97].

3.5 Summary of Business Models and Actors

A set of twelve business models have been identified based on the market's building blocks i.e. the primary activities that can be held: patent development, patent acquisition, patent sales, patent licensing, and support services (consultancy, financing, intermediation). The business models derive from these building blocks[98]. The models that have been identified are the following:*(View Appendix 8 for complete information on business models and actors).*

1. **Institutional Patent aggregators** are actors that raise capital from investors offering them high return over their investment, and with that capital acquire patents in bundles and then create patent monetization programs for the patents they've aggregated. The patent monetization strategies that patent aggregators can use are licensing (either negotiation or litigation

[90] http://ipotential.com/licensing/index.htm
[91] http://www.thinkfire.com/services/patent-licensing/
[92] http://www.paradoxcapitalpartners.com/
[93] http://www.allbusiness.com/consumer-products/clothing-accessories-womens/5272037-1.html
[94] http://marqera.com/default.asp?PageID=44#Anchor11
[95] http://www.alsetip.com/
[96] http://www.rembrandtfund.com/index.html
[97] http://www.altitudecp.com/index.html
[98] Clarifying Business Models: Origins, Present, and future of the Concepts – Alexander Osterwalder, Yves Pigneur, Christopher L. Tucci

approach), patent sales (for better proceeds), or spin-off new companies on specific patents. Intellectual Ventures is the single institutional patent aggregator in the market and is an entity that has a great effect on the market and it's players because of it's size and type of operations.

2. **Defensive Patent Pools** aggregate patents and have it in a pool so that members can use it for defensive means. They are not in the business of offensively litigating the rights of the patents in the pool, but only serve as a protective shield to lower litigation risk for its members. RPX and AST are actors using this model.
3. **Patent licensing & enforcement companies (PLECs)** are entities that own patent portfolios and enforce them through licensing programs with litigation approach. The way they operate is that they acquire patents which they believe are being infringed by operating companies, and establish licensing programs targeting those alleged infringers. Acacia and Papst Licensing are actors using this model.
4. **Single asserters** are just as Patent Licensing & Enforcement companies (PLECs) with the difference that they are individuals and not companies (even if they litigate under company name, they are a 1 to 10 people team). They don't acquire patents in bulks, but only on a few of them that they consider might be profitable. Erich Spangenberg and Ron Katz are actors using this model.
5. **IP development & Licensing Companies** are entities that develop technologies internally and then license them out. They do not manufacture products, but license out their technologies and patents to operating companies. Rambus and Qualcomm are actors using this model.
6. Patent brokers are actors who serve as middlemen in selling and buying patents. They do not own patents, but are agents bringing together buyers and sellers. IPotential and Marqera are active patent brokers in the market.
7. **Patent Auctions** provide the option to place patents for sale and bid on them for their acquisition. There are live patent auctions and online patent auctions. ICAP Ocean Tomo was the first actor in 2005 that started patent auctions.
8. **Online marketplace** for patents is a platform where patent owners can upload their patents into a website and potential buyers will visit the site and buy the patents that they are interested in. yet2.com and Tynax are examples of actors who use this model.
9. **Licensing Agents** offer services to connect patent owners with licensees, they are like a "broker" but rather than for buying and selling, for licensing. ThinkFire and IPotential are brokers who have included to their services licensing agent offer.
10. **IP backed Financing** is a model where loans are provided with IP as collateral. Also there are actors linking IP owners with financial actors, not necessarily providing the financing themselves.
11. **Royalty Interests Securitization** is a model on which patent owners with established licensing royalty streams can have access to financing secured by their royalty interests.
12. **Litigation Financing & Investment** are actors that strategically finance and/or invest in litigation, with the goal of having an income over the outcome of the suit.

The most mature business models used by NPEs are IP development & licensing companies that have been in the market for various decades; they seem to have solid models based on patent development and technology transfer. Litigation has always been part of their business model and their main target are operating companies, but it doesn't seem as if their ideal is to go to litigation, but more that only when agreements can't be reached is that litigation is the path to follow. The patent enforcers and litigators have some good financial results on their operations litigating patents against operating companies. There have been cases awarded by courts where operating companies pay hundreds of millions of dollars. The problem with this model is that they are prone to

litigation rather than negotiation, which may deter the system and the licensing process; what makes the difference between being a "fair" transaction is the quality of the patent and if it's being infringed, which are both complex and delicate matters.

For operating companies it's important to be aware of these models and identify which ones are threats for them or potential collaborators, as well as understanding what type of relationship can be established with the actors utilizing each model. Operating companies are the main target "customer" for the great majority of actors, but they can also become an active player in this market to monetize their patents in a different manner than the one they traditionally use e.g. prevention of copying and patent blocking. In Chapter 5 Stakeholders Analysis we'll be analyzing the types of relationships that can be established by operating companies with actors in each model as well as an analysis on which actors represent threats and opportunities of collaboration to better monetize their patents.

3.6 Patent Transactions Market Business Model Clusters

These business models and actors can be segmented according to what they have in common, so that once clustered they can be better assessed. Following the model "Nine Business Model Building Blocks"[99] *(Appendix 9 – Nine Business Model Building Blocks model on the Patent Transactions Market)*, it has been identified that these business models and actors can be classified into four different clusters: Patent Aggregators, IP Development & Licensing, Enforcement & Litigation, and Market Makers & Middlemen.[100]

This is based on the fact that some models have the same building blocks and share primarily value proposition and target customer. For example, PLECs acquire patents to assert and litigate with them against operating companies and single asserters do the same; institutional patent aggregators acquire patents to establish varied monetization plans with their portfolios for operating companies, and defensive patent pools also aggregate patents to license them out to operating companies but for defensive means; brokers, auctions, online marketplaces, consultants, and financiers all provide supporting services bridging gaps in the market between patent owners and their buyers or licensees. As it can be seen with these examples, models have components in common that makes it possible to group them into four different clusters: patent aggregators, IP development & licensing, enforcement & litigation, and market makers & middlemen.

Based on the business models in each cluster is that operating companies can easily identify the similarities in models and therefore foresee potential risks and opportunities and can group them into stakeholder groups that can be better assessed according to the type of relationship they hold.

Patent aggregators are dedicated to aggregate patents and then monetizing them. The two models parts of this cluster are institutional patent aggregation such as IV, and defensive patent pools such as RPX and AST. Patent aggregators are in the business of collecting patents to establish monetization plans with them, this might be a risk for operating companies because depending on how the aggregator decides to monetize (offensive or defensive) is the level of impact. On the other hand, since aggregators are in the business of collecting patents in bundles, they might be good customers to supply patents to and to get into potential collaborations to get access to other technologies. For operating companies wishing to move into the patent transactions market as

[99] Business Model Ontology – Alexander Osterwalder

[100] This is also based and corresponds to presentation by Ron Laurie: Existing and Emerging IP Business Models - Current Markets in Patent & Technology Monetization 2010

active actors, patent aggregators could represent some type of competition, because they are building up large patent portfolios that are the goods to be transacted.

The most similar cluster to operating companies is the **IP development & licensing**, with the only difference that these actors don't manufacture, but they are R&D intensive. Because of the similarities in the models these can be seen as direct competitors and potential collaborators. These actors can be seen as a source of technologies for operating companies; however, at the same time they are a risk because since they are dedicated specifically to developing IP, there might be cases where operating companies can infringe (or allegedly infringe) in their patents and get into confrontations that could lead to litigation. Then the whole litigation dilemma comes in, is there really infringement going on, will litigation go on, is it really that in cases of infringement operating companies didn't know there was a patent in that area and still developed and use the technology? Or did they know about it and still kept on using the technology with the notion that they wouldn't be disclosed? It is a delicate matter for operating companies the issue of infringement and for sure there must be cases of both types and depending on it is the level of the conflict that can arise. What must be clear is that actors in this cluster have the core business of developing technologies to license them out to operating companies and that from a knowledge transfer point of view this can be positive because these actors represent a working engine on technology development and have licensing as a transfer method; however, this easily turn into an enforcement model due to strategic decision of the IP development & licensing company or the inability of reaching agreements with operating companies, and once again the infringement dilemma could be present. There is only one business model in this cluster which is IP development & licensing. Actors in this category are Rambus, Tessera MOSAID, InterDigital, Amber Wave, ARM, and Wi-LAN.

The cluster of **patent enforcement & litigation** represents the highest threat for operating companies because these are the actors intensively dedicated to assert and litigate patents targeting operating companies. Business models that are in this category are patent licensing and enforcement, single asserters, and litigation financiers. It can be seen from the perspective that these actors' business models are focused on looking exclusively for patents that might be infringed by operating companies, and then approaching them with offensive licensing plans. Models in this cluster have two opposed opinions and it all comes down to the quality of the patent. On the one hand it can be that actors in this cluster enforce patents with low quality, that might not be infringed, but settlement is reached to avoid time and resources consumption through litigation; however, there might also be the case where a high quality patent might be really infringed by an operating company and the patent holder is not getting rewarded appropriately, therefore these actors offer a solution. It is a complicated matter, because defining low and high quality of patents is a challenge, and knowing the "truth" if there is infringement or not is also a challenge that is being tackled mainly with litigation.

Market makers & middlemen are all those models that serve as support, complimentary service or intermediation service between patent holder and patent buyer or licensee. For operating companies these actors might sometimes come to them offering something, but can also be hired to offer to other actors what operating companies want. These are actors that have knowledge about the market because they have as core business to be in contact with lots of them, operating companies, aggregators, enforcers, and others. Actors in this cluster are facilitating the transactions in the market and are taking advantage of the needs that the market has to offer their services such as patent brokerage, auctions, online marketplace, and consultancy.

3.7 Chapter Summary

A market for transacting patents has emerged which represents a plethora of opportunities for actors holding patents, but of course this also brings along risks with it. Operating companies that are the major patent holders can look at this market in a sense of not only being the ones asserted against, but also as an option to monetize their patents. Operating companies traditionally use their patents to prevent others from copying and using the same technology; however, it is recommended for them to assess their portfolios and identify patents that can be monetized through other models such as licensing and enforcement. Since operating companies have complex portfolios they must first divide the patents that they use as core and don't wish to share, the ones that are core but that can be shared, the ones that are not being used, the ones that could be used by others, the ones that are likely to be infringed, and so forth. Based on this analysis they can establish plans to monetize them.

Operating companies can benchmark from what other actors in this market are doing (who have as core business to transact patents) and analyze what it's applicable for them and can be aligned with their strategic plans. For example they have the option of having specialized R&D teams focusing on future technologies to further use and license out, like IP development & licensing companies; they can explore the option of establishing aggressive acquisition plans like patent aggregators; they can view the options of setting up licensing and enforcement programs like patent enforcers and litigators; they can create spin-offs to either license or divest patents. All these and other options are possible, and the patent transactions market not only provides the marketplace for doing so, but also secondary business models that can help them to do so, such as using intermediary services to acquire, sell, license, and assert.

Operating companies have in-house competences in the areas required to set up any of these programs, but it's a matter of analyzing which strategic plan they want to follow and review the organizational requirements. In some cases it might mean refocusing teams, or bringing in new people, or collaborating with existing actors in the market. Operating companies have a long history of collaborating with other operating companies, so now this market also provides options of other actors that can be collaborators to establish atypical patent monetization programs. For example, it could be an option for operating companies to get together with enforcers who have as core business and full expertise in establishing assertion programs.

Operating companies despite being vulnerable to assertion by NPEs are also in the privileged position of owning the highest number of patents aka goods to be transacted in the market. It is recommended for them to analyze their portfolios and develop monetization strategies, and instead of utilizing the patents primarily for defensive means, they could also establish licensing and/or assertion programs with it. The patent transactions market provides opportunities to do so, and as more and more models are coming into the market more options will come along, and being an early entry can have its rewards.

Chapter 4 Macro environmental analysis of the patent transactions market

This chapter provides a macro-environmental analysis of the patent transactions market with focus on the potential that operating companies might have and possible directions to better commercialize their patents. The PESTL model has been used to analyze the macro environmental factors of politics, economic, social, technological, and legal aspects. These factors serve as a framework on assessing potential directions. The objective is to have a general overview of the external factors affecting the patent transactions market to be able to visualize opportunities and threats that operating companies might have while transacting in this marketplace.

4.1 PESTL Analysis

The following sections will present the five factors that are being analyzed in the macro environment: Political, Economic, Social, Technological, and Legal.

4.1.1 Political Factor

Governments have a decisive position in related topics to the intellectual property, such as innovation promotion, education and communication within IP grounds, and foremost, governments have the legislative power to pass, amend and repeal laws. In the US the Congress is the organization that has all legislative power, and both its chambers, the House and the Senate, must be in consent to enact legislation.

The Patent Reform Act of 2010 was submitted to the United States Congress. This is the fourth consecutive congress session, following on Patent Reform Acts 2005, 2007, and 2009 proposing changes in US patent law. It is uncertain what the results will be, but what is definite is what the Congress decides upon this will make a difference in how operations are carried on. A deeper analysis on the potential consequences will be done in the Legal section of this analysis.

The traded "goods and services" in the patent transactions market are of course patents, and the underlying blocks behind patenting are innovation and technology development. Governments' actions can have a direct effect on patenting activities because of their incentive plans fostering innovation. Grants.gov is a governmental resource in the US that provides over 1,000 grant programs with approximately 500 billion USD in annual awards; 667 of these grant programs are on the category on Science and Technology and other Research and Development.[101] Other governmental programs such as the Innovation in American Government that is in alliance with educational centers and non-profit organizations, incentivizes people to provide creative solutions to economic and social problems, and gives out 10 prizes of 100,000 USD to the winners.[102] The issue of governments granting funds is relevant from two perspectives. The first that they are empowering innovation that could lead to patenting; therefore more patenting could take place, adding assets to the market. Secondly, a high number of NPEs are small companies, therefore they could perhaps have access to these funds.

When turning innovations into patents, governments have the task to receive all patent applications, review them and continue on with the entire process of granting, denying, re-examining, and others.

[101] http://www.grants.gov/search/category.do
[102] http://innovations.harvard.edu/

The USPTO has the responsibility to "Promote the progress of science and the useful arts by securing for limited times to inventors the exclusive right to their respective discoveries".[103] How they carry on with this chore is a determinant factor to the patent transactions market. It has been noted that a high number of granted patents are of low quality and that it affects negatively the public domain based on the USPTO's inability to promote patent quality.[104] Having said this, it is important to make note that having lots of low quality patents in the market is not beneficial for technology development, progress in science, or growth of innovation in general because it provides rights to ideas that shouldn't have them, and on the way generates costs and expenses that drag out resources and hinders the use of them in other more beneficial areas. It has been said that around 95% of the patents in the market are of low quality, and the expected trend for the market is that high quality patents will be the ones mainly transacted, therefore lowering the number of NPEs and transactions. However, the bulk of low quality patents will still be out there, and NPEs might find a use of it by aggregating them for very low costs and monetizing them through low cost licensing plans as well. Of course that a low quality patent is not likely to have a market; however, for operating companies the cost of going through the painful process of litigation might be higher than the value asked from the NPEs. This could formulate a scenario that would benefit in a certain manner the NPEs since it would provide an opportunity for them to be able to obtain higher prices for the low quality patents. This is just a supposition of something that could happen in the market, but NPEs that decide to go into this model (if they decide to do so) will have a high risk as they will be investing in a lot of patents with low quality. The question is, will operating respond to this? Could NPEs build a business out of the bulk of low quality patents? Could there be a market for quantity with no quality?

4.1.2 Summary on Political Factors

Politics have great influence on the patents transactions market and how NPEs develop and carry on their operations. The most relevant aspects are around patent offices, governments raising awareness on IP, and innovation grants.

In the United States the USPTO and their performance is imperative for the market because they are the organization that receives, analyzes, grants, and re-examines patents. The Patent Reform Act 2010 is in the Congress at this moment and results are expected to be in at the end of the summer of 2010. It is uncertain which sections will be approved and which won't. The act is said to be focused on making the system fairer for all actors involved and promote innovation; however, there are some disputes about it. A deeper analysis is made on the Legal section of this report.

The fact that lots of low quality patents are in the market at this moment is in part fault of governments, since the patent offices (USPTO in US) are the ones granting them. To have a high number of low quality patents in the market is not healthy for innovation. Some NPEs use these low quality patents as their basis for business, and operating companies settle not to go through the long and costly process of re-examination and/or technical analysis.

Governments are the ones responsible for improving the system so that all actors involved can be treated fairly and at the end of the road, innovation is fostered.

[103] US Constitution, Article I, Section 8, Clause 8

[104] Quality of Patents - Patents and the Public Domain: Improving Patent Quality Upon Reexamination, 2008, Raeanne Young

4.1.3 Economic Factors

Innovation is one of the bases for growth and development, because it is the foundation for potential businesses with cash flows. A country's economic growth can be explained by the capacities to perform research, apply knowledge and transform it into technologies that can be claimed and transacted as intellectual property and capital.[105][106][107]The knowledge based economy where entrepreneurs have innovations that can be transformed to intellectual capital is one of the best examples of this[108]. In (Figure 10)[109] it can be seen how in the US patent filings have the same growth rate as the gross domestic product purchasing power parity, demonstrating how innovations might have an impact over a country's economy.

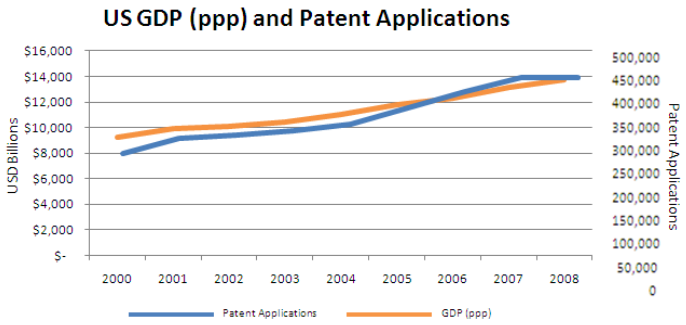


Figure 10 US GDP (ppp) Patent Applications

A country's economy is increasingly dependent on innovation because it provides them the ability to create new technologies and have competitive advantage. As it was established before, innovation leads to economical growth, but added to that is the control mechanism that actors require to transact that "innovations", and those are patents. Therefore, it is of utmost importance to examine patent applications[110] (Figure 12) According to WIPO's statistics the total patent applications have had a slight decrease from 2005 to 2007, being perhaps the economical crisis it's causing, but despite that slight decrease the general trend is to go upwards as it can be seen in a ten year period that the increase has been of approximately 40%. The largest amount of patent filings remains in the USPTO; however, other patent offices have shown some promising numbers such as China, Japan, and Korea, prooving that for the patent market Asia

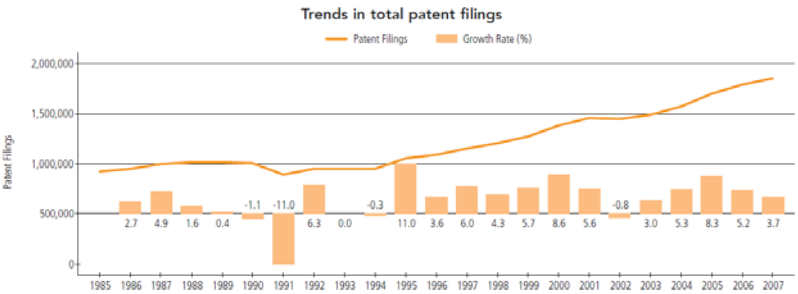


Figure 12 Trends in patent filings 1995-2007

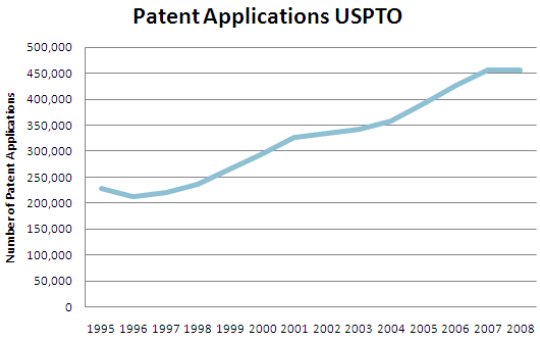


Figure 11 USPTO Patent Applications 1995- 2008

[105] Knowledge protection and generation: Intellectual property, innovation and economic development, Economic Commission (**ECLAC**), Jorge Mario Martínez-Piva

[106] Technology Innovation and Economic Growth - Korean Experiences, World Bank

[107] Economic growth and technological innovation, South East England Strategy Board

[108] Knowledge based economy, Organization for Economic Co-Operation and Development (OECD)

[109] Data collected from Index Mundi and WIPO statistics Patent applications by office and filing route (1995-2008)

[110] 2009 IP indicators, WIPO

is an emerging area.

It is important to take a closer look at patent applications in the US as there is where the patent market lays presently. It can be seen that the patenting activity has been increasing from the 90's on, becoming a bit more stable in the latest years. (Figure 11)[111]

The economic transactions held in the patent market by non-practicing entities is litigation oriented. Patent Freedom who conducts research on NPE's activities, list the top 16 most litigious actors where it is clearly shown that before the year 2000 NPEs' activity was a lot smaller than it is now. Increases are substantial and up to 2000% higher from one period to the other as it can be seen on the case of Ronald Katz a well know single asserter.[112] These numbers demonstrate that NPEs have found an interesting business line in litigations and having operating companies as counterparties.

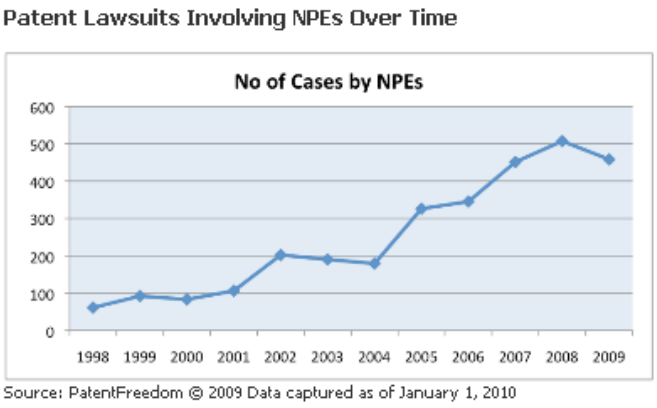


Figure 13 Patent Lawsuits Involving NPEs over time 1998-2009 Patent Freedom

In (Figure 13) can be seen how patent lawsuits involving NPEs has evolved over time. The year 2004 was the stepping stone for this market and it had a great growth till 2008; and despite having a slight in 2009, the trend is to keep on growing as we've seen it in the actors' activities

4.1.4 Summary on Economic Factors

Innovation is one of the bases for growth in economy. Patenting is a reflection of innovation because it's the proof of uniqueness of a new technology that provides the patent holder of a temporary monopoly. Patenting is an increasing trend and it has had a similar growth rate as US's economy.

It has been seen with statistics that that the patent transactions market is growing and still in emergence.

The patent filings are increasing, the number of actors coming into the market is increasing, and the number of transactions has increased as well. For operating companies this represents both a threat and an opportunity. A threat because the more NPEs there are, the more competitive the market is in terms of technologies and quality of patents, and also the higher the threat of litigation, which can be very costly. On the other hand, it represents a great opportunity, because a more defined market is being built and an infrastructure for transactions will emerge as well. Patent transactions will no longer be a one hit deal, but it can really become an interesting profit center that all R&D intensive companies can have.

Actors are rising to fill in gaps in the market. For example brokers rose out of the need of bringing together buyers and sellers; defensive patent pools are raising due to the increased litigation activities of some NPEs in the market; and, IP backed financiers are also emerging providing funds

[111] WIPO Patent applications by office and filing route (1995-2008)

[112] https://www.patentfreedom.com/research-ml.html

for companies having IP as their main asset. The market has been already created, but the growth of it is still in the run. Operating companies have to make sure that they become part of this market not only on the demand side, but also on the supply, because they can take advantage of their R&D resources in many aspects.

4.1.5 Social Factors

Awareness in society in IP related topics is increasing. It has been common that people know about counterfeits in clothing and accessories, and piracy in software and media; however, technology and patents was not something very common to hear about "out there". This has been changing, and it shows as how IP is a topic that most people have in their everyday conversation. It is *vox populi* cases such as Nokia vs. Apple, HTC vs. Apple, Blackberry vs. Apple, and others.

There are blogs and communities specialized on these topics such as The IP law blog, IP Menu, and CAS IP blog, that provide updated information on IP and related topics and allows people that are interested in the topic to meet and share opinions. These blogs and communities serve as a communicational platform for society and individuals are everyday learning more about patenting in general.

More and more individuals are becoming important players in the IP market, so much that certain patent asserting actors have individuals are their main patent holders to see to. Erich Spangenberg, whose model is based on patent assertion exclusively, has been called the "Robin Hood" of the IP market because he is taking care of the small actors against large corporations.[113]

Media has had the opportunity to be a part of this greatly and they are playing a very important role in the market. There are specialized media for IP news such as Intellectual Assets Management Magazine, IP Frontline, IP Watchdog, and others. Also players in the IP market utilize media to strategically communicate action plans, as can be seen Intellectual Ventures in Business Review The big idea: Funding Eureka!

Additionally, governments are a part of this is the communication as well. As IP has been more and more a part of their operations, governments have been raising awareness on the topic. Most of patent offices around the world such as USPTO, SIPO, JPO, EPO, and other country offices have vast information on patenting, and offer free information and help lines for interested people. They also promote education on the field such as workshops, seminars and conferences. Recently the USTPO joint hosted a workshop on Promoting Innovation where matters such as patent policy were discussed[114], and many other workshops are upcoming.[115] The raising of awareness in society from governments means that as it progresses people will be more educated on the matter and more actors might come into the marketplace as a result of that, potentially making the market a bigger one with more alternatives.

The raising of awareness in society about patents could have an impact on the companies involved. For example a person owning an HTC smart phone might feel like the quality of her phone is very high because of the fact that HTC, being a small company compared to Apple, has decided to go after them and prosecute for patent infringement. Additionally to this, companies who are constantly

[113] The Patent Troll, Heather Skyler
[114] http://www.uspto.gov/ip/global/patents/ir_pat_workshop.jsp
[115] http://www.uspto.gov/ip/events/index.jsp

on the news as being prosecuted against might get a negative perception. In this sense the commonly known phrase “Actions speak more than words” could be applicable. There hasn’t been proof on companies being affected by this; however, the perception on a long term might be influenced. This awareness could be considered as an indirect advantage that PEs might have over NPEs since through their marketing activities they make their brand names and products known to public; which could create a pull demand in future scenarios when the patent market becomes more consumer driven.

As society in general is becoming more aware of the environment, environmental friendly and sustainable activities, the patent market is one that has not been excluded from this entirely. Even though patent transactions per se are not affected directly by it because it’s something completely intangible, pools of eco-friendly patents are being created. The first one to take place was Eco-patents common, which is a group that started in 2008 founded by Nokia, IBM, Pitney Bowess, and Sony, in alliance with the World Business Council for Sustainable Development (WBCSD), with the purpose of facilitating the access and sharing of patents that have environmental benefits. The principle behind this group is to promote technologies that help protect the environment. At the moment approximately 100 patents have been added to the pool, where not only the starting four members have participated, but five additional companies have joined: Xerox, DuPont, Bosch, Ricoh and Taisei Corporation. The common remarks that what is crucial for their success is to have more members including their patents into the common.[116] The emergence of activities like this one might be because of social pull, which as mentioned before, society in general is asking for “greener” solutions to have sustainability. Furthermore, companies as part of their corporate social responsibility, everyday are moving more towards environmental friendly options. To “go green” is no longer something that’s a luxury, but something that companies have realized needs to be done in order to have business in the future.[117] This is another scenario that could benefit the PEs since there is a value added through the CSR the firm carries out; which could indirectly add value to their patents. Despite this being in early stages it demonstrates an initiative driven by society, to which a lot of other markets have adapted to. This type of scheme may become a “stamp” and proof of being part a movement that is acceptable and preferred over others, as clothing has the organic stamp, and hotels have the Rain Forest Alliance. This might be speculations, but it could be possible that in a near future environmental factor is very much taken into consideration in patents transactions, and that actors who decide to go with this wave might be able to charge higher prices, have more transactions, and be more accepted. Additionally, there might be the risen of actors dedicated to this area.

4.1.6 Summary of Social Factors

Society is increasingly becoming aware of transactions involving IP. New actors in the market have emerged with the sole responsibility of communicating the market’s activity, such as blogs, media, magazines, communities, and others. Governments are playing an important role in the raising of awareness as they have specialized projects focused on this.

What is more important to notice is that as society becomes aware and a part of the patent’s world, individuals become active players in it and start being a pull factor for decision making. Will there be the point that society establishes that they won’t acquire products from a company that is into a

[116] The emerging patent market place 2009, Statistical Analysis of Science, Technology and Industry, Tomoya Yanagisawa and Dominique Guellec

[117] Sustainable Business Development 2010 - Chalmers University of Technology, Sverker Alange & Mats Lundqvist

specific type of practice? Perhaps right now it's farfetched, but so it was 30 years ago with organic vs. non-organic food, and good practices vs. average conditions.

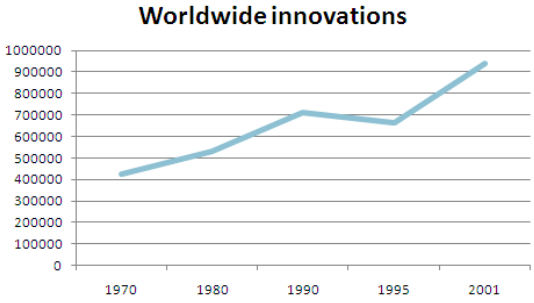


Figure 14 Worldwide innovations 1970-2001

4.1.7 Technological Factors

Innovation is the development and advancement of technical solutions and the step on where an idea is transformed into something useful. Patenting is the doorway to the commercialization of these innovations that embody new technologies.

Worldwide innovations are a growing trend[118] (Figure 14); however, when looking at technological development it's important to look at it from two different angles: the first one innovation and investments in R&D, because that is the process that might lead to potentially patentable technologies; and second, from a patenting perspective because that provides information on which areas are transforming their knowledge into usable technologies for commercialization.

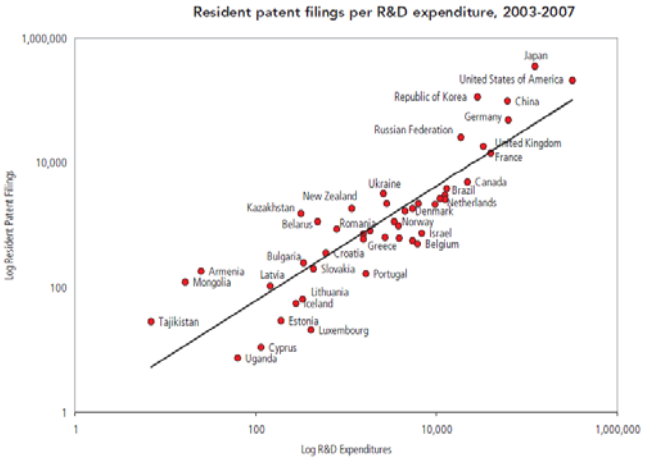


Figure 15 Resident patent filings per R&D expenditures 2003 - 2007

It is a fact that investment in R&D activities per country has a direct effect on patent filing, the more investment in R&D there is, and the higher the patenting is in that country. [119] We can see that in countries where R&D expenditure is higher, so is their patenting, as it is the case for Japan, US, China, and Korea. (Figure 15)

The Boston Consulting Group (BCG) and the National Association of Manufacturers (NAM) create the Global Innovation Index which measures the level of innovation per country. It covers country performance (policy indicators for innovation, tax incentives, policies for immigration, education, and intellectual property) and company operations (what they are doing and what they could potentially do). To measure countries they look at Innovation inputs (government and fiscal policy, education policy, innovation environment) and outputs (patenting, technology transfer, R&D results). According to their last results published

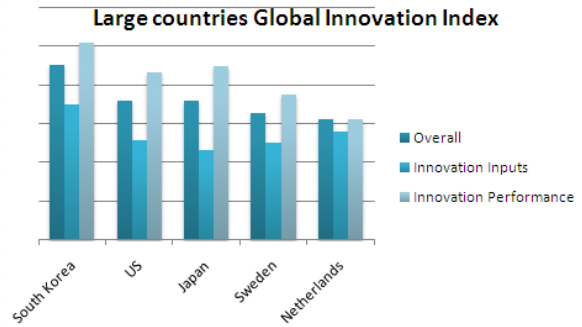


Figure 16 Large countries Global Innovation Index

[118] Inventions and globalization: Innovation potential by countries – International Federation of Inventors' Associations, András Vedres

[119] 2009 IP Indicators, WIPO

in March of 2009, the top five large countries with the highest innovation index are South Korea, US, Japan, Sweden, and the Netherlands [120](Figure 16Figure 16), it can be noticed that three of these countries represent the highest patenting areas as well.

The technology areas where there has been more patenting are in the electrical engineering field: Computer technology, telecommunications, electrical machinery, and audio-visual technologies are in top of the rack; digital communication despite not having as large a number is patent filings, it has shown a significant increase.[121] For the patent transactions market this means that most of the activity will be held or come from the countries where more innovation and patenting takes place, specifically in the technology areas where there are more resources put into. For operating companies this means that the landscape will become more and more competitive as time passes, because more countries, companies, and actors in general are becoming a part of it.

Looking at the US market, it is clear that their patenting activity is increasing and furthermore, as it was expected, the great majority of patent applicants are corporations; unfortunately there is no statistic to distinguish between small and large entities which would've helped make some conclusions for NPE activities.[122] (Figure 17) The fact that corporations have a higher share than individuals is not surprising, as a matter of fact it is something expected as corporations have more capital and access to funding; however, something that is worth noticing is that individuals despite having a small share in the patenting activity, the number of applications is high, they introduce over 20,000 patent applications annually. This represents an area of opportunity for the NPEs as they have informed that a great number of their patents come from individuals and small companies, these might be because the patenting process and its monetization is costly and individuals and small companies might not have the needed resources to carry on with the operations on their own. From a supply and demand point of view, these patents from individuals might come into the market as a potential supply, and on the demand side there are various NPEs, especially the asserters and aggregators. Operating companies can also be a part of this demand if they decided to do so and have active acquisition plans.

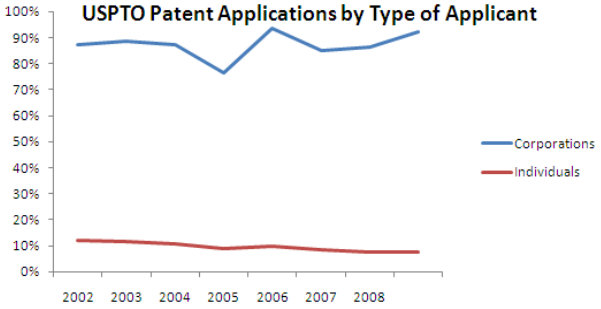


Figure 17 USPTO Patent applications by type of applicant 2002-2008

From a technological development perspective, operating companies have a benefit over non-practicing entities, because of the involvement with the technology and not only with the control mechanism. Companies who don't develop have the challenge of only being able to transact the "legal part", but if there were an actor to require competences linked to technology, only companies who engage in R&D themselves are the ones who are able to provide it.

4.1.8 Summary of Technological Factors

Innovations are a growing trend worldwide, indicating a constant development and advancement of technical solutions; and it is important to see how patenting is being utilized as the commercialization tool for these innovations that embody technology. This can be a direct result of

[120] http://en.wikipedia.org/wiki/Global_Innovation_Index
[121] IP Indicators 2009, WIPO
[122] USPTO Patenting by Organizations Reports

increased investments in R&D, which has a direct effect on patenting; the higher the investment, the larger volumes of patents.

For the patent transactions market an increase in innovation means potentially having more patents to transact. The question lies on who will be holding these patents. As it is right now the great majority of patents are owned by corporations, but there is no way on distinguishing which are owned by NPEs directly. Anyhow, for NPEs the more the patents there are in the market, the more "good" that can potentially be traded. It has been mentioned that there might be a trend of higher quality patents being in the market, for NPEs this will mean a more competitive arena and only the top quality ones are likely to remain.

4.1.9 Legal Factors

The patent transactions market has a legal basis since patents are intellectual property rights granted legally. Patents are governed by patent law and therefore all related actions must follow these laws. A country's legal system has a huge impact over the patent market activities. It can be seen that in areas where there is no legal awareness over IP, patenting is almost inexistent because the required enforcement is not in place, namely Zimbabwe and Burundi.[123]

Legal factors are directly related and affect how actors in the patent transactions market can act, because strategies can be built upon it, such as re-examinations that can be used as a tactic to take to either enhance ones portfolio's value or undermine the value of another portfolio[124] and it has been an increasing trend in the past years with an approximate annual increase of 10%[125].

Within the US legal system the Congress is the organization that creates legislature. In addition to that decree can be created by prior judgments held in court. This ladder one is a very important aspect of the US legal system because courts prior decisions establish precedent to follow and use as milestone. A great example of this is the Bilsky case, where a business method was trying to be patented and the court decided not to grant the patent after many appeals and hearings. With this it was clarified that business methods were not patentable matter, and therefore, any other cases coming after the Bilski decision are bound by this judgment.[126]

Patent law in the US has been going through various changes along the past years. There was a Patent Reform Act in 2005, 2007, and one in 2009. By 2010 the third Patent Reform Act was submitted to the Congress and the reform is not in yet. Once the Congress decides on the reform, a modified Patent Act will be in place to which the entire country will be liable to. Actors in the market are looking forward to this reform because uncertainty at the moment is elevated. There are various proposed changes to the act; however, no one knows which will be accepted and which will not pass. Insecurity derives primarily from the proposed reform in calculation of damages, willful infringement, venue, re-examination procedures, and first to file vs. first to invent. This Patent Reform Act might have a lot of implications for actors in the patent market:

- In the calculation of damages section they proposes stricter rules about the criteria for "reasonable royalty", proposing in the new act to base the calculation for damages solely on the value that was added to the product due to the inclusion of the patented component and not to

[123] http://en.wikipedia.org/wiki/Global_Innovation_Index
[124] Re-examination: a dagger and a shield for impacting on IP value, Patrick C. Keane, IAM
[125] USPTO Re-examination statistics
[126] http://www.businessweek.com/technology/content/jun2009/tc2009061_905686.htm

the product as a whole. This might represent a problem for a lot of industries, but it has been supposed by some that if this passes it might be positive for operating companies in high tech. [127]

- It is proposed in the new patent act that when willful infringement is proven that the damages can be enhanced up to three times. A set of standards have been suggested to prove willful infringement including: that the infringer continued to use the patent after being notified, the infringer copied the patented invention knowing that it was patented, and that the infringer continued to infringe after a court found them accountable of infringement. If this section is approved it might bring more clarity and balance but it also represents a double blade knife because it provides a weapon to enhance damages, and then it will fall down to strong legal competences being able to prove that willful infringement or good faith belief took place. This might make NPEs turn more to legal resources and fortify their competences in those areas to have a strong position when trying to prove willful infringement and get potentially higher damages.
- It is proposed that trials can be split into segments infringement & validity, damages, and willfulness. In this sense this could be advantageous for operating companies when they go to trial as defendants against an NPE since the damages could potentially be lower due to the division of instances.[128]
- The Patent Reform Act is suggesting that infringement suits should be held in the states where the defendant has a physical place of business that constitutes a substantial portion of the operations. For the NPE players this might represent a slight change in plans, as some asserters have decided to go through courts that might be favorable in one sense or the other, so now they will either have to go to another court or open offices where they want to continue on with litigation. For operating companies this might represent in some cases higher costs and expenses (depending if they're the defendant or plaintiff) because they might have to go to a court where they don't have permanent operations.
- Re-examination procedures are suggested to be revised and to be stricter within USPTO to avoid cases going to court. Re-examination as it is nowadays is still in early stages and recently being utilized as strategies by actors, if this section passes it might be that certain actors continue to use it as a strategy, but now to prolong the process of another actor being able to patent. Alternatively, it could also bring positive aspects such as having better quality of patents granted, avoiding actors from using litigation as their main weapon, and lowering time and money of going to court.
- In the new act it is proposed to change the US patent system from first to invent to first to file as it is in the European Patent Office and others. This might be positive to operating companies because the process of proving that they were the first to invent will be avoided and then on how quick the patenting activities take place is that will mark the difference. This might be seen as somehow hindering for small companies and inventors, but it might also be seen as the opportunity for new funding actors to come into the market to fulfill this need.

4.1.10 Summary of Legal Factors

Legal factors are determinant for the patent market, it can be seen in Europe that the legal system and its implications has been a driver for NPE activity in the region. Perhaps it's early to say if it will have the same effect in some Asian countries. And the uncertainty in the US right now is very soaring and we'll just have to wait and see what the Congress decides on the 2010 Patent Reform

[127] http://www.ipwatchdog.com/2009/02/09/patent-reform-reportedly-top-priority-in-congress/id=1974/
[128] http://www.patentlyo.com/patent/2010/03/patent-reform-act-of-2010-an-overview.html

Act. The patent market will be affected by it, but it is certain that actors will adjust to it and carry on with their operations. Operating companies have to be on top of this and anticipating possible directions that NPEs might take according to the reform, so that when it comes in they are prepared for all scenarios.

4.2 Chapter Summary

The patent transaction market has recently emerged and some statistics show that it might still be growing. This can be seen through the number of actors and new models taking place. Most of the transactions are being held in the US; however Asia is showing an interesting increase in innovation, patenting and transactions. Even though the market does not seem to be saturated in the US, there is an opportunity in emerging areas, such as China.

The activity of non-practicing entities is a growing one and new *modus operandi* will continue to develop. This is very much linked to the legal systems, especially US where the Patent Reform Act 2010 is in the Congress for decision. NPEs will adapt and take advantage of whichever reform there is, as there are opportunities for them to do it. Then again operating companies will also have some potential changes due to this potential reform to the US patent law.

Operating companies have an advantage over non-practicing entities when it comes to technology development because they are involved in R&D. To be only linked to the control mechanism provides a short to midterm business perspective. This doesn't mean that only companies who develop are to be successful, but it means that the landscape is broader and the term is longer as well.

Non-practicing entities have shown to have good "marketing skills" because they are all over the news, articles are being written about them constantly, they are the center of attention. This coverage that they have can be transformed into something very powerful and society can be an important actor to determine the direction of it.

Society has become more and more involved in IP related topics and it has started to create an idea on "teams" of practicing entities vs. non-practicing entities. The perception that society has at the moment has not demonstrated to have a great impact on performance; however, it is likely to become a determinant factor as it has been in other markets and industries.

Environmental factors are starting to rise, providing operating companies with an opportunity to be a part of this mounting from the beginning. This is more applicable to PEs since they have products and technologies to prove their "green" intentions; but on the other hand NPEs have operations where it is not applicable.

Operating companies are presented in most cases as being attacked by non-practicing entities, and even if this is shown true with the litigation statistics; this can also mean that this is an opportunity field for them, as they could become a strong player in the market. After all operating companies have high numbers of patents that are proven to work as they have to protect their products or exclude others.

NPE's activities can easily be described as looking at the market with a magnifier, looking for windows of opportunity in any way that they can: buy, sell, license through litigation, etc… This is understandable because this is their core business. For operating companies the case is different, as a patent transaction is secondary even if it can be very profitable, that's why they must analyze their portfolios and establish monetization plans for their patents in an active and selective manner.

Chapter 5 Stakeholders Analysis

In this chapter stakeholders for operating companies in the patent transactions market are identified and assessed based on the nature of their relationship. The model proposed by Grant Savage on Stakeholders Analysis has been used to analyze the potential for threat or collaboration they have. In the first section the key stakeholders are identified and the relationship they have with operating companies is described. Then a classification of these stakeholders is performed based on potential of threat and collaboration. And finally the chapter ends with some conclusions and recommendations for operating companies to better manage their stakeholders.

5.1 Key Stakeholders

Stakeholders are all the actors that can affect or be affected by one's activities.[129] They are all the firms and individuals that a company has (will or should have) relationship with. Stakeholders for operating companies in the patent transactions market vary from their traditional value chain ones because operating companies are playing a different role: they are not selling a "product", but they are transacting patents.

Stakeholders can be divided into social, political, technological, and economic environments.[130]Along this report some stakeholders have been indentified according to the key performance areas of each actor based on the building blocks of the market activities that are the economic and technological environment. Furthermore, there are actors in the social and government & legal environments that play a very important role in operating companies' performance.

The key stakeholders have been identified based on the type of relationship that operating companies have with all the actors in the patent transactions market. All the actors involved and that affect those transactions are key stakeholders. Additionally external factors in the social and legal & governmental arenas also play an important role.

For an operating company actors similar as they are i.e. **other operating companies** (example Apple and HTC), other than being in some cases competitors are also potential collaborators for development, sources of patent acquisition, source of patent licensing in, potential threat of litigation, possible customer for patent licensing out, and also potential infringer of one's patents.

Individual inventors can be a collaborative party for technology development, a source for acquiring patents or licensing them in, potentially also a litigator. Furthermore, individuals may represent a potential customer for patent sales or licensing.

Universities, R&D centers, and other actors dedicated to perform research that own patents are stakeholders because they can be a collaborative party for technology development. Also since their efforts are on R&D they can also be contracted as an outsourced developer. These actors could also represent a source for patent acquisition or licensing. In the case of alleged infringement of their patents, they could also represent a threat of litigation. On the other hand, they can also be potential customers for patent sale or licensing.

Institutional patent aggregators due to their nature and similarities to operating companies' structure in the patent transactions market they are competitors. They also represent a potential collaborative source for development and patent aggregation. In some cases institutional patent

[129] Strategic Management: A Stakeholder Approach, R. Edward Freeman

[130] Business and Society: Ethics and Stakeholder Management stakeholders, Archie B. Carroll and Ann K. Buchholtz

aggregators divest patents instead of licensing; therefore they might also be a source of acquisition. While in some cases they might assert their patents and turn to litigation. Since they're in the business of aggregation, they are also potential customers for patent sales and licensing.

Defensive patent pools are a supplier of patents in the licensing side, but they can also be potential customers in patent sales because they are dedicated to patent aggregation.

Patent licensing & enforcement companies and single asserters are in the business of acquiring patents and asserting them, therefore they are most definitely a litigation threat for operating companies; however, they could potentially also be a source of patent acquisition (not likely to happen but not impossible), and also a customer to which operating companies could sell and license out patents to.

Licensing agents are intermediating the patent inflow through licensing by negotiation and litigation; but also in the sense that they can supply patents to operating companies, they can also serve as intermediaries to offer operating companies' technologies for licensing both on the negotiation and litigation approach.

Litigation financiers are financing and litigating patents against operating companies; however, as they might be a potential threat of litigation, they also represent a possibility for both financing litigation and licensing out by litigation as well.

Internal competences in technology and R&D, IPR business intelligence, Legal, Sales, Marketing, and Public Relations are all the internal stakeholders and engine of the entire operation moving forward. How they perform is of high importance to operating companies. There are different levels of impact of these internal stakeholders because there are the ones that make decisions and the ones that execute.

Corporate spin-offs represent for operating companies both an opportunity and a threat. They are an opportunity when it's created by them to monetize a specific set of patents either through sales, licensing, or enforcement. But when there are other operating companies establishing corporate spin-offs to monetize their patents it can represent a threat of litigation. Furthermore, depending on the corporate spin-off's objective, they can also represent a source for patent acquisition or licensing.

Brokers, Auctions, and Online Marketplaces are intermediaries for both patent acquisition and patent sales and their services can be catalogued as an intermediary supplier and an intermediary seller.

The media is an important stakeholder for operating companies because they can use the media as a channel to communicate to the public and other stakeholders' ideas and conceptions that are part of the strategy. Furthermore, the media is a stakeholder that can impact greatly how an actor is perceived.

Patent offices are a stakeholder for all actors in the patent transactions market because they are the agency that grants, examines, and annuls patents; therefore, how they perform is highly important for operating companies.

Courts are the legal entity where litigation takes place (in the cases where there is no settlement). How courts act and their performance is a major determinant for operating companies both when they're the plaintiff and defendant. It has been argued that some courts in the US are more

favorable to non-practicing entities, particularly East Texas District[131] so as a defendant operating companies are affected by this. Furthermore, the time it takes to be in court and resources spent are a major factor.

The US Congress is a very important stakeholder for operating companies and other actors in the patent transactions market because they are the organization taking decisions on patent reform acts as the one that is being held at this moment. Depending on what they decide is that patent law in the US will be adjusted to and all actors will be subject to it. A deeper analysis on this can be found on PESTL in this thesis.

Society and communities in general are a stakeholder for operating companies because at the end they are the end users of operating companies' products, and despite this analysis being focused only on patent transactions, it cannot be denied that in the eyes of society how operating companies act and are portrayed by the media will affect somehow. A deeper analysis on this can be found on PESTL in this thesis.

5.2 Stakeholder Relationship Classification

In order to better analyze the stakeholders they've been assessed based on their potential to threaten or cooperate with the organization (Strategies for assessing and managing organizational stakeholders – Grant T. Savage, Timothy W. Nix, Carlton J. Whitehead, John D. Blair). This analysis has the objective to assist operating companies to develop strategies to manage their stakeholders in the patent transactions market more efficiently.

Stakeholders have been assessed on a high-low basis for their potential for threat and collaboration with operating companies (Figure 18Figure 18). View *Appendix 10* for full assessment. The assessment is based on the analysis done previously on the type of relationship and opportunities that operating companies have with each stakeholder. For example "other operating companies" were identified to be of course a competitor but also a potential collaborator, therefore, their threat was high as well as their collaboration potential.

Actors that have low potential for threat and high potential for cooperation are supportive stakeholders that Savage proposes they should be involved in the corporation's strategy and decision making. Actors

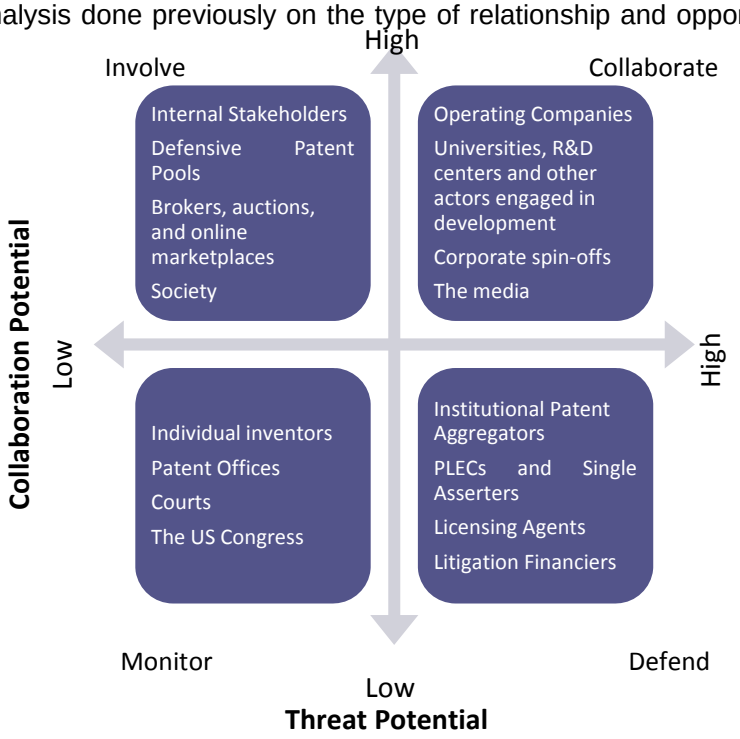


Figure 18 Stakeholder Relationship Classification

[131] http://techdirt.com/articles/20100528/1320179621.shtml

in this category are defensive patent pools, brokers, auctions, online marketplaces, society, and all internal stakeholders. The recommended strategy to better manage these stakeholders is to take full advantage of their cooperation potential and utilize their resources and competences as part of the company's strategy. Very often these stakeholders are underestimated and forgotten but they represent a great ally with whom an organization can join forces with low risk of any kind of threats.

Actors that have low potential for threat and low potential for cooperation are marginal stakeholders that Savage proposes to keep under close monitoring, because despite them being neutral, they can easily move to another group and become either a threat or a collaboration opportunity. For operating companies stakeholder in this category are individual inventors, patent offices, courts, and the US Congress. The three latter ones belong to this group because they are actors in the macro environment and operating companies are bound to them but cannot influence their actions. For example the US Congress which is the entity in charge of approving the Patent Reform Act is an external actor that will make a decision that will affect operating companies (it could be positive or negative), but operating companies just have to wait for their decision and are not part of the decision making group. On the other hand, individual inventors are also part of this group because alone they don't represent high threat of collaboration opportunity; however, an eye must be kept on this group because they can easily change. For example, they could become a threat if they get together with a patent licensing and enforcement company; or they could be a collaborator for example in developing in a specific area of expertise that they might have. The recommended actions to take with these stakeholders is to monitor their activities closely to take advantage of collaboration opportunities and to be prepared if they become a threat.

Actors that have high potential for threat and low potential for cooperation are non-supportive stakeholders that an organization must defend against because they represent a high risk, where the levels of threat are very high and possibilities to collaborate are low to non-existent. Savage proposes that the best way to manage these stakeholders is to work on strategies focused on reducing the organization's dependency on them and being ready to defend the organization against their activities. For operating companies stakeholders in this category are institutional patent aggregators, patent licensing and enforcement companies, single asserters, licensing agents, and litigation financiers. It's important to make note that despite these stakeholders having a low opportunity for collaboration, it's not inexistent, and operating companies can use this small window of opportunity and transform them from being a high threat with no collaboration options, to a medium threat with some collaboration opportunities. For example as it has been discussed before, litigation financiers are traditionally actors financing assertion and litigation programs where operating companies are the target; however, this doesn't mean that operating companies could also use them for the same purpose.

Actors that have high potential for threat but also high potential for cooperation are a "mixed blessing. They are a "mixed blessing" because as much as they can unite forces, they can easily turn against each other. For operating companies stakeholders in this group are other operating companies, universities, R&D centers and other actors engaged in development, corporate spin-offs, and the media. According to Savage the best way to manage these stakeholders is to make sure that one takes advantage of the collaboration part while lowering the risks of threats. For example, actors that are R&D intensive represent a high threat for they might have strong licensing programs where operating companies are the main target; but on the other hand, they also have strong capacity to develop technologies that might be useful for operating companies. What is recommended to do with these actors is to collaborate with them the most possible and manage the relationship very carefully to make sure that the threat is mitigated.

5.3 Chapter Summary

Operating companies have four categories of stakeholders while being active in the patent transactions market. There are actors who are important to monitor, others to involve, others to collaborate, and others to defend. It is recommended for operating companies to develop different strategies for their stakeholders based on how much they can collaborate with them and how weary they must be in case of threats. In the cases of employees, defensive patent pools, brokers, auctions, and online marketplaces it is recommended to involve them in the company's strategy and action plans because they represent a high level of collaboration opportunity with low threats; In the case of actors who represent high collaboration opportunities but also high risk of threat such as other operating companies, the media, and other R&D intensive actors, it is recommended to keep them close and collaborate with them, focusing on what they have in common and striving to achieve a goal together instead of fighting against each other; the stakeholders where there are low opportunities of collaboration and high threats are the hardest group to manage. It is recommended that defensive strategies are developed to tackle this with the focus of not only defending themselves in the moment, but also breaking any possible links that might bind them in the future. The actors that represent the highest threat are institutional patent aggregators, patent licensing & enforcement companies, single asserters, licensing agents, and litigation financiers, and strategies not to depend on them must be developed; and the last stakeholder group is the one where there is low cooperation opportunity and low threat, these actors are individual inventors, patent offices, courts, and the US Congress. The last three are in this category because they are macro actors that operating companies don't influence. Individual inventors as single actors might be in this group but an eye must be kept on them because they can easily become a threat or an opportunity to collaborate.

Operating companies should take advantage of the relationships they hold to commercialize their patents, focusing on what others can offer to make their operations easier. Their stakeholders mapping presents them with vast options on how to establish patent monetization plans and opportunities on how to generate better return on their intellectual property.

Chapter 6 Empirical Research

This chapter presents the results of a set of interviews with experienced people in the patent transactions market. Interviews were performed to actors in the patent transactions market with the focus of understanding their business models, company structures, perceptions of the market and its activities, and identification of key success factors. This chapter presents the qualitative and quantitative results of the research concluding with highlights of the patent transactions market and recommendations for operating companies to better monetize their patents in this marketplace.

6.1 Introduction

A set of 14 interviews were held with experienced people in the patent transactions market. The interviews were semi-structured covering certain specific areas but allowing the interviewees to freely communicate their ideas in other fields as well. The interviews led to two separate results: 1. Unstructured qualitative information. 2. Structured quantitative information. Both these results are analyzed and presented in this report. The results that can be expected from this report are the following:

- A structured study of the qualitative aspects of the answers from the interviewees classified according to the five sections above mentioned.
- Quotations from interview sessions. Notice that company names and people have not been linked to each quotation to avoid any conflict. The quotations have been adjusted into a text that makes sense in a written document; however no changes that affect context or content have been done.
- Measurement of response frequencies in a quantitative manner. It is worth making note that the results on company profile and activities and company integration in the market are not a result of demographics of the market.
- Cross referencing and tabulation of different factors.
- The statistical database for the future creation of the market survey.

Due to its exploratory nature, it is important to mention that this report covers the perceptions and opinions of the experienced people in the field and they are not to be taken as facts.

6.2 Results on Empirical Research

In the following sections the results of the interview sessions will be presented with the graphs that represent the statistics from the quantitative analysis, then some quotations from the interviews are presented, followed by some analysis of the drivers. Some relevant cross-tabulation is presented in order to have deeper understanding on each variable according to company type primarily. The variables are divided into 5 sections (as it was presented in the methodology in section 1.9.2.2): Company profile and activities, company integration in the market, challenges, trends, and success. The first two variables have been grouped in this chapter to have a better flow due to multiple cross-tabulations.

6.2.1 Results on Company Profile and Activities & Company Integration in the Market

6.2.1.1 Business Model Segment

Of the interviewees, 10 (72%) of them were Market makers & Middlemen, followed by 2 (14%) Institutional Aggregators & Investors; 1 (7%) IP development & licensing; and 1 (7%) that has been classified as Other which corresponds to the Patent Monetization arm of an Operating Company. These results don't represent market share according to company type; however it can be deduced that there are more market makers & middlemen in the market than there are any of the other actors. This can be due to fact that establishing an operation of this type is fairly than any of the other models. For example to become an Institutional Aggregator a lot of capital must be invested to acquire patents, to become

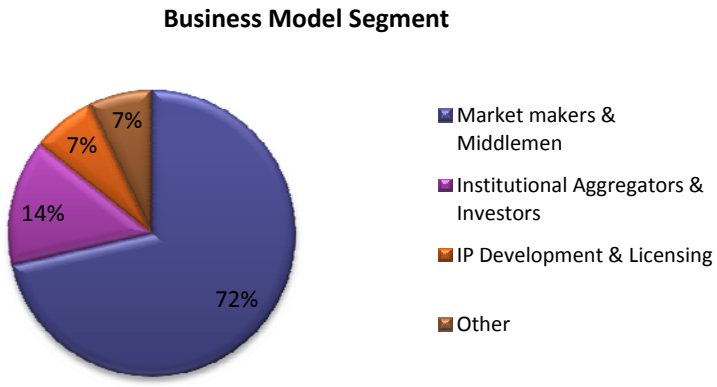


Figure 19 Business Model Segments

an IP development and licensing company high quality IP and R&D facilities are required; but on the other hand, to become a licensing agent, a consultant, or a patent broker, the resources required are much lower. As the market is still emerging, and new actors are coming to the market we might see in number more market makers & middlemen coming due to the simplicity (compared to other models) that the models offer.

6.2.1.2 Business Models

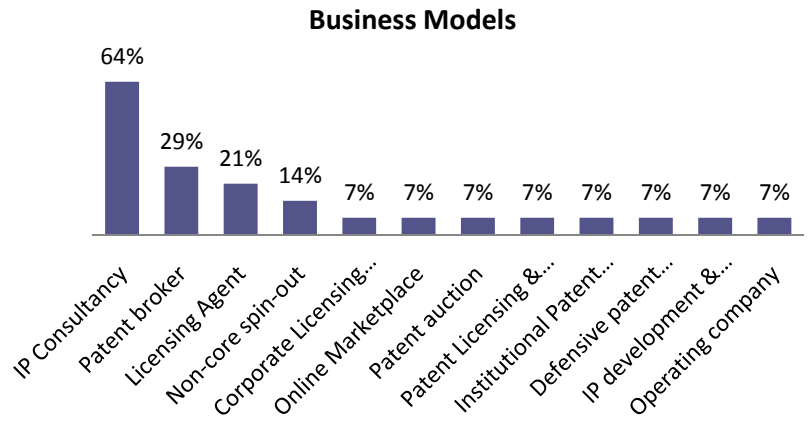


Figure 20 Business Models

Looking at the business models is a much more varied spectrum, because one same actor can carry on with various models, for example, ICAP Ocean Tomo has patent auction, patent brokerage, they are about to launch their online marketplace, and have had and are open to have more licensing agent operations. To be able to understand how the market is structured is no easy task, because models and actors inter-lap; however, it has been identified that the models most used are IP consultancy (9) patent brokerage (4), and licensing agency (3). A clear distribution of the models used according to company type is showed above where it's shown that Market makers & middlemen use the following models: IP consultancy, patent brokerage, licensing agent, online marketplace, and patent auction. In patent aggregators we have two different ones, a defensive patent pool and the other one is an institutional patent aggregator. The category IP development and licensing it's clear that the actor we have in this category is an IP development company who licenses and enforcers their patents. And our last company type that we have classified as Other, is a non-core spin out and corporate licensing spin out of an operating company.

It was shown as a tendency that actors came into the market as IP consultants after working with IP in corporations and started their own individual operations with consultancy. "Basically my consultancy practice is a reflection of my expertise; I've worked in technology and IP management over the years".

Also some actors might start with consultancy using it as a vehicle to get into the market and then move forward to other models. One of the actors stated "We started up with consultancy to gain reputation, brokerage to see a lot of patents, and then licensing that is the core of our business now". He also added "Licensing has always part of my plans. When I started [company], brokerage was a way to get there, as consultancy was a way to get faster to brokerage".

What is driving actors to select a model over another are many various reasons. Here are some of the responses that our interviewees gave:

- "We recognized that there were two main needs in the market. From the point of view of the inventors, such as universities, small companies, and individuals, who need a better liquidity for

their assets. And from the point of view of companies, who recognize they are in a competitive environment and that the IP that they produce themselves is insufficient to support their services that they need to embed in their offering. So as a result what is emerging is capital and IP aggregation. The capital if for the upfront payment for the inventors; and IP aggregation is the packaging of the IP rights in a way that meet the demands".

- "Twenty years ago two professors came up with an idea on how to make faster computers, they saw that problem and wanted to solve it and came up with several inventions. The challenge that they faced was how to make money from these ideas. In order to build a factory they required billions of dollars, and raising that capital was daunting, so they decided to do technology licensing. They went to manufacturing companies and offered the technologies. For some reason the market was not willing to accept [Company]Technology, but they were willing to take many important innovations represented by [Company] in their own products."
- "I speculate that the driver to put [Operating Company's] patents for sale is purely financial. It might be a better decision to sell them because there is less risk involved than in licensing. Even if [Operating Company] is very successful in licensing, it always carries some risk". Then he added "[Operating Company] has a huge portfolio, especially in consumer electronics, but choosing between selling and licensing depends on various reasons, they can go for sale when they are not making much money so selling them is a more profitable transaction. Other decision maker is if the patents are not in the core business".
- "I started by looking at what the market needs in a more global way. I asked myself, what does the market need? And then I knew that there was a need for more transactions outside the US" And then he added "I start by looking at the market from a need perspective, looking for holes, so that I can offer services that are better than the ones in place right now".
- "I identified the opportunity on focusing in value rather than risk, so I created my own new identity from being a lawyer that had worked in M&A, to a business man; and now [Company] offers the services of patent brokerage and IP driven M&A advisory"
- "It was natural evolution from the previous company I was working at, we still work very closely".

It can be seen that despite having different drivers there are common denominators motivating them: market needs, opportunities, and continuation of previous experiences. The emergence of actors, shifting to new models or addition of operations will be lead by this. One actor said "Defensive patent pools existence is a reflection of the destructive and unhealthy 'trollish' behavior we have right now". It is a fact that NPEs activities towards operating companies have increased over the years therefore, based on this behavior it, could be expected that other defensive patent pools come into the market?

Another driver that was highlighted through the interviews is the emergence of actors following a model that is perceived as successful in the market. One actor said "Success generates competition; if there is no competition probably there is no success". Then he added "I hope there will be more actors like [company], if we're good everybody will try it and that means that we're doing well".

The majority of models that are in place are those that don't require high investments and can be managed with small operations. Some actors have been in the market for a long time, in many cases starting their practice as consultants. It could be deduced that more actors might join using that same entry strategy and other that are already in might shift to or compliment their operations with other models.

6.2.1.3 Business Activities (Patent Transactions carried on)

The business activities that the actors carry on with are not exclusive one from another. For example on actor mentioned "Basically we raise capital from corporations, buy patents, aggregate patents and then build different monetization strategies such as licensing, sale of the assets, or spin-out into a new company". Another actor indicated "We have developed internally approximately 95% of our portfolio; however, we do acquire some patents but it's not usual, mainly it happens when we buy another company".

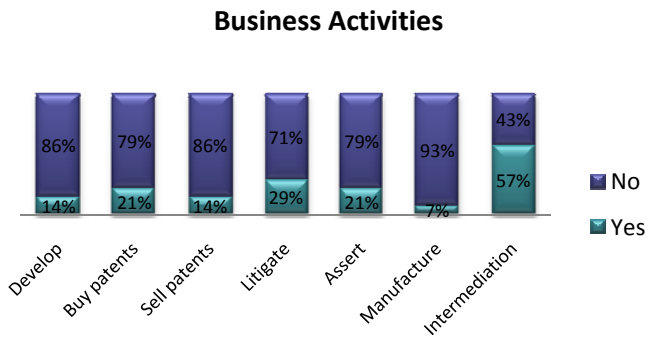


Figure 21 Business Activities

It is shown that one actor can carry on with various business activities, and that doing one does not exclude the other. The business activities most carried on are Intermediation (57%) and litigation (28%). Intermediation as it has been discussed before is the model that will outnumber other activities because it is the simplest to establish and in many cases used as a beachhead entry into the market. A person who has experience in the field can open his or her practice in consulting for example.

In contrast what is interesting to notice, even if not surprising, is that the second activity most carried on is litigation. It has been proven that litigations against operating companies are increasing and the answers of our interviewees comply with this. What is driving these litigations to take place are some of the following reasons:

- "We are only in the business of monetizing infringed patents". Then he added about how the process of monetizing these patents through licensing is "The first step in contacting the identified infringing companies by sending them a mail or visiting when possible. We try to be very pacifistic and don't do it on a hostile manner to keep good relationships. Our intention is for companies who are infringing to pay for what the technology is worth but in a cheap manner, so that they prefer to pay for the license rather than keep on with litigation". Additionally he said when asked what happened if the alleged infringer still didn't want to take a license "If they still say no after proving them that they are infringing, then we go on with the whole process".
- "We get in contact with our potential licensees presenting them the information about how they are using the technology we own, depending on the answer they give is that the following steps are followed, the ideal is to negotiate, not go to litigation". Then he added "Licensees post a lot of questions and try to make the licensing company go away and come in a long time to answer, we try to be one step ahead and anticipate what they will post so we can answer it right away; however if there are still issues with the license then they we go to litigation". He concluded by saying "We have sued companies in the past and companies have sued us. [Company] is known because of its litigation, but the decision to litigate is a very difficult one because it's very expensive and it takes long time. Our first case was filed was 10 years ago and it's in appeal process right now".
- "The big problem is that this market was initially built by lawyers, and what happens with lawyers is that for them there is always right or wrong answer, black or white and no grays".

- “There are few chefs and a lot of cooks who are only following recipe, they do things ‘because that is the way it's done’, not thinking behind the whole idea on why they are adding those ingredients. Most in-house counselors are cooks not chefs, they follow the same process every time”
- “The market has changed; before 2004 you could just sit down and talk about a license and only if they didn’t want the technology you would go to litigation. Nowadays you either have a personal relationship or you sue them, and even with personal relationship there still is suing going on. From 2007 till today, if you care for the venue, you sue first and talk later”.
- “There is a preconception of ‘you're evil, I'll pay you nothing’. This mindset is that provokes a lot of suing and legal actions to take place”. Then he added “Negotiations are the most important part, and what's happening right now it's that people are finding out that is quite stupid to paying attorneys, because 98 percent of deals end in settlement, and it's too slow to go to court”.

It seems as if actors that are into litigation don’t want to do so but feel “forced” to do it. This forcing of course is a matter opinion, because it depends from which side this is seen. From the NPE side, there might be too high expectations on the amount asked for the license; and on the side of the operating company, there might be unwillingness to pay the rates that the licensing company is proposing. Can there be an agreement in the middle where actors can concur upon? One of our interviewees said “We have signed licensing deals with [Company A] and didn’t have to sue, but only negotiated. This was due to the relationship we have and we offered a license that was reasonable. The lawyer's fees were abolished from this deal, and the patent owner was paid accordingly”. Then he added “We try giving an offer that is ‘cheap’ and easy for the actors to take”.

To come into agreements where both parties are comfortable with what they got is the answer to this, however, the tricky part is that the line between what makes each party happy is not clear at all. What is going on in this market is that there are win-lose situations, and the landscape has not been adjusted to a way where all actors can benefit in one way or another from all the deals that are taking place. Until the mindset of win-win penetrates into NPEs and operating companies perspective is that litigations will continue on. Of course it’s easy to say what needs to be done, but doing it is a completely different ball game that will only happen with entrepreneurial ideas of negotiation oriented actors come into the market.

Another driver mentioned was normality, that actors might just be going with the flow on what is natural to do, and since most people in the market are lawyers, their nature is to go to litigation; however, some questions rise here: do actors really want to go to litigation or is it a matter of not getting agreements with operating companies? Or is it a better business to litigate? It can be all options, some actors keep on doing it because that’s the process, some because they find that’s the only way to get what they want, and others because they find a very profitable business in litigation.

There is a lot of hostility in the environment. A lot of negative conceptions take place in the market that can be affecting how relationships are held. NPEs have a bad reputation and the pejorative term “patent troll” is used towards all of them. The problem doesn’t only lie in that most of their activities start with litigation, but also that the response side has already a negative preconception of what they do, making the entire environment more hostile. This is an ongoing cycle, and until one of the sides NPEs or PEs decides to stop and make a change, the environment will remain as it is.

6.2.1.4 Year of Formation of Company

Most of the actors interviewed started their operations in 2003 or earlier, being a good representation of the entire patent transactions market, which started rising in 2003[132] and almost 75% of the litigations initiated by NPEs were filed since then.[133]

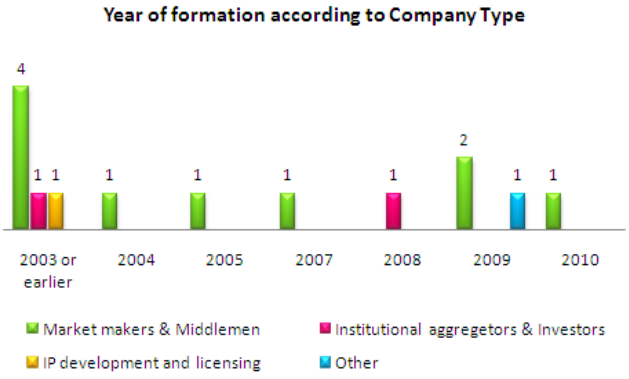


Figure 23 Year of formation of company according to company type

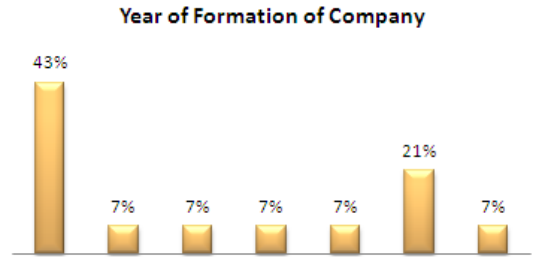


Figure 22 Year of formation of company

It seems as if the market is still emerging and actors are coming in and out of the field constantly. Market makers, as their name well establishes, were in their majority the earliest to have presence and create a transactions marketplace. As it was discussed before, Market maker & middlemen models due to their simplicity in establishing an operation will continuously be emerging since all that's is needed is expertise and one single person or small team that can do it without investing many resources.

6.2.1.5 Internal Competences

The majority of NPEs have fairly low number of direct employees as it can be seen that the 64 percentile has 20 or less, 21% up to 50, and only 14% have more than 100, which are IP development and licensing or patent aggregators with R&D facilities as well. The R&D departments are the ones that increase number of direct employees, but when companies have models directed only to intermediating, litigating or asserting patents, the number of direct employees is much lower.

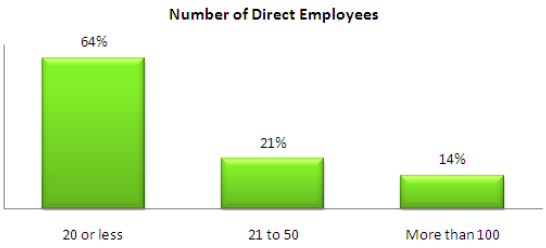


Figure 24 Number of in-house employees

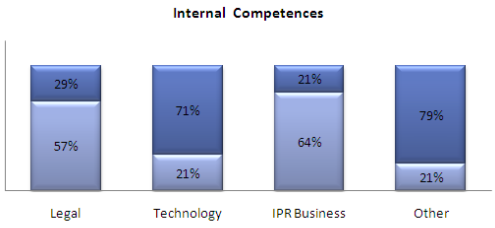


Figure 25 Internal competences

NPEs have large Legal and IPR teams in respect to other internal competences. 57% have internal legal competences and 64% have internal IPR business, when only 21% have technical expertise in-house.

For NPEs who don't have R&D as part of their operations, personnel costs are fairly low. One interviewee commented "Licensing agents and enforcers are actually very successful because they

[132] A Survey of Established and Evolving IP Monetization Models, Ron Laurie & Raymond Millien
[133] https://www.patentfreedom.com/research.html

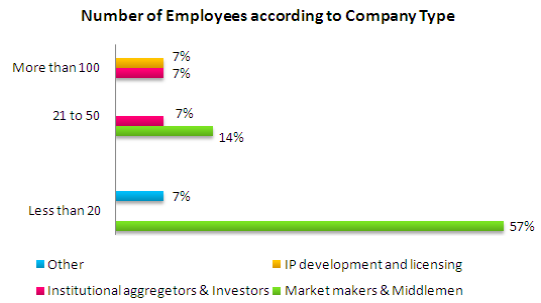


Figure 26 Number of employees according to company type

have small teams, invest in buying 15 patents, file 25 lawsuits, settle on half of them, and make a lot of money out of it".

Market makers & middlemen are the ones having the least technical expertise in-house, only one of them has employees in the technological area employed directly. On the other hand, for IP development and licensing and other (patent monetization arm of an operating company), technical expertise is a must due to their business line with development being core. In the case of aggregators is a 50-50 partition since we have two types of them, one is a defensive patent aggregator and the other is an institutional investment & aggregator.

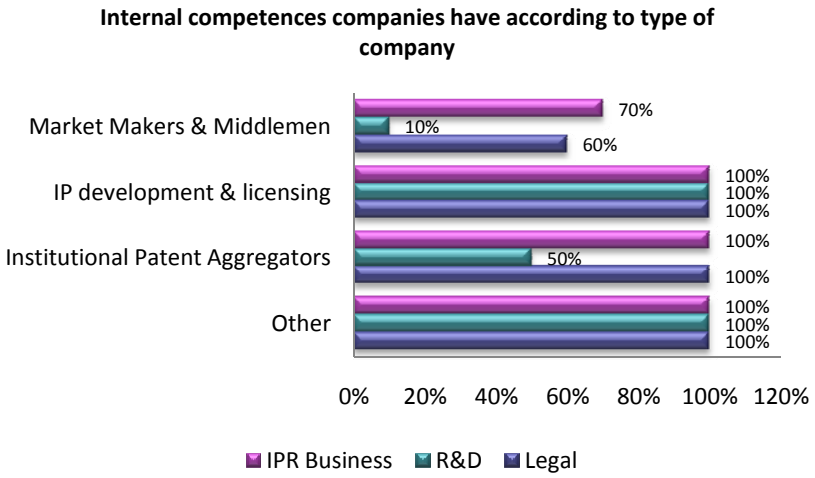


Figure 27 Internal competences according to company type

IPR business and legal competences are the ones dominating the shares of expertise in all company types. All categories but market makers & middlemen have in 100% legal and IPR business in-house competences. The difference with market makers & middlemen is that there is a varied spectrum of models they're into, being IP consultancy and patent brokerage the leading ones; however, the percentage that is Licensing Agents are strong in legal and IPR business competences since they require it to carry on their operations on litigation and assertion as it was shown on

Actors in their majority concurred in the importance there was for them to have strong legal competences:

- "We have a chief patent counsel in-house which is very important".
- "We have three lawyers in the team, and a full time patent lawyer, attorney, and IPR expertise".
- "Our entire process starts when our legal team analyzes the patent claims".
- "Some of the basic ingredients to handle a case efficiently are due diligence, title clearance, title checks, claim analysis, claim charts…"

Other competences were vaguely mentioned by some actors:

- "It is of utmost importance to have business involved, legal competences are required as well and technological expertise. It is also important also the understanding of the financial industry".

- “Most of our people have legal backgrounds; however, we are trying to bring in people with business background, technology, and some statistical background as well”.
- “Financial expertise is very important for valuation, because time is money, so the faster you valuate the faster you get paid”.
- “In our team we have financial expertise in investments, VC, lending and bankruptcy”.

Financial expertise was identified as being very important; however, it is unclear if they have a specialized team in that field or just have people who have experience in that arena but don’t work directly in financing inside the company. The teams that are clearly defined are legal, IPR business, and technical, but financial has not been identified as a team, but merely as a good expertise that is good to consider.

6.2.1.6 External Competences

The competences that are primarily outsourced by NPEs are technical. It applies to all types of actors but IP development and licensing, since they have their own strong engineering team for their R&D.

- “We outsource technology competences and choose people that are true experts in the specific field of the technology we’re dealing with at the moment so we can understand deeply who is using the technology and infringing in the patent, based on that is that we build our target list”.
- “We try to do almost everything with internal competences, but in occasions external competences are hired, depending on the case, but it may be in specific technology area”.

Legal competences are also outsourced especially for the actors who are into assertion and litigation, and in most cases they have internal expertise in-house but strengthen it when a case is requires it.

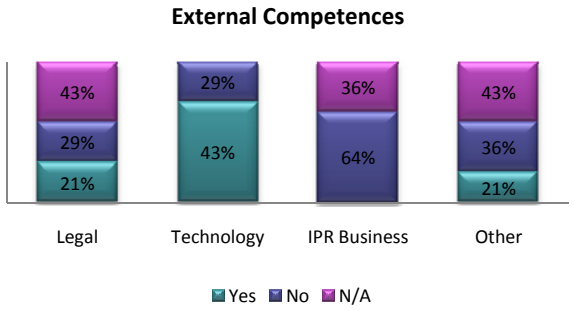


Figure 28 Outsourced competences

- “We have some internal legal competences; however these are used exclusively to do the initial analysis of patents and during litigation to communicate with the external lawyers and to communicate adequately the information to the team”.
- “Most lawyers are chosen depending on the case, the lawyer we choose has to have some background related to the topic”.
- “We have an outside legal counsel, who case by case decides how to proceed”.

There was one actor who brought up that they don’t do much outsourcing and his explanation was the following:

- “We outsource a little bit, not a lot. I personally believe that it's unwise to outsource, because if you're building a company, what's important is not only the IP but the know-how behind it, so what's in each person's head is very very important, and when you outsource that is lost”.

Due to the fact that most actors have strong internal legal competences and still strengthen it with external legal competences shows how the legal orientation of the market is. Another interesting fact is that their personnel costs are held to the minimum (in most cases), providing them a good tradeoff – they don't have all the people they need in-house, but they don't have high fixed costs to cover.

6.2.1.7 Costs & Expenses

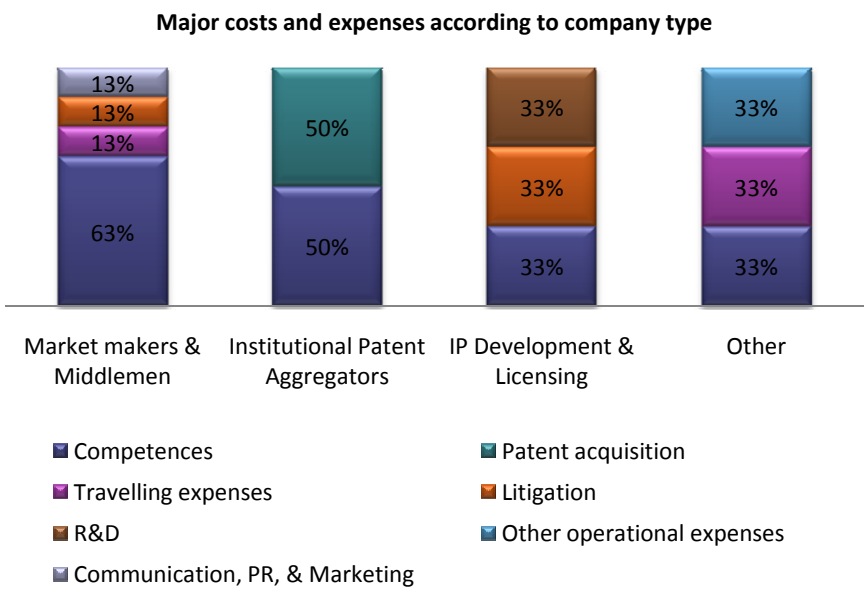


Figure 29 Major costs and expenses according to company type

The major costs and expenses that actors have depend greatly on their company type and business model; however, they all have agreed that competences represent a great part of their expenses. For market makers & middlemen competences are in their majority the biggest expense, but they also have high expenses involved with travelling, litigation, and communication & marketing. Institutional patent aggregators have answered differently as they answered that their major costs are linked to competences and patent acquisitions. This is no surprise, as their business model is based on aggregation. IP development and licensing companies have said that their major expenses are competences, R&D, and litigation, which is a clear representation of their business model.

NPEs who are not involved in development or aggregation keep their costs to the minimum and have payment models based on success.

- "Competences and overhead are our major expenses, but we work upon success".
- "We try to keep the team to the minimum and outsource everyone else, all that are fungible are from outside".
- "We have a success fee based payment for services".

Conversely, Patent Aggregators due to their model their major costs and expenses are on the acquisition of patents.

"Our major expenditure is the investment cost to acquire the rights; we have over 100 million USD in acquisitions".

IP development & licensing companies have a different structure; and therefore their costs and expenses are also different, and focused on developing new patentable technologies that can be enforced.

- "Our major costs are linked to the engineering team, but also litigation is a great part of it"

For the patent monetization arm of an operating company and market makers, travelling expenses also represent a high cost, since they have to be travelling all over the world to meet with potential licensees.

- "Trips and meetings are high expenses".
- "Travelling is a huge expense, but fortunately with the licensing deal that we have, we don't have to cover it, but the patent owner does"

6.2.1.8 Location & Operations Geography

The patent transactions market is based primarily in the United States. 64% of the actors interviewed are located there, followed by 29% in Europe, and only 7% in Asia. Looking at the market's geography in general, approximately 70% of the actors in the market are in the US, predominantly in Silicon Valley which is known as the world's best high tech conglomeration.[134]

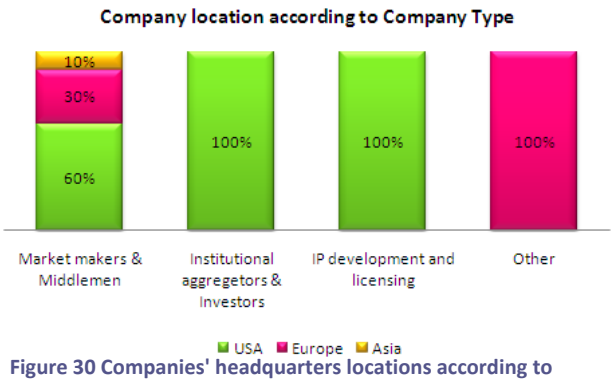


Figure 30 Companies' headquarters locations according to company type

Market makers & middlemen that are the ones having the most varied range of models also have the most varied geographical locations; however, the US still remains as the main market as 60% of them are located there.

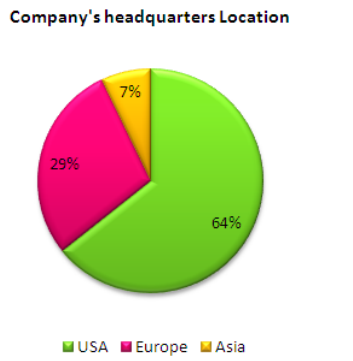


Figure 31 Companies' headquarters locations

Patent Aggregators and IP development & licensing companies are in their entirety (according to the results of the interviews, not market demographics) based in the US. When on the other hand, the patent monetization arm of the operating company we interviewed is located in Europe.

What is driving the actors to be located in the United States is the following:

- "I am from California and during my experience I've seen that most technological companies and IP Management were being done in Silicon Valley".
- "There is market for licensing business in the US primarily".
- "I have operations in the US because here is where things happen. I'm American and it is a huge market with plenty of potential".

[134] Ashby H. B. Monk - The Emerging Market for Intellectual Property: Drivers, Restrainers, and Implications, Oxford University

- "The US is where the NPE problem is a major issue for operating companies".

The US is the primary region for the patent transactions market because it's the region where most actors are and most activities are taking place. Looking at the most litigious NPEs more than 70% are in the US[135] and most information and statistics found (even if scarce) is also from the US. There are a few operations that are heard about in Europe and Asia, but the US remains as being the dominant segment.

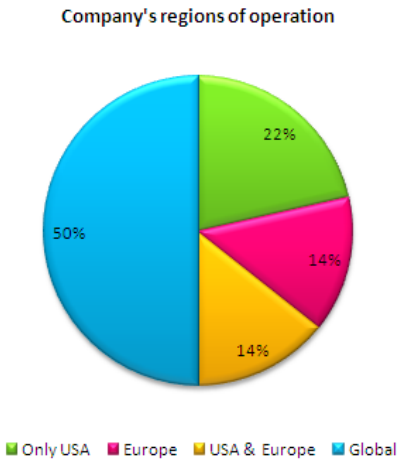


Figure 32 Companies' regions of operations

Looking at actors located out of the US, their reasons for being located there are the following:

- "I wanted a more global operation. In Israel there are plenty of opportunities and is a growing market. The top three regions receiving investment in IP are Silicon Valley, Boston, and Israel". Then he added "I am based in Tel Aviv, but have operations in the US and Scandinavia as well".
- "We're located in the Netherlands for social reasons". Then he added "Also the Netherlands is a strategic place to have offices due to border detention arrests. Since the Dutch have the biggest port in Europe, if there was to be a problem, all products that come to Europe through Holland couldn't go through".
- "We are the largest IP consultancy firm in Europe, and have offices in Scandinavia, Germany, and The Netherlands; however, we have international clients and representatives all over the world."
- "I mainly carry out my consultancy operations in Europe, but have international customers".
- "Our offices are in Europe buy we have global operations and global customers. Actually most of customers are from the US and Asia, and some in Europe".
- "We have engineering teams in India and US, and regional offices in India, Germany, Japan, and Taiwan".

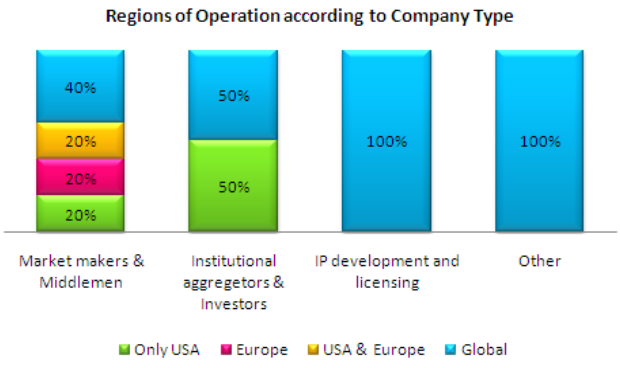


Figure 33 Regions of operations according to companies' types

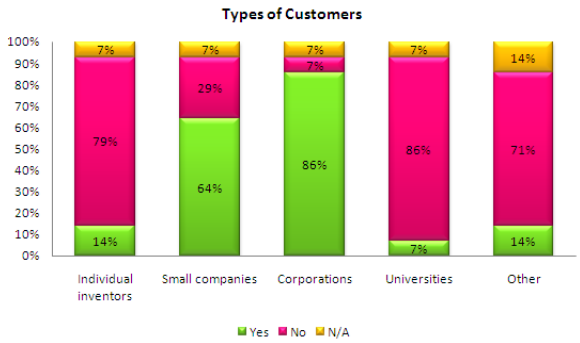
Despite main offices being outside the US, their activities are carried out with international customers, being the US a strong target still. 50% of the actors have global operations, while 22% transact exclusively in the United States. Europe has a smaller share of 14%; however, when in combination with the US, it has an additional 14% of the market.

It is clear that the prime market is the US since 86% of the actors in one way or the other have strings with the US market despite their company location being anywhere else in the

[135] https://www.patentfreedom.com/research-ml.html

world.

The great majority is carrying on operations globally, and this can be linked to the fact that their "customers" AKA corporations, have global operations as well, so their market geography is limited to where there are opportunities based on corporation's activities.



The range of customers that our interviewees provide services to is varied, corporations (86%), small companies (64%), individual inventors (14%), governments and financial actors, classified as Other (14%), and universities (7%).

Figure 34 Types of customers

6.2.2 Summary on Company Profile, Activities & Integration in the Market

Most of the actors interviewed where were Market makers & Middlemen (72%) and the remaining were Patent Aggregators, IP development & licensing company, and an actor who is the Patent Monetization arm of an Operating Company (28%). Note that no Enforcers and Litigators form part of this study. Despite the results not being a representation of market shares it can be deduced that there are more market makers & middlemen in the market perhaps due to the fact that establishing an operation of this type is fairly simpler than any of the other models since expertise is the main resource required. For operating companies this translates into having more options of service providers such as brokers and agents, while having fewer actors that can "compete" with them in monetizing patents with similar models such as patent aggregators and IP development & licensing companies.

The major drivers for actors selecting the models they utilize are market needs and opportunities; and in some cases some actors move from industry to private practice following their line of expertise they've gained along their careers. Since the patent transactions market is rather new and is still emerging, it can be expected that more actors and models will be developed fulfilling needs and taking advantage of opportunities making the market more concrete, providing opportunities, but also making it more competitive.

Since most of the interviewees are market makers & middlemen, the business activity most carried on is intermediation (57%); however, interestingly litigation (29%) and patent assertion (21%) had high percentages, proving once again that litigation is a common business activity in this market and that one activity is not exclusive from the other. Litigation doesn't necessarily take place because it's a preferred path; actors mentioned that the drivers to litigate are not always linked to profitability, but that most of the times it happens because no agreement can be achieved into what is reasonable. Other drivers mentioned were normality, that due to the market being built by lawyers, the normal actions to take are in the legal arena, which not only foster more litigation by them, but also create a litigation culture in the market for new actors. One can assume that litigation will prevail and keep on growing and it has been since 2003; meaning that the business environment in the market might

turn more hostile and more litigation could take place not only between NPEs against operating companies, but operating companies vs. operating companies as well. This could deter the system and avoid good business and negotiations from taking place; therefore, it is relevant that actors in this market make a stop and decide if this is the course they want to follow.

Most of the operations and activities are taking place in the United States and it is most likely to remain that way; however, Europe is showing some interesting activities that operating companies should take a close look at. Furthermore, they think about Asia for the mid to long term because countries such as China and Korea are preparing their patent systems to hold major operations.

Since actors in the patent transactions market appear to have small teams, it can be assumed that their decision making process and agility to start activities is faster than operating companies. The company structure of operating companies is a much heavier one than with NPEs, because even actors in the patent transactions market who have large teams, such as patent aggregators and IP development & licensing companies, have most of their people devoted to monetizing patents, and IPR business and legal competences predominate. Operating companies are likely to have the same competences in IPR business and legal; however, the case might be that they focus their efforts into other areas that more linked to their core business, rather than monetizing patents.

It can be deduced that for operating companies the patent transactions market so far has meant to receive more litigations against them and lots of offers from intermediaries to acquire patents; however, this doesn't need to stay that way, because there are also opportunities that operating companies can take advantage of, and instead of viewing this as a NPE vs. Practicing Entities, it can be a matter of identifying similarities between models and actors to collaborate in what is possible and create win-win situations for all involved.

6.2.3 Results on Challenges

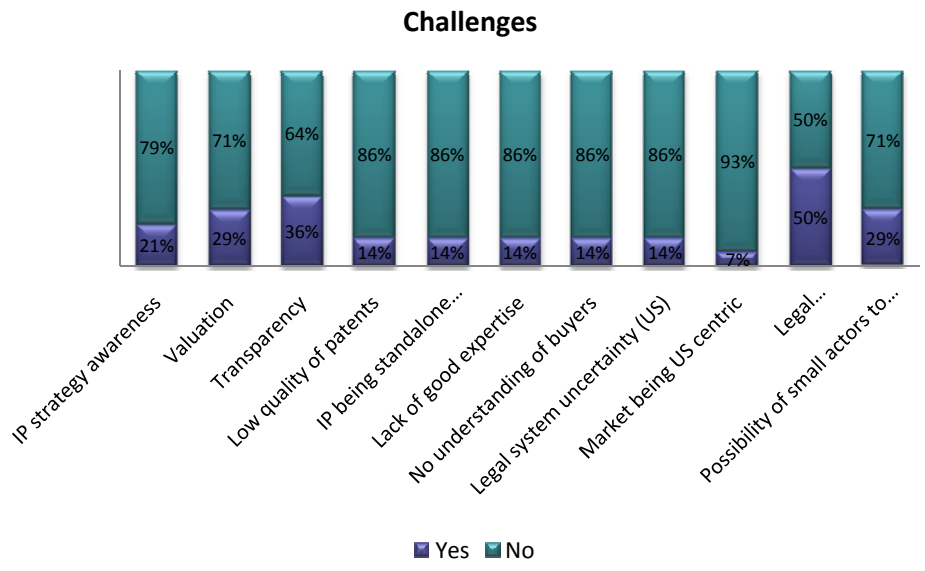


Figure 35 Challenges

When looking at what problems the market was facing, our interviewees had a wide variety of responses, being the legal orientation of the market that leads to communication problems (50%), lack of transparency (36%), and valuation (29%), the possibility of small actors monetizing their patents (29%), and the low IP awareness there is (21%), the top 5 answers.

A big challenge identified was the market being built and primarily managed by lawyers, because that creates communication problems that lead to constant litigation, quarrels, and ways of doing business that hinders development. If it is so, then the real problem would be constant litigation, not the lawyers, perhaps it's just a matter of getting a common understanding of what's best so that the market can develop adequately and business can be developed in a better way.

- "A big problem is that this market was initially built by lawyers, and there's a preconception you're evil, I'll pay you nothing, and it's with that with that mindset that a lot of suing and legal actions have been taken." Then he added "But negotiations are the most important part".
- "The legal profession is the fault of going to litigation, but litigation is not the best solution, so companies who decide to do business as in other markets will be better" Then he added "The solution is to have better business practice in terms of acting with integrity and helping all parties achieve the value that they are seeking."
- "The problem is that they are more into the legal aspects of IP, and this is a challenge to overcome because if companies only focus on legal aspects, the business will never grow".
- "Companies tend to be non responsive, then they respond in a harsh legal way, there is too much missed opportunities to have good business deals, too many threatening actions, rather than sales and negotiations".

The fact that there is very little information to be found about this market is in part fault of one of the challenges that the interviewees mentioned about lack of transparency. All actors in the market suffer from this, but at the same time it's a complicated matter because having a well defined and transparent market requires not only the sharing of information, but also the settlement of an infrastructure for transactions other than the ones primarily used that are private channels.

- "The whole notion of transparency, of moving towards a real open market where the assets transact in a normal way."
- "Transparency can be achieved by being more open, gathering information, publishing information..."
- "What we need and where the market is going is towards true transparency"

Valuation was mentioned by some interviewees as a big challenge that stops the market from being a real market, and having certainty and transparency. Patent valuation is a hard task because no patent has the same value and even one same patent can have different values depending on the buyer or licensee. There are various methods that are used to value patents, and most of them are based on the use that that specific patent will have, so the question remains… if patents will have a value depending on who is going to use it, will there ever be a standardized valuation method? This is not a question that can be answered easily, and as it is right now, comments on the matter are based on the rise of the challenge and the problems it causes.

- "One real problem is valuation… what is the real value of a patent? No one knows and the models that have we have right now are not mature enough. So till there is no valuation means the market will remain unclear".
- "Valuation is the mother of them all. Until people get comfortable with the imprecision of valuation, the market will not be a real market"
- "Valuation is the biggest challenge by far because it prevents a real market from existing".

- “A challenge that the market has is the agreement on valuation” Then he added “I’m not sure why the IP market is trying to create new valuation methods…”

Patenting is an incentive for innovation; therefore, the ability of patent owners to extract value from their patents is essential. Some interviewees have mentioned that a challenge is that small actors, namely individuals and small companies, have difficulties extracting value of their patents when offered to practicing entities, namely big corporations. This is nothing new, because the notion of the small one against the big one has always existed, but what creates the real challenge here is how it can be solved. For sure that the emergence of actors in this market is a solution for the small ones, but it also represents a threat as there is a thin line between building a fair business and patent extortion.

- “The NPE problem is partly created because individual inventors have so many difficulties in monetizing their inventions with big companies, that is an issue that still exists, but as the market becomes more transparent, the way to monetization will become easier”.
- “In this business that we are can be a very destructive one; however, this can be changed and done in a good way, building openness, constructing good markets, good sharing models, and incentivizing doing this”.

An interesting challenge mentioned was the need of IP awareness and good management of it. It would be reasonable to assume that actors who are in the patent transactions market are extremely IP savvy, but according to some of our interviewees, that is not the case, and that there is still a lot of work to be done to have full understanding on how to extract value from patents. To overcome this challenge, actors in the market will have to bear this problem in mind and take the responsibility to raise awareness in the topic, improve their own IP management, and educate others about it, so that in the end there is not only a small group that knows about it, but an entire field can contribute to it.

- “Normally IP departments know how much they’re spending, but they don’t know the quality of their IP, if they are efficiently and effectively running their activities, or how IP is bringing value to the business”
- “There is a huge need for IP awareness in financial transactions; there are a lot of problems in those areas”.
- “Some of the challenges that the market is facing right now are on patent strategy, so much the market is still trying to get basic coverage and understand what patent strategy is”.

Once again the Patent Reform Act was mentioned as a challenge, because no one knows how it’s going to come out. In reality this more than a challenge is a threat and no one can do anything about it but wait to see the results and then adapt their plans to it if it’s required.

- “There is the legal challenge of predictability, laws keep changing, they're not changing from legislative perspective but from a judicial perspective, they are reviewing patents and making new law, it's a mined field to navigate in the US, I don’t like the way it's happening, when you get a patent, you got into an agreement with the government, and then the government changes the rules on the way… how is that possible!”
- “US case law is the number one driving the value, it is heavily against patent owners, and it has been even worse during the last 5 years”.

6.2.4 Summary on Challenges

The major challenges that the actors have identified are legal orientation of the actors in the market, lack of transparency, small actors not being able to monetize their patents, valuation, and IP awareness. Some also mentioned the threats about the 2010 Patent Reform Act that it's unclear how it will turn out or when. What these challenges really mean is that most business activities are within the legal arenas and litigation is the primary path, there is very little information of the transactions that are taking place, there is no infrastructure in place for this transactions, and the whole idea of how to extract value from patents is in early stages that makes harder to have a business out of it.

On the positive side, it's very good that so many actors agreed in what were the problems that the market was facing, because only identifying a problem is that it can have a solution. Most of the challenges require all of the actors getting into an understanding so that the obstacles can be overcome. For example, it's mentioned that having lots of litigation is a major issue, but at the same time more litigations are taking place. It seems to be a vicious circle and there is a need for someone to break it. If most of the challenges can be surpassed by getting into an agreement and working somehow as a team towards one objective, then it's important to raise awareness on the matter, so that no one feels like they're the only one working towards that. It's important to raise awareness in areas such as business orientation and development (rather than legal paths and litigation); building up market structures and sharing information (rather than working like silos and being extremely closed); working together towards finding the best valuation method (rather than seeing it as a problem that others have); and taking care of all actors despite their size (rather than only acting upon fear of litigation from the big ones).

Operating companies (and all other actors in the market) should think about the long run, and establish goals to fulfill as a market and until that happens the same problems will exist. Operating companies who are the largest patent holders can take this responsibility and act like they want the market to be. A problem is that there's only litigation, then it's important to start educating people from inside out about the importance of paying attention to both legal and business arenas; there is a problem of no transparency, then start building up structures, guiding research, and sharing information to set an example and become a stepping stone and that others can build upon. For companies such as Nokia, paying attention to this areas, as it has been done with this thesis, is a good starting point to create plans to better monetize their patents and be active in a market that is rapidly emerging.

6.2.5 Results on Trends

Interviewees were asked to give their insight on how they thought the market would look like in a period of five years; their answers were analyzed to identify what were the drivers and trends they identified as leading the market. The top five answers were: more negotiations taking place (43%), creation of financial disciplines and IP being able to be put up as collateral for financing (36%), good practices (21%), better patents (21%), and fewer transactions and actors (21%).

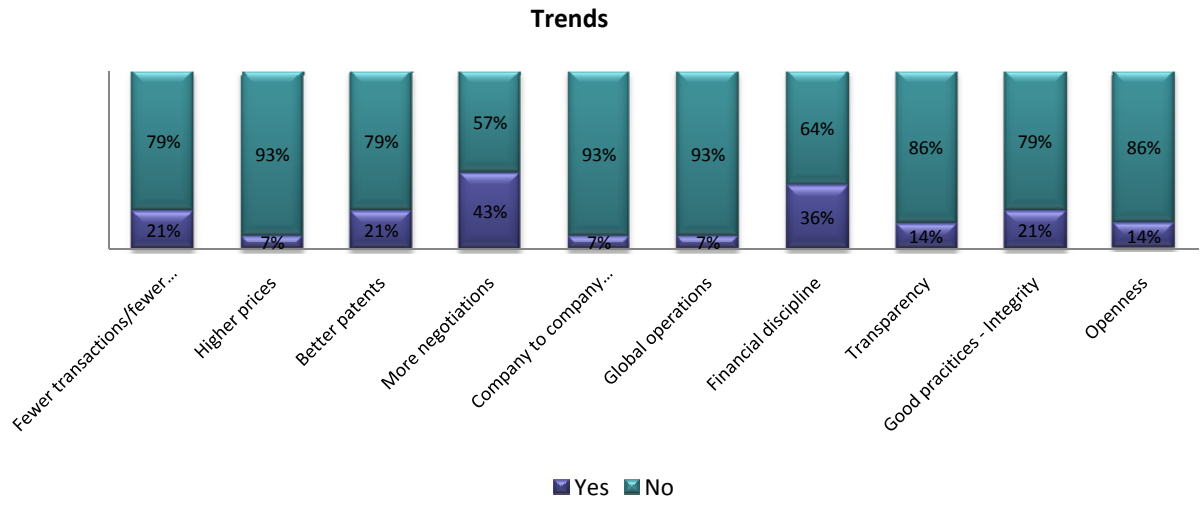


Figure 36 Trends

These answers represent what the interviewees believe the patent transactions market will turn to and as it can be seen all of the trends are linked somehow to the challenges and issues presented earlier in this report, which is a very positive aspect.

If there's a trend of moving more towards negotiations, it can be assumed that litigations might not be the first avenue that companies are taking. This could mean that actors might move more towards sitting down and agreeing on something than starting the process with litigation. This doesn't necessarily mean that there will be less litigation, because until a balance is found between expectations from sellers/licensors and buyers/licensees are that win-win negotiations will predominate.

- "There will be more settlements".
- "Less expenses in legal services".
- "I think NPEs will move away from the litigation model"
- "There will be buyers to fill in gaps to avoid law suits".

Intellectual Property due to its intangible nature has a harder task in having a well established financial infrastructure (for example as stocks have), an acceptance in financial transactions (for example as collateral for loans), and most definitely a valuation method. Our interviewees foresee that despite this being a tough challenge to overcome, that's where the market is moving forward to, which represents a great opportunity for all actors involved, because it might mean to have easier and better ways to make business and to extract value from patents.

- "Patents are becoming everyday more tangible and used as collateral, excelling receivables, therefore the flow of license fees and royalties, are great to get short financing".

- …"big investors seeing IP as a good place to invest, but we have to be clear that they are looking to risk and return".
- "…financial markets in a way to enable securities, necessities of transactions in that…"
- "I think there will be more people coming into the market taking risks to monetize IP".

There were some comments regarding some actors in the market not having the best practices. This might be linked to how litigation is used by some as the main way of doing business and also primarily referring to the actors that some call "trolls". If really best practices in doing business are coming into the market, which might mean having less litigation and more negotiation and also having a better environment in doing business in the field. The whole environment of this market is a little "heavy", and it's a positive aspect that it's been identified as a trend that it will change.

- "Business practices that show more integrity and helping all parties involved to extract the value they're after".
- "There is too much negativity, pejorative terms that stop from doing business".
- "… to perform in a constructive way being loyal". And then he added "I hope that stakeholders will be loyal to development, reasonable states to enable future value creation, reasonable market for people who have IPR to extract value".

While performing research in the field, it seems as if the number of actors and transactions is increasing; however, experts in the field say that the trend is for fewer transactions, higher prices and better patents to be transacted. If this were to be the case, then that means that the market will be moving from an emerging stage to a more mature one, where structures, models and actors are more defined.

- "I see that the trend is that there will be fewer transactions, fewer companies, higher prices. By prices going up this will motivate to sell patents they were not thinking on selling, and also to create more valuable patents."
- "I think there will be more good patents in the market, the market will shrink limited to high quality"
- "It will follow to what it happens in most industries, fewer brokers, fewer monetizing companies, continue to be companies trying to pursue business models"

Lack of transparency was identified as a challenge by some actors, but also the trend of becoming a more transparent market was highlighted, bringing some optimism on the problem that many feel is so harmful.

- "More transparency, there will never be full transparency because there is too much uncertainty due to the nature of the asset, but I see better strives in the next years".
- "More information, for less cost. People providing it more freely".

6.2.6 Summary on Trends

The trends that our interviewees have identified show that if they take place, the patent transactions market will pass from an emerging stage to a more mature one. The major trends identified have been that there will be more negotiations and less litigation, better practices and integrity while doing business, that IP will become a more established asset and will have a better financial

discipline, and that the entire market will be more exclusive in the sense of having better patents and fewer transactions.

Changes like the abovementioned can be seen that historically have been applicable to other markets and industries, and if they were to become a reality in a period of 5 years as our interviewees have assumed, that means that in a short to midterm the patent transactions market will have a better environment to extract value from your patents, because there will be a lot more information available, there will be better financial structures to transact, the way of doing business will be efficient and potentially focused on win-win situations, and only the best "products" (patents) will be transacted.

For operating companies these trends represent a great opportunity because it seems as if the market is moving towards a more stable environment; but this also means that they have a great responsibility to make sure this happens. Operating companies as the major patent holders can really take the task to make sure that some of the challenges are overcome, and if the market is already in tracks towards it, it might be simpler than starting from scratch. The idea of getting together is needed, and one of the interviewees mentioned this was a trend "Getting together is a trend, it has already happened amongst industry in standardization, and it's going to be the same with IP monetization, all actors providing a grain of sand". As operating companies have gotten together for standarization and FRAND agreements, can also see this as a task, because this market represents lots of opportunities for them to extract value from their patents.

6.2.7 Results on Success

When going to the section were "success" is covered, an important aspect to clear out with the interviewees was what they considered that was success per se was and how it could be measured. 71% of the actors mentioned that success is present when there are high revenues and profit; 36% mentioned that survival was a sign of success meaning the time that the company had been running; 29% said that the number of deals that companies have is very important and not to have one hit deals only; and also 29% agreed on capital raising and funding is a sign of success, because if you can raise capital that means that others believe in you and the business keeps on going.

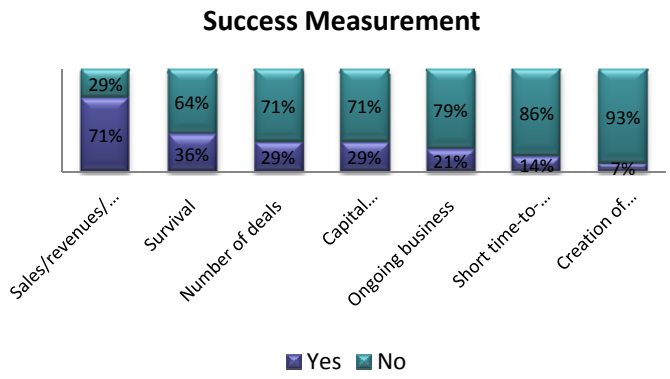


Figure 37 How success can be measured

6.2.7.1 Successful Models

During the interviews the question on which model(s) they found successful was asked. The questioning was put in an open matter so that interviewees felt free to describe what meant success for them, which actors they thought were successful, and therefore which models complied with this. The analysis of the "Success" section has been divided into three sub areas: successful models, successful actors, and success factor. In some cases the interviewees did not give a direct answer to which model they found to be successful, but did mention actors they thought were successful, therefore, some results were deduced. For example, if an actor didn't mention any successful model

per se, but said that they thought Nokia was successful, then Operating Company was put as an answer for successful model and successful actor as well.

The models that were selected in the top by our interviewees as being successful were Defensive patent pool (57%), Strategic & financial investor (institutional aggregator) (43%), and Patent Licensing & Enforcement company (PLEC) (43%).

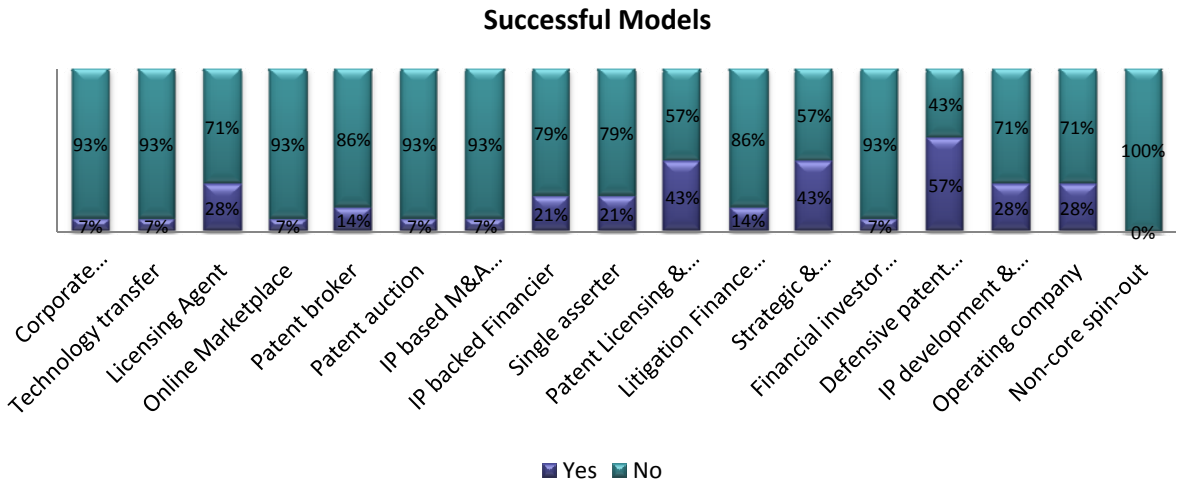


Figure 38 Successful business models

- "RPX (Defensive Patent pool) has a brilliant model because it has a great offer for its members and it is also a very good business as a company".
- "Prominent emerging models…. Defensive patent pools, corollary to NPEs that are using the same type of tactics in order to serve industrial purposes, RPX and AST are classic examples".
- "RPX's model is really smart, like an Acacia (PLEC) backwards, that they are getting money from their members and then buying patents".
- "Rambus (IP development and licensing and enforcing company) has shown to be very successful with their model, they are purely playing in the intangibles, have had profitability and have been in the market for a long time, that shows that they have a sustainable business".
- "Rambus is successful because they are not only into patent licensing but also technology licensing which allows the developer to have connection to the actual implementation of the technology".
- "Patent enforcement is a very successful model, but the most successful ones are those who settle quickly, they file sue against 20 companies and then all the sues are settled".
- "The magic is in the aggregation not in the assertion, the better approach is in aggregation which IV does on the assertion licensing side and RPX does on the defense licensing side.".
- "I think the value is in aggregating and combining IP in a way that 2 plus 2 equals 7, and aggregation produces interesting returns".
- "Trolls actually have very successful models because they have small teams, invest in buying 15 patents, file 25 lawsuits, settle on half of them, and make a lot of money out of it. The trolls are the VCs of the patent world".

6.2.7.2 Successful Actors

When moving on to specific successful actors the top actors were RPX (43%), Intellectual Ventures (43%), Qualcomm (21%), Acacia (21%), and IBM (21%). This coincides with the successful models

on Figure 39, where Defensive patent pool, Strategic & financial investor (institutional aggregator) and Patent Licensing & Enforcement Company (PLEC) were the selected models are being successful.

RPX is a defensive patent pool, Intellectual Ventures is an institutional aggregator / strategic & financial investor, and Qualcomm and Acacia are patent licensing and enforcing companies. That only leaves IBM which is an operating company, and despite the category not being mentioned in the top successful models, IBM won a place in the top actors, presumably due to their individual success and communication of it, after all IBM is widely known as the "King of patents"[136].

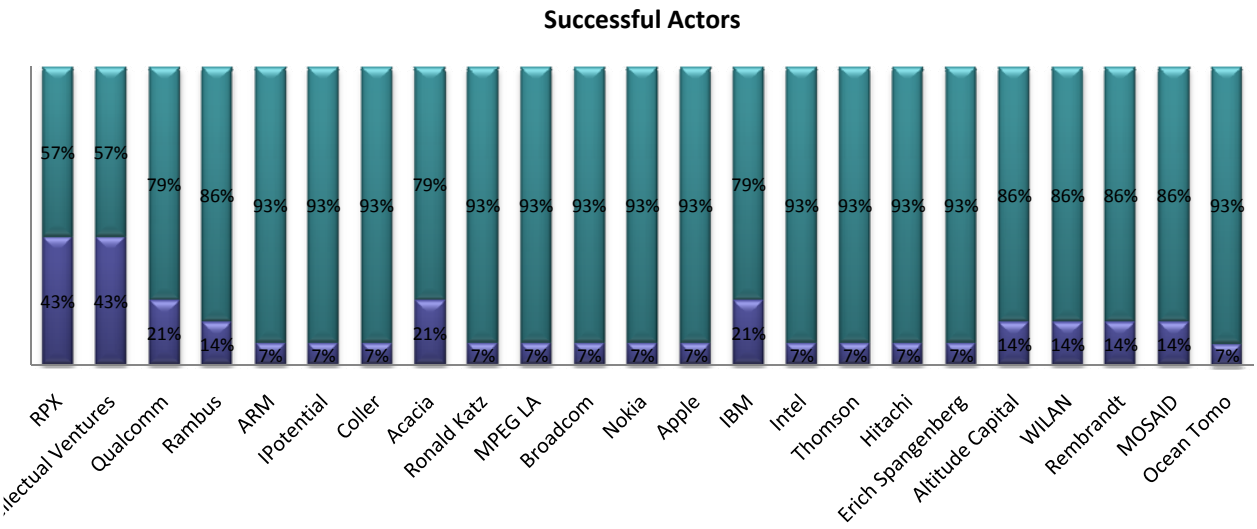


Figure 39 Successful actors

The responses here also have a lot to do with "top of mind", meaning that the ones that received low votes doesn't mean that are considered to be unsuccessful necessarily, but that maybe they are not in the interviewees attention in that precise moment.

It was very clear that the actors perceived to be successful are RPX and Intellectual Ventures. Most of the discussions during the interviews were made about those two actors.

- "IV is a successful actor because they have raised 5 billion USD in capital".
- "RPX is very successful in raising capital and attracting corporate members".
- "IV has done a great job in aggregation, and a good way of exemplifying this is where all patents are based on early priority filing, and if that is knocked out, then all the portfolio dies, but on the other hand companies like IV aggregate dozens of hundreds of portfolios in an area, so one individual patent or portfolio might be knocked out but the other one is still there".
- "IV cannot be denied that they are good, at least when it comes to raising capital, since they have over 5 billion USD. It's a big corporation with 600 employees and I believe it will remain as a big and good company".
- "I think that there will be more actors on the aggregation area because the model has shown to be good".
- "IV was the first new really big model".

[136] http://news.cnet.com/8301-11386_3-10433197-76.html

- “RPX is the last new business model or at least variation; IV was the first one to put money together to buy patents in scale and RPX is the new model for that, there might be more”.
- “There are several good models. IV has a very good model but that not everyone can do it”.
- “The model that RPX has is a smart one”.
- “IV is a successful actor despite them doing everything in their power to fail, but that they have too much money to fail”.
- ” IV will be successful, there’s too much capital, it doesn't matter how many mistakes they make”.
- “Successful models are in aggregation like IV, but also defensive patent aggregators like RPX could be good”.

As it can be seen there’s a lot of discussion around RPX and IV being the most successful actors. IV has been mentioned as successful because of the amount of capital they have raised, the number of patents they have aggregated, and the dependency other companies have on them. It was said by some interviewees that IV buying patents has had a direct influence in certain companies.

- “IV basically collected a lot of patents, spent a lot of money on it, and effectively cleared the market”.
- “When looking at the brokerage area, the most successful broker historically is IPotential, and that is due to the fact that they sold 80% to 1 buyer, IV, whom they had a very strong relationship between as people came from Intel”.
- “When IV dropped out of the buying in the auction business it turned very badly for Ocean Tomo”.

IV’s future plans are unclear and unknown for most actors, as they discussed that IV had a huge portfolio, but that their next steps were still to be seen.

- “I think IV is a classic example on struggling to sign big licensees, after they signed a year and a half ago with Verizon, Cisco, etc.., they haven't got anything good after”.
- “IV is the big elephant in the room that no one knows what's going on with them. That’s what fascinates me, it's like the early days of IT, and if you can tell a good story you can get a lot of money”.

RPX has been mentioned by 43% of the actors as a successful company because of their creative model that could provide a good solution for operating companies, but despite this, there is a lot of speculation of what will happen. RPX is a young company, it started in 2008, and it’s still to be seen how they will perform on the long run.

- “RPX might look good today, but let’s see how long it will remain”.
- “RPX seems to be going in a really good way, but they will have to reinvent themselves”.
- “RPX has an interesting model and it could be very successful”.
- “It’s still early to see if RPX will produce what clients need and if they have saved enough to cover the investment in the subscription fees”.
- “RPX is a new model that we’ll have to wait and see how it will be”.

Specifically something that came up with RPX and why it was mentioned as a successful model, despite their early stage, is that top experienced people are behind this company.

- “In the long term RPX will be successful because of John Amster, he’s a smart guy”.
- “RPX has two of the top gurus of the IP world, and it’s people who make the difference”.
- “When they told me about RPX and who was behind it I knew it was something that would go well”.
- “A successful individual is Eran Zur. Successful companies are and will be the ones run by successful individuals”.

With all the arguments we’ve seen along this section, what is clear is that IV and RPX are a “hot topic” and it’s undeniable that something interesting is going on. With IV it is unclear what will their next steps be, and with RPX we’ll have to wait and see for their performance in actually lowering litigation costs for operating companies.

The models and actors that are most questioned are those in auctions and online market places, primarily because it is said that patents cannot be transacted as stock or commodities because each patent is different from the other and that it has a different value according to who is buying and how they will use it. Nevertheless, there were a couple of interviewees who believed in the auctions and online market place models and were expecting good results from them.

- ” I believe and love deeply the live auction model”.
- “Auctions and private brokerage will be successful. Electronic brokerage is promising and it might become successful but it’s early to say”.

Most commenting on the positive side is for defensive patent pools and institutional aggregators, while most doubts are on the live auction and online market place models. It was a common denominator between most actors the comments around those areas. There were few comments on the success of patent enforcement and licensing companies, and most of the answers behind why they were successful are because they have lived in the market for a long time and are presenting good number in their quarterly reports.

It seems as if the commenting on actors such as IV and RPX were most linked to top of mind and the emergence of those models in the moment, while models like Qualcomm and Rambus are more mature and have proven themselves to be good in the marketplace.

6.2.7.3 Success Factors

Summing up the “Success” section of this report, the Success Factors were looked at, and it was asked to interviewees as to what they thought was a factor that leads to success, and what is needed in order to be good. The top success factors identified were the combination of legal, business, and technical competences (57%), the quality of expertise and people (57%), networks and connections (50%), high quality patents (43%), not having litigation involved in the model (36%), quick settlement (29%), and external perception (21%).

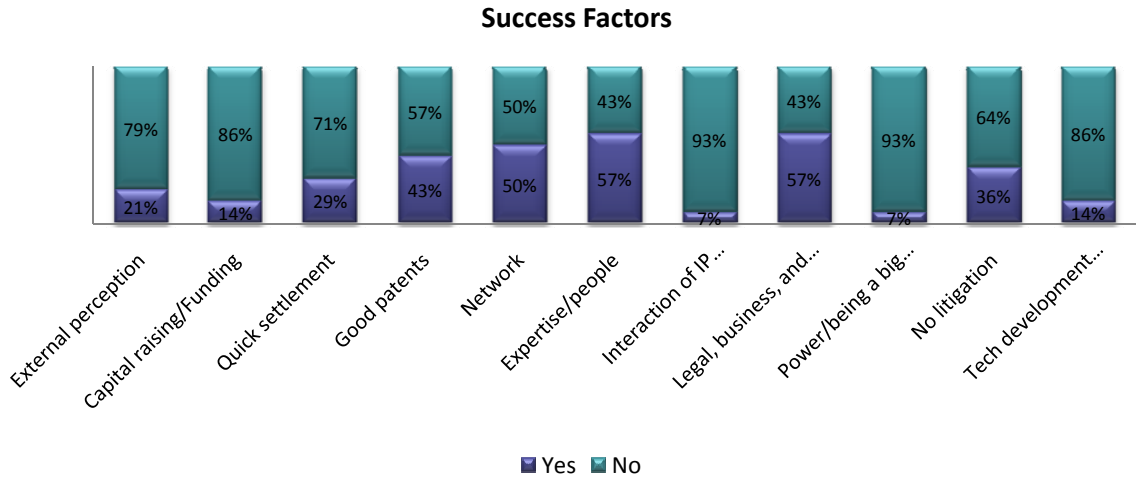


Figure 40 Success factors

It can be seen that the top two answers: combination of legal, business, and technical competences and the quality of expertise and people are intrinsic factors and related to each other. It was apparent that a great majority of the interviewees identified the people running the company and the entire team and their expertise as crucial for their success.

- "Not that many companies have the competence to communicate in a business, legal and technological arena which is something needed to succeed".
- "Being able to combine and communicate legal, technological and business arenas is what makes actors good".
- "The most important thing is expertise; the people are the basis of it because they make everything come together, so in my opinion the team of people is the most important thing".
- "At the end of the day what successful actors have in common is that they have the right people on the bus".
- "What is important is getting the right people".
- "Those who are successful are companies who hire the chefs not the cooks".
- "A driver of success is understanding legal, technological, and business arenas and being able to communicate with people in the 3 areas".
- "Successful actors have the ability to mix legal, technology, and business, they sit in the center and participate in the 3 circles".
- "Problems can be overcome with good competences in the market and educating companies about it".
- "It's a mix of a lot of issues, people, management, good model, good patents, and good decisions".

It's seen that most actors have agreed in the need of having good competences as being part of the team to carry on operations, and that the team should be formed by people who can communicate in the legal, technological, and business arenas. It will be seen in the next section about challenges that to be able to communicate in these three circles is a major challenge that the market is facing right now, linked to the orientation of exclusive legal activities.

The second factor identified as crucial for success is networks. We can see that this is a variable also linked to people and competences but in an extrinsic manner.

- "The basis is good patents, good networks, good people, capital and funding"
- "Building a network and an ecosystem, not to be alone, to create an ecosystem and not to play independently". Then he added "RPX will now go to Acacia, and that the scenario is that instead of Acacia suing 20 companies, RPX asks to get right to sublicense 10 and for Acacia to go and continue to sue the other 10. They are dividing up the targets, uses those for existing members and to new members. Another example is that the portfolio was owned by Saxon Innovations created by Altitude; then those patents were now sold to two different buyers, some were sold to RPX and licensed to their member, and the other part to Norman IP Holdings, who no one knows, but he is an IP asserter. So the case is that half of it goes into a defense organization, and another half goes to an asserter, feeding on itself, patent recycling, patents cycling through the system".
- "Some determinant factors of success are network, especially contacts with big companies…"
- "Having a network and being recognized is something extremely important".
- "A lot of my business is the network, people you know and trust, and I try to keep good relations with everyone I know".
- "Some drivers of success are: knowing the right people… From that is that everything else that is needed will come, such as good technology/patents, if you know the industry and the right people, you will find the right patents; the same case with potential customers, and even funding."
- "…current accurate information, corporate politics, meaning to know the people you have to talk to…"

An emphasis was made by actors on showing how important it was to know influential people in the market and become one, that if you know the right people your business will move forward, even examples of success were provided showing how networking and ecosystemic models were key. This is linked to the previous section on successful actors, where the interviewees refer a lot to specific names who are successful individuals, running successful companies, and are good to have as a connection.

To have good patents is something definitely crucial in order to have a successful model. In the patent transactions market where the "transacted good" is patents, the better the patent you have, the better the "good" you're supplying/demanding.

- "What have made them successful are quality patents,…"
- "The basis is good patents,…"
- "Quality IP is needed, because at the end of the day who owns the IP is the one who decides".

As it has been discussed in previous sections, the quality of the IP transacted is a much needed factor to succeed, because if a patent has low quality, then enforcement our any other type of use would make much sense. It has been mentioned that a high percentage of the patents in the market are of low quality, so we could deduce that the few actors that will own the high quality patents will be the ones potentially having successful operations.

Not to go to litigation (36%) and have quick settlements (29%) has been identified as success factors. What is contradictory here is that a great percentage of the actors see it as something

needed to succeed, while at the same time most of the operations in the market are towards assertion and litigation. This raises the question that was discussed before of what is really driving actors to go to litigation, is it that they're striving to get better proceeds, is that the natural way that things are done, is there no other way to move forward? It has been made clear that litigation is costly and that it takes a lot of time, now it has been identified as a challenge to overcome in order to be successful. Could this mean that actors are really noticing this and will move more towards negotiations? We can speculate around it but nothing is certain, because quantitative results show the increase of litigation, while qualitative results show a trend to decrease litigation. What is for sure is that a lot of resources are being spent on these types of activities and that it has been identified by a great part of the actors as a problem.

External perception and good reputation were catalogued by 21% of the interviewees as being key to success. This can also be associated to the previous success factor of networks and connections. Some of the comments made by the interviewees around this topic:

- "What I call perceived credibility. If you're perceived as an innovative company and if you're perceived as having reasonable licensing terms, which gives the possibility to create sustainable revenue".
- "Perceived success, referrals, network…"
- "…reputation and actual track record, if you lose one of those, there is no success".

According to this study and to our interviewees' responses, the "ingredients" for success are both internal and external. On the internal side it's important to have the right team who can communicate adequately in various arenas involving IP. On the external side, most of the identified factors are linked to networks, connections, and perception of other actors, meaning that in this market (as in most other markets) to build up a network and connections to influential actors is crucial, here is where marketing, public relations and personal relations come into place and make a difference. High quality patents are of course a need in order to be successful in this market and it has been pointed out that small portfolio that has high quality can be very profitable, as it is in the mentioned cases of licensing agents and single asserters. The identified factor of quick settlements and no litigation is interesting to see, and we'll just have to wait to see if actors really decide to turn that way as they've identified it as required to have a good business.

6.2.8 Summary on Success

Actors in the patent transactions market primarily measure their success according to how profitable they are, showing that the main driver of success in this market, as in many others, is money and profitability. Despite profitability being very important, it can be assumed that if mainly financial resources are the objective, the business perspective can be from a short to midterm, unless the patents being transacted are constantly being renewed. In that sense operating companies and all R&D intensive actors might have a competitive advantage.

The interviewees' perception on successful models was very varied, the top three models mentioned to be highly successful were Defensive patent pools (57%), Institutional Aggregators & Investors (43%), and Patent Licensing and Enforcement companies (43%). Their responses were based in some cases on specific examples such as IV raising 5 billion USD in capital; however, in other cases such as Defensive Patent pools, it was focused on the creativity and solution that it provided but not directly related to the results they had right away. RPX, IV, Qualcomm, Acacia, and

IBM where the top 5 actors mentioned as being successful. It can be seen that four of them fall under the models that the actors also categorized as being successful; however, IBM that is an operating company was the exception. It is rather interesting to notice that they mentioned from the beginning that success was measured by profitability, but some of the actors that they mentioned as successful, are not necessarily the most profitable ones. This can either mean that they believe that they will be very profitable in the future, that those brands are in their "top of mind", or that there are other important success measuring factors.

What other actors in the patent transactions market think about their colleagues and competitors, is good information for operating companies because it provides them with some insight on who it would be good to work with and who to be weary as well. For example, no one knows for sure if RPX will be a successful model or not, but if everything is pointing towards them being successful, and most of the actors in the market think so as well, it's a good indicative of their potential outcome. It would be interesting, to take a close look at the companies that have been considered successful to see what they have in common (if so).

On the other hand, since operating companies have the capabilities and option to become an active player in this market, these results cannot only be used to see who they can work with, but also which model they can apply in order to better monetize their patents. In other sections it has been discussed the options of operating companies monetizing their patents utilizing models such as the ones used by actors in this market e.g. establishing stronger licensing programs and enforcing their patents; therefore, the success factor identified are of great use for them. The major success factors identified by our interviewees were: people and expertise (57%), combination of legal, business, and technological competences (57%), network (50%), good patents (43%), and not going to litigation (36%).

These results can be divided into internal and external factors as it can be seen in Figure 41 , meaning that operating companies can start working from inside out, preparing themselves to establish the strategy that better suits them. For example having people and expertise with legal, business, and technological competences is something that is in their power and they can build up a team (or re-engineer the current one) to focus more efforts on monetizing patents. The following section groups and analyzes all the success factors and what it would require from operating companies to actually put these factors in practice.

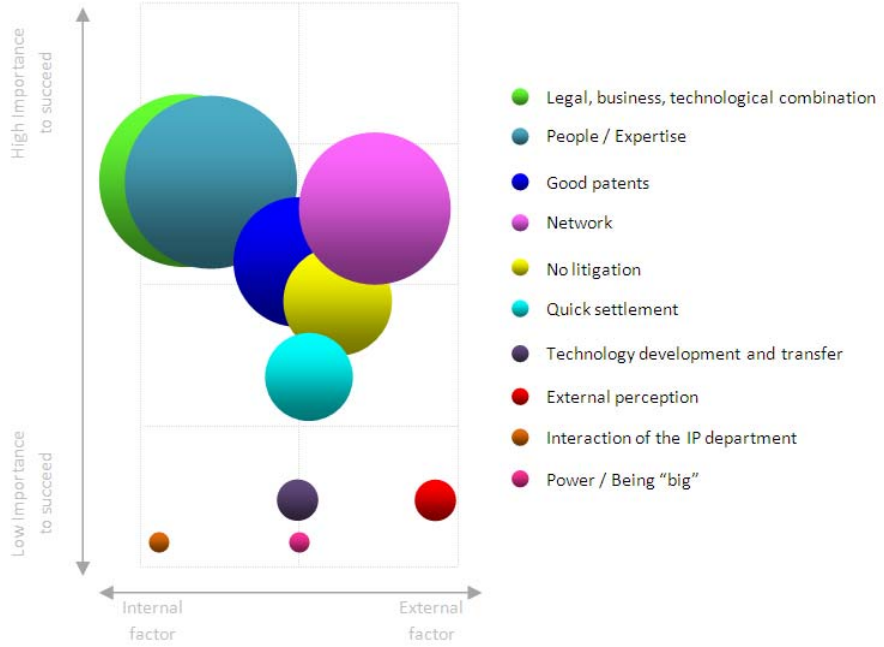


Figure 41 Success Factors Assessment Matrix

6.3 Applying Success Factors

If these are factors that have been identified by our actors as the requirements for success, it's important to break it down and recognize how those aspects can be achieved.

Network and connections: Building up a network and having influential connections in the IP transactions market is not something that can be done from one day to the other. Companies who have been in the market for a long time and have had good practices and relationship with their stakeholders are most likely to have a better network. The basis is to have contact with the people and actors involved in the marketplace. Everyday transactions is a way of doing it, but also social events and other public relations activities are important to take into consideration.

Good external perception: The perception others have about a company it's said to be reality , and how other perceive us is in great part linked to what we do and how we communicate it. It is essential to have a goal on how we want to be perceived and have a plan on how to get there. To exemplify this we can see how Intellectual Ventures publicly says that they are "the global leader in the business of invention", and then they support this by the number of patents they file "the company has filed thousands of patent applications in more than 50 technology areas and has thousands of ideas under consideration. The first patents were issued in November 2005, and Intellectual Ventures currently ranks in the top 50 among companies who file patents worldwide". For IV it seems it was clear they wanted to communicate that they were very active and on top of patenting, and they have not only communicated it efficiently but also carried on the operations towards that avenue.

Once again public relations and also marketing skills are required to communicate efficiently what "wants to be communicated". Companies can build the perception they want to have. Of course that their actions also speak for themselves, so it's important to support what is said with what is really done.

No litigation / Quick settlement: Avoiding litigation and having quick settlements are more complicated issues because it involves other parties and external factors; however, what one company does might have a lot of effects in how others respond. We've seen in this report that the drivers of litigating are varied: not having other option, normality, profitability, being an ongoing cycle because of the hostility in the environment, and that the market is legal oriented.

Litigations can be seen from a battlefield perspective. By definition a "War is a behavior pattern in a certain state of organized violent conflict that is engaged in between two or more entities. Such a conflict is always an attempt at altering hierarchy. In all cases at least one participant in the conflict perceives the need to dominate the other participant". And as it is in any war, there is loss involved for one or several of the actors involved. From the legendary Sun Tzu in his writings of The Art of War "To fight and conquer in all your battles is not supreme excellence; supreme excellence consists in breaking the enemy's resistance without fighting." But the question rises on how will you conquer without fighting (going to litigation)? One of the answers to this is by being prepared before any contact is started. "If you know the enemy and know yourself, you need not fear the result of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battle. Sun Tzu also wrote "In the wise leader's plans, considerations of advantage and of disadvantage will be blended together. If our expectation of advantage be tempered in this way, we may succeed in accomplishing the essential part of our scheme". As the market is at this moment, there are primarily win-lose situations. How can this be transformed into win-win situations? Only with

negotiations. If actors start being more open to negotiations, the vicious circle could be broken. Even Sun Tzu an ancient military general referred to mediation being the best option. “What the ancients called a clever fighter is one who not only wins, but excels in winning with ease”. ““The true object of war is peace”.

It’s important to make not that the results of this report do not include information from enforcers and litigation financiers, who might have a different point of view on this matter.

Good patents: Patents can be either developed internally or acquired; therefore the ways of assuring to have good patents is to develop them with your own R&D center or acquire them externally, or a mix of both. It was mentioned that who owns the patent is the one who has control because it’s the owner of the traded good, and that the quality is of course of major importance; therefore, companies who are into development must focus on the areas of opportunities for their R&D and compliment their portfolios with external acquisition; while companies who are not into development must be looking at patents in the market constantly to make sure they have access to the patents they consider to be of high quality.

People with expertise:Expertise can be acquired externally as well as internally. If some specific type of competence is required and it is out there in the professional market, then there is an opportunity; however, to train people in-house is of major importance as well.

Technical, legal, business combination: Only by raising awareness, training, and education is that the combination of technological, legal, and business perspective will be acquired. For companies is important to understand that there is need to do this and start focusing resources on being able to do so.

6.4 Chapter Summary

Based on the results of the interviews, the market seems to have more market makers & middlemen than other types of actors such as IP development & licensing and patent aggregators. It was not possible to measure with this report patent enforcers and litigation financiers, as we couldn’t get in contact with the selected actors in that category.

Various business models are used by the actors, some models are not exclusive from others, meaning that there are actors that can have various of them such as offering brokerage, licensing, and consultancy; IP development companies who enforce and litigate; patent aggregators who acquire patents and also develop; and so forth. Of course there are models that are opposed and are exclusive from each other for example defensive patent pools and patent enforcement and litigation. The models used by the majority of actors are IP consultancy, brokerage, and patent licensing as agents. This can be due to the simplicity that these models offer, where expertise is the most important issue, and no high investments are required to start the business.

The business activities most carried on are intermediation, which complies with the high number of market makers & middlemen; and litigation and assertion, which has shown to be a growing trend in the patent transactions market in general.

Litigation was mentioned to be not the ideal avenue; however actors are going through that phase for various reasons. They mention to litigate when there is no other way of negotiating with operating companies, also they mention that litigating is the “normal” thing to do in this market since it’s so legal oriented, and that litigation takes place due to misunderstandings, miscommunications,

and hostility in the environment. Note that no litigators or enforcers were interviewed, which might have a different opinion on the matter.

Most NPEs have small teams, where legal and IPR business are predominant. Almost exclusively actors who have development in their activities are the ones having technological competences. In their majority technological competences are outsourced. The costs and expenses that NPEs have are fairly low, except for those actors who have R&D involved in their operations. Competences, travelling expenses, and litigation are the top expenses in the actors' models.

Location wise the United States is where most actors are located and have business with. The great majority of actors has their headquarters in the US; however half of them mention to have global operations. The driver behind being located in the US is that in that region is where the activity and opportunities are present.

Corporations are the main customer and target for NPEs; however, they do have some customers in other segments but in much lower scale.

Most of the actors measure success from a monetary perspective. Success has been defined as having a profitable business, with an ongoing flow and high number of deals.

Defensive patent pools, institutional aggregators, and patent licensing & enforcement companies where the ones voted to be the most successful models in the market. The most successful actors mentioned were RPX, Intellectual Ventures, Qualcomm, and IBM. Despite RPX and IV being mentioned as highly successful, there was a lot of speculation around them based on what their future plans and outcome would be.

The identified top success factors where people & expertise, combination of legal, technological and business competences to be able to communicate in those three arenas, strong network, not going to litigation, and having quick settlements.

The identified challenges are linked to the success factors, primarily the market being legal oriented, because actors mention this is the cause of so much litigation and no negotiations going on. Transparency, valuation, and inability of small actors monetizing their patents were also identified as challenges. The interviewees believe that the market is moving towards a place where there is less litigation and more negotiation, more transparency, and better financial disciplines and financing for IP.

Chapter 7 Conclusions

This chapter presents the main key takeouts from the thesis, and answers the initial research questions that were established. Furthermore, it provides with some recommendations for operating companies on how to better monetize their patents taking into consideration the highlights of the patent transactions market. Additionally, it provides some suggested next steps to follow to go deeper on this research topic.

7.1 Conclusions and Discussion

Recently a market for transacting patents emerged and operating companies have been the main target customer. The activities carried on in the market are patent sales & acquisition and licensing and additionally services related to these activities have evolved in order to unite buyers and sellers and licensors and licensees. The active actors in the market have as core business and profit center to transact patents; they do not manufacture any products, therefore they are called non-practicing entities (NPEs). Licensing is the most complex activity because when licensing the dominant approach has been on litigation, where non-practicing entities sue operating companies for allegedly infringing their patents. This has been a growing trend as non-practicing entities have been able to build up profitable models with it having operating companies as the main target.

According to these activities is that business models have emerged. There are actors who acquire patents to establish licensing programs (primarily through litigation but can also be for technology transfer); actors who generate their own patents through R&D and then establish licensing programs; actors who aggregate patents to then license them out to operating companies for defensive means; and actors who have emerged to support these activities through consultancy or intermediation services.

The patent transactions market has clear supply (actors selling and out-licensing patents) and demand (actors acquiring and in-licensing patents); however, the mechanisms for defining price, setting an infrastructure to hold transactions, and means for providing transparency in the market are lacking. One of the greatest challenges that this market has is on valuation, and that is understandable because of the nature of the goods transacted (patents) because their value might vary according to the buyer and it can be sold or licensed over and over again by selling certain rights to specific fields of use or markets. Despite some attempts on setting an infrastructure to transact patents through patent brokerage, auctions, and online market places, no formal exchange has evolved yet, and most of the transactions are held in private channels and therefore, scarce information is available to the public. The problem of not having transparency affects all actors in the market because there is no way of actually comparing the performance of one actors vs. the other.

Operating companies are actors holding the largest patent portfolios, yet they utilize their patents mainly for defensive means to avoid others from participating in the technology that the patent covers and to maintain a competitive advantage. Several operating companies have established licensing programs for their patents; however, they remain minor compared to non-practicing entities that have patent transactions as their core business. More than being active actors transacting patents, they are more of reactive to when NPEs approach them to acquire or license patents.

There are opportunities for operating companies to become active actors in the patent transactions market; not necessarily deviating from their core business that is to commercialize their products, but focusing some of their efforts and competences to do so. Actors in the patent transactions market have identified that the factors required to be successful in this market are: people with

expertise and ability to combine legal, technological and business areas, network and connections, good patents, and avoiding litigation or having quick settlements. Operating companies have the people, have the patents, and also have the power to decide if litigation should be their approach or not.

What is recommended for operating companies is to set a plan to categorize their portfolios, starting by analyzing their IP do understand in what way it brings value to the company. A recommended model to follow is to classify their patents according to what type of value is added to the organization, and ask themselves, which patents are differentiators, cost advantage tool, image carrier, public relations facilitator, freedom to operate mechanism; and then they will also identify which patents can bring value through licensing.

All patents that are licensable don't mean that should be licensed, because there are many factors that come into the decision making process, there are risks to assess and also organizational requirements that might not be in place. Some of the questions that operating companies must analyze are: do we have patents that are licensable? What risks are there if we decide to license these patents? Who am I going to license it to? Are we prepared to have a strong licensing and patent enforcement program? Is this licensing program going to backfire on us? What can we lose in order to get a license? Is there anyone that we can collaborate with to launch our licensing program?... These and many other areas are to be analyzed by operating companies that are willing to establish a licensing program, but indeed the patent transactions market provides them more opportunities and channels to do so.

7.2 Next recommended steps

Research on the patent transactions market is scarce. There exists good literature that can be used as a basis, nevertheless it does not emphasize on the patent transactions market, its models, and actors. This lack of data might be due to the recent emergence of these transactions as a marketplace, and also because actors within it are very secretive. It is recommended that further research is performed on patent transactions per se.

There are two research approaches that I can recommend that can be taken and one is not exclusive from the other. The first one could be to gather some of the public information that exists to both have a clear idea on what is out there that can be grouped and assessed and also to provide some conclusions. Sources of data can be reports of the public companies, litigation news, blogs, IP focused magazines, previous researches, and court damages reports. There are various research problems that can be answered through these sources; it's just a matter of designing a project which research questions can be answered through public information. The second approach is to have primary sources of information looking for quantitative information.

Such a research project can build up on this thesis which can be seen as the exploratory research previous to the descriptive part. Interviews are commonly used and recommended by research experts to be utilized as opening actions to a bigger research. A complete market survey could be initiated, to obtain data and share it not only with scholars but also with industry.

Throughout this thesis contact has been established with 14 actors, who are already interested in the topic and could be also interested in participating in a descriptive research. Of course there are confidentiality issues, and companies might not be too willing to share information, therefore a way to overcome this might be to raise awareness within the actors about the benefits they could receive if they disclose certain information. They could have access to a market overview supported by

statistics. This could be the first quantitative market profile report that can serve as a good starting point for establishing some clarity in the market, and that can help as a tool to identify success factors and highlights of the business models in the market.

This market requires statistical data, and there is not even one research program focused on this. Companies in this market are aware of it and mentioned it as a major problem during the interviews, so it might be the case that the desire to have clarity about the market is stronger than the secretive culture.

If such research is performed it can be of use to actors in the patent transactions market, to operating companies (who should also be included in the actors in the survey), for educational purposes, and also for general public and individuals as we have seen that are an important source of patents for the market.

Another path that can be followed in this field, other than research is to apply it to specific industries or even organizations and focus on what it implies for a specific segment of operating companies that the patent transactions market exists, how they can compete in it, how they can better monetize their patents. This thesis applies in general to operating companies as a type of actor, but this can be brought further analyzing how it affects for example the Telecommunications Industry or even a specific company.

There are plenty of opportunities to carry on research in the field and to apply it, and despite the many obstacles that will be presented in the way creative solutions can be found to start a research process in an area that is in its first steps to becoming publicly available.

Interview Contact List

#	Company	Contact	Category	Status
1	IPotential	Ron Epstein	Broker & licensing	Interview completed
2	Zacco	Matt Miskimin	Law firm and M&A advisory	Interview completed
3	Chawton Innovations	Donal O'Connell	IP coaching	Interview completed
4	Inflexion Point	Ron Laurie	Brokerage & M&A advisory	Interview completed
5	Richardson Oliver	Kent Richardson	Law firm	Interview completed
6	RPX	Henri Linde	Defensive patent aggregation	Interview completed
7	Can't be disclosed	Can't be disclosed	IP arm of operating company	Interview completed
8	Marqera	Andrew Ramer	Patent broker & consulting	Interview completed
9	Rambus	Fergal Clarke	IP development and licensing	Interview completed
10	Andiamo Associates	Michael Pierantozzi	Consultancy	Interview completed
11	Intellectual Ventures	Vincent Pluvinage	Patent aggregator	Interview completed
12	ICAP Ocean Tomo	Kevin Fiur	IP Auctions	Interview completed
13	CIP	Ulff Petrusson	IP coaching	Interview completed
14	ICM Gathering	Patrick Sullivan	IP valuation & networking	Interview completed
15	AST / Patent Freedom	Dan McCurdy	Defensive patent aggregation	No response to emails
16	Acacia	Dooyong Lee	PLEC	No response to emails
17	Coller IP Capital	Peter Holden	Patent aggregator (financial)	No response to emails
18	TAEUS	Greg Jenik	Broker & licensing agent	No response to emails
19	Altitude Capital Partners		Litigation Finance	No response to emails
20	Niro, Haller, & Niro	Raymond Niro	Individual patent asserter	No response to emails

Company and Interviewees Information

1. Kevin Fiur is a Vice President in ICAP Ocean Tomo's Austin office. Before he had a small patent brokerage firm (IP Tactics). He started in the IP market while working as CEO in Seitel specializing in acquiring, managing and licensing seismic data. He has a law background and some postgraduate studies in business.

ICAP is a multibillion financial company; they're at the largest dealer broker in the world. They do currency trading… Bank of China, Bank of France, currency swaps, they trade everything else that can be traded. They look for new markets to enter where they can bring efficiencies and transparency and grow the market, example shipping containers business, movie rights business, and now they have identified patents.

The services offered are brokerage, online transactions, private sale, and auction.

2. Patrick H. Sullivan is an expert in patent valuation and IP transactions. He is co-founder of ICM Gathering a network of IP experts that meet to exchange thoughts and knowledge about IP management, valuation, strategy, marketing, organization, etc…

His practice involves consulting in IP strategy and especially in patent valuation, area where he has become one of the pioneers and top actors in the world.

3. Ron Laurie has worked in Silicon Valley for decades. He started off in technology development as an engineer, then became a lawyer and started advising semiconductor companies. Vast experience in technology and legal aspects of IP, he's a registered patent attorney. He started Inflexion Point in 2004, prior to that he was a lawyer where his whole career was in private practice. He started as a patent lawyer, then M&A in a large firm. Then he focused more on IP because he felt that IP was not getting enough attention on the M&A process because the people who are involved, at least at the early business stages, don't know anything about IP, traditional business banking like Morgan Stanley for example. He wanted to inject IP awareness into the financing market. He mentioned that the structural problem is that IP aspects of the deal are looked at very late stage in the process, only till due diligence, all the important things have already passed when they get to this process, a lot of deals for internet companies the great majority of market cap nowhere to be seen on the value charts, no one was bothering to put a value.

Inflexion Point's services are brokerage, M&A Advisory, and stranded technology spin-outs (TACL) which is in the same family of M&A

4. Vincent Pluvinage is leading Strategic Acquisitions & Private Equity at Intellectual Ventures (IV). Prior to joining IV, Dr. Pluvinage was the President and CEO of IP Value, an Intellectual Property advisory and transactions company, with over US$250M delivered in transactions on behalf of its partners. Dr. Pluvinage's educational background in on the engineering field. He acquired his Masters degree in the Universite Cahtolique in Belgium focused on physics and his Doctorate in bio engineering in the University of Michigan in USA. He's also been to Standford University Graduate School of Business.

The basic foundation of IV is to recognize that there are needs in a marketplace, specifically 2 needs: the point of view of creating inventions in universities, small companies, and individuals, they need better liquidity for their assets; and form the point of view of companies that compete they recognize that the IP that they produce themselves is insufficient to support their services that they need to embed in their offering. So as a result what is emerging is capital and IP aggregation, the capital is upfront payment for the inventors, and IP aggregation is the packaging of the IP rights in a way that meet the demands. What has happened is that IV decided they will create a collection of inventions to meet market needs, the same way that VC was invented 40 years ago, a lot of people are now entrepreneurs, the nature of inventions after VC is not sufficient: a lot of good ideas are excellent but they need to be aggregated with other ideas from other places, a lot of inventions need time to be ready and are not suitable for VC, new funding mechanism and IV is a collection of inventing funds for inventions, as a VC limited partners that can be financial institutions or strategic that make capital. Basically they raise capital from corporations, buy patents, aggregate patents and then build different monetization strategies with them. They have three funds: (1) brand new inventions where they have a network of smart inventors to brainstorm solutions to problems. ISS (2) Patent applications and patent granted IIS. (3) Partnering fund in Asia in 5 countries, Japan, China, Singapore, Korea, and India. They partner with inventors and buy ideas before there is a patent application.

They have 3 ways to monetize (1) License non exclusively to as many companies as possible, these companies have access to a large number of patents that provides them quality and quantity making the inventions available on a broad basis (2) Sell the assets, some customers want to buy so they sell at a profit (3) Spin out in a new company, one of the companies with their inventors is Terre Par that deals with new nuclear types of reactions.

5. Donal O'Connell is the Managing Director of Chawton Innovation Services, which offers coaching and training in the areas of innovation and intellectual property management. Previously he worked for 21 years in Nokia, starting with technology development and management, later he moved into IP. He worked for periods in The Netherlands, UK, USA, Finland, and HK. He has wide and varied experience in the wireless telecoms industry. In the IP area he worked at Nokia as VP of R&D and a Director of IP, where he managed the Nokia R&D Centre in Texas from 1997 to 2003. From 2003 to 2009 he was a Director of IP at Nokia, where he leaded and managed Nokia's Patent Creation team. He wrote a book in 2008 called Inside the Patent Factory, and he is planning on launching a new one in the autumn of 2010, called Not all Smart people work for you.

He owns his own IP consultancy firm, Chawton, a UK limited company, however, he has clients all over the world. He offers IP consulting. His client base varies; he has everything from universities who want basic IP management training, to understand IP, what are the big issues how the world is managing IP, sometimes for MBA courses, sometimes in business development, trying to work with corporations so they want to know how to work with IP, university start ups.

6. Ron Epstein has over 20 years experience in the field. He started working as a lawyer attending technology clients such as IBM. In the IP Management field he has worked with Intel, Brocade Communications System, and now with IPotential, one of the most prominent IP brokers in the market.

The services offered by IPotential are advisory, brokerage, licensing. IPotential intends to get rid of litigations and have a model on which clients prefer to pay the patent owner instead of a lawyer. Their objective is to take the litigation loop out.

7. Andrew Ramer is currently is the CEO and co-founder of Marqera. Before this he was the President of the auction arm in Ocean Tomo which he led and started. He conducted the first live auction in the world. Previously he worked in Motorola Venture. He has a law background and plenty of experience in IPR business. He is a recognized actor as being very active in an entrepreneurial way in the market.

Marqera is a company that is involved in various IP transactions in creative ways, primarily patents and also brands. It started in 2009 and it has operations in Israel, USA, and Scandinavia.

They have 3 services: IP Transactions: for patents or for brands, sale of patents or brands, licensing of brands, they raise capital for parties that want to go to litigation, and any other IP transaction that is required; Transaction capital: basically they look for holes in the market, and they go to big corporations who have technologies/patents but don't want to spend any more resources on it, but that if it's invested on it might become very valuable. They raise capital from different entities, such as entities that fund patent litigation, hedge funds, parties that are spin-outs of law firms that have financial arms, amongst other; and their other services is consultancy and advisory.

8. Fergal Clarke is the director of IP strategy in Rambus and has been working with them for the past four years. Previous to that he worked for 13 years in applied materials a nano-manufacturing technology company. He holds bachelor's in physics and an MBA.

For 20 years Rambus has been developing new technologies to make computers faster. They have a complex patent portfolio which they license out through technology and patent licensing.

9. Michael Pierantozzi is currently working in his IP and technology consultancy firm. Previous to that he worked in IPotential for a year and a half approximately. Before he worked in HP for almost 10 years in positions in marketing, business development, and IP strategies. He was one of the founders of Gathering 2.0 an online business community for IP.

With his own consultancy firm Andiamo Associates, he helps clients with the implementation of his strategies. Customer development. IP management. Monetize fruits of all that effort. In the last several years he gained more expertise working with HP and IPotential, he's gained a lot of expertise in transactions.

10. Kent Richardson has vast experience in the IP market. Recently opened his own firm, a specialized IP law firm, Richardson Oliver Law Group. He previously managed the Silicon Valley ThinkFire office. Before that he worked at Constellation Capital as Managing Director. He also previously worked in Rambus where he was responsible for patent portfolio marketing & business development.

Ricardson Oliver Law Group helps people make money of their patents, they don't broker deals but help them in the brokerage transactions. They guide the client through the whole process, presentations, meetings, etc...

11. Henri Linde has over 20 years of experience in technology and patent licensing/acquisition. Prior to joining RPX, Mr. Linde was President Americas at Actimagine Corp, a video software development company. Prior to that Mr. Linde was Vice President, Intellectual Property & Licensing at the France-based Thomson for 12 years. He was responsible for the Thomson licensing and business development programs. Additionally he has background in banking, finance and pharmaceuticals.

RPX provides a service that identifies and purchases patents that could be used offensively against operating companies. They purchase key patents and then bring members in to have these patents as a defensive shield against NPEs. They are into Defensive Patent Aggregation, which means they obtain patents and then are licensed in its entirety to their members for an annual subscription fee. They are not in the business of offensively asserting or litigating the rights of the patents. They work in identifying and acquiring patent of high value and relevance for companies so that they can reduce the risk of assertions. Basically what RPX offers to it's members is the reduction of risk and cost against potential assertions from NPEs.

12. Matt Miskimin is currently the director of the IP transactions unit in Zacco. Previously he was in Ocean Tomo Scandinavia, operation which he founded and ran from Sweden. He has been in management consulting for technology companies in the past. He has a law background.

Zacco has operated as a law firm for over a century. They recently merged and became of Alhbins Zacco. They are the leading IP consultancy in Europe.

13. Ulff Petrusson has more than 10 years experience in IP matters. He currently is a professor at University of Gothenburg and director of the ICM education, also he's director at the Institute for Innovation and Entrepreneurship, and co-founder and board member of CIP professional services. His objective is to raise awareness of IP in a way that value can be extracted and innovation can be fostered.

He is an internationally recognized figure in IP matters, and one of the market pioneers in value extraction of IP and its tangibilization.

General Interview Guide

This document is provided **only as a guideline** on topics that should be covered during the interview with company representative, but the interviewee has the **freedom** to add new questions and ask them in the order and wording she/he feels more is appropriate at the moment.

Company Characteristics

This section contains the introductory questions to the interview. The objective with this section is to acquire as much insight from the interviewee on their perception of the company, business model, strategy, and reasons why they have chosen to have those strategies. The questions made will depend on the actor being interviewed, as many of the answers will already be known by the interviewer due to research on the company.

- Background of the person being interviewed
- Year of formation of the company
- Operations the company carried on in its original formation
- If not IP related business as original operations – When and why did they shift to IP related business?
- Current geographical area of operation
- Is there a specific reason the company decided to be located where it is?
- Expansions, centralization, cutoffs planned – Operations, people
    - Where, when, why, how many
- Number of people working at the company
- Background of people working at the company – Educational, experience
- Company's operations
    - Services and/or products offered
    - Types of clients
        - Industry, business line, size, geographical location
    - Planning to explore new markets?
        - Where, why, what service/product, when
    - Industry fields the company is into
    - Could you please describe in general terms how you carry on the operations? (business model)
        - How do negotiations start? Looking for customers? Referrals? Marketplaces? Internet?
        - What type of transactions do you have? R&D – licensing, selling IP, selling? Portfolio consulting? Analysis? Marketing? Networking? Transaction? Finance? Legal?
        - If in licensing - Do you license out all technologies? How do you choose which technologies to license? How do you decide the terms and conditions for the licensing deal? How do you promote the technology to be licensed?
        - What type of IP transactions do you have? Licensing exclusively, non exclusively? Collaborations? Co-development?
        - How do you decide on the type of transaction? Is it case by case, based on technology, based on customer?
        - How is the money inflow-outflow process?
        - What is the basis for your compensation?

        - What are the major costs and expenses involved with your model?
    - Of your services which one is the most significant one? (core vs. non-core)
        - Why
    - Do you generate patents?
        - How? Research?
        - How is your research conducted? Collaborations? Open innovation? Outsourcing?
        - Where is your R&D center?
        - Why did you choose to have the R&D center there?
        - What technology areas are you most focused on?
        - Why are you focusing on those technology areas?
    - Do you acquire patents?
        - From whom?
        - What channels do you use to acquire the patents?
        - Why have you chosen to utilize those channels?
    - Why do you acquire patents?
        - Decrease royalty payments?
        - Fill gaps in technologies?
        - Block other actors?
        - Build a shield against giants?
        - Other?
- Company's structure
    - How is your company structured?
    - Is your company divided into different firms related to types of operations?
        - Which, why

Value creation

This section contains the questions in detail about monetization and value creation. The objective of this section is to have identified what is the interviewee's perception of monetization and its success, both in general and applied to their company's performance. Furthermore, this section intends to analyze the value creation drivers.

- How would you define success in general terms for your company?
- How is the success measured?
    - Revenues, amounts of IPRs, access?
- How would you define a successful patent monetization?
    - Sale of patent or licensing fees
        - Revenues: Less than 1M, 1 to 5M, 5 to 10M, 10 to 20M, 20 to 50M, 50 or more Euros
        - Investment: Less than 1M, 1 to 5M, 5 to 10M, 10 to 20M, 20 to 50M, 50 or more Euros
        - Costs and expenses: Less than 1M, 1 to 5M, 5 to 10M, 10 to 20M, 20 to 50M, 50 or more Euros
        - Time: Less than 1 year, 2 years, 3 years, 4 years or more
        - Number of IPRs
        - Type of technology
        - Convenience: low risk of litigation, easy to market, time of response, accessibility

    - Blockage of other actors to use technology, therefore high sales of a product?
    - Infringement of other actors into your technologies?
    - Access to technology leading to access to new IP?
        - Collaborations, standards, open innovation, new sales, new IP
- With your business model, what do you think constitutes a highly successful monetization transaction? What is the ideal world?
- What is needed to have this successful business model?
    - Competencies, operations by technology or location, infrastructure, IPR, other building blocks
- In your opinion, what is a must have in order to become successful?
- Which actors (competitors) would you say are highly successful?
    - Why
- What do you think has made them so successful?
- Which actors do you think will become successful?
    - Why
- What are the major obstacles that your company has found in the way to achieving the above described highly successful transactions?
- How do you forecast risk on investment when acquiring patents?
- How do they assess risks?
- Do you typically have back up plans in place? How do they look like?
- What would constitute the worst case scenario with your business model?
- Do you foresee any future external potential threats?
- How are you preparing for these threats?
- Do you see any specific actor/type of actor being hurt due to these foreseen threats?

Market

This section contains open questions regarding the interviewee's opinion on the whole market, actors, strategies, and industry. The objective with this section is to get an overview and forecast of the patent monetization landscape.

- In general terms, what do you see as the trends leading the IP monetization landscape?
- What do you see as the most prominent emerging models?
- Do you see any specific region being prominent in a specific technology, type of companies, etc..?
    - Why
- How do you see the patent monetization landscape in 5 years?
- What is driving this future foreseen? (Basically, why do you think it will be like this in 5 years?)
- What would be the ideal world in your opinion to have highly successful patent transactions?
- What is needed to improve this? How can this be achieved?

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Kevein Fiur, ICAP Ocean Tomo

1	**COMPANY PROFILE**	**Notes**
3	Background of the person being interviewed	
3	Year of formation of the company	
3	Number of people working at the company	
2	Background of people working at the company – Educational, experience	
2	**GENERAL OPERATIONS**	
1	Could you please describe in general terms how you carry on the operations? (business model)	
2	Services and/or products offered	
2	Of your services which one is the most significant one? (core vs. non-core) Why do you consider it core? Is it because of present revenue, potential returns, time and effort, strategic value?	
2	Revenue-wise how is the distribution between the services you offer?	
2	In what range of annual revenue does your company stand? Revenues: Less than 1M, 1 to 5M, 5 to 10M, 10 to 20M, 20 to 50M, 50 or more Euros	
3	In which countries do you carry out operations?	
3	Is there a specific reason the company decided to be located where it is?	
3	**BROKERAGE AND LIVE AUCTION BUSINESS LINES**	
1	Could you please describe deeper how your brokerage business is set up?	
1	Could you please describe deeper how your live auction business is set up?	
1	How is the process of acquiring technologies to offer? Do you look for them, do they come to you or both?	
3	Do you prefer to put patents into the brokerage side or auction? Why?	
2	Have you perceived from your customers that they prefer brokerage rather than auction or viceversa? Why?	
2	Which type of actors are the ones putting their patents into brokerage? (big companies, small companies, individuals)	
2	Which type of actors are the ones putting their patents into live auctions? (big companies, small companies, individuals)	
1	How do you choose which patents to take into your brokerage business?	
1	Do you include all applicants to the auction? How is the process of selecting which patents go to auction?	
1	After you've included the patents into your portfolio, what is the next step? Could you please describe from A to Z how the process looks like since you incorporate the patent into your offer till you sell it	
1	What is your sales process? How do you make the patents you're offering visible? Both for Brokerage and Live Auction	
1	What specific actions are taken to offer the patents? Sending letter to buyers, having a monthly portofolio announcement, etc…?	
1	What type of actors do you approach? Could you describe percentage wise how is the distribution between corporate and NEPs?	
1	I recently read that you had sent over 3,000 letters to various buyers, would it be possible to know which portion went to whom accordint to type of actor?	
1	What are the major costs and expenses involved with your brokerage business?	
1	What are the major costs and expenses invovled with your live auctioning business?	
4	**COMPETENCES**	
2	What type of competences do you require to carry on your operations?	
2	How many people do you have in the internal team?	
6	**FINANCING & RETURN**	
2	How is your financing model?	
2	What is the time to money typically from a brokerage deal?	
2	What is the time to money typically in live auctioning?	
7	**PLANS FOR THE FUTURE**	
1	What are the plans that you have for the future of ICAP Ocean Tomo?	
2	Will live auctions continue as they have been or will there be a change?	
8	**SUCCESS IN PATENT MONETIZATION**	
2	What do you think constitutes a highly successful patent monetization?	
1	What do you think is needed in order to be successful?	
1	What is your basis on mearusing success?	
9	**MARKET (SUCCESSFUL ACTORS)**	
1	Which actors in the IP market would you say are highly successful? Why?	
1	Who are your top 5 competitors?	
2	What do you think has made them so successful?	
1	Do you see any models per se becoming successful?	

10	THE FUTURE (TRENDS)	
1	Which actors do you think will become successful?	
2	Why do think they will become successful?	
1	What are the challenges that the IP market is facing right now?	
2	How do you see these challenges will be overcome?	
3	How are you preparing for these threats?	
3	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
1	In general terms, what do you see as the trends leading the IP monetization landscape?	
1	What do you see as the most prominent emerging models?	
3	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	

OTHER:

Starting time:

Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Ron Laurie - President Inflexion Point

	COMPANY PROFILE	**Notes**
	Background of the person being interviewed	
	Year of formation of the company	
	Number of people working at the company	
	Background of people working at the company – Educational, experience	
	GENERAL OPERATIONS	
	Could you please describe in general terms how you carry on the operations? (business model)	
	Services and/or products offered	
	Of your services which one is the most significant one? (core vs. non-core)	
	Why do you consider core (non core) the services mentioned? Is it because of present revenue, potential returns, time and effort, strategic value?	
	Revenue-wise how is the distribution between the services you offer?	
	In what range of annual revenue does your company stand? Revenues: Less than 1M, 1 to 5M, 5 to 10M, 10 to 20M, 20 to 50M, 50 or more Euros	
	In which countries do you carry out operations?	
	Is there a specific reason the company decided to be located where it is?	
	Are there plans to expand operations? Where? Why?	
	BROKERAGE	
	With your brokerage business, could you explain how the process of acquiring clients is? Do they come to you looking for a specific technology, do you go to them when you get a good technology?	
	What type of clients do you get on the sell side and buy side? Small companies, individuals, big corporations, etc…?	
	What are the main reasons that your clients come to you to acquire patents?	
	What are the main reasons that you consider that actors are selling patents?	
	M&A ADVISORY	
	Could you explain a bit more how your M&A advisory service works?	
	How is the whole process? Starting from when you get a client with a specific patent	
	How does a typical deal look like?	
	SPIN-OUT OF NON-CORE TECHNOLOGIES (TACL)	
	Could you explain a bit more how the spin-outs of non-core technologies start?	
	Could you please describe the process. Starting with how you find the "stranded" technology and the next steps	
	What is the format on which you work with the "stranded" technologies? Do you buy the patent? License it? Collaborate with the patent owner?	
	What do you do after you've come into an agreement on how to handle the patent? Do you license the technology out?	
	Do you work with the patent owner in the entire process?	
	How do you select who to offer the "stranded" technology to?	
	FINANCING AND PAYBACK & COSTS AND EXPENSES	
	What are the major costs and expenses relatad to your model?	
	What type of competences do you have internally to carry on your operations?	
	Do you use external competences as well? In which cases? Why?	
	How do you decide when to use external competences or internal?	
	How do you choose the external competences?	
	What is your financing model?	
	How does your timeline look like in terms of time to money?	
	RELATIONSHIP WITH OTHER NPEs	
	What type of relationship do you have with NPEs?	
	How is their approach when you negotiate with them?	
	How is the relationship you keep with them?	
	PLANS FOR THE FUTURE	
	What are the plans for the future for Inflexion point?	
	Why do you think this is the "winning" model?	
	SUCCESS	

	Which actors in the IP market would you say are highly successful? Why?	
	Who are your top 5 competitors?	
	In a scale of 1 to 10 how successful have you been compared to the top 5 competitors you just mentioned	
	What do you think has made them so successful?	
	THE FUTURE (TRENDS)	
	Which actors do you think will become successful?	
	Why do think they will become successful?	
	What are the challenges that the IP market is facing right now?	
	How do you see these challenges will be overcome?	
	How are you preparing for these threats?	
	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
	In general terms, what do you see as the trends leading the IP monetization landscape?	
	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
	OTHER QUESTIONS	
	What was your basis on categorizing the different models? What was your starting point?	
	What sources did you use in order to identify the models?	
	In one of your papers you mention that the winner models are PLECcs, Aggregators, Litigation Financiers, and brokers? WHY do you consider them winners?	
	Also why do you consider loosers the market places, auctions, ip backed lending and securitization?	
	Do you think any of these loosing models could transform into a winning model?	
	What do you think is DRIVING the market for some companies to move into certain models?	
	You put IV and RPX in separate categories; Do you think they are completely different or that their model is quite similar?	
	In my work I'm divinding the models into similar blocks that you suggest in your paper. I included RPX in the Institutional Aggregators. Do you consider this appropiate?	
	Do you see the actors who are into patent assertion moving more towards "sitting" down negotiations?	
	Do you see any region becoming prominent? Will the US have an equal?	
	How do you think the market will look like in 5 years?	

OTHER:

Starting time:

Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Vincent Pluvinage - Strategic Acquisitions & Private Equity, Intellectual Ventures (IV)

1	**COMPANY PROFILE**	**Notes**
3	Background of the person being interviewed	
3	Year of formation of the company	
3	Number of people working at the company	
2	Background of people working at the company – Educational, experience	
2	**GENERAL OPERATIONS**	
1	Could you please describe in general terms how you carry on the operations? (business model)	
2	Services and/or products offered	
2	Of your activities which is the most significant one?	
1	How is the whole process of IP creation? Do you find areas of interest and start developing there? Or is it the other way around that an invention comes up and the focus is defined by that?	
1	When acquiring patents from external actors, who is it normally that you acquire it from? Individuals, small companies, etc..?	
3	What is the format traditionally in which you acquire the patents? Buy the portfolio, licences?	
2	Percentage wise do you create or acquire externally more patents?	
1	After you have a patent (either developed internally or acquired), what is the next step with it?	
1	How do you find your potential licensees? What is the process of searching for the target customers?	
1	After you have selected the target customers, what is the process of "offering" the patents?	
1	What actions are taken if the customers doesn't take the license offered?	
2	Typically what type of actors do you focus to offer your patents?	
3	**COSTS, EXPENSES (COMPETENCES)**	
1	What are the major costs and expenses related to your model?	
1	What type of competences do you have internally to carry on your operations?	
2	Is there a distribution between types of competences that you have internally? E.g. 50% inventors, 20% lawyers, etc…	
2	Is there a distribution of expenses according to competences? E.g. R&D 50%, legal 40%, etc…	
2	What type of legal competences do you traditionally use? In which cases?	
3	Do you use external competences as well? In which cases? Why?	
1	I read in a blog that IV has over 100 openings, why is this? In which areas?	
1	What are the plans for the next year in terms of competences? Expansions, downsizing? Why?	
4	**LOCATIONS**	
1	What has driven IV in choosing locations for their offices? US and Asia?	
1	Could you tell me a bit more about your Asian activity?	
1	I read in an article that in Korea the government settled an activity similar to IV's, do you see the government as a future competitor? Do you think other Asian countries might follow this model?	
1	Are your plans going to change because of governments potentially being your competitors? How? Why?	
1	What are your plans for Europe? Do you think you will open offices here? Why? Why not? How do you carry out operations in Europe right now?	
5	**PLANS FOR THE FUTURE**	
1	What are the plans for the future for IV? Technology development areas? Locations? Business model?	
2	Why do you think this is the "winning" model?	
2	Do you plan to build a licesing model? Who will you target it to?	
7	**FINANCING & RETURN**	
1	Could you please tell me a bit more about your financing model?	
2	How do you decide which actors to focus in the fund raising?	
2	How is the offer prepapred for this actors? How do you calculate the ROI?	
2	How is the process of approaching them?	
1	What is your payback time?	
8	**SUCCESS IN PATENT MONETIZATION**	
2	How would you define a successful patent monetization?	
1	With your business model, what do you think constitutes a highly successful monetization transaction? What is the ideal world? Could you give an example of a highly successful case? Could you please provide information on the process and details of the transaction?	

9	**MARKET (SUCCESSFUL ACTORS)**	
1	Which actors in the IP market would you say are highly successful? Why?	
1	Who are your top 5 competitors?	
2	In a scale of 1 to 10 how successful have you been compared to the top 5 competitors you just mentioned	
2	What do you think has made them so successful?	
10	**THE FUTURE (TRENDS)**	
1	Which actors do you think will become successful?	
2	Why do think they will become successful?	
1	What are the challenges that the IP market is facing right now?	
2	How do you see these challenges will be overcome?	
3	How are you preparing for these threats?	
3	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
1	In general terms, what do you see as the trends leading the IP monetization landscape?	
1	What do you see as the most prominent emerging models?	
3	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
11	**OTHER QUESTIONS**	
3	About Korean article… why they think they have received such negative response?	

OTHER:

Starting time: 5:05 PM

Finishing time: 5:45 PM

Interview Guide

Date and Place: Phone Interview, April 30th 2010
Interviewer: Lucia Alvarado
Interviewee: Donal O'Connell

1	**COMPANY PROFILE**	**Notes**
	Background of the person being interviewed	
	Year of formation of the company	
	Number of people working at the company	
	Background of people working at the company – Educational, experience	
2	**IPEG OPERATIONS**	
	Could you please describe IPEG's operations?	
	What are the services offered?	
	Of your services which one is the most significant one? (core vs. non-core) Why do you consider it core? Is it because of present revenue, potential returns, time and effort, strategic value?	
	Revenue-wise how is the distribution between the services you offer?	
	In what range of annual revenue does your company stand? Revenues: Less than 1M, 1 to 5M, 5 to 10M, 10 to 20M, 20 to 50M, 50 or more Euros	
	In which countries do you carry out operations?	
	Is there a specific reason the company decided to be located where it is?	
	Who are your customers? Type?	
	How is the process? What to customers come looking for or how do you approach them?	
	What type of competences do you use to provide your services?	
	How is the distribution of personnel, internal, external? Why?	
	What are the major costs and expenses involved in your model?	
2	**CHAWTON OPERATIONS**	
	Could you please describe a bit about Chawton Innovations?	
	What is the type of consultancy that you offer the most and is needed in the market?	
3	**PLANS FOR THE FUTURE**	
	Where do you think is the best direction to move forward with IPEG and Chawton? Why?	
	What is needed to get there?	
4	**RELATIONSHIP WITH NPEs**	
	Do you have any type of relationship with NPEs?	
	How is their approach when you negotiate with them?	
	How is the relationship you keep with them?	
5	**SUCCESS IN PATENT MONETIZATION**	
	How would you define a successful patent monetization in general?	
	How do you think that success can be measured? What are determinant factors that are proof of success?	
6	**MARKET (SUCCESSFUL ACTORS)**	
	Which actors in the IP market would you say are highly successful? Why?	
	What do you think has made them so successful?	
	Do you see any specific model being successful?	
7	**THE FUTURE (TRENDS)**	
	Which actors do you think will become successful?	
	Why do think they will become successful?	
	What are the challenges that the IP market is facing right now?	
	How do you see these challenges will be overcome?	
	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
	In general terms, what do you see as the trends leading the IP monetization landscape?	
	What do you see as the most prominent emerging models?	
	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
	How do you think the market will be in 5 years?	

8	OTHER QUESTIONS	
8	What is your opinion on their live auction model?	

OTHER:

Starting time:

Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Ron Epstein, CEO IPotential

1	**COMPANY PROFILE**	**Notes**
3	Background of the person being interviewed	
3	Year of formation of the company	
3	Number of people working at the company	
2	Background of people working at the company – Educational, experience	
2	**GENERAL OPERATIONS**	
1	Could you please describe in general terms how you carry on the operations? (business model)	
3	Services and/or products offered	
2	Of your services which one is the most significant one? (core vs. non-core) Why do you consider it core? Is it because of present revenue, potential returns, time and effort, strategic value?	
2	Revenue-wise how is the distribution between the services you offer?	
2	In what range of annual revenue does your company stand? Revenues: Less than 1M, 1 to 5M, 5 to 10M, 10 to 20M, 20 to 50M, 50 or more Euros	
3	In which countries do you carry out operations?	
3	Is there a specific reason the company decided to be located where it is?	
3	**LICENSING BUSINESS**	
1	Could you please describe deeper how your licensing business works?	
1	How does a typical licensing transaction look like? Both offensive and defensive	
1	How is the whole process when a company wants to license in or out technologies?	
1	How is the whole process when a company contacts you to revise their case, improve their portfolio or support?	
2	Could you please describe a case from A to Z. Starting with you having a X technology	
1	What happens when a company that you're offering a technology patent does not take it?	
1	What are the major costs and expenses involved with that model?	
1	How is your financing model?	
2	Who are your customers? Type of company?	
2	Do you receive more customers on the offensive or defensive part of licensing?	
3	Is there a difference in profile in customers from the offensive and defensive licensing?	
4	**RELATIONSHIP WITH OTHER NPEs**	
2	What type of relationship do you have with NPEs?	
2	How is their approach when you negotiate with them?	
2	How is the relationship you keep with them?	
5	**PROCESS OF SELECTING TECHNOLOGIES TO LICENSE**	
2	How do you select who to license a technology to? What type of studies do you do?	
2	How do you assess and project on a specific technology?	
6	**NEGATIVE RESPONSE OF CUSTOMERS TO OFFER IN LICENSING**	
1	What actions are taken when a customer says NO to a licensing offer of a technology?	
1	How are you prepared for companies who don't take deals?	
1	How do you finance your licensing projects?	
1	How much risk does it involve and how do you mitigate it?	
2	What type of competences do you have to take care of these cases?	
1	What type of lawyers do you have? How do you choose them? Contingency?	
2	Do you have internal or external competences?	
2	How do lawyers get paid? Who takes the bonus if there is one?	
2	How do you choose which format to pay your lawyers? Do you prefer to pay higher fees for a case or do you pay in an hourly basis?	
7	**COMBINATION OF LICENSING AND BROKERAGE**	
2	How do you strategically combine brokerage with licensing?	
2	Do you think your customers might feel "If you don't buy I'm going to sue you"?	
2	Do you find any negative impact in the mix of these two? Why?	
8	**IPOTENTIAL AND FRACTUS (STRUCTURE & OPERATIONS)**	
1	How did you come into the licensing business?	
2	How did you create the Fractus licensing business case?	
2	What type of risk assessment did you do to come into the Fractus licensing business?	
2	How did you setup the Fractus project? How did it come to be a transaction in the beginning?	
2	What is the Fractus project structure?	
3	How is the budgeting with Fractus? How do you divide who pays for what and who gets what?	
2	Do you use Fractus' competences? Do they use yours?	
9	**FINANCING & RETURN**	
1	When do you want your payback from your licensing technology deals?	
1	How many companies have you approached so far?	
1	How is the company setup structure funding-wise?	
1	Does your company setup structure have to do with when you expect payback? E.g. if there was a venture capital involved they want payback right away	
2	How do you think most companies are financing themselves?	
3	What is the best way to have a company structure financing wise? Why?	
10	**PLANS WITH THEIR LICENSING BUSINESS**	

	How does the timeline for your technologies you are licensing look like? What are the plans mid and long term?	
	What are the "hot" technology/patents that are in the licensing business right now?	
11	**SUCCESS IN PATENT MONETIZATION**	
	How would you define a successful patent monetization?	
	With your business model, what do you think constitutes a highly successful monetization transaction? What is the ideal world? Could you give an example of a highly successful case in licensing you've had that you consider being an example of what a successful transaction is? Could you please provide information on the process and details of the transaction?	
12	**MARKET (SUCCESSFUL ACTORS)**	
	Which actors would you say are highly successful? Your competitors and NPEs in general - Why?	
	In a scale of 1 to 10 how successful have you been compared to the top 5 competitors you just mentioned	
	What do you think has made them so successful?	
13	**THE FUTURE (TRENDS)**	
	Which actors do you think will become successful?	
	Why do think they will become successful?	
	What are the major obstacles that your company has found in the way to achieving the above described highly successful transactions?	
	Do you foresee any future external potential threats?	
	How are you preparing for these threats?	
	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
	In general terms, what do you see as the trends leading the IP monetization landscape?	
	What do you see as the most prominent emerging models?	
	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
	What is driving this future foreseen? (Basically, why do you think it will be like this in 5 years?)	
14	**OTHER QUESTIONS**	
	What do you think about the case of MMI suing HTC, RIM, BB, and Apple from the technologies that once belonged to Sony and Nokia? Might this be something that you could think about doing in the future?	

OTHER:

Starting time:

Finishing time:

Interview Guide		
Date and Place:		
Interviewer: Lucia Alvarado		
Interviewee: Andrew Ramer - CEO Marqera		
1	**COMPANY PROFILE**	**Notes**
3	Background of the person being interviewed	
3	Year of formation of the company	
3	Number of people working at the company	
2	**MARQERA OPERATIONS**	
1	Could you please describe in general Marqera's operations?	
1	What services do you offer? In a nutshell what is Marqera's business plan?	
2	Of your services which one is the most significant one? (core vs. non-core) Why do you consider it core? Is it because of present revenue, potential returns, time and effort, strategic value?	
1	How did you decide to set up Marqera? How did you decide on the model that you have?	
3	In which countries do you carry out operations?	
3	Is there a specific reason the company decided to be located where it is?	
1	Who are your customers? Type?	
1	How do you search for customers?	
2	What type of competences do you use to provide your services?	
3	How is the distribution of personnel, internal, external? Why?	
1	What are the major costs and expenses involved in your model?	
3	**PLANS FOR THE FUTURE**	
1	What are the plans that you have for the future for Marqera?	
2	What has driven you to go that way?	
5	**SUCCESS IN PATENT MONETIZATION**	
1	What do you think is needed to be successful in the patent monetization market?	
1	How do you think success can be measured?	
6	**MARKET (SUCCESSFUL ACTORS)**	
1	Which actors in the IP market would you say are highly successful? Why?	
2	What do you think has made them so successful?	
7	**THE FUTURE (TRENDS)**	
1	Which actors do you think will become successful?	
1	Why do think they will become successful?	
1	What are the challenges that the IP market is facing right now?	
2	How do you see these challenges will be overcome?	
3	How are you preparing for these threats?	
2	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
1	How do you see the market in 5 years future?	
1	What do you see as the most prominent emerging models?	
3	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
8	**OTHER QUESTIONS**	
1	With your previos experience in OT, what is your opinion on their business model?	
1	Is the OT you see today the same as when you were with them? What are the major changes?	
1	What do you think about RPX's model?	
1	Do you think other companies might go that way?	
1	What about IV? What do you think about their operations?	

OTHER:

Starting time:

Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Michael Pierantozzi

1	**COMPANY PROFILE**	**Notes**
3	Background of the person being interviewed	
2	**STRATEGY CONSULTING PRACTICE - ANDIAMO ASSOCIATES**	
1	Could you please a bit your strategy consulting practice?	
1	What drove you to offer consultancy in these areas?	
1	What is the type of consultancy that you offer the most and is needed in the market?	
1	Who are your customers? Type?	
3	**SUCCESS IN PATENT MONETIZATION**	
1	What would you say constitutes a successful patent monetization?	
1	How do you think that success can be measured?	
	What do you think is needed in order to have success in patent monetization?	
4	**MARKET (SUCCESSFUL ACTORS)**	
1	Which actors/model in the IP market would you say are highly successful? Why?	
2	What do you think has made them so successful?	
1	Do you see any specific model being successful?	
5	**THE FUTURE (TRENDS)**	
1	Which actors do you think will become successful?	
2	Why do think they will become successful?	
1	What are the challenges that the IP market is facing right now?	
2	How do you see these challenges will be overcome?	
1	In general terms, what do you see as the trends leading the IP monetization landscape?	
1	What do you see as the most prominent emerging models?	
3	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
1	How do you think the market will be in 5 years?	

OTHER:

Starting time:

Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Can't be disclosed

		Notes
1	**COMPANY PROFILE**	
3	Background of the person being interviewed	
2	**[Company] OPERATIONS**	
1	Could you please explain the current situation of the [Company] team?	
1	Could you please describe the operations that [Company] had/had?	
2	What are the services offered?	
2	Of your services which one is the most significant one? (core vs. non-core) Why do you consider it core? Is it because of present revenue, potential returns, time and effort, strategic value?	
2	In what range of annual revenue does your company stand? Revenues: Less than 1M, 1 to 5M, 5 to 10M, 10 to 20M, 20 to 50M, 50 or more Euros	
1	In which countries do you carry out operations?	
3	Is there a specific reason the company decided to be located where it is?	
1	Who are your customers? Type?	
2	How is the process? What to customers come looking for or how do you approach them?	
1	What valuation method is used?	
1	The process of deciding which patents to put in [Company] for sale - Why sales instead of another model?	
1	What drove the company to go for sales instead of another model?	
2	What type of competences do you use to provide your services?	
3	How is the distribution of personnel, internal, external? Why?	
1	What are the major costs and expenses involved in your model?	
2	**IPEG AND CONSULTANCY**	
1	Could you please tell me a bit about IPEG's operations?	
1	What type of services do you provide as a consultant?	
1	What is the type of consultancy that you offer the most and is needed in the market?	
3	**PLANS FOR THE FUTURE**	
1	What are your plans for the future?	
1	Why do you think this is the best way to go?	
2	What is needed to get there?	
4	**RELATIONSHIP WITH NPEs**	
2	Do you have any type of relationship with NPEs?	
2	How is their approach when you negotiate with them?	
2	How is the relationship you keep with them?	
5	**SUCCESS IN PATENT MONETIZATION**	
1	How would you define a successful patent monetization in general?	
1	How do you think that success can be measured? What are determinant factors that are proof of success?	
6	**MARKET (SUCCESSFUL ACTORS)**	
1	Which actors in the IP market would you say are highly successful? Why?	
2	What do you think has made them so successful?	
1	Do you see any specific model being successful?	
7	**THE FUTURE (TRENDS)**	
1	Which actors do you think will become successful?	
2	Why do think they will become successful?	
1	What are the challenges that the IP market is facing right now?	
2	How do you see these challenges will be overcome?	
3	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
1	In general terms, what do you see as the trends leading the IP monetization landscape?	
1	What do you see as the most prominent emerging models?	
3	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
1	How do you think the market will be in 5 years?	

OTHER:

Starting time:

Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Patrick Sullivan

1	**PROFILE**	**Notes**
	Background of the person being interviewed	
	General view on how the IP transactions market is nowadays?	
	How does ICM Gathering form a part of this market and what is it's objective?	
2	**PATENT VALUATION**	
	Could you please provide a general overview of your opinion on patent valuation?	
	What factors do you consider should be taken into consideration when valuating a patent?	
	Which are the mistakes that you think most companies are doing in patent valuation?	
	How can patent valuation be improved?	
3	**SUCCESS IN PATENT MONETIZATION**	
	What would you consider constitutes a successful patent monetization?	
	What do you think is needed to have a successful patent monetization?	
	How do you think that success can be measured?	
4	**MARKET (SUCCESSFUL ACTORS)**	
	Which actors in the IP market would you say are highly successful? Why?	
	What do you think has made them so successful?	
	Do you see any specific model being successful?	
5	**THE FUTURE (TRENDS)**	
	Which models do you think might become successful?	
	Why do think they will become successful?	
	What are the challenges that the IP market is facing right now?	
	How do you see these challenges will be overcome?	
	How do you think the market will be in 5 years?	
6	**OTHERS**	
	How do you think the current legal situation in the US regarding patent law will affect this?	
	How do you see operating companies competing against NPEs in the IP transaction market?	
	How do think that operating companies can better take advantage of their patents?	

Additional Comments

Starting time:
Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Fergal Clarke - Rambus

1	**COMPANY PROFILE**	**Notes**
3	Background of the person being interviewed	
3	Year of formation of the company	
3	Number of people working at the company	
2	Background of people working at the company – Educational, experience	
2	**GENERAL OPERATIONS**	
1	Could you please describe in general terms how you carry on the operations? (business model)	
2	Services and/or products offered	
2	Of your services which one is the most significant one? (core vs. non-core) Why do you consider it core? Is it because of present revenue, potential returns, time and effort, strategic value?	
1	How is the whole process of IP creation? Do you find areas of interest and start developing there? Or is it the other way around that an invention comes up and the focus is defined by that?	
1	When acquiring patents from external actors, who is it normally that you acquire it from? Individuals, small companies, etc..?	
2	Percentage wise do you create or acquire externally more patents?	
1	What type of risk assessment is done when going to R&D or patent acquisition?	
1	How do you decide what to patent?	
1	After you have a patent (either developed internally or acquired), what is the next step with it?	
1	After you have selected the target customers, what is the process of "offering" the patents?	
1	What actions are taken if the customers doesn't take the license offered?	
1	Where do you carry on your operations?	
3	**COSTS, EXPENSES (COMPETENCES)**	
1	What are the major costs and expenses related to your model?	
1	What type of competences do you have internally to carry on your operations?	
2	Is there a distribution between types of competences that you have internally? E.g. 50% inventors, 20% lawyers, etc…	
1	What type of legal competences do you traditionally use? In which cases?	
3	Do you use external competences as well? In which cases? Why?	
4	**PLANS FOR THE FUTURE**	
1	What are the plans for the future? Technology development areas? Locations? Business model?	
1	Why do you think this is the "winning" model?	
5	**FINANCING & RETURN**	
3	Could you please tell me a bit more about your financing model?	
1	What is your payback time? Could you give an example?	
6	**SUCCESS IN PATENT MONETIZATION**	
1	What would you say constitutes a successful patent monetization?	
1	How do you think that success can be measured?	
2	With your business model, what do you think constitutes a highly successful monetization transaction? What is the ideal world? Could you give an example of a highly successful case? Could you please provide information on the process and details of the transaction?	
1	What do you think is needed in order to have success in patent monetization?	
7	**MARKET (SUCCESSFUL ACTORS)**	

1	Which actors in the IP market would you say are highly successful? Why?	
1	Who are your top 5 competitors?	
2	What do you think has made them so successful?	
8	**THE FUTURE (TRENDS)**	
1	Which actors do you think will become successful?	
2	Why do think they will become successful?	
1	What are the challenges that the IP market is facing right now?	
2	How do you see these challenges will be overcome?	
3	How are you preparing for these threats?	
3	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
1	In general terms, what do you see as the trends leading the IP monetization landscape?	
1	What do you see as the most prominent emerging models?	
3	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
1	How do you see the market in a period of 5 years?	

OTHER:

Starting time:

Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Kent Richardson - Partner Richardson Oliver Law Group

1	**COMPANY PROFILE**	**Notes**
3	Background of the person being interviewed	
3	Year of formation of the company	
3	Number of people working at the company	
2	Background of people working at the company – Educational, experience	
2	**ROL OPERATIONS**	
1	Could you please describe the operations at Richardson Oliver Law group?	
2	What are the services offered?	
2	Of your services which one is the most significant one? (core vs. non-core) Why do you consider it core? Is it because of present revenue, potential returns, time and effort, strategic value?	
1	What motivated you to offer the services you offer in Richardson Oliver?	
1	Of the services you offer which one of them would you say is the most "needed" in the market?	
3	In which countries do you carry out operations?	
3	Is there a specific reason the company decided to be located where it is?	
1	Who are your customers? Type?	
1	How is the approach process, do they come to you looking for consultancy? In what?	
2	What type of competences do you use to provide your services?	
3	How is the distribution of personnel, internal, external? Why?	
1	What are the major costs and expenses involved in your model?	
3	**RELATIONSHIP NPEs**	
1	I read that you are still partner in projects with ThinkFire, could you please tell me a bit about it, how does it work?	
2	Do you work with other NPEs?	
2	What type of transactions do you traditionally have with these NPES?	
2	How is the relationship you keep with them?	
4	**PLANS FOR THE FUTURE**	
1	What plans do you have for the future for Richardson Oliver?	
2	Why have you decided to go with this path?	
5	**SUCCESS IN PATENT MONETIZATION**	
1	What factors would you say are determinant factors of success in the IP market?	
2	With your business model, what do you think constitutes a highly successful monetization transaction? What is the ideal world? Could you give an example of a highly successful case? Could you please provide information on the process and details of the transaction?	
6	**MARKET (SUCCESSFUL ACTORS)**	
1	Which actors in the IP market would you say are highly successful?	
2	What do you think has made them so successful?	
7	**THE FUTURE (TRENDS)**	
1	Which actors do you think will become successful?	
2	Why do think they will become successful?	
1	What are the challenges that the IP market is facing right now?	
2	How do you see these challenges will be overcome?	
3	How are you preparing for these threats?	
3	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
1	In general terms, what do you see as the trends leading the IP monetization landscape?	
1	What do you see as the most prominent emerging models?	
3	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
1	How do you think the market will look like in 5 years?	

OTHER:

Starting time:

Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Henri Linde, Memberships - RPX (Rational Patents Exchange)

1	**COMPANY PROFILE**	**Notes**
	Background of the person being interviewed	
	Year of formation of the company	
	Number of people working at the company	
2	**GENERAL OPERATIONS**	
	Could you please describe what does RPX offer it's members?	
	How is the process of acquiring patents to include in your portfolio? Do you see a "good patent", acquire it and then offer it to potential members, or do you look for members with specific needs and then acquire the patent?	
	Who do you normally acquire patents from? Is there a % wise division?	
3	**MEMBERS**	
	Could you please tell me a bit more on how is the membership process? Do they come to you or do you go to them?	
	I read that the membership fee can vary from 35,000 to 4.9M… What are the differences in what members receive according to their fee?	
	What types of members do you have? Could you name some examples?	
	In which regions do you have members?	
	Have you seen a trend according to types of members that have been joining RPX?	
	Which industry would you say is the main target that RPX has?	
	What type of right do the members have over the patents? Could you name some examples?	
	What happens if a member terminates their membership?	
4	**COSTS, EXPENSES (COMPETENCES)**	
	What are the major costs and expenses related to your model?	
	How many people work directly with RPX?	
	What are the plans for the next year in terms of competences? Expansions, downsizing? Why?	
5	**FINANCING & RETURN**	
	Could you please tell me a bit more about your financing model?	
	What kind of deals will come most likely in the future? What are you aiming for? What's needed to get there?	
	How does the payback timeline look like in RPX's line of business?	
6	**PLANS FOR THE FUTURE**	
	What are the plans for the future for RPX?	
7	**SUCCESS IN PATENT MONETIZATION**	
	How would you define success in patent monetization? What factors do you think are determinants of success?	
	Could you please name a successful example from your experience in Thomson?	
8	**MARKET (SUCCESSFUL ACTORS)**	
	Which actors in the IP market would you say are highly successful? Why?	
	Which NPEs would you say are the ones to "take care of" for operating companies? (strongest/most successful NPEs)	
	What do you think has made them so successful?	
	Who are your top competitors?	
	What type of models do you think will come into the market similar to RPX?	
	What do you think makes RPX a better solution? What is the main benefit that RPX has over AST?	
9	**THE FUTURE (TRENDS)**	
	What are the challenges that the IP market is facing right now?	
	How do you see these challenges will be overcome?	
	How are you preparing for these threats?	
	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
	How do you see the market in a 5 year period?	
10	**OTHER**	
	Could you please tell me a bit about your experience with Thomson	

4.	What type of relationship does RPX keep with Thomson nowadays	

OTHER:

Starting time:

Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Ulff Petrusson

1	**PROFILE**	**Notes**
	Background of the person being interviewed	
	General view on how the IP transactions market is nowadays?	
	How does CIP form a part of this market and what is it's objective?	
2	**SUCCESS IN PATENT MONETIZATION**	
	What would you consider constitutes a successful patent monetization?	
	What do you think is needed to have a successful patent monetization?	
	How do you think that success can be measured?	
3	**MARKET (SUCCESSFUL ACTORS)**	
1	Which actors in the IP market would you say are highly successful? Why?	
	What do you think has made them so successful?	
	Do you see any specific model being successful?	
4	**THE FUTURE (TRENDS)**	
	Which models do you think might become successful?	
	Why do think they will become successful?	
	What are the challenges that the IP market is facing right now?	
	How do you see these challenges will be overcome?	
	How do you think the market will be in 5 years?	
5	**OTHERS**	
	How do you think the current legal situation in the US regarding patent law will affect this?	
	How do you see operating companies competing against NPEs in the IP transaction market?	
	How do think that operating companies can better take advantage of their patents?	

Additional Comments

Starting time:
Finishing time:

Interview Guide

Date and Place:
Interviewer: Lucia Alvarado
Interviewee: Matt Miskimin, Alhbins Zacco

1	**COMPANY PROFILE**	**Notes**
	Background of the person being interviewed	
	Year of formation of the company	
	Number of people working at the company	
	Background of people working at the company – Educational, experience	
2	**IP TRANSACTIONS**	
	Could you please describe in general what the IP transactions in Zacco consiste of? In a nutshell what is your business model?	
	What are the services offered?	
	Of your services which one is the most significant one? (core vs. non-core) Why do you consider it core? Is it because of present revenue, potential returns, time and effort, strategic value?	
	Revenue-wise how is the distribution between the services you offer?	
	In what range of annual revenue does your company stand? Revenues: Less than 1M, 1 to 5M, 5 to 10M, 10 to 20M, 20 to 50M, 50 or more Euros	
	In which countries do you carry out operations?	
	Is there a specific reason the company decided to be located where it is?	
	Who are your customers? Type?	
	How is the approach process, do they come to you looking for consultancy? In what?	
	What type of competences do you use to provide your services?	
	How is the distribution of personnel, internal, external? Why?	
	What are the major costs and expenses involved in your model?	
3	**RELATIONSHIP WITH NPEs**	
	Do you have any type of relationship with NPEs?	
	How is their approach when you negotiate with them?	
	How is the relationship you keep with them?	
4	**PLANS FOR THE FUTURE**	
	What are the plans that you have for the future with the IP transactions division in Zacco?	
	What is needed to get there?	
5	**SUCCESS IN PATENT MONETIZATION**	
	How would you define a successful patent monetization in general?	
	With your business model, what do you think constitutes a highly successful monetization transaction? What is the ideal world? Could you give an example of a highly successful case? Could you please provide information on the process and details of the transaction?	
6	**MARKET (SUCCESSFUL ACTORS)**	
	Which actors in the IP market would you say are highly successful? Why?	
	What do you think has made them so successful?	
	Who do you consider to be your top 5 competitors in IP transactions?	
	How do you compare to them in a scale of 1 to 10?	
7	**THE FUTURE (TRENDS)**	
	Which actors do you think will become successful?	
	Why do think they will become successful?	
	What are the challenges that the IP market is facing right now?	
	How do you see these challenges will be overcome?	
	How are you preparing for these threats?	
	Do you see any specific actor/type of actor being hurt due to these foreseen threats?	
	In general terms, what do you see as the trends leading the IP monetization landscape?	
	What do you see as the most prominent emerging models?	
	Do you see any specific region being prominent in a specific technology, type of companies, etc..?	
8	**OTHER QUESTIONS**	

	What is the relationship between Zacco and OT?	
	With your previos experience in OT, what is your opinion on their business model?	
	In what direction do you think they will turn now?	
	What is your opinion on their live auction model?	

OTHER:

Starting time:

Finishing time:

Interview Variables Identification

Company type	Market makers & Middlemen	1	
	Enforcers & Litigation Financiers	2	
	Institutional Aggregators & Investors	3	
	IP Development & Licensing	4	
	Other	5	
Business model	Corporate Licensing Spin-out	Yes	1
		No	2
	Technology transfer	Yes	1
		No	2
	Licensing Agent	Yes	1
		No	2
	Non-core spin-out	Yes	1
		No	2
	Online Marketplace	Yes	1
		No	2
	Patent broker	Yes	1
		No	2
	Patent auction	Yes	1
		No	2
	IP based M&A advisory	Yes	1
		No	2
	IP backed Financier	Yes	1
		No	2
	Single asserter	Yes	1
		No	2
	Patent Licensing & Enforcement (PLEC)	Yes	1
		No	2
	Litigation Finance and Investment	Yes	1
		No	2
	Strategic & financial investor	Yes	1
		No	2
	Financial investor only	Yes	1
		No	2
	Defensive patent pool	Yes	1
		No	2
	IP development & licensing	Yes	1
		No	2
	Operating company	Yes	1
		No	2
	IP transactions consultancy	Yes	1
		No	2
	Legal services	Yes	1
		No	2
	Develop	Yes	1
		No	2
	Buy patents	Yes	1
		No	2

Business activities	Sell patents	Yes	1
		No	2
	Litigate	Yes	1
		No	2
	Assert	Yes	1
		No	2
	Manufacture	Yes	1
		No	2
	Intermediation	Yes	1
		No	2
Year of formation of company	2003 or earlier	1	
	2004	2	
	2005	3	
	2006	4	
	2007	5	
	2008	6	
	2009	7	
	2010	8	
Annual revenue of company	>1M	1	
	1M to 5M	2	
	5M to 10M	3	
	10M to 20M	4	
	20M to 50M	5	
	<50M	6	
	N/A	7	
Number of employees	Less than 10	1	
	10 to 20	2	
	21 to 50	3	
	51 to 100	4	
	101 to 200	5	
	More than 200	6	
	N/A	7	
Internal competences	Legal	Yes	1
		No	2
		N/A	3
	Technology/engineering	Yes	1
		No	2
		N/A	3
	Business	Yes	1
		No	2
		N/A	3
	Other	Yes	1
		No	2
		N/A	3
	Legal	Yes	1
		No	2
		N/A	3
		Yes	1

	External competences	Technology/engineering	No	2
			N/A	3
			Yes	1
		Business	No	2
			N/A	3
			Yes	1
		Other	No	2
			N/A	3
	Legal fees	Primarily contingency	1	
		Primarily hourly basis	2	
		Primarily fixed fee	3	
		Internal legal expertise	4	
		Decide case by case	5	
		N/A	6	
	Financing model	Share capital	1	
		Venture capital	2	
		Investment funds	3	
		Own capital	4	
		Retainer/Success-based	5	
		Corporations	6	
		Mixed	7	
		Other	8	
		N/A	9	
	Major costs and expenses	Competences	Yes	1
			No	2
		Communication, PR, & Marketing	Yes	1
			No	2
		Patent acquisition	Yes	1
			No	2
		R&D	Yes	1
			No	2
		Travelling expenses	Yes	1
			No	2
		Financial interests	Yes	1
			No	2
		Litigation	Yes	1
			No	2
		Other operational expenses	Yes	1
			No	2
	Company headquartes	USA	1	
		Canada	2	
		Europe	3	
		Asia	4	
		Other	5	
	Company operations (geographic)	Only USA	1	
		North America	2	
		Europe	3	
		USA & Europe	4	

Customers	USA & Asia	5	
	Global	6	
	Individual inventors	Yes	1
		No	2
	Small companies	Yes	1
		No	2
	Corporations	Yes	1
		No	2
	Universities	Yes	1
		No	2
	Other	Yes	1
		No	2
Majority of customers	Primarily individual inventors	1	
	Primarily small companies	2	
	Primarily corporations	3	
	Primarily universities	4	
	Mixed	5	
	Other	6	
Successful models	Corporate Licensing Spin-out	Yes	1
		No	2
	Technology transfer	Yes	1
		No	2
	Licensing Agent	Yes	1
		No	2
	Non-core spin-out	Yes	1
		No	2
	Online Marketplace	Yes	1
		No	2
	Patent broker	Yes	1
		No	2
	Patent auction	Yes	1
		No	2
	IP based M&A advisory	Yes	1
		No	2
	IP backed Financier	Yes	1
		No	2
	Single asserter	Yes	1
		No	2
	Patent Licensing & Enforcement (PLEC)	Yes	1
		No	2
	Litigation Finance and Investment	Yes	1
		No	2
	Strategic & financial investor	Yes	1
		No	2
	Financial investor only	Yes	1
		No	2
	Defensive patent pool	Yes	1
		No	2
	IP development & licensing	Yes	1
		No	2

	Successful actors	Operating company	Yes	1
			No	2
		RPX	Yes	1
			No	2
		Intellectual Ventures	Yes	1
			No	2
		Qualcomm	Yes	1
			No	2
		Rambus	Yes	1
			No	2
		ARM	Yes	1
			No	2
		IPotential	Yes	1
			No	2
		Coller	Yes	1
			No	2
		Acacia	Yes	1
			No	2
		Ronald Katz	Yes	1
			No	2
		MPEG LA	Yes	1
			No	2
		Broadcom	Yes	1
			No	2
		Nokia	Yes	1
			No	2
		Apple	Yes	1
			No	2
		IBM	Yes	1
			No	2
		Intel	Yes	1
			No	2
		Thomson	Yes	1
			No	2
		Hitachi	Yes	1
			No	2
		Erich Spangenberg	Yes	1
			No	2
		Altitude Capital	Yes	1
			No	2
		WILAN	Yes	1
			No	2
		Rembrandt	Yes	1
			No	2
		MOSAID	Yes	1
			No	2
		External perception	Yes	1
			No	2
		Capital raising/Funding	Yes	1
			No	2

	Success factors	Quick settlement/No litigation	Yes	1
			No	2
		Good patents	Yes	1
			No	2
		Network	Yes	1
			No	2
		Expertise/people	Yes	1
			No	2
		Interaction of IP department with other departments in the company	Yes	1
			No	2
		Combination of legal, business, and technical expertise	Yes	1
			No	2
		Power/being a big actor	Yes	1
			No	2
		Not being litigated against	Yes	1
			No	2
		Technology development and transfer	Yes	1
			No	2
	Success measurement	Sales/revenues/profit	Yes	1
			No	2
		Survival	yes	1
			No	2
		Number of deals	Yes	1
			No	2
		Capital raising/Funding	Yes	1
			No	2
		Ongoing business (not one shot)	Yes	1
			No	2
		Short time-to-money	Yes	1
			No	2
		Creation of innovations	Yes	1
			No	2
	Challenges	IP strategy awareness	Yes	1
			No	2
		Valuation	Yes	1
			No	2
		Transparency	Yes	1
			No	2
		Low quality of patents	Yes	1
			No	2
		IP being standalone departments	Yes	1
			No	2
		Lack of good expertise	Yes	1
			No	2
		No understanding of buyers	Yes	1
			No	2
		Legal system uncertainty (US)	Yes	1
			No	2
		Market being US centric	Yes	1

	Market being US centric	No	2
	Legal orientation/Miscommunication	Yes	1
		No	2
	Possibility of small actors to monetize their patents	Yes	1
		No	2
Trends	Fewer transactions/fewer companies	Yes	1
		No	2
	Higher prices	Yes	1
		No	2
	Better patents	Yes	1
		No	2
	More negotiations	Yes	1
		No	2
	Company to company litigation	Yes	1
		No	2
	Global operations	Yes	1
		No	2
	Tangibilization of IP	Yes	1
		No	2
	Transparency	Yes	1
		No	2
	Good pracitices - Integrity	Yes	1
		No	2
	Openness	Yes	1
		No	2
New IP prominent areas	Asia	1	
	Europe	2	
	Other	3	
	N/A	4	

Interview Variables Codification

	Variable Name	Type	Width	Decimals	Label	Values	Missing	Columns
1	CompanyType	Numeric	8	0	Company Type	{1, Market makers & Middlemen}...	None	14
2	BusinessModelCorporateLicensingSpinout	Numeric	8	0	Is the company into Corporate Licensing Spin-Out	{1, Yes}...	None	8
3	BusinessModelTechnologyTransfer	Numeric	8	0	Is the company into Technology Transfer?	{1, Yes}...	None	8
4	BusinessModelLicensingAgent	Numeric	8	0	Is the company a Licensing Agent?	{1, Yes}...	None	8
5	BusinessModelNoncoreSpinout	Numeric	8	0	Is the company a Non-Core Spin-Out?	{1, Yes}...	None	8
6	BusinessModelOnlineMarketplaace	Numeric	8	0	Is the company an Online Marketplace?	{1, Yes}...	None	8
7	BusinessModelPatentBroker	Numeric	8	0	Is the company into Patent Brokerage?	{1, Yes}...	None	8
8	BusinessModelPatentAuction	Numeric	8	0	Is the company into Live Patent Auctioning?	{1, Yes}...	None	8
9	BusinessModelIPbasedMAadvisory	Numeric	8	0	Is the company into IP based M&A Advisory?	{1, Yes}...	None	8
10	BusinessModelIPbackedfinancier	Numeric	8	0	Is the company an IP backed Financier?	{1, Yes}...	None	8
11	BusinessModelSingleAsserter	Numeric	8	0	Is the company a Single Asserter?	{1, Yes}...	None	8
12	BusinessModelPLEC	Numeric	8	0	Is the company into Patent Licensing and Enforcement?	{1, Yes}...	None	8
13	BusinessModelLitigationFinanceandInvestment	Numeric	8	0	Is the company into Litigation Finance and Investment?	{1, Yes}...	None	8
14	BusinessModelStrategicInvestor	Numeric	8	0	Is the company a Strategic Investor?	{1, Yes}...	None	8
15	BusinessModelFinancialInvestor	Numeric	8	0	Is the company a Financial Investor?	{1, Yes}...	None	8
16	BusinessModelDefensivePatentPool	Numeric	8	0	Is the company a Defensive Patent Pool?	{1, Yes}...	None	8
17	BusinessModelIPDevelopmentandLicensing	Numeric	8	0	Is the company into IPDevelopment and Licensing?	{1, Yes}...	None	8
18	BusinessModelIPconsultancy	Numeric	8	0	Is the company into IP consultancy?	{1, Yes}...	None	8
19	BusinessModelOperatingCompany	Numeric	8	0	Is it an Operating Company?	{1, Yes}...	None	8
20	BusinessModelLegalServices	Numeric	8	0	Is the company offering Legal Services?	{1, Yes}...	None	8
21	ActivityDevelop	Numeric	8	0	Does your company develop technologies?	{1, Yes}...	None	8
22	ActivityBuy	Numeric	8	0	Does your company buy patents?	{1, Yes}...	None	8
23	ActivitySell	Numeric	8	0	Does your company sell patents?	{1, Yes}...	None	8
24	ActivityLitigate	Numeric	8	0	Does your company litigates patents?	{1, Yes}...	None	8
25	ActivityAssert	Numeric	8	0	Does your company asserts patents?	{1, Yes}...	None	8
26	ActivityManufacture	Numeric	8	0	Does your company manufacture products?	{1, Yes}...	None	8
27	ActivityIntermediate	Numeric	8	0	Is your company exclusively into intermediation?	{1, Yes}...	None	8
28	FormationYear	Numeric	8	0	Year of formation of the company	{1, 2003 or earlier}...	None	8
29	Revenue	Numeric	8	0	Annual revenue of the company	{1, Less than 1 Million USD}...	None	8
30	Employees	Numeric	8	0	Number of employees	{1, Less than 10}...	None	8
31	InternalLegal	Numeric	8	0	Do you have internal legal competences?	{1, Yes}...	None	8
32	InternalTechnology	Numeric	8	0	Do you have internal technology/engineering competences?	{1, Yes}...	None	8
33	InternalBusiness	Numeric	8	0	Do you have internal business competences?	{1, Yes}...	None	8
34	InternalOther	Numeric	8	0	Do you have other internal competences?	{1, Yes}...	None	8
35	ExternalLegal	Numeric	8	0	Do you use external legal competences?	{1, Yes}...	None	8
36	ExternalTechnology	Numeric	8	0	Do yu use external technology/engineering competences?	{1, Yes}...	None	8
37	ExternalBusiness	Numeric	8	0	Do you use external business competences?	{1, Yes}...	None	8
38	ExternalOther	Numeric	8	0	Do you use other external competences?	{1, Yes}...	None	8
39	LegalFees	Numeric	8	0	What type of legal fees do you use?	{1, Primarily contingency}...	None	8
40	Financing	Numeric	8	0	What is the company's financing model?	{1, Share capital}...	None	8
41	ExpenseCompetences	Numeric	8	0	Are competences a major expense?	{1, Yes}...	None	8
42	ExpenseCommunication	Numeric	8	0	Is communication/PR/marketing a major expense?	{1, Yes}...	None	8
43	ExpensePatAcquis	Numeric	8	0	Is patent acquisition a major expense?	{1, Yes}...	None	8
44	ExpenseRandD	Numeric	8	0	Is R&D a major expense?	{1, Yes}...	None	8
45	ExpenseTravelling	Numeric	8	0	Is travelling a major expense?	{1, Yes}...	None	8
46	ExpenseInterests	Numeric	8	0	Are financial interests a major expense?	{1, Yes}...	None	8
47	ExpenseLitigation	Numeric	8	0	Is litigation a major expense?	{1, Yes}...	None	8
48	ExpenseOther	Numeric	8	0	Are there any other major expenses?	{1, Yes}...	None	8

49	Headquarters	Numeric	8	0	Where are your company headquarters	{1, USA}...	None	8
50	OperationsRegion	Numeric	8	0	Where does your company carry on operations?	{1, Only USA}...	None	8
51	CustomerIndividualInventors	Numeric	8	0	Do you have individual inventors as customers?	{1, Yes}...	None	8
52	CustomerSmallcompanies	Numeric	8	0	Do you have small companies as customers?	{1, Yes}...	None	8
53	CustomerCorporations	Numeric	8	0	Do you have large corporations as customers?	{1, Yes}...	None	8
54	CustomerUniversities	Numeric	8	0	Do you have universities as customers?	{1, Yes}...	None	8
55	CustomerOther	Numeric	8	0	Do you have other type of customers?	{1, Yes}...	None	8
56	CustomerMajority	Numeric	8	0	What is the majority of customer type?	{1, Individual inventors}...	None	8
57	SuccessCorporatespinout	Numeric	8	0	Successful model - Corporate Spin-Out	{1, Yes}...	None	8
58	SuccessTechtransfer	Numeric	8	0	Successful model - Technology Transfer	{1, Yes}...	None	8
59	SuccessLicensingagent	Numeric	8	0	Successful model - Licensing Agent	{1, Yes}...	None	8
60	SuccessNoncorespinout	Numeric	8	0	Successful model - Non-Core Spin-Out	{1, Yes}...	None	8
61	SuccessOnlinemarketplace	Numeric	8	0	Successful model - Online Marketplace	{1, Yes}...	None	8
62	SuccessPatentbroker	Numeric	8	0	Succesful model - Patent Broker	{1, Yes}...	None	8
63	SuccessPatentauction	Numeric	8	0	Successful model - Patent Auction	{1, Yes}...	None	8
64	SuccessIPbasedMAadvisory	Numeric	8	0	Successful model - IP based M&A Advisory	{1, Yes}...	None	8
65	SuccessIPbackedfinancier	Numeric	8	0	Successful model - IP backed Financier	{1, Yes}...	None	8
66	SuccesSingleasserter	Numeric	8	0	Successful model - Single Asserter	{1, Yes}...	None	8
67	SuccessPLEC	Numeric	8	0	Successful model - Patent Licensing and Enforcement Company	{1, Yes}...	None	8
68	SuccessLitigationFinanceInvestment	Numeric	8	0	Successful model - Litigation Finance and Investment	{1, Yes}...	None	8
69	SuccessStrategicInvestor	Numeric	8	0	Successful model - Strategic Investor	{1, Yes}...	None	8
70	SuccessFinancialInvestor	Numeric	8	0	Successful model - Financial Investor	{1, Yes}...	None	8
71	SuccessDefensivePatentPool	Numeric	8	0	Successful model - Defensive Patent Pool	{1, Yes}...	None	8
72	SuccessIPDevelopmentandLicensing	Numeric	8	0	Successful model - IP Development and Licensing	{1, Yes}...	None	8
73	SuccessOperatingCompany	Numeric	8	0	Successful model - Operating Company	{1, Yes}...	None	8
74	SuccActorRPX	Numeric	8	0	Successful actor - RPX	{1, Yes}...	None	8
75	SuccActorIV	Numeric	8	0	Successful actor - Intellectual Ventures	{1, Yes}...	None	8
76	SuccActorQualcomm	Numeric	8	0	Successful actor - Qualcomm	{1, Yes}...	None	8
77	SuccActorRambus	Numeric	8	0	Successful actor - Rambus	{1, Yes}...	None	8
78	SuccActorARM	Numeric	8	0	Successful actor - ARM	{1, Yes}...	None	8
79	SuccActorIPotential	Numeric	8	0	Successful actor - IPotential	{1, Yes}...	None	8
80	SuccActorColler	Numeric	8	0	Successful actor - Coller Capital	{1, Yes}...	None	8
81	SuccActorAcacia	Numeric	8	0	Successful actor - Acacia	{1, Yes}...	None	8
82	SuccActorRonKatz	Numeric	8	0	Successful actor - Ron Katz	{1, Yes}...	None	8
83	SuccActorMPEGLA	Numeric	8	0	Successful actor - MPEG LA	{1, Yes}...	None	8
84	SuccActorBroadcom	Numeric	8	0	Successful actor - Broadcom	{1, Yes}...	None	8
85	SuccActorNokia	Numeric	8	0	Successful actor - Nokia	{1, Yes}...	None	8
86	SuccActorApple	Numeric	8	0	Successful actor - Apple	{1, Yes}...	None	8
87	SuccActorIBM	Numeric	8	0	Successful actor - IBM	{1, Yes}...	None	8
88	SuccActorIntel	Numeric	8	0	Successful actor - Intel	{1, Yes}...	None	8
89	SuccActorThomson	Numeric	8	0	Successful actor - Thomson	{1, Yes}...	None	8
90	SuccActorHitachi	Numeric	8	0	Successful actor - Hitachi	{1, Yes}...	None	8
91	SuccActorErichSpangenberg	Numeric	8	0	Successful actor - Erich Spangenberg	{1, Yes}...	None	8
92	SuccActorAltitude	Numeric	8	0	Successful actor - Altitude Capital	{1, Yes}...	None	8
93	SuccActorWiLAN	Numeric	8	0	Successful actor - WiLAN	{1, Yes}...	None	8
94	SuccActorRembrandt	Numeric	8	0	Successful actor - Rembrandt	{1, Yes}...	None	8
95	SuccActorMOSAID	Numeric	8	0	Successful actor - MOSAID	{1, Yes}...	None	8
96	SuccActorOceanTomo	Numeric	8	0	Successfl actor - Ocean Tomo	{1, Yes}...	None	8
97	SuccessFactorPerception	Numeric	8	0	Success factor - Positive Perception	{1, Yes}...	None	8
98	SuccessFactorFunding	Numeric	8	0	Success factor - Funding	{1, Yes}...	None	8
99	SuccessFactorQuicksettlement	Numeric	8	0	Success factor - Quick settlement	{1, Yes}...	None	8
100	SuccessFactorGoodPatent	Numeric	8	0	Success factor - Good patents	{1, Yes}...	None	8

101	SuccessFactorNetwork	Numeric	8	0	Success factor - Network & Connections	{1, Yes}...	None	8
102	SuccessFactorExpertisePeople	Numeric	8	0	Success factor - Expertise & People	{1, Yes}...	None	8
103	SuccessFactorIPdepartInteraction	Numeric	8	0	Success factor - IP department interaction	{1, Yes}...	None	8
104	SuccessFactorCombinationlegalbusinesstech	Numeric	8	0	Success factor - Combination of legal, business, technology	{1, Yes}...	None	8
105	SuccessFactorPowerbeBig	Numeric	8	0	Success factor - Power (being big)	{1, Yes}...	None	8
106	SuccessFactorNoLitigated	Numeric	8	0	Success factor - Not being litigated against	{1, Yes}...	None	8
107	SuccessFactorEnablingTechnology	Numeric	8	0	Success factor - Enabling technology	{1, Yes}...	None	8
108	SuccessMeasureSalesRevenueProfit	Numeric	8	0	Success measurement - Sales/Revenue/Profit	{1, Yes}...	None	8
109	SuccessMeasureSurvivial	Numeric	8	0	Success measurement - Survival	{1, Yes}...	None	8
110	SuccessMeasureNoofDeals	Numeric	8	0	Success measurement - Number of Deals	{1, Yes}...	None	8
111	SuccessMeasureFunding	Numeric	8	0	Success measurement - Funding acquired	{1, Yes}...	None	8
112	SuccessMeasureOngoing	Numeric	8	0	Success measurement - Ongoing business (not one shot deals)	{1, Yes}...	None	8
113	SuccessMeasureTimetoMoney	Numeric	8	0	Success measurement - Short time to money	{1, Yes}...	None	8
114	SuccessMeasureInnovations	Numeric	8	0	Success measurement - Innovations	{1, Yes}...	None	8
115	ChallengeIPStrategy	Numeric	8	0	Challenge - Lack of knowledge in IP strategy	{1, Yes}...	None	8
116	ChallengeValuation	Numeric	8	0	Challenge - Valuation	{1, Yes}...	None	8
117	ChallengeTransparency	Numeric	8	0	Challenge - Transparency	{1, Yes}...	None	8
118	ChallengeLowQualityPatents	Numeric	8	0	Challenge - Low quality patents in the market	{1, Yes}...	None	8
119	ChallengeIPstandalone	Numeric	8	0	Challenge - IP departments are standalone	{1, Yes}...	None	8
120	ChallengeLackofExpertise	Numeric	8	0	Challenge - Lack of qualified expertise	{1, Yes}...	None	8
121	ChallengeNoKnowledgeofBuyers	Numeric	8	0	Challenge - No knowledge of market	{1, Yes}...	None	8
122	ChallengeLegalSystemUncertainty	Numeric	8	0	Challenge - Uncertainty of legal system	{1, Yes}...	None	8
123	ChallengeMarketUScentric	Numeric	8	0	Challenge - Market is US centric	{1, Yes}...	None	8
124	ChallengeLegalorientationandMiscommunication	Numeric	8	0	Challenge - Legal orientation of market & Miscommunication	{1, Yes}...	None	8
125	ChallangeSmallActorsMonetizePatents	Numeric	8	0	Challenge - Obstacles for small actors to Monetize Patents	{1, Yes}...	None	8
126	TrendFewerTransactionsandCompanies	Numeric	8	0	Trend - Fewer transactionsn and companies	{1, Yes}...	None	8
127	TrendHigherPrices	Numeric	8	0	Trend - Higher prices	{1, Yes}...	None	8
128	TrendBetterPatents	Numeric	8	0	Trend - Better patents	{1, Yes}...	None	8
129	TrendMoreNegotiations	Numeric	8	0	Trend - More negotiations	{1, Yes}...	None	8
130	TrendCompanytocompanyLitigation	Numeric	8	0	Trend - More company to company litigation	{1, Yes}...	None	8
131	TrendGlobalOperations	Numeric	8	0	Trend - Global operations	{1, Yes}...	None	8
132	TrendTangibilizationofIP	Numeric	8	0	Trend - Tangibilization of IP	{1, Yes}...	None	8
133	TrendTransparency	Numeric	8	0	Trend - Transparency in the Market	{1, Yes}...	None	8
134	TrendGoodPractice	Numeric	8	0	Trend - Better practice with Integrity	{1, Yes}...	None	8
135	TrendOpenness	Numeric	8	0	Trend - Openness	{1, Yes}...	None	8
136	NewAreaIP	Numeric	8	0	Which region do you think will become prominent in IP?	{1, Asia}...	None	8

Interview Variables Tabulation

CompanyT	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM
1	2	2	2	2	2	1	2	1	2	2	2	2	2
1	2	2	2	2	2	2	2	2	2	2	2	2	2
1	2	2	1	2	2	1	2	2	2	2	2	2	2
5	1	2	1	1	2	2	2	2	2	2	2	2	2
1	2	2	2	1	2	1	2	1	2	2	2	2	2
1	2	2	2	2	2	2	2	2	2	2	2	2	2
3	2	2	2	2	2	2	2	2	2	2	2	2	2
1	2	2	2	2	2	2	2	1	2	2	2	2	2
4	2	2	2	2	2	2	2	2	2	2	1	2	2
1	2	2	2	2	2	2	2	2	2	2	2	2	2
1	2	2	2	2	2	2	2	2	2	2	2	2	2
3	2	2	2	2	2	2	2	2	2	2	2	2	1
1	2	2	2	2	2	2	2	2	2	2	2	2	2
1	2	2	1	2	1	1	1	2	2	2	2	2	2

BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	BusinessM	ActivityDev	ActivityBuy	ActivitySell	ActivityLiti	ActivityAss	ActivityMa	ActivityInte	FormationY
2	2	2	1	2	2	2	2	2	2	1	2	1	2
2	2	2	1	2	2	2	2	2	2	2	2	2	7
2	2	2	1	2	2	2	2	2	1	1	2	1	1
2	2	2	2	1	2	2	2	1	2	2	1	2	7
2	2	2	1	2	2	2	2	2	2	2	2	1	7
2	2	2	1	2	1	2	2	2	1	2	2	1	8
2	1	2	2	2	2	2	1	2	2	2	2	2	6
2	2	2	1	2	1	2	2	2	1	2	2	1	1
2	2	1	2	2	2	1	1	2	1	1	2	2	1
2	2	2	1	2	2	2	2	2	2	2	2	1	1
2	2	2	1	2	2	2	2	2	2	2	2	2	1
2	2	1	2	2	2	1	1	1	2	2	2	2	1
2	2	2	1	2	2	2	2	2	2	2	2	1	5
2	2	2	2	2	2	2	2	2	2	2	2	1	3

Revenue	Employees	InternalLeg	InternalTec	InternalBus	InternalOth	ExternalLeg	ExternalTe	ExternalBu	ExternalOt	LegalFees	Financing	ExpenseCo	ExpenseCo
7	2	1	2	1	2	3	1	3	3	6	7	3	3
7	1	2	2	1	3	3	1	2	3	6	4	3	3
7	1	1	1	1	3	1	1	2	2	5	4	1	3
7	2	1	1	1	2	2	1	2	1	6	6	1	2
7	1	1	2	1	1	2	2	2	2	6	4	1	2
7	1	1	2	2	2	2	1	2	1	6	4	1	2
7	3	1	2	1	1	3	1	3	3	6	2	2	2
7	2	1	2	1	1	2	1	2	1	6	9	1	2
6	6	1	1	1	3	1	2	2	2	5	1	1	2
7	1	2	2	1	2	1	1	2	2	6	4	3	3
7	3	2	2	2	3	3	2	3	3	6	8	1	3
7	6	1	1	1	3	3	1	3	3	3	3	3	3
7	2	2	2	2	3	3	2	3	3	6	9	3	3
7	3	1	2	1	2	1	1	2	2	6	9	1	1

ExpensePa	ExpenseRa	ExpenseTra	ExpenseInt	ExpenseLiti	ExpenseOt	Headquart	Operations	CustomerIr	CustomerS	CustomerC	CustomerU	CustomerC	CustomerM
3	3	3	3	3	3	1	6	1	1	1	2	3	7
3	3	3	3	3	3	3	3	2	1	1	1	1	7
2	2	1	2	1	2	1	6	2	1	1	2	2	3
2	2	1	2	2	2	3	6	2	1	1	2	2	3
2	2	2	2	2	1	4	4	1	1	1	2	1	5
2	2	2	2	2	2	1	1	2	2	1	2	2	3
1	2	2	2	2	2	1	1	2	1	1	2	2	3
2	2	2	2	2	2	3	3	2	1	1	2	2	3
2	1	2	2	1	2	1	6	2	2	1	2	2	3
3	3	3	3	3	3	1	1	2	1	1	2	2	3
3	3	3	3	3	3	3	6	2	2	2	2	2	7
3	3	3	3	3	3	1	6	2	2	1	2	2	3
3	3	3	3	3	3	1	6	3	3	3	3	3	7
2	2	2	2	2	2	1	4	2	1	1	2	2	3

SuccessCor	SuccessTec	SuccessLic	SuccessNor	SuccessOnl	SuccessPat	SuccessPat	SuccessIPb	SuccessIPb	SuccesSing	SuccessPLE	SuccessLiti	SuccessStr	SuccessFin
2	2	2	2	2	2	2	2	2	2	1	2	1	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	1	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	1	2	2	2	2	2	2	1	1	2	1	2
2	2	2	2	2	2	2	2	2	2	2	2	1	2
2	2	1	2	2	2	2	2	2	1	1	2	2	2
2	2	2	2	2	2	2	1	1	2	2	2	2	2
2	2	1	2	2	2	2	2	2	2	1	2	1	2
2	2	2	2	2	1	2	2	1	2	1	1	2	2
2	1	2	2	2	2	2	2	1	2	1	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
1	1	1	2	1	1	1	2	2	1	2	1	1	2

SuccessDef	SuccessIPD	SuccessOp	SuccActorR	SuccActorI	SuccActorC	SuccActorR	SuccActorA	SuccActorI	SuccActorC	SuccActorA	SuccActorR	SuccActorN	SuccActorB
1	2	2	1	1	2	2	2	2	1	1	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
1	2	2	1	1	2	2	2	2	2	2	2	2	2
1	2	1	1	1	2	2	2	2	2	2	2	1	2
1	2	2	1	2	2	2	2	2	2	2	2	2	2
1	2	1	1	1	2	2	2	2	2	2	2	2	1
1	1	2	2	2	1	2	2	2	2	1	2	2	2
1	2	2	2	2	2	2	2	2	2	2	2	2	2
1	1	2	1	1	1	2	1	2	2	2	2	2	2
2	1	2	2	2	1	1	2	1	2	1	2	2	2
2	1	1	2	2	2	1	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	1	2	1	2	2	2	2	2	2	1	2	2

SuccActorN	SuccActorA	SuccActorIl	SuccActorIn	SuccActorT	SuccActorH	SuccActorE	SuccActorA	SuccActorV	SuccActorR	SuccActorN	SuccActorC	SuccessFac	SuccessFac
2	2	2	2	2	2	1	2	2	2	2	2	2	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	1
2	2	2	2	2	2	2	2	2	2	2	2	2	2
1	1	1	1	2	2	2	2	2	2	2	2	2	2
2	2	1	2	1	1	2	2	1	1	1	2	1	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	1	1	1	1	2	1	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	1	2	2	2	2	1	2	2	2	1	1	1

SuccessFac	SuccessFac	SuccessFac	SuccessFac	SuccessFac	SuccessFac	SuccessFac	SuccessFac	SuccessFac	SuccessMe	SuccessMe	SuccessMe	SuccessMe	SuccessMe
1	1	1	1	2	1	2	2	2	1	1	2	1	2
2	2	2	1	1	1	2	2	2	1	2	2	2	2
1	2	1	1	2	1	2	2	2	1	2	2	1	2
2	2	1	2	2	2	1	2	2	1	2	2	1	2
2	2	1	1	2	1	2	2	2	1	1	1	1	1
2	1	2	1	2	1	2	2	2	1	1	1	2	2
2	2	2	2	2	2	2	1	2	2	2	2	2	2
2	2	1	1	2	1	2	1	2	1	1	2	2	2
1	1	2	1	2	2	2	1	2	1	1	2	2	2
1	1	1	2	2	1	2	1	1	1	2	1	2	1
2	1	2	2	2	1	2	1	1	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	1	1	1	2	2	2	2	2	1	2	1	2	1

SuccessMe	SuccessMe	ChallengeIf	ChallengeV	ChallengeT	ChallengeL	ChallengeIf	ChallengeL	ChallengeN	ChallengeL	ChallengeN	ChallengeL	ChallangeS	TrendFewe
2	2	2	1	1	1	2	2	2	2	2	1	2	1
2	2	1	1	1	2	1	2	2	2	2	1	2	2
2	2	2	2	2	2	2	1	2	2	2	1	2	2
2	2	2	2	2	2	2	2	1	2	2	2	1	2
1	2	2	2	2	2	2	1	2	1	1	2	2	2
1	2	1	1	2	2	1	2	2	1	2	1	2	1
2	2	2	2	1	2	2	2	2	2	2	2	1	2
2	2	1	2	2	2	2	2	2	2	2	1	2	2
2	2	2	1	2	2	2	2	2	1	2	2	2	1
2	2	2	2	1	2	2	2	1	2	2	1	1	2
2	1	2	2	2	2	2	2	2	2	2	1	1	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	2	2	2	2	2	2	2	2	2	2
2	2	2	2	1	1	2	2	2	2	2	2	2	2

TrendHighe	TrendBette	TrendMore	TrendComp	TrendGloba	TrendTangi	TrendTrans	TrendGood	TrendOpen	NewAreaIP
1	1	1	1	2	2	2	2	2	4
2	2	2	2	2	2	2	2	1	1
2	2	1	2	2	2	2	2	2	4
2	2	1	2	2	2	2	2	2	4
2	2	2	2	1	1	2	2	2	1
2	2	2	2	2	1	2	2	2	1
2	2	1	2	2	2	2	2	2	2
2	2	2	2	2	1	2	2	2	4
2	1	2	2	2	2	2	2	2	1
2	2	1	2	2	2	1	1	2	1
2	2	2	2	2	1	2	1	1	4
2	2	2	2	2	2	2	2	2	4
2	2	2	2	2	2	2	2	2	4
2	1	1	2	2	2	1	1	2	4

Patent Transactions Market – *Business Models and Actors*

Business Model	Actors
Patent brokers are actors who serve as middlemen in selling and buying patents. They do not own patents, but are agents bringing together buyers and sellers. These actors can be compared with real estate brokers, who help home owners to sell their properties, and home seekers to find a house to purchase. Patent brokers search for patents in the market that might be for sale and then offer it to potential buyers. They study the patents and then prepare a list of actors who could be interested in acquiring the patents. Their income is the broker's commission that is around 25% of the entire sales price and it comes out of the patent owner's proceeds.	IPotential, Inflexion Point, ThinkFire, Bramson & Pressman, ILeverage, Lava Group, Pluritas, Red Chalk, Semiconductor Insights, Marqera, IP Value.
Patent Auctions provide the option to place patents for sale and bid on them for their acquisition. Patents are collected by the auction firm to be put in the auction, and potential buyers are invited to participate and bid. There are live patent auctions and online patent auctions. The patent auction's firm income is a commission of ranges from 10% to 25% from the total sales price of the patents.	Live auction: ICAP Ocean Tomo, IP Auctions GmbH. Online auction: IpAuctions.com, LynxStreet.com, and Sciencecentral.com.
Online marketplace for patents is a platform where patent owners can upload their patents into a website and potential buyers will visit the site and buy the patents that they are interested in. It is similar to the online brokerage, but in this case the listings are not up for auction but have set prices. This format is an equivalent to what amazon.com is for books and other goods.	Yet2.com, Tynax, Open-ip.org, and soon ICAP Ocean Tomo.
Institutional Patent aggregators have a twofold business model. On the one hand they raise capital, from large technology companies, pension funds, venture capital firms, and wealthy individuals, offering them high return over their investment. With that capital they acquire patents in bundles and then create patent monetization programs for the patents they've aggregated. The patent monetization strategies that patent aggregators can use are licensing (either negotiation or litigation approach), patent sales (for better proceeds), or spin-off new companies on specific patents.	Intellectual Ventures
Defensive Patent Pools are a variation of institutional patent aggregators, as they aggregate patents and have it in a pool so that members can use it for defensive means. They identify and acquire key patents that could be used offensively against operating companies, which is the base of its members. They are not in the business of offensively litigating the rights of the patents in the pool, but only serve as a protective shield to lower litigation risk for its members.	RPX, AST, Open Invention Network
Patent licensing & enforcement companies (PLECs) are entities that own patent portfolios and enforce them through licensing programs	Acacia, Lemelson Foundation, Papst

with litigation approach. The way they operate is that they acquire patents which they believe are being infringed by operating companies, and establish licensing programs targeting those alleged infringers. They contact the allegedly infringing operating companies either through letters or meetings trying to engage on a non-exclusive basis licensing agreement; those who refuse to take license under the terms they're offering are sued for patent infringement. PLECs do not develop technologies; they acquire technologies from third parties and then enforce them.	Licensing, Fergason Patent Properties.
Single asserters are just as Patent Licensing & Enforcement companies (PLECs) with the difference that they are individuals and not companies (even if they litigate under company name, they are a 1 to 10 people team). The major difference is that PLECs have heavy organizations and handle high numbers of patents; while single asserters, are in most cases attorneys themselves, and so they handle the cases from A to Z; they don't acquire patents in bulks, but only on a few of them that they consider might be profitable.	Erich Spangenberg under the LLC Plutus IP, Ronald Katz under the LLC Ronald A. Katz Technology Licensing, Leon Stambler
IP development & Licensing Companies are entities that develop technologies internally and then license them out. They do not manufacture products, but license out their technologies and patents to operating companies. These actors are R&D intensive because their core business is to establish monetization plans on internally developed patents.	Rambus, ARM, MOSAID, InterDigital, AmberWave, Qualcomm, Tessera
Licensing Agents offer services to connect patent owners with licensees, they are like a "broker" but rather than for buying and selling, for licensing. The way they work is that they search for patent holders who might have the need to better monetize their patents through licensing and look for potential licensees. They can establish licensing programs both on the negotiation and the litigation approach.	IPotential, ThinkFire
IP backed Financing is a model where loans are provided with IP as collateral. Also there are actors linking IP owners with financial actors, not necessarily providing the financing themselves.	Provide funding: Paradox Capital Link patent owner with financial actor: Marqera
Royalty Interests Securitization is a model on which patent owners with established licensing royalty streams can have access to financing secured by their royalty interests; basically they are selling future royalty incomes from their licensing agreements.	AlseT IP
Litigation Financing & Investment are actors that strategically finance and/or invest in litigation, with the goal of having an income over the outcome of the suit. These actors work together with the patent owner in the assertion programs and then share the awards and settlements with them.	Rembrandt, Altitude Capital Partners

	Business model segments										
	Patent Licensing Enforcement companies and Litigation Financiers		IP Technology Development & Licensing Companies	Patent Aggregators		Market makers and middlemen					
Business model ontology	Patent Licensing and Enforcement Companies (PLECs)	Litigation Finance/Investment Firms	IP/Technology Development Companies	Institutional Patent Aggregators	Defensive Patent Pools	Patent Brokers	Patent Auctions	Online Marketplaces	IP-Backed Financing & Royalty Securitization	Consultancy	Licensing Agents
Value Proposition	Assert and/or litigate patents	Invest on the outcome of litigation suits	IP development; Increase the value of patent/portfolio	Build a patent portfolio in an determined field	Build a patent portfolio in an determined field	Intermediate Patent Sale; Facilitate process that clients are unable/uninterested to perform by themselves.	IP sale through auctions	Market place for IP trade	Use IP to raise capital	Sell expertice	Intermediate Licensing Process; Facilitate process that clients are unable/uninterested to perform by themselves
Target customer	Technology Based Enterprise	Technology Based Enterprise; Investor	Technology Based Enterprise with specific technology need	Technology Based Enterprice; Investor	Technology Based Enterprice; Investor	Technology Based Companies with need or offer of technology	Technology Based Companies with need or offer of IP	Technology Based Enterprise with need or offer of technology/IP	Technology Based Companies seeking IP monetization	Technology Based Enterprise working on its IP strategy and management	Technology Based Enterprise with need or offer of technology
Distribution chann	Direct Engagement	Direct Engagement	Direct Engagement	Direct Engagement	Direct Engagement	Private Engagement; Private Auctions	Live Auctions and/or Online Auctions	Website; Mailing Lists	Financial institutions	Direct engagement	Private engagement
Customer relation	Hostile	Opportunistic	Technology provider; Long term	Either harmonic or hostile	Harmonic	Matchmaker; Personal meetings; Short Term	Matchmaker; personal meetings combined with public events	Electronic matchmaker	Short/Long term	Client-Advisor	Close interaction; Short/long term
Value configuratio	Patent acquisitions or own founded patents	Investor Relations; Litigation	Existing/new technology development; Licensing	Acquisition of patents to increase overall value of IP portfolio and/or avoid litigation; Investor Relations	Acquisition or licensing of patents for litigation avoidance; Investor Relations	Identifying potential partners for clients; Packaging (IP bundle); IP presentation; Approaching other party; Contacting other Intermediaries; Due Diligence; Negotiation	Identifying potential partners for clients; Packaging (IP bundle); IP presentation; Approaching other party; Negotiation; Payment	Identifying potential partners for clients; Packaging (IP bundle); IP presentation; Approaching other party	Securitization of future royalty revenue streams; Sale and license-back (off-balance sheet loan); Collateralization (Ipbacked debt); Corporate IP Spin-outs	Fulfill client's need for specific IP knowledge	Identifying potential partners for clients; Packaging (IP bundle); IP presentation; Approaching other party; Contacting other Intermediaries; Due Diligence; Negotiation

Capability	Networking; Technical and litigation expertise	Technical knowledge on the portfolio subject; Networking and trade expertise	R&D; IP development.	Technical knowledge on the portfolio subject; Networking and trade expertise	Technical knowledge on the portfolio subject; Networking and trade expertise	Networking; Technology sale and transfer expertise	Networking; Auction Expertice	Networking; IT	Financial and IP expertice/network	Extensive expertice in IP	Networking; Licensing expertise
Partnership	Technology experts;	Valuation specialists; IP Law Firms; Financial Institutions	Research Institutes; Technology Transfer Specialists;	Analytics; Patent Brokers; Networking tools; IP Law Firms	Analytics; Patent Brokers; Networking tools; IP Law Firms	Online Networking Tools; Licensing Agents; Live Auctions; Analytics	Online Networking Tools; Patent Brokers; Advertisers	Agents; Brokers	Analytics; Financial institutions	Supporting services, e.g. Analyses	Online Networking Tools; Analytics
Cost structure	Staff; Court costs	Legal costs	R&D; Patent Acquisition	IP Acquisition	IP Acquisitions and licenses	Staff	Staff; Event Costs; Publicity; IT infrastructure	Staff; Event Costs; IT infrastructure	Staff; Outsurced services	Staff	Staff
Revenue model	Litigation remedies	Litigation remedies	Licensing royalties streams	Investors; Patent licensing/sale	Investors; Patent licensing/sale	Success and/or fixed fee	Success and/or fixed fee	Success and/or fixed fee	Success and/or fixed fee or share of future revenue streams	Fixed or hourly fee	Success and/or fixed fee; One installment or share of royalty revenues

Stakeholders Analysis

Stakeholders	Competitor	Collaborator	Supplier	Litigator	Customer	Infringer	Contracted service	Financing	Image & communication	Government	Internal
Operating companies	x	x	x	x	x	x					
Individual inventors		x	x	x	x						
Universities, R&D centers, and other actors dedicated to perform research that own patents		x	x	x	x		x				
Institutional patent aggregators	x	x	x	x	x						
Defensive patent pools			x		x						
PLECs and single asserters			x	x	x						
Licensing agents			x	x			x				
Litigation financiers				x			x	x			
Corporate spin-off			x	x	x						
Brokers, auctions, and online marketplaces			x		x		x				
The media									x		
Patent offices										x	
Courts										x	
The US Congress										x	
Society									x		
Internal stakeholders											x

Stakeholders	**Economic & Technological Environment**							**Social environment**	**Governmental and Legal**
	Patent Inflow				**Patent Outflow**				
	Patent development	**Patent acquisitions**	**Patent Licensing-in**		**Patent Sales & transfers**	**Patent Licensing-out**			
			Negotiation	**Litigation**		**Negotiation**	**Litigation**		
Other operating companies		x	x	x	x	x	x		
Individual inventors		x	x	x					
Universities		x	x	x					
R&D centers	x	x		x					
Other patent holders		x		x					
Institutional patent aggregators			x	x	x		x		

Defensive patent pools			x		x		x		
Patent licensing & enforcement companies				x					
Single asserters				x					
Licensing agents				x			x		
Litigation financieres				x			x		
Technology and R&D team	x	x	x	x					x
IPR business intelligence team		x	x	x	x	x	x		x
Legal team		x	x	x	x	x	x		x
Corporate spin-offs					x		x		
Brokers		x			x				
Auctions		x			x				
Online Marketplaces		x			x				
Marketing & sales team					x		x	x	
The media								x	
Patent offices								x	x
Courts									x
Legal services			x	x					x
Society and communities								x	
Public relations team								x	

Stakeholders	Cooperation	Threat	Type	Recommended action
Operating companies	High	High	4	Collaborate
Individual inventors	Low	Low	2	Monitor
Universities, R&D centers, and other actors dedicated to perform research that own patents	High	High	4	Collaborate
Institutional patent aggregators	Low	High	3	Defend

Defensive patent pools	High	Low	1	Involve	Type 1	Supportive
PLECs and single asserters	Low	High	3	Defend	Type 2	Marginal
Licensing agents	Low	High	3	Defend	Type 3	Non-supportive
Litigation financiers	Low	High	3	Defend	Type 4	Mixed blessing
Corporate spin off	High	High	4	Collaborate		
Brokers, auctions, and online marketplaces	High	Low	1	Monitor		
The media	High	High	4	Collaborate		
Patent offices	Low	Low	2	Monitor		
Courts	Low	Low	2	Monitor		
The US Congress	Low	Low	2	Monitor		
Society	High	Low	1	Involve		
Internal stakeholders	High	Low	1	Involve		