

A Study on Ways to Vitalize Digital Contents Business through IP Holding Company

Jai-Jin Jung[†]

Abstract

In order to have the highest level of a certain society's technology be evaluated as digital contents technology the value concept of such technology's social utilization must be established while active investment on the technology takes place and makes it the subject of social capitalization. This study wishes to discuss the strategies and methods of establishing and managing IP holding company which requires business activation with digital contents technology at its base, research ways of vitalizing IP holding company to expand social utility values of contents technology, suggest necessary systemic improvements and investment activation methods, management structure, and governance structure by investigating ways to stimulate the industrialization of contents technology through the establishment and management of this IP holding company, and finally come up with a realistic measure to establish and manage a IP holding company. Strategies on commercialization of digital contents technology and acceleration of technology development, as well as activation of venture business set-ups will be analyzed and suggested based on such suggestions while IP holding company's digital contents technology investment activation model will be established to produce means to realize discovering superior contents companies and activation of investment, and activating high quality contents production for the global market

Key words : IP holding company, Digital contents technology value, Contents business, Social values of technology

[†] Professor, Dept. of Multimedia Engineering, Dankook University,

Received : 2011-02-07, Amended : 2011-02-15, Accepted : 2011-02-20

In this paper, Dankook University, in 2009 research was supported by Research Grant

1. Introduction

The core of the international economy growth can be said to be the result of increased benefit and related public spending due to heightened social utility values of high technology. In the era of diversified consumption that stimulates various needs and satisfies such needs, innovative service and convenient goods are required to show something new to the public to maximize their level of satisfaction. Digital contents technology, which utilizes both high science technology and information technology, is a type of technology that commercializes an individual's emotions and experiences with aesthetic nature of life at its core to increase public pride on life itself. It is at the final level of human needs; in other words it is technology that can realize self realization, and can be understood as integrated technology of the knowledged-information era.

Given the fact that digital contents technology is important in that it constitutes cultural products which measures the level of socialization and is the sum of all high technologies that express human emotions and creativity, converting the social values of digital contents technology and allowing certain investment capital on this subject will lead to the activation of high quality digital contents technology commercialization which will improve its social utility values.

The profitable digital contents technology can be defined as high added value technology that standardizes human imagination and creative ideas through cutting edge technology based on creation and knowledge. With this in mind, establishment and management measures are to be suggested in order to increase the social utility values of digital contents technology. The concepts and basic knowledge on the establishment of IP holding company will be thus organized and its management format will be analyzed to seek

elements that can be applied to digital contents technology.

2. Introduction, establishment purposes, and management cases of IP holding company

2.1 Introducing IP holding company

One needs to take a look at the concept of a holding company first in order to establish the concept of a IP holding company. 'Holding company' makes it its main business to dominate domestic firm operations through holding their stocks or shares. The total subsidiary company stock price it holds should be over 50% and its total asset over 100 billion won[1].

The utilization method of technological assets became diversified, the need to manage and use them in a more strategic manner increased. Technological assets,

and university and public research institutes began to actively take part in commercialization process of research results to speed up the process and increase the utilization frequency of the results. The disputes on patent conflicts (lawsuits) and other technology asset related issues have increased the need of effective measures and establishment of technology asset protection strategy have also increased. Recent patent disputes especially, are regarded as threats big enough to affect the survival of a company and its influence is being expanded not only to big firms but also to small and medium sized enterprises too. Lawsuits related to technology transfer due to strengthening of technology transfers of universities are also increasing in numbers.

2.2 IP Holding Company's Purpose of Establishment and Management Cases

Big companies or multinational companies manage their technology assets within the company group in an integrated manner and increases the efficiency of intellectual property strategy as a part of their management strategy. In reality many big firms or multinational companies in U.S. have established and operates IP holding companies to collectively manage their technology assets.[2]

Also, by distancing technology assets from the operating company that produces and sells products and services makes it an advantage in protecting the technology assets in times of patent disputes, since it allows effective measures. Some uses IP holding company for tax and subsidy benefits. Profits arise when IP holding company is established in a tax-favorable state that has many advantages in tax benefits and R&D subsidy benefits.

IP holding company is established and managed with the purpose of promoting technology commercialization through the establishment of new technology innovation companies and support for their management. This became active as the trend of strengthening academic entrepreneurship advanced in technology commercialization universities and public research institutes. It actively utilizes measures of technology commercialization through the IP holding company while the establishment of independent or collaborative IP holding company for universities and public research institutes allows professionalism, independence, and responsibility in decision making process, manages technology assets and achievements and the establishment of subsidiary company fortifies business functions.

3M, a multinational company based in Minnesota, United States, have unified its management and strategy building system for intellectual properties and established 3M Innovative Properties Company (3M IPC) to increase the efficiency of intellectual property strategy as a part of its business strategy. 3M IPC possesses technology assets such

as patents that arise from 40 business divisions all over the world and operates consulting services regarding technology asset utilization for each of its business division as well as taking care of strategic alliances with other companies.

3M IPC was established in 1999 and has approximately 300 employees. Its sales amount to \$25.5 million (2006). Since 1999 3M IPC have been the assignee of all patents that are issued and registered by 3M. According to statistic data from the USPTO there are 4,553 registered patents 3M IPC possesses and manages in which 369 cases are Korea registered patents. [3]

Tsinghua University in China is both a higher education, research institute and a big corporation group with around 90 companies. Tsinghua University established Tsinghua technology service corporations in the 1980s, which was the first for a Chinese university and have established and directly managed around 100 Shaoban companies and in 1995 established Tsinghua Enterprises Group with total costs financed by Tsinghua University.

On behalf of Tsinghua university, Tsinghua Holdings Co., Ltd collects stocks from start ups as the cost of capital investment, technology transfer, and providing facility and equipment. Main portfolio companies under the Tsinghua Holdings Co., Ltd include Tsinghua Dongfang(50.04% shares), Tsinghua Unisplendoru(29%), Chengzi(62.11%), Tsingwhazukwngkuwhan biotechnology and pharmaceuticals (21.44%), Taihokwai(24.48%), and Beijing medical equipment of wangdung(64.86%). [4]

3. Acquisition of IP holding company's technology assets

3.1 Utilization of technology portfolio

In some important industries such as semiconductors, bio, computer software, and

Internet, the current patent system is creating patent thickets. Technological companies such as IBM, Intel, and Motorola may pay billions of dollars in indemnities or give up core businesses if they were to invade patent rights. There exist also Submarine Patents also, which intentionally delay patent registration after issuing and suddenly completes the process .[5] Such submarine patents are used so that royalty revenues may arise from a third party making use of the inventions included in the patent rights or a product using such invention succeeds in the market when the patent is registered suddenly.

As the patent application shows sudden increase in numbers, more related technologies are creating this patent thicket which makes it harder for new products to get past this thicket of existing patents. Countermeasures of the market against overlapping patents or patent thickets may include cross licensing, patent pool, package license, and cooperative standard settings.[6]

Cross licensing is an agreement among the companies that have overlapping patents in which these companies recognize each other's license rights to eliminate threats of violation. A certain company may pay a certain amount of royalties according to the contents of negotiation in regards to values and the level of violation on the mutual patent rights or end up using the patent right without royalties. In addition, regional or scope limitations may be applied as the licensing condition.

3.2. Utilization of patent portfolio

Patent portfolio is a group of portfolios a certain individual patent applicant possesses. It can be compared to the investor's result of asset investment that took place in consideration of the risks and profitability; it is the result of technology companies' R&D investment. In addition, a portfolio

can be composed of accumulated purchased patent rights without the direct R&D.

4. Ways of vitalizing digital contents technology commercialization through IP holding company

4.1 Necessary elements for a successful operation of IP holding company

The advent of IP holding company is based on renewal of the 2007 "The promotion of industrial education and industry-academic cooperation act" by Ministry of Education, Science and Technology which allowed university establishment of profit-making stock companies through technology and cash financing. In relation to such renewal, tax laws regarding stocks university may hold were also renewed to eliminate additional tax burdens even when university (academic cooperations) have more than 5% stock on the IP holding company.

However, there are several limitations mentioned in the Promotion of industrial education and industry-academic cooperation act on establishment and management of IP holding companies which are both necessary to achieve the initial purposes but also a hindrance in establishment and management of IP holding companies in some cases. Therefore these regulations will need to be reviewed for their influence on the establishment and management of IP holding companies and appropriate improvement measures need to be derived.

When universities establish IP holding companies or its subsidiary companies in order to commercialize technologies, in many cases they experience difficulty in acquiring enough funding from outside institutions such as venture capitals in the initial stage (preliminary start up stage, early stages in the start up process). Thus the main

issue is related to how to reduce the funding gap when universities establish IP holding companies and operate subsidiary companies for their technology commercialization. In order to allow IP holding company's effective management and achieve anticipated purposes, securing stable investment funding source for the IP holding company's subsidiary branch is of utmost importance.

In case of other countries, there are many cases where universities and universities or universities and outside investment institutions such as banks co-establish and manage business investment fund. For example, Belgium's K.U. Leuven university created the seed capital fund called Gemma Frisius-Fonds in 1997 in collaboration with KBC Group bank and Fortis group. This fund was 12.5 million euro in size and invested 11.5 million euro from 1997 to 2002 in 17 start ups. Successful management of the seed capital investment fund led to unanimous agreement on needing constant maintenance of this unique cooperation among K.U. Leuven University and the Belgium bank KBC group and Fortis group, which led to the establishment of Gemma Frisius II in July 2002. K.U. Leuven university has 20% of the Gemma Frisius-Fonds shares while the two banks have 40% of the shares, respectively.[7]

One of the founding purposes of IP holding company is to commercialize technologies developed in universities and invest the derived profit in school's academic activities and research thereby creating a virtuous cycle. IP holding companies are companies that finance university intellectual property rights and since the intellectual properties that are attained through its subsidiary businesses will be operated in close relations to technology holders (professors and research labs) it is only correct to have universities finance all capital and have 100% of their shares in IP holding companies when establishing one.

4.2. How to vitalize digital contents technology commercialization through IP holding company

Global economy is transforming into 'creative economic era' where culture and technology are integrated and the 'creative technology', which is technology added on top of intellectual capital such as 'art' and 'culture', is creating blue oceans. Domestic contents industry have been on the high development curve amidst the cut throat international competition system but this development speed is expected to slow down without a new driving force. Also, the defense mechanism of the domestic contents industry is sound to a certain extent but analysis shows that its global competitiveness is weak. Domestic contents industry's global market share is also meager, with 2.4% compared to United States (40.1%) and Japan (7.6%) and requires quick transition into the global competition system.[8]

In order to vitalize investment in digital contents technology of the IP holding companies, contents technology that have huge marketability should be selected and a noticeable resulting sales in the market should be suggested by the contents products that applied such superior digital contents technology while systematic, detailed research is conducted on the process and market application procedures of high contents technology that are implemented in global contents companies' contents development.

Selective investment of IP holding companies is being required with the marketability of digital contents technology in mind. Component technology that react to changes in contents technology environment should therefore be discovered and developed. In addition, with the rise of fusion/integrated contents technology resulting from the combination of contents industry genres,

Nintendo is creating a fusion/integrated contents area called 'Brain edutainment contents' where educational contents, health contents, and entertainment contents are combined together.

Another global successful case of fusion/integrated contents would be the on/off line health contents, 'Nike + iPod Sport kit'-with sensors on the bottom of the sneakers or on the shoe strings that measure the status of work out and sends data to portable iPod Nano. The consumer is able to check workout distance, speed, and consumed calories through the iPod Nano display and can also check information in audio file format. Its sensor, wireless communication equipment, and software provides consistent workout status information service while its own web site also provides personal workout history. [9]

The reason why investing in contents industry is different from production industry is because its production process and industry structure is clearly very different from that of the production industry. Companies in the contents industries resemble a R&D based medium sized enterprise in the production industry. Medium sized R&D based enterprise in the production industry also has a high risk in completing the ongoing project and in sales, just like the contents industry and lack necessary real estate or facility investment that can be used in secured loans, making it difficult to get financed by banks and therefore finance capital with mainly venture capital investments.

To vitalize project investment through IP holding companies, on should solve the problem of credit limitations resulting from prohibiting outside investment which hinders utilization of leverages in successful contents projects and thus makes improving the general revenue ratio of the industry difficult along with the herding phenomenon of the overall capital, resulting in further distortion of the industry structure. In order to allow IP holding companies to conduct realistic investment, discover

superior contents companies and vitalize investment, the main body of contents production development should not be limited to contents development professionals like the director but allow participation from contents productions and investments in the general project process to establish a market-oriented contents development system and operate economic production process. Production plan that reflects the perspective of a investment professional and development process should be established to develop competitive contents and the problem of production, marketing, and investment retrieval should be recognized in a collective manner when establishing strategies.

For a long term development structure of the contents industry, we now desperately need to develop various investment methods such as 'debt financing' like the Hollywood does. Strengthening creative basis through establishing producer oriented investments and financing structures is the other side of the coin. Since it is not easy for such a system to settle down on its own given the realities of domestic market size and status, many are requesting systematic mechanisms which will take partial burden of the completion risks to vitalize loans.

5. Conclusion

The importance of contents industry, which will allow entering the innovative economy and will take charge in Korea's future economy is getting more attention. As a new driving force that will lead the GNP \$40,000 era it is a fast growing industry with creativity, emotions, and other intangible assets as its basis. It is also a high added value industry that will lead our 'low carbon green growth', creating jobs in this low employment growth period. Creative labor will be constantly added to the pool which will enhance national brand and development in related fields

simultaneously.

Conditions of IP holding company's digital contents industry investment vitalization are as follows.

First, innovative basis of contents industry should be established.

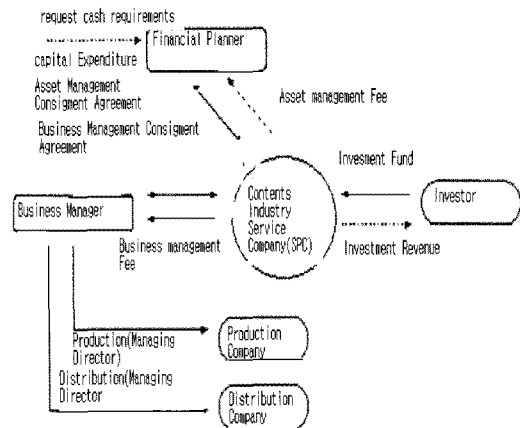
The current status of unsmooth financing of the contents industry and its mainly project-based share investment format reflects how the asymmetry of information is dominating the situation of lacking information collection and evaluation system for investments from financial institutions. Unless special incentives are given, contents industry shows that being non-innovative is the dominant strategy. We are in dire need to promote a project with developed contents production system to induce stable investment capital.

Secondly, we need to expand the openness of contents industry financing.

High investment risk and the asymmetry of investment information leads to limiting financing to only the related parties, which will result in lack of investment from limited credit in contents industry and hinder long term development. Risk trading of the contents product with open finance, division and management will be activated. Stable financing source will be acquired which are flexible towards changes in economy and the investment system improvement will also be improved through the introduction of a financial system.

For a stable systematic foundation for foreign investment and active co-production through the establishment of production and investment international standards, payment guarantees should be provided to activate loans on preliminary distribution contracts.

The outlook of our digital contents industry shows we belong in the top 10 among global digital contents industries but we still have a weak status in the global market and lack realization of great capital input as well as appropriate contents



[Figure 5] Basic structure of a IP holding company

production system fit for global market. Many measures are being discussed in order to improve such situation. Among them, establishment and operation of IP holding company to allow active investment in superior contents development technology and advanced contents investment system would be of hugely important systematic element for the nation to acquire contents competitiveness. If we have a system of IP holding companies stabilizing advanced investment system and allowing discoveries and investments on superior creative contents developer, our competitiveness in the contents industry will improve much further. In addition, endeavoring to be one of the 5 biggest cultural industries in the world and developing high quality, competitive contents producers and contents companies will become possible to become a core nation in East Asia.

References

- [1] Seoul National University (2005): A Study on ways to Establish Subsidiary of Public Research Institute for Technology Commercialization, Korea Institute of Science and Technology

- [2] Jeon Hyo Sook (1997): Compensation for Patent Infringement, Justice Vol. 43, Korean Legal Center
- [3] Choi Sung Woo (2001): Trademarks Law for Different Subjects, Hanbit Intellectual Property Rights Center
- [4] Ministry of Foreign Affairs and Trade (2006): Korea-US FTA Glossary
- [5] 古藤幸朔 (2000) 特許法概説 by Yumi Patent Attorney's Office, published by Dae Kwang Seo Rim
- [6] Kwon Hyuk Sung (2001): Patent Conflicts and Countermeasures, Engineering Education, No. 2, Vol 8, Korean Society for Engineering Education
- [7] Kim Jeong Eon, Gang Seong Jin and Kwon Ji Iin (2006): Impact of Reinforcement of Intellectual Property Rights on Technological Innovation and Productivity: with focus on IT industry, Korea Information Society Development Institute
- [8] Korea Invention Promotion Association Research Paper (2008): Understanding Knowledge Based Economy



Jai-Jin Jung

1990 German Literature,
Sungkyunkwan Univ.

1996 Public Administration,
Younsei Univ.(Master)

2003 Business Administration, Sungkyunkwan
Univ. (Ph.d)

2009년~ Associate Professor, Dept. of
Multimedia Engineering, Dankook University

Interesting Areas : Strategy of Contents
Development,

Strategy of Contents Marketing

E-Mail: dothan@dankook.ac.kr