

ENTREPRENEURIAL OPTIONS FOR PROTECTING INTELLECTUAL PROPERTY

STEPHEN J. SCHANZ, J.D., LL.M*

Abstract

Entrepreneurs and young start-up companies frequently derive a portion of their entity's value from unique processes, formulas, or discoveries which provide a competitive advantage in the marketplace. Patents, copyrights, and trade secrets each offer specific advantages and disadvantages in protecting the intellectual property rights for such assets. These three options may be appropriate at different stages of a company's development depending upon the asset to be protected, the financial resources available, and the content of the firm's business plan. Careful and thorough evaluation of all relevant factors is essential to selecting the best intellectual property protection option to be pursued.

Entrepreneurs and start-up companies frequently have designated assets as part of the core value of their endeavors, which offer them a competitive advantage because of their exclusivity or secrecy. Critical to maintaining the value of such assets, whether it be a formula, invention, marketing plan or other process, is protecting it from disclosure to others. Copyrights, patents and trade secrets each have the capability of assisting in this, though each possesses specific advantages and limitations. Entrepreneurs need to be familiar with the nuances that each offers in hopes of making the best business decision to promote their business plan and maintain the competitive edge they seek.

Patents, copyrights, and trade secrets all play a pivotal role in intellectual property ("IP"), yet there is generally no "one-size-fits-all" alternative. Each form of IP offers distinct benefits, drawbacks and costs—all of which entrepreneurial businesses need to evaluate. Additionally, developing case law yields other factors worthy of discussion. This article addresses the essentials of patents, copyrights and trade secrets and highlights business repercussions each may have for entrepreneurs. Though trade names and trademarks also involve business decisions, they are not discussed herein.

In general, the vast majority of IP alternatives center on patents, copyrights and trade secrets. Each is embedded in extensive statutory

foundations, and each generates a fair amount of case law. Although patents and copyrights are within the domain of federal law, trade secret law originated from state common law and does not have a federal origin. The majority of states, however, have enacted some form of the Uniform Trade Secrets Act (“UTSA”),¹ thereby fostering considerable conformity among the states throughout the country.

I. IP CATEGORIES

A. *Patents*

United States patent and copyright protection springs from the United States Constitution² and is premised upon long-held public policy. The statutory framework specifically articulates the value of the underlying policy for patents as follows:

“It is the policy and objective of the Congress to use the patent system to promote the utilization of inventions arising from federally supported research or development; to encourage maximum participation of small business firms in federally supported research and development efforts; to promote collaboration between commercial concerns and nonprofit organizations, including universities; to ensure that inventions made by nonprofit organizations and small business firms are used in a manner to promote free competition and enterprise without unduly encumbering future research and discovery; to promote the commercialization and public availability of inventions made in the United States by United States industry and labor; to ensure that the Government obtains sufficient rights in federally supported inventions to meet the needs of the Government and protect the public against nonuse or unreasonable use of inventions; and to minimize the costs of administering policies in this area.”³

*Stephen J. Schanz earned a J.D. from Pepperdine University School of Law and an LL.M. from Loyola University in Chicago. He is a Teaching Assistant Professor in the College of Management at North Carolina State University, where he teaches IP and technology in the MBA program. The author thanks Jeff Lewis, a 3L at UNC Law School for his assistance in manuscript and citation review, and David Baumer, J.D. Ph.D., North Carolina State University and Michael Keller for commentary and review.

¹ Uniform Trade Secrets Act (1985).

² U.S. CONST, art. 1, § 8, cl. 8.

³ 35 U.S.C.A. § 200 (2000).

The essence of patent law is a quid pro quo between the inventor and society. In exchange for providing a patentee with what can be considered a “legal monopoly,” that is the exclusive right to make, use or sell an invention, disclosure of the invention itself is required once the patent is issued. In most instances, the legal monopoly is twenty years from the filing of the patent application.⁴ Recent changes in patent law require disclosure of the information contained in a patent application within eighteen months of application, unless limited exceptions are made.⁵ The quid is full disclosure enabling the public to use what is patented when the patent expires, and such disclosure is a primary consideration for the monopoly given a patentee for limited time.⁶ In this way, the public domain is enriched by making new and novel developments available to the public and serving as a catalyst for additional innovations. The pro quo is an award to the patentee of a period of exclusivity, thus permitting an opportunity to recover the time, money and effort spent on the development of the patented product or device.

The Patent Act requires that an invention be new, useful⁷ and non-obvious⁸ for patent protection to be granted.⁹ Additionally, the subject matter of the invention must be patentable¹⁰ and not something akin to the laws of nature, which are not patentable.¹¹ Ideas alone do not qualify for protection, as usefulness must be demonstrated.¹² An idea, by itself, is not patentable; but if the idea is an invention that is manifested as a new process, or is coupled with a new device by which the invention may be made practical, the invention may be patentable.¹³ Given the substantial legal rights that accrue to patentees, the issue of patentability continues to generate much litigation. Currently, business method patents, such as software that determines values, costs and taxes for members of a mutual fund, are under increasingly skeptical scrutiny.

The pivotal portions of a patent application are its “claims”—the specifics of each step or segment of a patent and how it is novel and unique. A mere summary of what a new product or invention does, or how it performs, is insufficient without a detailed recitation of the claims pertaining to each step.¹⁴ Examiners employed by the Patent Office will

⁴ 35 U.S.C.A. § 154(a)(2) (2002).

⁵ 35 U.S.C. § 122(b)(1)(A) (2002).

⁶ *Newport Indus., Inc. v. Crosby Naval Stores, Inc.*, 139 F.2d 611, 612 (5th Cir. 1944); *see also* *Flowers v. Austin-Western Co.*, 149 F. 2d 955 (7th Cir. 1945).

⁷ 35 U.S.C.A. § 102 (2007).

⁸ 35 U.S.C.A. § 103 (2004).

⁹ *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398 (2007).

¹⁰ 35 U.S.C. § 101 (2007).

¹¹ *Parker v. Flook*, 438 U.S. 584, 593 (1978).

¹² *Rubber-Tip Pencil Co. v. Howard*, 87 U.S. 498, 507 (1874).

¹³ *Id.*

¹⁴ 35 U.S.C.A. § 112 (2002).

closely examine an applicant's claims and compare them against any available "prior art."¹⁵ Patent examiners will also conduct research to determine if the proposed patent has been previously patented, described or written about in any publication, either in the United States or abroad.¹⁶ Applicants generally conduct their own review prior to filing an application to gauge their likelihood in obtaining a patent, and the Patent Office will conduct another review upon receipt of the application. Applicants are required to submit all relevant information to patent examiners and failure to do so can be grounds for denying the issuance of a patent or invalidating a patent once it has been issued.

The normal exclusivity period for a patent is twenty years,¹⁷ commencing on the date the application was filed. Given an examination period that normally takes two to three years, the monopoly recoupment period is almost always shorter than twenty years. Additionally, for some patents, such as pharmaceutical drugs (which must be approved by other agencies), the "make, use or sell" monopoly could be substantially less than twenty years. This framework customarily applies to what is known as a "utility patent," or a patent relating to the functionality of a product. Another kind of patent, known as a design patent,¹⁸ results in a shorter protection period of fourteen years from the date of its grant¹⁹ and applies to unique designs only, such as a car grille.

B. Copyrights

Unlike patents, which protect inventions, copyrights afford legal protection for original expressions of authorship. This can include, by way of example, the following: musical scores; literary works including novels and software; lyrics; dramatic productions; sculptures; pictorial, graphic or sculptural works; sound recordings; architectural works; or choreographic endeavors.²⁰ The subject matter of a copyright must be reproducible and in a fixed medium. The statute defines something as fixed as follows:

"A work is "fixed" in a tangible medium of expression when its embodiment in a copy or phonorecord by or under the authority of the author, is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory

¹⁵ 37 C.F.R. § 1.104(a)(1) (2007). *See also* Examination of Applications and Proceedings in the United States Patent and Trademark Office, *available at* <http://www.uspto.gov/web/offices/pac/doc/general/index.html#app>.

¹⁶ 35 U.S.C.A. § 102 (2007).

¹⁷ 35 U.S.C.A. § 154 (a)(2) (2007).

¹⁸ 35 U.S.C.A. § 171 (2007).

¹⁹ 35 U.S.C.A. § 173 (2007).

²⁰ 17 U.S.C.A. § 102 (2007).

duration. A work consisting of sounds, images, or both, that are being transmitted, is “fixed” for purposes of this title if a fixation of the work is being made simultaneously with its transmission.”²¹

Once an owner has a copyright, the law delineates six exclusive rights the copyright holder enjoys. These are the right to reproduce, prepare derivative works, distribute copies, perform publicly, display publicly and digitally transmit recordings.²² The length of the legal protection period is much longer than that for patents. Copyright protection endures for the life of the author plus seventy years thereafter.²³

An important exception to copyright protection is “fair use,” which permits someone to use an excerpt of a copyrighted work for “criticism, comment, news reporting, teaching (including making multiple copies for classroom use), scholarship, or research”²⁴ without constituting an infringement.²⁵ This is important for businesses to recognize, as not every partial reproduction of their copyrighted materials, such as advertising and employee manuals, will warrant legal action.

The determination of whether something falls within the fair use exception is contingent upon several factors: (1) the purpose and character of the use, including whether such use is of a commercial nature or is for nonprofit educational purposes; (2) the nature of the copyrighted work; (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and (4) the effect of the use upon the potential market for, or value of, the copyrighted work.²⁶

Legal action for copyright enforcement can result in the issuance of an injunction, an award of damages, an impoundment of a device or product the court deems involved in the violation, or the recovery of associated costs and attorney fees.²⁷ Willful violations of copyright for “commercial advantage” can trigger a criminal prosecution resulting in fines not exceeding \$500,000 or five years imprisonment (or both) for the first offense, and \$1,000,000 or ten years imprisonment (or both) for a subsequent violation.²⁸

Similar to patents, copyright protections can be traced to the U.S. Constitution.²⁹ In relevant part it reads: “The Congress shall have the Power... To promote the Science and the useful Arts, by securing for

²¹ 17 U.S.C.A. § 101 (2007).

²² 17 U.S.C.A. § 106 (2002).

²³ 17 U.S.C.A. § 302(a) (1998).

²⁴ 17 U.S.C.A. § 107 (2007).

²⁵ See *Harper & Row Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539 (1985).

²⁶ *Id.*

²⁷ 17 U.S.C.A. § 1203 (1999).

²⁸ 17 U.S.C.A. § 1204 (2007).

²⁹ U.S. CONST. art I, § 8, cl. 8.

limited Times to Authors and Inventors the exclusive right to their respective Writings and Discoveries.”³⁰ From a business perspective, copyrights can be just as valuable as patents in protecting works representing a form of expression. Artists could protect their paintings; musicians could protect musical scores and lyrics; software developers might opt to protect unique game displays; and publishers the content of their periodicals, to name but a few.

The process for seeking copyright protection is straightforward, simple, and inexpensive. To formally secure copyright protection the applicant artist files a copy of the work, together with a completed copyright registration and the appropriate filing fee, with the Copyright Office. Generally, the “work” to be filed with the Copyright Office can be: (1) in the case of an unpublished work, one complete copy or phonorecord; (2) in the case of a published work, two complete copies or phonorecords of the best edition; (3) in the case of a work first published outside the United States, one complete copy or phonorecord as so published; (4) in the case of a contribution to a collective work, one complete copy or phonorecord of the best edition of the collective work.³¹

From a legal perspective, an individual can still assert copyright automatically when a work is created and is in a fixed medium for the first time.³² Despite the automatic creation of copyright upon a work’s creation, formal registration is recommended for several reasons. An entrepreneur should file a copyright registration because the registration establishes a public record of the date of the claim, registration is a prerequisite for commencing an infringement action based on statutory damages, and registration enables the owner to seek protection from the U.S. Customs Service from infringing copies being imported.³³ A number of Web sites and individuals have been successfully sued by copyright owners, principally record, movie and video game companies, based on statutory damages without having to prove actual damages of the defendant.

C. Trade Secrets

Unlike patents and copyrights, trade secrets are not founded upon either the U.S. Constitution or federal law. Trade secret law resides within the statutory and case law framework of individual states. Specifically, the U.T.S.A. has been adopted in a majority of states³⁴ and offers entrepreneurs

³⁰ *Id.*

³¹ 17 U.S.C.A. § 408(b)(1)-(4) (2007).

³² Jon Dudas, *A Copyright Refresher*, available at

<http://www.uspto.gov/web/offices/dcom/olia/copyright/copyrightrefresher.htm>.

³³ *Id.*

³⁴ Robert Graham Gibbons & Bryan Vogel, *The Increasing Importance of Trade Secret Protection in the Biotechnology, Pharmaceutical and Medical Device Fields*, 89 J. PAT. & TRADEMARK OFF. SOC’Y 261, 264 (April 2007).

another IP protective measure to consider. When originally developed, the U.T.S.A. set forth in its Prefatory Note an acknowledgement that courts have, over time, invalidated a number of patents and that state law offered other means for protecting business information.³⁵ Further, the same note indicates patent law does not preempt state trade secret provisions.³⁶ The National Conference of Commissioners on Uniform State Laws adopted the U.T.S.A. in 1979 to unify various state laws pertaining to trade secrets.³⁷ States that have adopted the U.T.S.A. have identical trade secret laws, avoiding interstate exceptions.

There are costs and benefits to protecting proprietary business information through trade secrets. There may arise occasions in which proprietary business information is best left undisclosed entirely. Though a patent offers exclusivity for twenty years, a trade secret has the potential to remain confidential and undisclosed indefinitely. Unlike the patent process, which ultimately requires disclosure into the public domain, trade secret law carries no such mandate. Declaring something a “trade secret” is but the beginning of an extensive and complex process for the owner of such information.

A trade secret has been defined as “information, including a formula, pattern, compilation, program, device, method, technique, or process, that:

derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use; and (ii) is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.”³⁸

Some states adopting the U.T.S.A. have altered the definition of what constitutes a trade secret, yet most focus on three elements: (1) information which is not generally known in the industry; (2) situations where the owner has exercised efforts to maintain secrecy; and (3) situations where the maintenance of secrecy offers a competitive advantage.³⁹ As technology evolves, the duties imposed to maintain secrecy will also change, consistent with technological advancements.

³⁵ Uniform Trade Secrets Act, *supra* note 1 (Prefatory note reading, in part, “In view of the substantial number of patents that are invalidated by the courts, many businesses now elect to protect commercially valuable information through reliance upon the state law of trade secret protection.”)

³⁶ *Id.*

³⁷ Sarah Gettings, *Burbank Grease Services, LLC v. Sokolowski: Frustrating Uniformity on Trade Secret Law*, 22 BERKELEY TECH. L.J. 423, 429 (2007).

³⁸ Uniform Trade Secrets Act, *supra* note 1, at § 1(4).

³⁹ Gibbons & Vogel, *supra* note 34, at 264.

One of the most recognized trade secrets is the recipe for Coca-Cola.⁴⁰ Coca-Cola is not patented or copyrighted, though its immense value is maintained as a trade secret. The secret recipe reportedly has been held in a deposit box at SunTrust⁴¹ and has been said to be valued at over one billion dollars.⁴² Recently a Coke employee was accused of conspiring to steal a trade secret and sell it to rival Pepsi. The attempted theft did not include the formula for Coke, but reportedly information on another product the company was developing.⁴³

Protecting information via trade secret status imposes an ongoing obligation upon the custodian of the information. Because there is no uniform process or procedure mandated by existing trade secret statutes or case law, it requires continuous evaluation of the sufficiency of its protective measures. As situations and technology change, so too will the measures necessary to maintain the "secret" change. Hence, a small business or entrepreneur should plan for this in advance. In a word, a small business owner or entrepreneur can only protect trade secrets if he or she uses reasonable means to keep the information secret.

One of the often overlooked benefits of trade secret is the lack of bureaucracy and filings necessary to create trade secret status. Unlike patents and copyrights, both of which are governed by federal statutes, trade secret law does not specifically mandate any specific filing or uniform process.

II. EVALUATING ALTERNATIVES

At a minimum, an entrepreneur has at least three viable alternatives for protecting key business assets, depending on their composition and character. There is considerable overlap between the three alternatives. Inventions, products and processes might be appropriate for a patent, but a business owner may choose to protect this technology through trade secrets. Unique expressions such as literary works, music, architecture, computer programs and similar items could be protected via copyright, but the functionality of software can be protected with patent law. Other information that an owner believes should never be disclosed publicly

⁴⁰ Elena V. Babaeva, et.al. *Braving The Waters: A Guide For Tennessee's Aspiring Entrepreneurs*, 8 TRANSACTIONS: TENN. J. BUS. L. 243, 292 (Spring 2007).

⁴¹ Saskia Scholtes, *SunTrust Sells Stake in Coke*, FT.com, July 22, 2008, available at <http://www.ft.com/cms/s/0/cd8b3e76-5815-11dd-b02f-000077b07658.html>.

⁴² Maria Kantzavelos, *Legal Experts Help Bring 'Next Big Idea' to Market*, CHICAGO LAWYER, June 2006, at 76 (quoting Joseph J. Berghammer saying that the Coke formula is "valued at over a billion dollars. That's how much the formula is worth to Coca-Cola because of the fact that nobody knows what it is.")

⁴³ Kathleen Day, *3 Accused in Theft of Coke Secrets*, WASH. POST, July 6, 2006, at D01, available at <http://www.washingtonpost.com/wp-dyn/content/article/2006/07/05/AR2006070501717.html>.

might best be pursued as a trade secret. Often, advances in technology begin as trade secrets and are later submitted to the Patent and Trademark Office for patenting.

Analyzing which measure is best utilized to protect an entity's assets requires careful consideration. This is especially critical for start-ups and entrepreneurs since almost two-thirds of such entities fail within six years.⁴⁴ The causes can be many, including the collapse of the product market, inadequate capital, protracted regulatory or governmental approvals, and competition from established companies, to name a few.⁴⁵ To the extent that capital is a limited resource for entrepreneurs, early expenditures require thoughtful analysis to ensure that such monies are spent only when necessary. In this context, a deliberative approach to analyzing the best, and most cost effective, means to protect relevant intellectual property is warranted.

The longest period of statutory protection is offered by copyright, but its scope is generally limited to creations of literary or artistic works. Its protection commences immediately upon the idea being fixed in a tangible form.⁴⁶ Registration of a copyright is not required to secure rights pursuant to the Copyright Act, but registration is a prerequisite to seek judicial enforcement.⁴⁷ The costs associated with filing for copyright are minimal and the process itself is relatively simple and straightforward.

Once protected, a copyright owner enjoys the exclusive right to copy or reproduce the work, as well as to sell derivative works, or perform or display the work in public.⁴⁸ Though copyright protection is strong, it does not protect against the same expression arising from someone else's independent creation. In the event other authors created, on their own and without any knowledge of the copyrighted work, the same or similar expression, they would be free to use it. This is because the elements to prove infringement include proof that the infringer had access to the copyrighted work and that the work the author produced is substantially similar to that which was copyrighted.⁴⁹

Patents offer protection to a wide array of inventions, processes and products. While a patent holder enjoys twenty years (commencing from the date a utility application is filed) of the exclusive right to use, manufacture and sell the product, the filing process and its associated costs are more extensive than copyrights. The technical requirements of explaining the new invention and reciting all the elements that make it up, commonly

⁴⁴ Trippe S. Fried, *Minimizing Disputes and Maximizing Profits: Five Balancing Acts for New Business Owners*, 4 DEPAUL BUS. & COM. L.J. 401, 401 (Spring 2006).

⁴⁵ *Id.*

⁴⁶ Babaeva, et.al, *supra* note 40, at 290.

⁴⁷ *Id.*

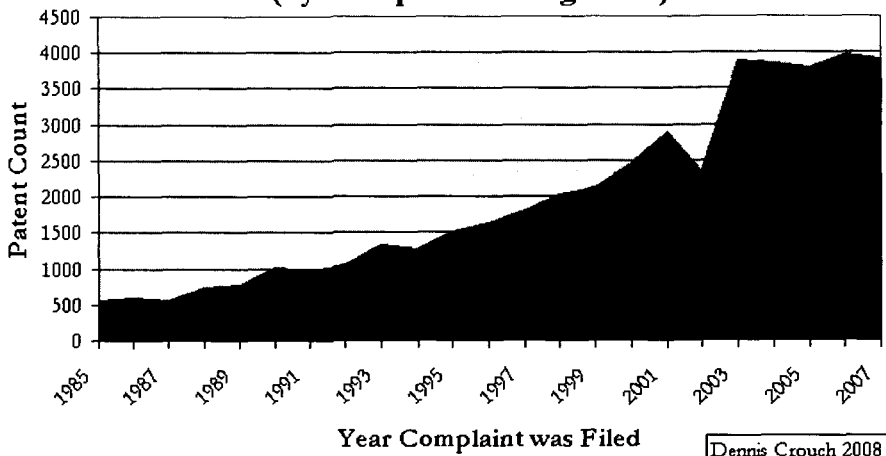
⁴⁸ *Id.*

⁴⁹ *Id.* at 291.

referred to as “claims,” are extensive. Equally important for a small entrepreneur, costs normally incurred in hiring a patent attorney can be substantial. Further, the filing fees required by the government are much larger than that required of copyrights and such costs can increase dramatically in the event patent protection is sought in multiple countries because most countries require separate fees.

A valuable feature of patent protection is that independent creation is not a defense to a claim of infringement.⁵⁰ Unlike copyright, if a patent holder can prove that the infringer is making, using, or selling an invention protected by the grant of the patent, an enforcement action can be maintained. Here, too, patent litigation costs can be enormous. The prevalence of patent litigation is substantially increasing as the following chart reflects⁵¹ and businesses should factor in the time and expense associated with the prosecution of an alleged infringement, as well as the costs to defend, if the business is the alleged infringer.

**Number of Patents in Litigation
(by Complaint Filing Date)**



Another uncertainty facing patent holders is the possibility that a third party could, at any time, challenge the validity of a patent.⁵² In such a scenario, the risks are enormous—at best, maintaining the validity of the patent could incur large litigation costs or, at worst, a declaration of invalidity could eliminate the value associated with the invention.

A recent case could complicate the uncertainties of a patent challenge even more.⁵³ In *KSR International Co. v. Teleflex, Inc.*, a central issue was whether a patented device was obvious and, thus, not appropriate

⁵⁰ 2 PATENT LAW FUNDAMENTALS § 6.3 (2d Ed.) (West Group 2008).

⁵¹ Posting of Dennis Crouch to Patent Law Blog (Patently-O), <http://www.patentlyo.com/patent/2008/03/index.html>. (Mar. 17, 2008, 07:22 EST).

⁵² 37 C.F.R. § 1.913 (2007).

⁵³ *KSR*, 127 S. Ct. 1727 (2007).

for patent.⁵⁴ The lower court examined whether there was a previous teaching, suggestion, or motivation (the so-called "TSM test") that would have led to the patented invention. The Supreme Court, in relevant part, opined that "[g]ranting patent protection to advances that would occur in the ordinary course without real innovation retards progress and may, in the case of patents combining previously known elements, deprive prior inventions of their value or utility."⁵⁵ Consequently, there remains the possibility that a competitor, or any third party, could subsequently challenge the validity of a patent after its issuance. The teaching of *KSR* is that combining two known products that together produce nothing that is synergistic or unusual will not normally qualify for patent protection.

The implications of this issue for patent law are enormous. The *KSR* opinion is the Supreme Court's eighth decision involving non-obvious subject matter in the past fifty-five years. Though the non-obvious standard serves as the "ultimate condition of patentability" and the "heart of the patent law," Supreme Court decisions on this issue are ambiguous and seem to vacillate. The Court still has not defined what an invention must do at a minimum to avoid a challenge based on obviousness. Reliance by small firms on patents could be fatal if a large firm who is also a competitor infringes with impunity and is able to invalidate the patent due to obviousness.⁵⁶

The potential for a post-patent re-examination is not without consequence to an entrepreneur. Prior to the *KSR* decision, courts generally relied upon an objective standard that used a factual inquiry for determining whether a patent is obvious.⁵⁷ The U.S. Courts of Appeals for the Federal Circuit, however, found the standard difficult to apply and began using the TSM analysis, requiring a showing of some motivation or suggestion to combine the prior art.⁵⁸ The Supreme Court in *KSR* rejected the approach of the Federal Circuit and stressed the need for an "expansive and flexible" approach, while reiterating the older approach of "uniformity and definiteness."⁵⁹ Justice Kennedy, speaking for the Court, indicated that a broad inquiry was appropriate, writing that the bar on patents "must not be

⁵⁴ See *id.* at 1734.

⁵⁵ *Id.* at 1732.

⁵⁶ Gregory N. Mandel, Business Law Forum: *Nonobviousness--The Shape Of Things To Come: Another Missed Opportunity: The Supreme Court's Failure To Define Nonobviousness Or Combat Hindsight Bias in KSR v. Teleflex*, 12 LEWIS & CLARK L. REV. 323, 324 (2008) (citing from John F. Witherspoon, Ed., *Nonobviousness - The Ultimate Condition of Patentability* (1980); FTC, *To Promote Innovation: The Proper Balance of Competition and Patent Law and Policy*, ch. 4, at 2 (2003), available at <http://www.ftc.gov/os/2003/10/innovationrpt.pdf>.)

⁵⁷ *Graham v. John Deere Co. of Kan. City*, 383 U.S. 1, 17-18 (1966).

⁵⁸ *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1323-24 (Fed. Cir. 1999).

⁵⁹ *KSR*, 127 S. Ct. at 1739.

confined within a test or formulation too constrained to serve its purpose.”⁶⁰

Already, some legal commentators and authors have questioned whether the articulated standard for determining obviousness in relation to the validity of a patent offers sufficient clarity and predictability. One has postulated the conundrum as follows:

As previously stated, the cost of prosecuting patents is high. This high cost limits the availability of the patent system to inventors with sufficient resources to go through the process of arguing with the patent office. An unpredictable system would further widen the gap between the haves and have-nots in the technological world, limiting the patent system to large entities having an already large patent portfolio. The idea of the one man inventor would die a quick death without some sort of ability on his part to predict whether investing in the patent system would give him a return on his investment in the form of exclusive rights to his discovery.⁶¹

Small businesses and start-ups arguably face another uncertainty in evaluating whether patent protection is their best option, as it could be difficult, at best, to assess definitively their chances for a successful patent application. Thus, their risk-benefit calculations become murky. The potential effects upon businesses and entrepreneurs, as a whole, have been articulated as follows:

However, given the uncertainty caused by the Supreme Court's opinion, it appears likely that inventors may be hesitant to invest their money in the process. One of the purposes of the patent system is ‘to promote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries.’ When the chance of getting a patent is unclear, the inventor has less incentive to create a new invention. It may be difficult to predict with certainty the extent to which the decreased incentive stunts creativity because of the constant increase of patent applications every year. However, as is the case with any investment,

⁶⁰ *Id.* at 1746 (2007).

⁶¹ Nicholas Angelocci, *KSR v. Teleflex: Obvious Ambiguity*, 18 J. ART TECH. & INTELL. PROP. L. 293, 321 (2008).

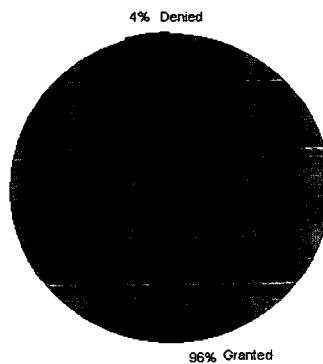
the higher the risk in the investment, the less valuable it becomes to the risk taker.⁶²

The patent application process, as well as the litigious environment it often spawns, is worthy of consideration by entrepreneurs.

The application process for patents can be lengthy. There is no maximum timeframe within which a patent decision has to be issued by the United States Patent & Trademark Office (USPTO). It varies according to the scope and complexity of the application, and the degree of communication with the USPTO during the approval process. As a result, there is often a substantial lag between the time an application is filed and the date a final determination of award or rejection is made.

Once issued, a patent still is not beyond challenge. The Patent Act specifically permits a third party to challenge the validity of a patent, which can trigger substantial legal expenses.⁶³ Further, recent statistics indicate such challenges can be a real concern and very expensive for patentees.

Fiscal Year 2003-07 Review Requests Grants & Denials⁶⁴



A review of *ex parte* challenges for fiscal years 2003-2007 (see above chart) show that the USPTO reviewed 2,389 requests and denied only 105 of them (though some might have been attributed to procedural reasons).⁶⁵ To be successful, challengers must demonstrate a “substantial new question of patentability” that affects

⁶² *Id.* at 315 (citing U.S. CONST. ART. I, § 8, cl. 8).

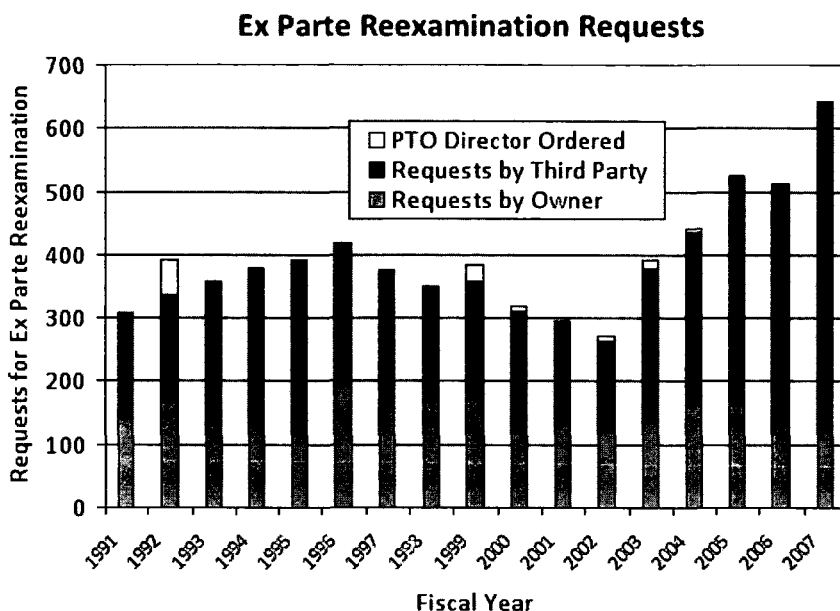
⁶³ 35 U.S.C.A. § 302 (2002).

⁶⁴ Posting of Dennis Crouch to Patent Law Blog (Patently-O), available at <http://www.patentlyo.com/patent/2008/06/index.html> (last accessed June 5, 2008).

⁶⁵ *Id.*

at least one claim of a patent and the request must be based on a prior art patent or publication.⁶⁶

Additionally, statistics reveal substantial activity in the number of re-examination requests arising over the past decade or more (see chart below).⁶⁷



The benefits of a trade secret are many, though the measures used to maintain secrecy generally must be continually updated to reflect state-of-the-art measures. The burden falls upon the custodian of trade secret information to maintain its secret status. This involves several stages and features.⁶⁸ First, the protected information must be clearly marked or identified as secret to avoid any confusion or ambiguity regarding its confidential status. Second, appropriate measures need to be employed to restrict unwanted or unauthorized personnel from gaining access. Third, some type of audit, consistent with the measures used, should be regularly undertaken to assess the effectiveness of the security system. An audit may be invaluable not only to maintain the integrity of the confidential measures employed, but also to assist in discovering if a breach has occurred. The UTSA specifies a three-year statute of limitations to bring any legal action. The statutory period commences when the “misappropriation is discovered or by the exercise of reasonable diligence should have been discovered.”⁶⁹

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ CONSTANCE E. BAGLEY & CRAIG E. DAUCHY, *THE ENTREPRENEUR’S GUIDE TO BUSINESS LAW*, 494-502 (Thomson/West, 3d ed. 2008).

⁶⁹ Uniform Trade Secrets Act, *supra* note 1, at § 6 (1985).

Trade secret status offers the benefit of potentially being less expensive, does not require a regulatory or public filing, and can be timely achieved. However, pitfalls can still exist. Since there is no governmental grant of exclusivity similar to a patent, a competitor coming up with the same invention or formula via independent means could openly compete with the holder of the trade secret. A “societal value” is also lost because the invention is kept secret, and not disclosed to the public,⁷⁰ unlike disclosure of a patent, which would allow others in society to research and improve on the patented item.⁷¹ On the other hand, trade secrets are always vulnerable to loss through independent creation.

III. IP CHOICES OFTEN MULTI-FACETED BUSINESS DECISIONS

Decisions on the type of intellectual property measure to protect an asset can hinge on many factors, including the financial resources available to an entity and their ultimate business plan. If an entity has developed a secret process or product that it hopes to sell in the near term to another company, it may not be as critical to procure patent protection and its extended exclusive protective period. In such a scenario, the asset might be protected as a trade secret until the disclosure takes place. Thus, the time and cost of patent protection is avoided. In the event a firm has a product that it intends to keep long term as part of its business plan, the patent process might become the preferred mode of protection, inasmuch as the twenty-year exclusivity period may be consistent with the goals of the patent-holding firm.

Yet another factor influencing the intellectual property measures employed will be the availability of financial resources. Most start-ups experience limited capital in their formative stages and decisions on where to spend funds must be prioritized, often competing with research and development needs. From a business perspective, a decision might be made to utilize a potentially less expensive form of IP protection, such as trade secret, until such time as funds become available for patent or other protective measures.

Authors on entrepreneurship have opined “that the exploitation of opportunities is more common when people have greater financial capital.”⁷² The same researchers have found that “the creation of new products and markets involves downside risk, because time, effort, and money must be invested before the distribution of the returns is known. Several researchers have argued that individual differences in the

⁷⁰ Scott Shane & Sankaran Venkataraman, *The Promise of Entrepreneurship as a Field of Research*, 25 ACAD. OF MGMT. REV. 217, 223 (2000).

⁷¹ Angelocci, *supra* note 71, at 321-322; *see also* Scott Shane & Sankaran Venkataraman, *The Promise of Entrepreneurship as a Field of Research*, 25 ACAD. OF MGMT. REV. 217, 223 (2000).

willingness to bear this risk influences the decision to exploit entrepreneurial opportunities.”⁷²⁷³

At the heart of most IP decisions lies the analysis of whether the coveted process, product, or invention is an integral part of a viable business plan. Is it likely the product is marketable, and, if so, is the market large and robust enough to sustain a business plan? From a business perspective, the most unique invention is unlikely to justify the time and expense involved in any form of IP protection if a market for it cannot be ascertained.

IV. CONCLUSION

Entrepreneurs and small businesses have an array of options available to protect their intellectual property. The decision as to which alternative is best will involve legal, financial, and operational considerations. Businesses should give careful thought to the type of legal protection their product needs (see Chart 1 below). For instance, if the product is projected to have a long sales life, and it can be protected from competition, is it worthy of applying for a patent? Alternatively, is the secret information something the company wants protected but does not qualify for patent protection, such as a musical score or literary work? Or is the product premised on quickly changing technology which the company wants to avoid disclosing to prevent a competitor from building on its foundation and thus possibly best protected by trade secret status?

⁷² Shane & Venkataraman, *supra* note 70, at 223.

⁷³ *Id.* citing Frank Hyneman Knight, RISK, UNCERTAINTY AND PROFIT (Augustus Kelley 1921); Sankaran Venkataraman, The Distinctive Domain of Entrepreneurship Research: An Editor's Perspective in *ADVANCES IN ENTREPRENEURSHIP, FIRM EMERGENCE, AND GROWTH*, Vol. 3, at 119-138 (J. Katz & R. Brockhaus eds. 1997); Richard Khilstrom & Jean-Jacques Laffont, *A General Equilibrium Entrepreneurial Theory of Firm Formation Based on Risk Aversion*, 87 J. OF POL. ECON., at 719-748 (1979).

Chart 1

	Patents	Copyrights	Trade Secrets
Protection Period	20 years from filing date (utility patent)	Life plus 70 years	Indefinite
Costs	High	Low	Variable
Application Timeframe	Lengthy	Short	N/A
Independent Creation Protection	Yes	Yes	No
Scope of Protection	Exclusive right to use, manufacture, & sell	Right to reproduce, prepare derivative works, copy, publicly display, etc.	Formulas, recipes, compilations, processes, methods
Validity Subject to Challenge	Yes	No	N/A

Additionally, small companies often face limited financial resources. The cost of a patent might prove prohibitive at a designated period of time, weighing heavily in favor of protecting it via trade secret. Even if the initial patent process appears within the company's budget, there may be a lack of ongoing funds to monitor for subsequent patent infringement and/or enforcement.

Other companies may find their product is best protected by a combination of patent and copyright. A video game, for example, could have its unique displays and graphics protected by copyright, while the unique functionality of the game itself (i.e., software) could be protected by patent law. Some products may invite vigorous competition, where owners fear others may "build" or expand on their technology once it is disclosed via patent; thus, they opt for trade secret status. Or the item may not qualify for a patent, and trade secret offers the better solution. Clearly, from a business perspective, the selection of the best intellectual property avenue is multi-faceted and not one-dimensional. Although the legal intricacies of each are important, other non-legal considerations such as the financial costs must be evaluated.

