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HOW SMES CAN BENEFIT FROM INDUSTRIAL PROPERTY INFORMATION

*Document prepared by Mr. Donald Bollella,
Chief Patent Counsel, Burstein Technologies, Inc.,
Irvine, California*

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INTRODUCTION

For the technology-based SME, a through understanding of the competitive landscape relative to technology ownership is critical to strategic positioning. For such a technology driven SME, using technology owned by others without permission (either intentionally or innocently) results in unlawful acts of infringement. In addition, when an SME is knowledgeable of the prior art in its technological area, the SME is better positioned to identify its own novel technological advancements and then take appropriate steps to protect these in-house innovations.

One of the best methods for an SME to identify protected technologies relative to its business objectives, is to study the patent literature. To study the patent literature, an SME must know how to access the patent literature.

For the high-tech SME, patents are generally considered the most important form of intellectual property. Furthermore, the patent literature contains a vast volume of technical disclosure that is not published in any other publicly available form.

This paper is directed to a discussion regarding how SMEs can benefit from industrial property information. These benefits may be employed both defensively as well as offensively.

In the present discussion, the term IP will generally be utilized to encompass all forms of intellectual property protection or industrial property information. As indicated above, however, it should be understood by the principals of technology-based SMEs that patents are perhaps the most important of intellectual property protection devices. While keeping a view to all forms of IP, the present discussion will nonetheless be somewhat necessarily focused on patents.

This paper is divided into three main parts. Part I is directed to accessing the patent literature. Part II is directed to the use of industrial property information for defensive strategic planning. And lastly, Part III of this paper is directed to the offensive use of intellectual property information as a patent management strategy for creating value in a technology based SME.

PART I

ACCESSING THE PATENT LITERATURE

As indicated above, a vast amount of competitive information is available from only one source—the patent literature. The publicly available patent literature exists in two different forms. The first is published applications. The second is issued patents.

The patent document itself includes, typically, several different parts. The patent document or “specification” (whether in form of a published application or issued patent) includes a title, an abstract, drawing figures, an indication of the field of use, a discussion of related prior art, a summary of the invention, a brief description of the drawing figures, a detailed description of the invention, and claims. In addition to these technical parts of a patent document, the first page of a published application or issued patent also includes certain biographical and administrative information such as the filing and publication dates of the application, the issue date of an issued patent, the names and addresses of the inventors, the name and address of the assignee or applicant, the priority documents, international and national classifications, the classes and subclasses searched by the examiner, and the cited references. Most national patent documents also identify the patent examiner by name, and the name of the legal representative. To some lesser or greater extent, all of this information may be used by an SME in a strategic manner.

There are many publicly available methods for searching the patent literature. Before the advent of electronic archival databases and the Internet, virtually all patent literature searches were conducted by hand. These searches were performed in the national patent offices themselves by skilled patent searchers. In the United States, such patent literature searches were also conducted in official U.S. patent depositories. These depositories still exist today and are typically located in major universities or public libraries. One strict requirement of the patent deposit library was that it contain a hard copy of all the patent documents available at the United States Patent and Trademark Office (USPTO). In this manner, access to the full collection of U.S. patents was physically spread around the country.

Now with the abundance of computing power and electronic storage space coupled with the Internet, accessing a majority of the world’s collection of patent literature may be easily performed from a desktop personal computer (PC). This is an amazing resource that simply did not exist before widespread use of PCs and the Internet.

All engineers, scientists, technical managers, business managers, and administrative staff members in an SME can easily be taught how to access patent literature from the publicly available databases with some meaningful degree of effectiveness. Before an SME expends valuable employee time and financial resources on new product development, it should first endeavor to identify any related technologies owned by others. If such other proprietary technologies are relevant to the SMEs product development, then the SME would decide whether it should take a license under the proprietary technology owned by others, or employ its creative in-house resources to “design around” or “work around” the identified relevant proprietary technology owned by others.

The national patent offices have among the best website-accessible databases for conducting online patent prior art searches. Some of these offices include the USPTO with a website address at www.uspto.gov; the Korean Industrial Property Office at www.kipo.go.kr (Korean language pages) and www.kipo.go.kr/ehhtml/eIndex.html (English language pages); the State Intellectual Property Office of the People’s Republic of China having a website address at www.cpo.cn.net; the European Patent Office at www.european-patent-office.org; the Japanese Patent Office at www.jpo.go.jp; the Russian Patent Office at www.fips.ru or www.rupto.ru (Russian and English pages); the Canadian Patent Office at patents1.ic.gc.ca/intro-e.html (Canadian Patent Office has over 1,400,000 patent documents online); and the Australian Patent Office at www.ipaustralia.gov.au.

Patent searches may also be conducted by SME employees and staff at commercial websites on a subscriber-fee basis. Alternatively, or as a supplement to SME conducted prior art searches, the SME may retain a search firm or private law firm for more thorough and exhaustive prior art searches.

PART II USE OF INDUSTRIAL PROPERTY INFORMATION FOR DEFENSIVE STRATEGIC PLANNING

As the technology-based SME develops its products, it should analyze its product specifications or formulations and determine whether its proposed products or services infringe the legitimate intellectual property rights of others. This competitive analysis process should be conducted on an ongoing basis. The responsibility for this activity may be assigned either formally or informally to an individual at the SME, a committee of the SME, or performed in conjunction with the SME's outside IP counsel.

A. Establishing the SME IP Committee

A critical part of integrating IP management into corporate and business strategy is in the formation of effective committees which need to share information and interact in a coordinated manner. The principal committees necessary to perform this function internally in a business organization may typically include the executive committee, the patent or IP committee, the product development committee, and the marketing committee.

Since SMEs are typically smaller and more streamlined internally, they may not be expected to have such formalized committees. Nonetheless, the technology-based SME is advised to implement these functions in-house even if only an informal approach is possible.

The IP committee is typically charged with the duty of analyzing competitors patents, maintaining an awareness of internal research and development involving company innovation, establishing and maintaining a reverse engineering program when necessary, and interfacing with IP attorneys in private firms for (1) reviewing competitors' IP strengths and weaknesses and (2) developing the company's IP portfolio in a manner that makes strategic and competitive sense given the company's strengths relative to its competitors.

For those SMEs with formalized committees, members of the SME IP committee should include senior scientists and engineers, heads of technical departments, general counsel or in-house corporate patent counsel, and one or two executives or corporate officers. The IP committee is also usually responsible for reviewing proposed trademarks and approving the use thereof in connection with the company's products and services.

B. Defensive Activities of the SME IP Committee

Once the SME patent or IP committee has been established (either in a formal or informal manner), and relevant prior art patents have been identified, the SME must analyze

the prior art to determine whether it is infringing or may infringe, the intellectual property of others. This analysis is best performed by creation of “claim charts” and a related claim-by-claim technical reading of the claims on the SME’s products or proposed products. SMEs with sophisticated technical and legal personnel may perform this task in-house. Otherwise, it is recommended that the SME conduct this analysis in conjunction with outside patent counsel.

Along with the patent literature, the SME can develop an industrial information portfolio of relevant competitors. As the SME becomes aware of the prior art IP in its technical arena, it may categorize this prior art on a company-by-company basis. In this manner, the SME builds internal knowledge of the IP strengths (and weaknesses) of its competitors.

In the event the SME identifies patents of others that it infringes or may infringe, it must then decide firstly whether the patents are valid and enforceable and, if so, whether it will take a license under the patents or make technical changes to the proposed products to thereby design around the patents. This is a business decision and can only be decided on a case-by-case basis. Typically, however, if the SME has creative resources and can easily design around the dominating patents, then the design-around approach is the better option. If, on the other hand, the dominant patents are well known (i.e., they have been heavily litigated successfully and/or industry has acknowledged their strength by acquiescence in licenses and payment of royalties), then the SME is advised to follow the licensing route or abandon the line of products that would require such a license.

PART III

OFFENSIVE USE OF INTELLECTUAL PROPERTY INFORMATION AS A STRATEGIC BUSINESS TOOL

A. Market Analysis from the Strategic Business Point of View

To maintain its competitive advantage, an SME must be aware of the competitive environment. With regard to monitoring competitors’ activities, it is advised that high-tech companies perform IP monitoring of published trademarks, published patent applications, trademark registrations, and issued patents. As indicated above, an SME can perform this activity internally by conducting on-line searches in the various national patent and trademark office databases. Alternatively, the SME may hire watch services or law firms to perform this function.

Once the publicly available IP of competitors is collected, it must also be analyzed from an offensive strategic point of view. The SME’s patent or IP committee is responsible for assigning such tasks. Typically, analysis of competitors IP is delegated to sub-committees of the IP committee.

When dealing with competitors’ patents, two principal inquiries are investigated. As discussed above, the first is defensive in nature and is directed to determining whether the company’s products or proposed products would infringe the patents of others. The second is offensive and strategic in nature. It is directed to determining whether there are technical

areas in which the competitor is either unprotected or insufficiently protected with enforceable intellectual property. In this manner, the high-tech SME develops a keen insight into the areas of coverage of its patent portfolio relative to the portfolio of patents held by its competition. To maintain this keen insight, the monitoring of competitors' IP must be conducted on a regular on-going basis.

B. Developing and Supporting Company Strengths—Internally

Once the competitive landscape of intellectual property is understood by the high-tech SME, it should look internally to identify its strengths relative to its competitors. If a competitor is highly advanced in a particular technical area and that area is strongly protected with patents and other intellectual property, the company must make a realistic decision regarding whether it can compete in that area. If on the other hand, the competitor is not well advanced in a particular technical area and thus virtually unprotected in that area; the high-tech SME may have a strategic advantage. To convert this potential advantage into a real advantage that bears economic fruit, the SME should assess its technical strengths in this area, develop competitive products based on these technical strengths, and ensure that all innovation relating thereto is properly protected by patents and other intellectual property.

As an added component to improving an SME's strategic advantage over its competitors by managing its intellectual property, an SME may allocate resources into new areas in which it has determined its competitors are vulnerable. Thus after conducting an extensive IP audit of its competitors, a high-tech SME may determine that its competitors are weak in an area in which the high-tech SME had not historically operated. Given this competitive landscape, the high-tech company may then expand its areas of technical development and expertise. This expansion may be supported by a reallocation of resources to the new area. Such an expansion into a new technological area for the SME should be well supported by both sufficient funding and technical personnel. To protect its investment in supporting this new area of technological development, the high-tech SME is advised to protect all such new innovation with patents and related IP.

Thus in this manner, the high-tech SME has used industrial property information and the IP system both defensively and offensively to identify, create, and maintain an economic advantage over its competitors.

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