



Conjoint analysis for intellectual property education

Min Seok Mok, So Young Sohn*, Yong Han Ju

Dept. of Information and Industrial Engineering, Yonsei University, Seoul, Republic of Korea

ARTICLE INFO

Keywords:

Intellectual property education
School curricula
Conjoint analysis

ABSTRACT

As the knowledge economy rapidly increases, intangible assets are more valuable to businesses and valuing them attracts much research from the field of technology management. Intangible assets include intellectual capital and intellectual property. To ensure that science students have the skills that match the information resources they will use as professionals, patent searching must become part of their information literacy instruction. This article is to design guidelines for intellectual property (IP) education from the perspective of the researchers and employees in university, private and public institution researchers and others. Applying conjoint analysis, this study shows not only the relative importance of the attributes related to IP education but also the most important conditions of the education. It is expected that this study may help to develop IP curricula in academia in Korea and elsewhere.

© 2009 Elsevier Ltd. All rights reserved.

1. Introduction

Intellectual property rights (IPRs) can be highly valuable and play a key role in many fields of business. At first IPR evaluation was concerned with brand valuation. Recently, the concern about IPR has broadened to include all intangible assets.

With the increasing importance of knowledge, private firms and public institutions such as universities, colleges and research institutes have discovered the importance of intellectual property rights (IPR) and their protection.

The subject of IP protection ceased to be the exclusive domain of legal departments and became a daily preoccupation of CEOs in many industries. This sudden attention followed from the realization that the value of IP of a typical firm rose in many industries substantially higher than the value of its other assets. Even though the average difference between the market value and the value of assets declined in the aftermath of the stock market bubble, it remains important [1].

Some pioneering companies have publicly announced the adoption of a strategic approach to managing intellectual capital, and mostly have been successful in their business. For example, Dow Chemical estimates that it achieves tax savings of over USD 8 million annually by applying intellectual capital management to its patent holdings [2].

The need to create IP culture at the level of higher education, create teaching materials, educate the broader business community and improve training in IPRs is emphasized in the recommendations of the European ETAN expert working group [3].

As an increasing number of IP-aware graduates leave educational institutions, they will hopefully influence the way in which companies approach IP and patenting, which in turn will affect the way in which patent agents and attorneys conduct their business.

With this background, the main purpose of this paper is to conduct conjoint analyses in order to find important features of IP training course. We examine the preferences of various groups (private institutions, public institutions and university employees).

The organization of this study is as follows. The background of IP expert training course for new trainee is presented in Section 2. Conjoint analysis and the results of our analyses are shown in Section 3. Finally, conclusions of this study are given along with suggested directions for future work in Section 4.

2. Background and methodology

2.1. Status of intellectual property education

As patents and IP can be used for scientific, legal and business purposes they are an ideal source for Research and Development (R&D) information as researchers must be cognizant of these diverse perspectives. Many researchers are only vaguely aware of the existence of patents and very few know that they can cover processes as well as more conventional inventions.

For the researchers, there are many IP or patents educational institution in the world. One of them is the WIPO (World Intellectual Property Organization) Worldwide Academy, a body set up in March 1998 as a central coordinating mechanism for human resources development undertaken, to serve as an educational institution which provides teaching, training, and research services in intellectual property [4].

* Corresponding author. Tel.: +82 2 2123 4014; fax: +82 2 364 7807.
E-mail address: sohns@yonsei.ac.kr (S.Y. Sohn).

The WIPO Worldwide Academy's programs initially started with a few training courses inherited from WIPO's programmes for technical assistance, with a special focus on inter-regional training courses for researcher in university.

The Australian survey [5] examined the awareness of firms of the importance of IP and of the services of the patent office and their use. The report contains the questionnaire and the tabulation of responses with brief observations for:

- a sample of SMEs which go through patent attorneys,
- those which go directly through IP Australia,
- SMEs which do not use patents, trademarks or designs and also
- large-scale enterprises LSEs.

Responses are provided for each group on a wide range of issues: Awareness of IP, how IP is valued and understood by users and non-users, IPs' importance and methods of protection. Use of patent office services, attorneys and various media. Training on IP issues. Opportunities for IP Australia in the lifecycle of developing, protecting and commercializing IP. Barriers to the use of IP. Contacts with and delivery of services by IP Australia. The future role of IP Australia and top priorities for readjustment to meet future needs. The services of national and international (European) patent offices are assessed from the point of view of a patent attorney [6]. The increasing trend to patent is stretching the resources of patent offices [1].

Japan put lots of efforts to educate and train IP specialists. All the law faculties which were set up since April 2004 (currently 74 colleges) have IP law related courses. It is expected that they will educate students who are proficient in IP law. Moreover, in April 2005 two IP Graduate Schools were set up and their curriculum is under constant development [7].

For instance, Tokyo Institute of Technology established Intellectual Property Management, Intellectual Property Law and International Intellectual Property Management courses in spring semester. In addition they established Intellectual Property Protection Practices, R&D strategy and Intellectual Property Strategy and Corporate Management and Intellectual Property Activities courses in autumn semester.¹

2.2. Attributes for intellectual property education

IP may be manifested in industrial property, patents, copyrights, trademarks (or brand names), or trade secrets. Many of these IP characteristics convey economic power and prestige, and hence have a prioritized value. There has been an increasing recognition internationally that IP is valuable and should be protected through robust IP enforcement. It is also clear that companies and individuals that value IP, are willing to spend considerable financial resources to protect IP through strengthened IP enforcement, and through widespread recognition of trademarks and trade secrets, and are willing to litigate over infringement of IP [8].

In a similar vein, the importance of IP education is increasing. In this paper, we consider five attributes for IP education: Lecture content, Educational level, Period of education, Educational method and Educational fee for conjoint analysis. We define each attribute's level as follows: Educational level (primary, intermediate and advance); period of education (1 h/week, 2 h/week and 3 h/week); education method (online and off-line); educational fee (¥10,000, ¥100,000, and ¥1,000,000). In addition, we consider four levels of IP lecture content (IPR Process, Information Analysis, IP Management, and IP Litigation). Details of these levels are as follows:

- (1) *IPR process*: The process spans the stages from R&D to commercialization and beyond, but with a particular focus on the interface between R&D (often by university research centre, a corporate unit, or by a government laboratory) and commercialization (often carried out by private company) [9]. This notion includes technology monitoring, technology assessment, technology forecasting and so on [10].
- (2) *Information analysis*: The use of a free patent database will become a resource not only for patent specialists, but also for other people such as policy analysts, academic researchers, students. It can be used to perform global searches to provide useful indicative results on the one hand, and as a think tank on the other hand [11].
- (3) *IP management*: An important component of intellectual property management is the identification of inventions. Managing IP is seen as comprising strategy and portfolio management and elements of acquisition, scanning/monitoring and exploitation [12]. The question of IP management arises in the context of maximizing the value of a company and shareholders' interests, the evaluation of the company's IP needs to be made. Few schools have fully reflected in their curriculum an emerging perception that IP is not only a legal title but also an economic asset which has a constantly changing market value. When a developing country succeeds in acquiring knowledge from abroad, the next step is to absorb and implement it. In such a process, IPR protection may play a crucial role since it may restrict the range of the economic area the new knowledge can be applied to and make the use of new discoveries more expensive [13]. Programs also need to be practical and tailor-made reflecting different cultures and business environments. For instance, universities do not usually provide practical training programs in such areas as patent drafting and patent information search. Basic knowledge and skill sets about these practical aspects are increasingly important for engineers, because they are too crucial to leave it entirely to lawyers to decide, particularly when certain IP rights or applications are likely to affect the fate of the firm's core technological competence and strategic positioning in the market [14].
- (4) *IP litigation*: An important fact is that the increased recognition of the value of IP has led to stronger enforcement of IP protection, an increase in IP litigation, and growing policy actions that are focused on how that protection should be manifested. As a consequence, IP issues are beginning to have a significant impact on how firms behave and interact with each other, and how countries behave with respect to the safekeeping of their respective IP portfolios [15]. The increased value can be estimated using the success rate of patent lawsuits. Using a database of the outcomes of US patent litigation, we find that plaintiffs win patent litigation some 45% of the time at the trial court level. This has implications both for patent damages awards and for the incentives to innovate [16]. The numerous papers in the edited volumes by Slotte [17] and McAleer and Oxley [8] analyze the economic and legal issues associated with IP, and the economic damages that can arise through litigation when the IP is infringed.

2.3. Conjoint analysis

Conjoint analysis (CA) is an experimental approach for measuring consumer's preferences about a product or service. Green et al. [18] introduced conjoint methodology that originated from mathematical psychology [19–21]. Conjoint analysis is a multivariate technique used to understand how respondents' preferences develop.

¹ <http://www.mot.titech.ac.jp/english/e-lecture.html> (available December, 2008).

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات