Patent and Intellectual Property VALUATION

What Is Your Invention Worth?

Find A Need And Fill It !

Is this the secret to a successful business?

Why Do Most Inventions Fail?

- Most inventors believe that they have invented the greatest thing since ice cream.
- Most often, while it solves a problem, the invention is unmarketable.
- Inventors do not know how to sell their ideas.
- Inventors are unaware how much their inventions are worth. They guess wrong.
- If capital is required, investors are unimpressed.

THE BASICS

What Is A Valuation?

Why Do It?

Why is Valuation Important?

Invest $100,000	Invest $250,000
50% Equity	20% Equity
Value = ?????	Value = ?????

Which Would You Choose?

Why is Valuation Important?

Invest $100,000

50% Equity

V = $1-million

Invest $250,000

20% Equity

V = $40-million

Which Would You Choose?

IP Portfolio Comprises

- Patents
- Copyright Materials
- Trademarks
- Trade Secrets

These Assets Must All Undergo the Valuation Process.

Why Do We Perform Valuations?

- To make informed decisions about:

- Creation (Invention, R&D, prototypes, *etc*.)
- Management, and
- Defense of Intellectual Property Assets.

Decisions To Be Made

- Which projects should you pursue?
- How much should you invest?
- If a patentable invention results from the project, should you patent the invention?
- If yes, how much should you invest in prosecuting the patent application?

Factors Affecting Value

- Mergers With and Acquisitions of a Company Owning Patents
- Financing of a Business Owning Patents
- Joint Ventures and Licensing
- Various Tax Situations
- Insurance
- Litigation
- Marital Dissolutions

Factors Affecting Value

- Industry and Competition
- Economy and Market Conditions
- Risks of Emerging Technologies
- Company's Goodwill
- Cost of Development and Commercialization
- Government Regulation

Increasing the Value of Your Invention

Should You Write A Business Plan?

- A business plan details the results of your valuation.
- A business plan is essential for you to obtain financing.
- A business plan is essential to help you to make decisions regarding your invention.
- Business plan templates are available on the web. Use GOOGLE, BING, etc.

Decisions To Be Made

- Should you manufacture the invention yourself?
- Should you transfer it to a third party?
- Should you do both?
- Should you transfer some or all of the patent rights?
- How should the transfer be structured and at what price?

Manufacture It Yourself?

<u>Certain Items Might Be Manufactured By You</u>?

- Computer Software
- Computer Hardware
- Small Electronic Devices
- Articles That Can Be Manufactured Inexpensively In A Basement or Garage
- Articles That Can Be Manufactured Abroad (example – China or Vietnam)
- Custom or Customized Articles

Should You Build A Prototype?

- Can you afford to build a prototype?
- Is it easy to build yourself or to have someone else build it?

It is much easier to market your invention if you have a prototype.

Should You Build a Website?

<u>There are two different types of websites</u>:

1. Website to Attract Potential Customers.

   This is the typical catalog website. It should be professionally designed for inducing customers to purchase products or clients to purchase services. It should be optimized for search engines.

2. Website to Attract Potential Investors.

   This is a private website where an investor can read images of your patents. It should also be professionally designed. It should contain PDF downloadable articles where investors can see advantages of potential investment. Avoid the search engines.

In either case, a website is an essential marketing or promotional tool.

How Would You Sell Something That You Manufactured Yourself?

- Internet and TV Infomercials
- Catalogs
- Stores
- You Could Be The Principal Salesperson
- Distributors
- Manufacturer’s Representatives
- Hire In-House Salespeople

Self Manufacture

Advantages

- Total Control
- Retention of All Profits
- Satisfaction and Feeling of Accomplishment
- Tax Advantages

Disadvantages

- High Risk of Loss
- You Need To Know How to Market Successfully
- Good Times & Bad Times
- Tax Problems

Should You Apply For a Trademark?

Good Will is the amount of money that a buyer would pay for a product or an entire business in excess of its actual value.

TRADEMARKS CREATE GOOD WILL

Transfer To A Third Party

- How would you find the third party?
- Outright Sale of the Invention? Assignment
- Exclusive License?
- Non-Exclusive License?

- YOU NEED A LAWYER.
- Receipt of Royalties (~ 5%-10% of Gross)

How To Find A Third Party

- Friends and Family
- Pound the Pavement
- Advertisement
- Angel Investors
- Venture Capital Firms
- TV Shows
- Crowd Sourcing
- Bank Loans
- SBA Loans
- SBIR Loans
- Government Grants
- Government Contracts

Payment For Right Transfers to Third Parties

- A recurring royalty payment based on economic benefits that the third party generates.
- A one-time payment at the time of transfer.
- A partial up-front payment at the time of transfer coupled with a recurring royalty payment.
- An equity interest in the transferee.

Tailoring a License
(A License is a Contract)

- Manner of Use Limitations
  - The license can grant permission to use the rights for certain usage (*e.g.,* for in-house use but not for sale to others).
- Geographic Limitations
  - (*e.g.,* only in California)
- Field of Use Limitations
  - (*e.g.,* use in building home appliances, but not for use in commercial applications)
- Transfer Limitations
  - The license can restrict or prohibit the licensee from transferring the rights to another.

Should You Patent Your Invention?

- Once you perform an invention valuation, whether or not to patent becomes a cost-benefit decision.
- Approximately 99% of all patents never produce money for the patent owner.
- However, if your invention is really good, if it is unpatented, someone else will copy it, and you will have virtually no protection.

Should You Patent Your Invention?

- US Patent Office fees are very inexpensive compared to other countries.
- Most of you can qualify as micro-entities. This provides a significant discount.
- Legal fees for preparation, filing the application, and prosecuting the application at the USPTO can range from moderate to expensive.
- Try to obtain services on a Cost Plus Fixed Fee Arrangement (CPFF). Contingent fees are generally not available for getting a patent.

Should You Patent Your Invention?

- Should you file a US provisional patent application?
- Should you file a US non-provisional patent application?
- Should you file an International (PCT) patent application?
- Should you file in foreign countries? In which countries should you file?

Should You Patent Your Invention?

Provisional Patent Applications

- Filing fees for a non-provisional utility patent application is only marginally more expensive than filing a provisional application.
- A provisional patent application should be filed if you are still inventing.
- You have one year to file a non-provisional application.
- If your invention is ready to go, file a non-provisional application. Why lose time? Provisional applications are never examined.
- It is NOT a PROVISIONAL PATENT. It is a place holder.

Should You Patent Your Invention?

- Should you write and file your own patent?
  - Provisional Application – POSSIBLY
  - Non-provisional Application – NOT RECOMMENDED
- Claims are the most important part of your patent. They spell the difference between obtaining a worthless patent and an enforceable patent.

Should You Patent Your Invention?

Don’t forget to factor in the maintenance fees that must be paid on an issued patent every four years. These could get quite expensive.

Do You Need a Lawyer to Patent Your Invention?

- *PRO SE* Representation (usually a cost consideration)
- Only a registered practitioner having passed the Patent Bar Exam can represent you at the USPTO.
- Patent Agent – Not a lawyer, but given the same patent privileges as a lawyer at the USPTO. He can file and prosecute patents.
- An ordinary lawyer may represent you in licensing agreements and may file patent infringement lawsuits. He cannot represent you before the USPTO.
- A patent attorney is a lawyer who can additionally do what a patent agent can do. Patent attorneys usually charge more than patent agents for the same services. Patent attorneys usually charge more than ordinary lawyers because they have more specific experience.

Should You Publish Defensively?

Advantages

- Prior to filing for a patent, if you publish the details of your invention in a magazine or newspaper, or if you demonstrate your invention to the public, or if you sell your invention to the public, you can prevent others from obtaining a patent and stopping you.
- You have one-year to file for a patent.
- This is perfect if you do not want a patent.

Should You Publish Defensively?

Disadvantages

- You will be unable to obtain foreign patents.
- Filing a PCT Application will be useless.
- Defensive publication does not afford you with a patent priority date.
- The US is now a first-to-file country. If someone else files for a patent first, although he will probably not be able to obtain it, neither will you.

Should the USPTO Publish Your Application?

You Have Three Options

Once you file a non-provisional patent application, you may:

1. Elect Not to Publish
2. Elect Normal Publication
3. Elect Early Publication

Should the USPTO Publish Your Application?

<u>Non-Publication</u>

The contents of your application is kept secret by the USPTO until a patent issues.

Non-publication must be demanded by Applicant.

If a patent never issues, your invention remains secret. If you elect this option, you may not file a Foreign patent application. You may rescind this election at any time.

Should the USPTO Publish Your Application?

Normal Publication

Your patent application is published on the USPTO website within 18 months of filing. Your application details are available to everyone on Public PAIR. The image looks like a patent, but it isn't. There is a $300 publication fee that you pay if and when your patent issues.

Should the USPTO Publish Your Application?

Early Publication

Unlike normal publication, which occurs automatically, early publication must be specified by the applicant. Publication takes place within 2-3 months after the application is filed. The $300 publication fee is payable up-front, and is not dependent on issuance.

Should the USPTO Publish Your Application?

<u>The *QUID PRO QUO*</u>

- Publication serves as constructive notice to potential infringers that a patent for your invention is pending.
- Normally, infringement of a patent does not occur until the patent issues.
- If you allow publication by the USPTO and a patent ultimately issues, then infringement relates back to the date of publication. It provides provisional protection.
- Infringement is more likely to be willful.

Should the USPTO Publish Your Application?

Advantages

- Constructive notice to potential infringers.
- Provisional Protection.
- Your publication becomes prior art.
- You might not need an N.D.A. for investors because publication already informs the public.

Disadvantages

- If your patent does not issue, you have disclosed your invention to the entire world.
- Publication could invite infringement.
- Your patent application possibly may not be prior art.
- Publication costs $300.

Should the USPTO Publish Your Application?

- Elect non-publication for software and methods to medically treat humans.
- Elect non-publication if you want to rely on trade-secret protection.
- Elect early publication if you want to market your invention immediately or you want to approach investors.
- Elect normal or early publication if you are interested in foreign filing.

Should You File In Foreign Countries?

You probably won’t be able to afford it.

You’re not big enough.

Should You File A PCT International Patent Application?

- A PCT International Patent Application is a 30-month place holder for both foreign and domestic patent applications.
- It is an international provisional patent application. However, it is always published. And, it is examined. No patent will ever issue from a PCT Application.
- Whether or not you foreign file, <u>a PCT enhances the investment and licensing value of your US patent application</u>.

VALUATION METHODOLOGY

V
A
L
U
A
T
I
O
N

B
A
S

How Should You Value Your Invention

Four Methods of Valuation

1. Cost to Replace Approach
2. Current Market Value Approach
3. Capitalization Approach
4. Present Value of Future Income Stream

Cost To Replace Factors

- Starting from scratch, what would you need to spend to reproduce your portfolio.
- How much time and money was spent on research and development. Assume a reasonable hourly rate.
- How much time and money was spent procuring a patent or copyright.
- How much money was spent on outside services (*e.g.*, drawings, prototypes).

Market Value Factors

- Whether patentable or not, have similar inventions been sold or licensed to third parties? How much money? Are there trade secrets?
- If similar patents or copyrights were obtained, how much have third parties paid for the rights?
- If a thriving business with intellectual property was sold, what price was paid?
- What are the assets worth? What is the goodwill worth? Is there an existing customer base?

Capitalization

$$\text{Rate} = \frac{\text{Income}}{\text{Value}}$$

$$\text{Asset Value} = \frac{\text{Net Annual Income}}{\text{Rate of Return}}$$

Capitalization Approach

Assume potential revenues of a software asset is $15-million, and the expected lifetime is 5 years.

The existing gross annual income is $3-million. Anticipated expenses are 25%.

Therefore, the net annual income will be $2,250,000.

Now, assume that an investor anticipates 90% financing at an annual interest rate of 6.25% and requires at least a 15% return on his 10% equity.

Capitalization Approach

- 90% financing @ 6.25%:
  0.90 x 0.0625 = 0.05625
- 15% return on 10% equity:
  0.10 x 0.15 = 0.01500
- Rate of Return on Investment
  0.05625 + 0.01500 = 0.07125
- Return is over 5 years – 20% per year
  Overall Rate = 0.07125 + 0.20000 = 0.27125
- ∴ Asset Value = $2,250,000 / 0.27125
  = $8,294,931

Present Value of Future Income

Compound Interest Formula

$$A = P(1 + r)^n$$

A = Amount of money earned.

P = Principal

r = Rate of Interest (Return)

n = Number of Years (Periods)

Present Value of Future Income

How Much Is Money Worth Today?

$$P = \frac{A}{(1 + r)^{n}}$$

A = Amount of Future Income

P = Present Value of Future Income

r = Reasonable Rate of Return

n = Number of Years (Periods)

Present Value of Future Income

Potential Average Annual Income	Year	Present Value Factor @ 15%	Annual Present Value
$ 2,250,000	1	0.869565	$ 1,956,521
2,250,000	2	0.756144	1,701,324
2,250,000	3	0.657516	1,479,411
2,250,000	4	0.571753	1,286,444
2,250,000	5	0.497177	1,118,648
			$ 7,542,348

Present Value of Future Income

Factors to Consider

- What amount of economic benefit can be expected?
- How long can it be expected to continue?
- Will the amount of benefits be increasing or decreasing?
- What risk is involved with achieving the anticipated benefits?

Present Value of Future Income

Annual Income = Profits

Income = Revenue - Expenses

Choice of Valuation Methodology

<u>For Our Example Investment</u>

- Cost Approach – Undetermined (Usually Lowest Value)
- Market Value Approach – Undetermined
- Capitalization Approach = $ 8,294,931
- Present Value Approach = $ 7,542,348

Choice of Valuation Methodology

Why was valuation performed?

- Tax Considerations Usually Dictate a Cost Approach – Sometimes a Capital Asset Valuation.
- Insurance Considerations Usually Dictate a Capital Asset Valuation.
- Purchasing New Technology Usually Dictates a Comparable Markets Approach.
- Investment in New Technology Usually Dictates a Present Value Approach

Choice of Valuation Methodology

- The cost approach is important to competitors, potential purchasers, and potential licensees, and potential infringers.
- The market value approach is important to potential purchasers and investors.
- The capitalization approach is important to insurance companies, banks, and auditors.
- The present value of future income approach is important to potential investors, potential purchasers, potential licensees, and YOU.

The Value of a Patent is Not the Same as the Value of the Invention

- Inventions potentially make money from sales of products or use in services.
- Patents potentially make money because they can prevent others from making, using, or selling the invention.
- Others who patent improvements on your patented invention must come to you to be able to make, use, or sell their inventions.
- (Income from sales or services) *vs.* (Royalties from licensing) OR

  (Litigation Awards)

The Value of a Patent is Not the Same as the Value of the Invention

- Usually, the business value duration of an unimproved invention is between 5 and 10 years.
- The average value duration of a patent is in excess of 17 years. With patent term adjustment, some patents expire 24 years after filing.

Invention *vs.* Patent

- You can manufacture your invention yourself.
- You can use your invention yourself.
- You can license others to make or use your invention.
- You can do nothing if you wish.
- You don’t need a patent to make, use, or sell your invention.

- A patent is a capital asset.
- You can sell your patent or give it away (assignment)
- You can license your patent.
- You can make money if you sue an infringer. Infringement may be the best thing that happens to you.

What is your invention worth to YOU?

Worth = Present Value x Probability of Financing

What Is The Present Value?

1. List all the categories that can produce income over the life of the patent (sales, licensing, litigation awards, settlements, *etc*.).
2. Determine the <u>probable</u> amount of income per year for each of the categories in the list.
3. Subtract the <u>probable</u> cost per year for each of the categories in the list.
4. Determine the <u>Present Value</u> of each of the categories in the list.
5. You now have a list of Present Values.

What is the Probability of Financing?

6. For each item in the list of present values determine the probability of being able to finance the operation.
7. The probability is a number between 0 and 1, where "1" = 100%.
8. The probability is dependent upon the dollar amount needed and the source of financing.
9. The amount of money needed to finance software development and marketing could be manageable yielding a high probability.
10. The amount of money needed to finance a major project would require outside funding yielding a much lower probability.

Probability Depends on Source of Financing

- Friends and Family
- Pound the Pavement
- Advertisement
- Angel Investors
- Venture Capital Firms
- TV Shows
- Crowd Sourcing
- Bank Loans
- SBA Loans
- SBIR Loans
- Government Grants
- Government Contracts

Once you have determined the probabilities:

11. Multiply each present value in the list by its respective probability.
12. These products determine the <u>individual worths</u> of each category in the list.
13. Add the worths together.

THIS NUMBER TELLS YOU HOW MUCH YOUR INVENTION IS WORTH TO YOU.

THE EXERCISE ALSO TELLS YOU HOW MUCH TIME AND EFFORT TO INVEST IN EACH CATEGORY IN THE LIST.

Licensing Considerations

- Royalties are based upon gross revenue. You do not need to worry about manufacturing costs, taxes, *etc*.
- Royalties usually vary between 5% and 10% of gross sales.
- If licensing is non-exclusive, consider inserting considerations for termination or breach.
- If licensing is exclusive, insist on a minimum annual royalty. This will prevent the licensee from burying your invention.
- An invention may be licensed even if no patent is ever issued. The license arrangement may be based on a pending patent application, on copyrights, on trademarks, on trade secrets, or on goodwill.

Litigation Considerations

- A patent owner may sue anyone whom he validly believes infringed the patent without authorization.
- There are three possible defenses to a charge of patent infringement:
  - I am not infringing.
  - Even if I am infringing, your patent is invalid.
  - Even if your patent is valid, it is unenforceable.

Litigation Considerations

- Do nothing?
- Sue - How much should you spend on litigation?
- Settle - When and at what price?

Litigation Considerations

Do Nothing?

- As a patent owner, you are obligated by law to defend your patent against all known infringers.
- If there are multiple infringers, you are not required to defend against all of them at the same time.
- If you do not defend within a reasonable time, your patent will become unenforceable. Your invention enters into the public domain.
- The equitable doctrine of LACHES applies. This is different from a statute of limitations.

Litigation Considerations

<u>How much should you spend on litigation</u>?

- You need to perform a full patent valuation to see if it's worth a lawsuit.
- Some attorneys will handle your case on pure contingency. Shop around!
- Other attorneys will handle your case on modified contingency. You pay costs but not legal fees.
- Other attorneys will handle your case on a cost plus fixed fee arrangement (CPFF). If the fixed fee is low enough, it may be worth it.

Settle - When and at what price?

- You must have an attorney.
- Often, a lawsuit must first be filed. Does it pay?
- Factors include costs of a lawsuit, length of time to recover, probability of recovery, and probable recovery amount.
- Judgment awards are usually in the form of a high royalty. Punitive damages.
- **YOU SHOULD NOT SETTLE UNLESS THE SETTLEMENT AMOUNT WILL CHANGE YOUR LIFESTYLE.**

Stanley H. Kremen, J.D., CDP
(Patent Agent)
C.E.O.
Patents Group LLC
http://www.patentsgroup.com

4 Lenape Lane
East Brunswick, NJ 08816
(732) 251-3623
shk@shk-dplc.com