

Intellectual Property as a Marketing Tool

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[Abstract] The purpose of this study is to contribute to the literature by expanding the frontier of the research area about how to integrate Intellectual Property (IP) and marketing. This research will also help managers understand how to incorporate IP tools into their marketing activities. In the marketing literature, IP has been introduced usually as law which companies must comply with, rather than as a tool for accomplishing the purpose of marketing. Taking the form of a literature review, this paper illustrates how IP contributes to (product) marketing, namely, market analysis, segmentation, targeting, marketing mix and Product Life-cycle, revealing that IP has multiple functions directly related to market such as the function of deterring market entry, the function of exclusion from the market, the function of disclosing corporate strategy and the function of building business partnership. The author shows the potential of IP as a marketers' tool for maintaining market share, expanding market share and creating new market especially from a medium and long-term perspective.

[Keywords] Marketing tool IP Landscape Intellectual Property

1. Introduction

Peter Drucker said, “The aim of marketing is to make selling superfluous,” as is often introduced in the textbook of marketing (i.e., qtd, in Kotler, 2000). It means that it is ideal for marketing to realize the situation that “the product or service fits him and sells itself.” As soon as I knew these words for the first time, it was the world’s first copier of Xerox using plain paper that occurred to me. This is because, at the time of 1960s, I heard in the past that customers who wanted to use this machine had to visit Xerox’s head office. Patents enabled such a situation. In other words, because of Xerox’s patents, no company was able to produce similar copiers, which was a monopoly market of Xerox at that time (Blackstone, 1972).

Focusing on this point, it seems that intellectual property right (IPR) including patent is inseparably-

linked to marketing because it enables an ideal condition for it. Additionally, “differentiation” is one of the most important keywords in marketing strategy (e.g., Smith, 1956), and it holds true in intellectual property (IP) field because IPRs, including patents as well as even trademarks, can be obtained only when there is differentiation from something already existing (Besen and Raskind, 1991). In this context, both also have in common.

However, few books written about marketing deal with IP (except as to trademarks) and vice versa. According to Bird (2007), “[u]nfortunately, strategic management scholars have not sufficiently studied law as a value-capturing resource.” It seems to me that neither have marketing scholars. Aside from the context of compliance, in general, marketing and IP have been considerably separated from each other so far.

As for the purpose or goal of marketing, though there are various opinions and expressions (e.g., Gbad-

amosi et al., 2013) as is case with the definition of marketing, this paper is based on the premise that one of the most important aims for an organization which provides goods or services is “to maintain market share, to expand market share and to create new market.” As opposed to the past period of supply shortage, nowadays existence of competitors is presupposed. IP law, however, enables companies to eliminate them from the market (Statman, 1981).

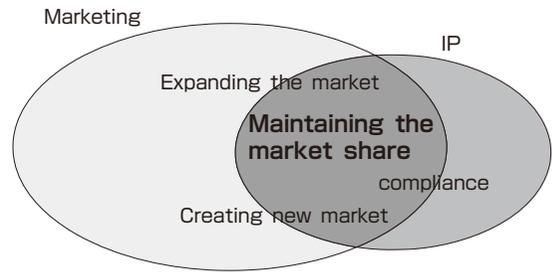
Companies, especially in the context of compliance, are supposed to hesitate to enter the specified market where competitors who own IPR exist because IPRs are exclusive. As a matter of course, many studies have already suggested this kind of IP’s influence on market (e.g., Blackstone, 1972 ; Salop, 1979 ; Scherer, 2005). From a marketing perspective, I would like to call it “the function of deterring market entry.” However, the degree of this function depends on the field of technology (e.g., Schankerman, 1991). For example, one can obtain a patent as material itself, thus pharmaceutical products are protected by only one or a few patents. Therefore, this function is very powerful in this kind of industry. On the other hand, in electric appliance industry, products are related with numerous patents, and hence, this function is relatively weak (Lieberman et al., 1988).

Additionally, as is well known, when copycat products are placed on the market, companies are able to use IPRs to remove them from the market with the state power’s help, which is given the name of “the function of exclusion from the market” from a marketing standpoint.

Accordingly, companies which have IPRs may establish a relatively-strong market position. On the other hand, those which do not may have to be in a relatively-weak position. In other words, companies which have innovative products are able to “maintain market share” by using the functions of IPRs. Therefore, it may be said that IPRs can contribute to accomplish the purpose of marketing as shown in Figure 1.

Moreover, as information of IPRs is available for the

Figure 1 Purpose of Marketing and IP



public by the law, many scholars already have used it for their research about companies’ business strategy (e.g. Katila et al., 2002). It would be a waste for companies which really do business not to use such kind of precious information in order to maintain market share and create new market. For example, patent data can assist the decision-making of top management for company strategies (Chiu, 2014).

The purpose of this study is to contribute to the literature by expanding the frontier of this research area about how to integrate IP and marketing. This research will also help managers understand how to incorporate IP tools into their marketing activities.

2. Literature Review

In the marketing literature, not a few previous studies and books deal with Trademark Act for Brands (e.g., Keller, 2012). However, most of them do not devote some space to other IP laws (especially patent law), they tend to, if any, refer to IP laws in the context of “compliance” (e.g., Halt et al., 2014).

A number of papers exist which deal with the relation between marketing activities and patented drugs, but almost all of them are about marketing activities “after” the patent expiration (e.g., Statman et al., 1981 ; Caves et al., 1991 ; Frank et al., 1997 ; Agrawal et al., 1997 ; Aronsson et al., 2001 ; Chandon et al., 2004 ; Ellison et al., 2007 ; Ching, 2010).

In a word, IP has been introduced usually as law which companies must comply with (e.g., Wade, 1965 ; Maronick, 1988), rather than as a marketer’s tool for

accomplishing the purpose of marketing.

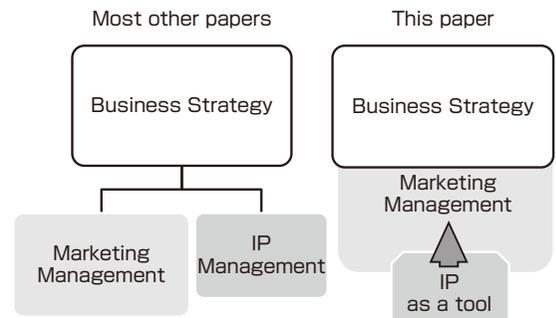
As for “technology marketing” concept which is usually used in the context of “management of technology” or “technology management,” though it seems that its established definition does not exist, it is called a kind of “new” marketing concept for the sake of “engineers and Research & Development (R&D) department” dealing with technology as a kind of “product” and tends to attempt to push technology itself (i.e., Tschirky et al., 2000), which I am not concerned with because the “conventional” marketing concept for the sake of “marketers and marketing department”(not for engineers and R&D) is presupposed in this paper. According to Verganti (2013), Apple, when developing “iPod,” focused on designing the user interface and made “design-driven” innovation happen, utilizing other firms’ various existing technologies (e.g., Sony, Toshiba etc.).

Thus, it appears that Apple does not pursue “Technology Marketing” concept. It might not be a technology-oriented company but rather a technology-related company. This paper deals with technology-related companies.

In precedent studies regarding IP/IP strategy (many of them are written by IP specialists such as patent attorneys), there is little agreement on the relation between marketing and IP, despite of the existence of the suggestion that the successful commercialization of an innovation almost always requires marketing in addition to IP (Teece, 1986). This is possibly because IP experts usually specialize in law and/or technology that should be required for practicing. For example, Sugimitsu (2005) found that 90% of human resources in IP field in Japanese companies had a scientific background.

De Wilton (2011) explains the aspect of IP (especially patents) as “commercial tool” for such as “protect market share” and “enhance product/quality image” etc. To the author’s knowledge, however, the first article to focus on the nexus of marketing and IP is Conley et al. (2008). Moreover, Conley et al. (2013) is the most

Figure 2 Image of relation between Marketing and IP



significant study on the relation between marketing and IP, which introduces a framework that helps to assimilate IP management activities with the practices of marketing and strategy. This research is, however, different from this paper in that IP should be regarded as a “tool” for marketing department shown in Figure 2.

There have been relatively many articles about “patent information” which propose that it can be useful for analyzing the internal and external environment (e.g., Moge, 1991). Unfortunately, they have been written mainly for IP experts or engineers in R&D department (see i.e., Lee et al., 2009), thus it is possible that they draw little attention of marketers or marketing scholars.

Recently, it seems to me that the concern with “IP marketing” or “IP commercialization” which deals with IP as a kind of product has been growing gradually (e.g., Mitkova, 2005 ; Lin et al., 2013). This concept usually emphasizes that companies can obtain “monetary” profit from IP as one of corporate “assets” by assigning and/or licensing them, which is different from the position this paper stands on, because this paper focuses on the aspect of IP as a tool for (product) marketing. Therefore, as the purpose of this paper is concerned, it is not necessary to discuss it.

On the other hand, some researchers (e.g., Gupta et al., 1986) have stated that marketing and R&D should be “integrated” or “aligned.” This paper is to show the conceptual kin of this in between marketing and IP.

Judging from above, though there are several papers

which deal with patents related to subordinate marketing concepts such as 4Ps as I discuss later, little attention has been given by both marketers and marketing scholars to the aspect of IP as a marketers' tool for marketing process in order to maintain market share, to expand market share and to create new market.

3. IP as a marketing tool

It will be discussed as bellow how IP, including information of it, contributes to marketing, using the typical and traditional marketing process, such as market analysis, market segmentation, targeting, positioning and marketing mix etc.

I will not take up trademarks as assets unless otherwise noted because they have already been usually introduced along with "brand" management (e.g., Keller, 2012). This paper focuses on the aspect of IP, not as an "asset" but as a "tool." Conley et al. (2013), however, suggests that copyrights can also be used for marketing in the field of entertainment companies (e.g., The Wald Disney Company). I limit the discussion to conventional "product marketing" in this paper because this kind of marketing must be different from the other kind.

3.1. Market Analysis

First of all, most of all the business environment analyses are based on the presupposition that the environments are given which cannot be easily changed like pre-existing laws. However, as any companies can research and develop new inventions on their own purpose, they can also obtain IPRs as far as their deliverables are really new. Then, the IPRs can perform as "the function of deterring market entry." Therefore, it means that IP can change the business environment intentionally, which is extremely important aspect of IP and should be considered in mind when conducting market analyses.

The method of market analysis includes various tools, but a representative one to evaluate environ-

ment opportunities is SWOT analysis (e.g. Piercy et al., 1989).

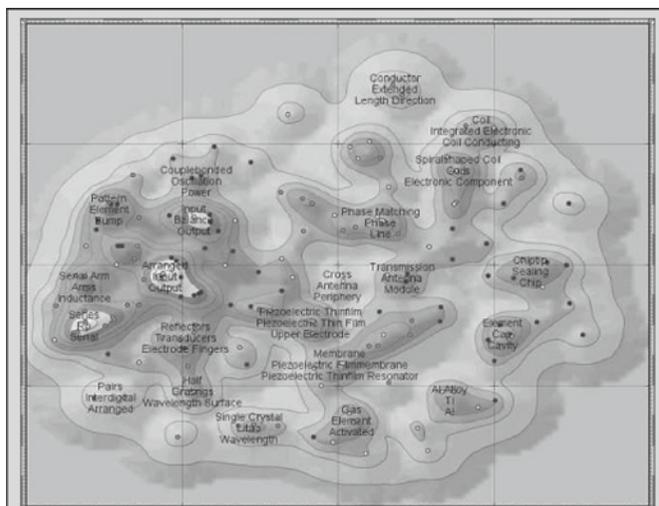
IP, especially patent information, is highly useful for this analysis as several researchers (i.e., Dou and Bai, 2007) already have noted. This is because patent information is forcibly opened to the public after several (normally 18) months of its application and indicates corporate information including R&D strategies as well as business strategies on potential markets to enter in the near future. I call this property of patent information "the function of disclosing corporate strategy." Free databases provided by each government can be used, however a variety of commercial databases are also available (i.e., Thomson Innovation). Patent information retrieved from such databases is usually processed into so-called "Patent Map" which visualizes the data (e.g., Lee et al., 2009).

For example, as illustrated above in Figure 3¹, patents are grouped into map "contours" to indicate areas of high and low patenting activity organized into common themes. "Mountain peaks" represent a concentration of patents. The more similar technologies are, the nearer the peaks are located. Therefore, you can easily find fields where there are many competitors or your company has a strong position.

In this way, Patent Map is very useful especially for technology-based companies to identify strength and weakness of them. Although it could have been used mainly by IP department and R&D department (e.g., Ernst, 2003) for their own planning until recently, a relatively new concept, "IP landscape," has become widely used for decision-making of company strategies including marketing strategies. The term "IP landscape" has a no clear-cut definition at this time, but it has a commonality in that it is not only for conventional freedom-to-operate (FTO), but also for "marketing, research and development, and legal teams to coordinate strategies that align with the overall goals of the business (Keiser et al., 2014)."

In the Porter's 5 forces analysis (Porter, 1991), patent information can also be used especially for

Figure 3 Landscape Map



“Threat of new entrants” and “Threat of substitute of produces” (e.g., Okuda et al., 2011).

3.2. Market Segmentation, Targeting and Positioning

3.2.1. Market segmentation

Most patent applications are filed by commercial enterprises. One can do a text search of patents (i.e., using the word of the function or effect of the device) and all of them have classification symbol of subject matters indexed by the government (e.g., USPTO in the United States), which means that they show such companies’ technological field of activity.

For example, in the U.S., “435” means “Chemistry : molecular biology and microbiology.” Thus, companies which produce “electronic microscope” will be able to classify the prospective corporate customers according to a common technology feature by using this classification. It will, therefore, be useful mainly for B2B business in this process.

3.2.2. Targeting

In this process, one can use patent information in order to identify potential competitors as well as the degree of strength of them both “quantitatively” and “objectively.” Simultaneously, patent information can be used to know the strength of own companies, as al-

ready shown in Figure 3.

3.2.3. Positioning

In this process, “differentiation” is the key concept. As already stated, “differentiation” is also one of the most important key words of IP field. IP is very useful and powerful tool for differentiating because IP has not only “the function of deterring market entry” but also “the function of exclusion from the market” to maintain market share.

For example, given that a company which has patents regarding unique “technology” and its benefit for customers is very attractive, the company may gain and maintain a competitive advantage during the term of patents. This holds true of both B2C and B2B.

3.3. Marketing Mix

Although there are new concepts about marketing mix (i.e., 4Cs, new 4Ps), I use McCarthy’s 4Ps in this paper as the first step in this kind of study.

3.3.1. Product

Today, most companies hope to avoid price competition if possible. Therefore, most marketers make a point of taking “differentiation” into consideration in the product strategy in view of “present” market. However, assuming that the differentiation can be imitated easily and it is not protected by IPR, the company

can be “later” involved in price competition with followers without realizing it from medium and long-term standpoint. Sasaki et al. (2001) proposed a model to explain the co-evolution of patent strategies and product strategies, but did not mention this standpoint. The number of marketers who emphasize the merit of this aspect is unclear at this time, but it seems that they should be vividly aware of IP as one of the best tools to maintain the differentiation from a medium and long-term perspective.

Now, I take a look at some differentiation variables. First, as for the product differentiation, one can obtain patent for technology or design. Second, as about the service differentiation, for example, there are some famous patents, including Amazon’s 1-Click patent (Patent Number US5,960,411, source : USPTO) which is related with service.

According to Kotler and Katajaya et al. (2010), emotional or experiential aspect has more important role of marketing. The number of nations is increasing which protect distinctive “smell” and “sound” by trademark.

Similarly, though it may be a kind of “image differentiation,” shop lay-out, like Apple’s registered trademark (TM Registration Number 4277914, source : USPTO), becomes also protected by IPR, as shown Figure 4.

Furthermore, a brand theory takes an important role in the field of marketing in late years. Though, it is ex-

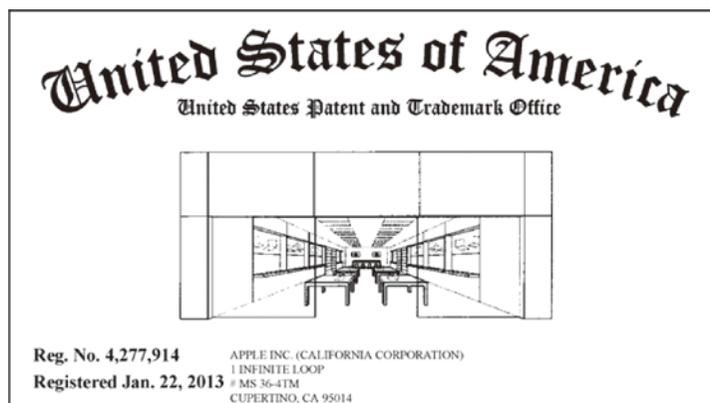
plained that the brand generally has functions of differentiation and quality assurance, interestingly, in the field of IP, almost the same explanation is widely accepted for trademarks (e.g., Landes et al., 1987) : Trademark Act exists precisely for protecting such functions. In this sense, as many IP specialists and marketers already understand, brands are inextricably associated with trademarks.

There is a problem of the imitation product as a menace to damage brand equity recently. When imitation products are left in the market and the accident happened because of their inferior quality, it may damage the brand equity.

For example, though the original manufacturers is not responsible for the imitated battery that exploded and caused damages, it is said that the social criticism about the “omission of countermeasures” may happen according to Ministry of Economy, Trade and Industry in Japan (2009)². Therefore it is necessary to remove imitation products from the market to maintain brand equity. In such a case it goes without saying that a trademark becomes an essential tool.

Conversely, in order to expand market, a company which has a patent can license it as its option to collaborate with other companies rather than monopolize the market. Standardization of technology is a good example. To expand the product market, companies can use technology standardization instead of competing with

Figure 4 Apple Shop’s lay-out



others. For example, DVD diffused widely in the global market as a result of the implementation of DVD standards (Tatsumoto et al., 2011). However, only the companies that have patent can take control of whether to use (including standardize) the technology because no companies can use it without permission of the owner. In other words, patents enable a cooperative business relationship between companies (e.g., Strojwas et al., 2003). This aspect of IP should be called “the function of building business partnership.”

3.3.2. Price

As a matter of course, companies that sell a product which customers need can charge high price if there are no other similar products in the market. In fact, according to Blackstone (1972), Xerox did in the past. Nowadays, assuming the case that a company excludes other competitors from the market by using patents, like in pharmaceutical industry (e.g., Wheaton, 1985), this kind of company can keep a market from other companies entering due to “the function of deterring market entry.”

3.3.3. Place

As for distribution, IP which can be used as a tool is a trademark. For example, in the case of an exclusive distributor agreement or a franchise agreement, the contract must be based on the company’s trademark right. In particular, in the case of a sales agent contract, whether selling goods accompanied by the store’s original brand is permitted or not relates to the brand management policy.

On the other hand, it is thought that companies holding product patents cannot control its distribution of their product after selling. This is because patent rights relating to a product are thought to be “exhausted” when the product was once sold in order for patent owners not to collect profit doubly. This theory is widely accepted around the world (e.g., Rinehart, 2010).

However, some companies try to obtain patents directly related to distribution instead of product itself. For example, Amazon has obtained patent of “Method

and system for anticipatory package shipping” (Patent Number US8,615,473, source : USPTO). In this case, the distribution which uses patented manner must be controlled by its owner.

3.3.4. Promotion

Customers tend to prefer to buy the patented products (e.g., Gilbert et al., 1990). Thus, news release about the fact that a company has newly obtained a patent can be seen frequently³. It can be viewed that companies use the fact of obtaining a patent right as one of the differentiation elements for customers. However, how much does the fact improve the perception quality of the product ?

In addition, patent marking can be used for a marketing tool to attract consumers (Grant, 2004). There are a great many examples to use the fact of obtaining a “patent” related with a certain product for its labels or commercials. Many papers deal with this point in the context of compliance for that false patent marking is prohibited by the law (e.g., Moore et al., 1994 ; Grant, 2004 ; Arneson, 2010 ; O’Neill, 2010).

However, little is known about the effect of patent-related advertisement. It seems to me that it will be different in between B2B and B2C.

3.4. Product Life-Cycle

As stated before, there are relatively many precedent studies which show the importance of marketing strategy against the entry of the generic drugs “after” expiration of patent. However, there seems to be little studies about the relation between IPR and entire product life-cycle (PLC) concept.

Sasaki et al. (2000) discussed a “patent” strategy depending on PLC model. However, in addition to patents, there are other IPRs such as a trademark which can exist without expiration (e.g., Statman, 1981 ; Parchomovsky et al., 2002). Statman (1981) states that [t]he patent period gives the manufacturer not only the ability to enjoy monopoly profits also the opportunity to establish a trademark in an environment free of competitive brands. Based on this idea, Conley et al.

(2013) propose a framework called “Value Articulation” using several cases though there is no link with the stages of PLC. These studies indicate the possible presence of an ideal “marketing” strategy by using various IPRs in accordance with each stage of PLC. The well-known Gore-Tex, for example, was released as waterproofing fiber in 1976, and it is thought that at least fundamental patent already expired, but, as Kotler and Pfoertsch (2010) argued, Gore-Tex has still a competitive advantage in the market. One plausible explanation for this situation is as follows. First, in the introduction stage, they might utilize functions of their patent such as the function of deterring market entry/ the function of exclusion from the market in order to build brand awareness by way of maintaining the differentiation. Second, in the growth stage (especially after the expiration of their fundamental patent), they might switch from the patent right to the eternal trademark right to utilize for maintaining or even enhancing the brand loyalty, but there is no conclusive proof at this time. On the other hand, Scott Morton (2000) argues that brand advertising is not a barrier to entry by generic firms in the US pharmaceutical market.

Therefore, future research would clarify whether an ideal marketing strategy (probably depending on individual industries) by way of using various IPRs in accordance with the PLC stages exists.

3.5. Consistency with Marketing Concept

Can a recent marketing concept that gives special emphasis to “customers” go with an IP concept that gives “companies” special weapons to control the market ?

In this regard, Statman (1981) argues that IP right “is beneficial for consumers since consumer welfare is generally enhanced by the availability of new products in the marketplace.” IPRs except trademarks are given in order to encourage innovations and thus “future customers” will enjoy the benefit in the form of obtaining upcoming new products from a long-term perspective.

Also, Trademark law protects “existing customers” more directly by avoiding confusion in the market (e.g., Miaoulis et al., 1978). Therefore, even if IPRs cause a monopoly for a while, a marketing concept can go with an IP concept.

In addition, if companies have IPRs, they can decide to license other companies in order to enhance the market together or decide not to license in order to maintain it. Should this critical and strategic decision closely related to the market leave up to anyone but marketers ?

Moreover, almost all of the marketers are supposed to try to “differentiate” their products from others’ in the “present” market, but it is questionable whether they are unaccountable for “upcoming” market. Those who are in charge of product planning need to take the initiative to manage IP because most IPRs should be obtained or managed as soon as possible due to lack of novelty or first-to-file principle (e.g., Besen et al., 1991). If they had properly obtained and managed IPRs when they planned a new product, they could have possibly protected their market from followers and could have avoided unnecessary near-future price competition.

Thus, as far as marketers are in charge of “market”-related matters, it should be more important than ever for them to understand and utilize the functions of IP, instead of leaving it to the discretion of IP specialists or IP department, in order to maintain market share and create new market especially from a medium and long-term perspective.

4. Conclusion

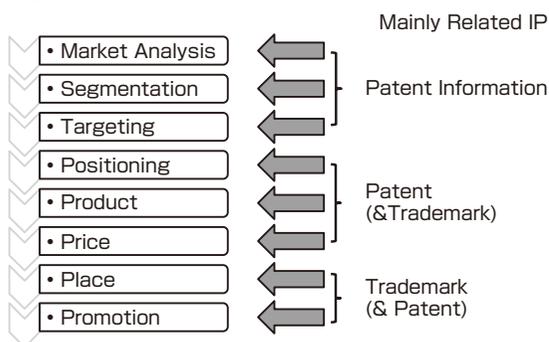
Admittedly, I limit almost all of the discussion for “product ” marketing, but there is room for argument about the applicable scope of this study (for such as “service” marketing).

From what has been discussed above, however, as many studies by IP experts have already shown, IP has multiple functions directly related to market such as

Table 1 Glossary of IP Functions for Marketing

Function of Disclosing Corporate Strategy	IP, especially patent, information indicates corporate information including R&D strategies as well as business strategies on potential markets to enter in the near future.	e.g. Patent Map
Function of Deterring Market Entry	Companies, especially in the context of compliance, are supposed to hesitate to enter the specified market where competitors which own IPR exist.	e.g. Xerox's world first copier using plain paper
Function of Exclusion from the Market	When copycat products are placed on the market, companies are able to use IPRs to remove them from the existing market with the state power's help	e.g. Pirated CD, DVD
Function of Building Business Partnership	Only the companies that have patent can take control of building business partnership related to the patented technology.	e.g. International Standardization

Figure 5 Marketing and Related IP



the function of disclosing corporate strategy, the function of deterring market entry, the function of exclusion from the market and the function of building business partnership, as shown in Table 1.

Therefore, it is reasonable to conclude that IP (including information of it) are one of the most potential tools especially for product marketing as shown in Figure 5.

Moreover, this study contributes to the literature by expanding the frontier of this research area about how

to integrate IP and marketing. This research also helps managers understand how to incorporate IP tools into their marketing activities.

Acknowledgment

My deepest appreciation goes to Dr. Philip Kotler who took a keen interest of my idea and offered encouragement to submit this paper. I would like to thank Prof. James Conley who provided his papers closely related to this paper. I wish to thank Dr. Tomoko Kawakami for useful discussions. I also wish to thank Dr. Hiroshi Tanaka for his suggestion on the table and figures. The responsibility of any errors is of course mine.

NOTE

- 1 "Patent Landscape Analysis," IP Pragmatics Limited, 1 Quality Court, Chancery Lane, London WC2A 1HR, UK, http://www.ip-pragmatics.com/downloads/pdf/ip_General-Patent_Landscaping.pdf (accessed : June 16, 2015)
- 2 Ministry of Economy, Trade and Industry (2009), "The effect of impact of counter measures against counterfeit products [Mohouhin Kaizokuban ni taisuru kouka ni tsuite (Japanese)]," (accessed : June 16, 2015), http://www.meti.go.jp/policy/ipr/pdf/200904houkokusho/keieikoken_dohokokusho_gaiyo.pdf.

- 3 For example, "BioTime Announces Issuance of 14 Patents in the Fields of Regenerative Medicine, and Cancer Diagnosis and Therapy," (accessed June 16, 2015), <http://investor.biotimeinc.com/phoenix.zhtml?c=83805&p=irol-newsArticle&id=1947090>

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