## A CASE STUDY FOR THE FUBON GROUP-THE GROUP'S TOPOLOGY AND PATENT ACTIVITY IN THE DIGITAL CONVERGENCE ERA

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#### **ABSTRACT**

Relying on empirical inquiries, this study investigated the topology and patent activities of the Fubon Group to explore the role of patents in a telecommunications group in the digital convergence era. Through acquisitions, the Fubon Group has expanded its business from mobile into cable networks, a dominion that includes the terminal, transmission, platform, and content segments in the converged media environment. In the Fubon Group, only Taiwan Mobile possesses patents which are mainly related to application systems of communication network, and there is a noticeable number of e-commerce patents. The patent activities of the Fubon Group are in the emerging stage. Patents seem to play only a minimal role in the development and implementation of digital convergence strategies. The establishment of a management system of patents is recommended since the telecommunications group is exposed to a higher risk of infringement from different fields because digital convergence has blurred industrial boundaries.

Keywords: Patent, Fubon, Taiwan Mobile, digital convergence, telecommunications industry

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#### I. Introduction

Digital convergence, in its simplest form, means the union of the functions of the computer, telephone and television, thus representing a massive reorganization of businesses with a combined value of a trillion dollars. <sup>1</sup> Unification on such a scale alters the positioning and core innovation for corporations in the media and communications industries. <sup>2</sup> There is a common notion among scholars and researchers that technology is the driving force for digital convergence; technology-driven convergence is leading to an economic or market convergence and regulatory convergence, such as inter-industry mergers and the relaxation of cross-ownership of media laws. As the convergence process evolves, economic and regulatory convergence reinforces technology convergence. <sup>3</sup>

Since patents are a critical factor in the technological and industrial development process as well as corporate competitiveness, <sup>4</sup> this study employs patent analysis to investigate how the Fubon Group has committed itself to innovation and shaping its topology in the digital convergence era. The Fubon Group, originating from the financial industry, expends its business to telecom and media markets through the merger or acquisition.<sup>5</sup>

<sup>&</sup>lt;sup>1</sup> See David B. Yoffie, CHESS and Competing in the Aging of Digital Convergence, in COMPETING IN THE AGE OF DIGITAL CONVERGENCE 1, 3-4 (David B. Yoffie ed. 1997).

<sup>&</sup>lt;sup>2</sup> See Po-Ching Lee, Empirical Study on the Digital Convergence Strategy and Patent Activity of Taiwanese Media Groups, 1 NTUT J. of INTELL. PROP. L. & MGMT. 121 (2012).

<sup>&</sup>lt;sup>3</sup> See, e.g., Ithiel de Sola Pool, Technologies of Freedom 23-54 (Belknap Press 1983); Bruce Garrison & Michel Dupagne, A Case Study of Media Convergence at Media General's Tampa New Center, in Expanding Convergence: Media Use in a Changing Information Environment Conference, Nov. 6-8, 2003.

<sup>&</sup>lt;sup>4</sup> See, e.g., Zvi Griliches, Patent Statistics as Economic Indicators: A Survey, 8 JOURNAL OF ECONOMIC LIRERURURE 1661, 1661-707 (1990), available at http://www.nber.org/chapters/c8351; Zhen Deng, Baruch Lev & Francis Narin, Science & Technology as Predictors of Stock Performance, 55(3) FINANCIAL ANALYSTS JOURNAL 20, 20-32 (1999); Holer Ernst, Patent Information for Strategic Technology Management, 25 WORLD PATENT INFORMATION 233, 233-242 (2003); Po-Ching Lee & Roger Kang, Cong IC Zhi Zao Ye Zhi Zhuan Li Zhi Biao Tan Qi Ye Chuang Xin Jing Zheng Li [從 IC 製造業之專 利指標談企業創新競爭力1,208 ACCOUNTING RESEARCH MONTHLY 67,67-72 (2003) (in Chinese); Po-Ching Lee & Roger Kang, Ru He Yun Yong Zui You Xiao Lu De Zhi Hui Jin Kuang-Liao Jie Zhuan Li Jia Zhi Chuang Zao Qi Ye Li Ji [如何運用最有效率的智慧金礦-瞭解專利價值創造企業利基], 204 ACCOUNTING RESEARCH MONTHLY 85, 85-92 (2002) (in Chinese); Chun-Chieh Wang, Dar-Zen Chen & Mu-Hsuan Huang, Technological Innovative Capacity of Taiwan and South Korea from 1987-2006-A Perspective of Patents, 5(2) NCCU INTELLECTUAL PROPERTY REVIEW 31, 31-51 (2007) (in Chinese); Mu-Jun Wang [王睦鈞], Tou Shi Tai Wan Zi Tong Xun Ji Shu Guo Jia Jing Zheng Li [透視臺灣資通訊技術國家競爭 771, 32(7) TAIWAN ECONOMIC RESEARCH MONTHLY 43, 43-52 (2009) (in Chinese).

<sup>&</sup>lt;sup>5</sup> See infra Part II; see also Fubon Group Overview,

This study examines the following two questions: (1) How are patents considered during the merger or acquisition process when implementing the group's digital convergence strategy? (2) How are patents considered while developing and implementing the group's digital convergence strategy during the product and/or service development process? As explained by Yin, "a case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life contest," relying on empirical inquiries, including in-depth interviews with high-level managers and patent analysis, this case study explores the development, topology and patent activities of the Fubon Group in the digital convergence era; and the process of building patent portfolios will also be discussed.

# II. The Topology and Convergence Service of the Fubon GroupA. From the financial industry to a telecom and media group

Originating as Cathay Insurance in 1961, the Fubon Group later expanded into the financial industry. Following the relaxation of financial holding laws and regulations pursuant to the Financial Holding Company Act of 2001, Fubon Financial was founded in the end of 2001 to provide cross-financial and integrated services. The Fubon Group continues to broaden the range of their business operations into the public-benefit services, telecom, and media areas; their telecom and media businesses include Taiwan Mobile, Taiwan Fixed Network, TFN Media, Win TV Broadcasting, and Fubon Multimedia Technology, as shown in Figure 1.

After existing as a financial group for two years, the Fubon Group took over the management of Taiwan Mobile<sup>9</sup> in 2003, a logical progression since the Fubon Group was one of the original shareholders of Taiwan Mobile when it was founded in 1997. Subsequently, Taiwan Mobile acquired

http://www.fubon.com/eng/group/overview.htm.

http://english.taiwanmobile.com/english/about/companyProfile.html.

<sup>&</sup>lt;sup>6</sup> ROBERT K. YIN, CASE STUDY RESEARCH DESIGN AND METHODS 13 (Sage Publications 1994).

<sup>&</sup>lt;sup>7</sup> In order to explore the strategy of digital convergence, a number of in-depth, problem-centered interviews were conducted with senior executives of the Fubon Group. J.C. Jeng, Chairman of KBro, M.Y. Hsieh, Deputy General Manager of Product Development and Operation Support of KBro, and other technical, legal and administrative supporting staff of Taiwan Mobile and KBro were interviewed by members of this research project. The author is grateful to the aforementioned people for sharing their valuable knowledge during the interviews. Methodology for in-depth interviews, *see* Witzel, *The Problem-centered Interview*, 1(1) FORUM: QUALITATIVE SOCIAL RESEARCH Art. 22 (2000), *available at* <a href="http://www.qualitative-research.net/index.php/fqs/article/view/1132/2522">http://www.qualitative-research.net/index.php/fqs/article/view/1132/2522</a>.

<sup>&</sup>lt;sup>8</sup> The patent strategy for the group was interpreted by examining the results of patent searches, as well as the responses to ad hoc questions during the interviews.

<sup>&</sup>lt;sup>9</sup> Taiwan Mobile homepage,

Taiwan Fixed Network and Taiwan Telecommunication Network in 2007. and completed its merger with MOBITAI Communications and Trans Asia Telecommunications in 2008, thus forging an enterprise group whose reach included mobile communication, fixed-line communication, and cable television, to create a "Triple Play" competitive advantage. 10 The Fubon Group stepped into the cable television market when TFN Media merged with Fuyang Media Technology. After the Fubon Group acquired TFN Media, Fubon Group entered cable television as a multiple system operator (MSO), thus expanding its business from mobile networks to fixed networks. Furthermore, in late 2010, KBro, which possessed more than 23% of the market of cable TV users, merged with Da-fu Media, a company owned by M. C. Tsai and his brother Richard M. H Tsai, who are members of the second generation of one of Cathay Insurance's founding families. Although KBro and the Fubon Group are not financially related, it is fair to say that a merger of such size allows the pan-Fubon Group to control nearly one third of the cable television market in Taiwan. In the area of TV channels, one year after Fubon Multimedia Technology was founded, it launched the "momo channel", a TV-based shopping service, in 2005, and later expanded to three channels for TV-based commerce. 11 In 2006, Win TV Broadcasting introduced the "momo kids channel", targeting the children audience.

The Fubon Group not only contains the business of mobile and fixed networks, but has also branched out into the media industry from its "momo" TV channels to MSO for cable television, as shown in Figure 1. In the value network of digital convergence, the Fubon Group broadened its dominion in the digital convergence value network from the Transmission and Terminal segments into the Platform and Content segments in the converged media environment. Relying on its advantages of telecommunication and media integration, the Fubon Group expects to stand out among the competition. Jeng said:

In the past, telecom, broadcast TV, cable and content were quite distinct industries without any overlap. From the consumer demand viewpoint, I feel that telecom, broadcasting, media and content are related businesses in an industrial chain. Therefore, we believe that owning a mobile network, fixed network, or cable TV means owning the infrastructure.

http://english.taiwanmobile.com/eng/milestone.do?method=enterPage.

<sup>&</sup>lt;sup>10</sup> See Milestone, Taiwan Mobile homepage,

<sup>11</sup> See Fubon Multimedia Technology homepage, http://www.momoshop.com.tw/intro/intro.jsp?cid=footer&oid=1&mdiv=1000200000-bt 0 192 01&ctype=B.

Why would we enter the cable business? We foresee future revenue in cable TV due to the growth opportunities in the undeveloped screen and application areas. If the information of each of the three screens can communicate with the others, then we have the advantage of convergence.

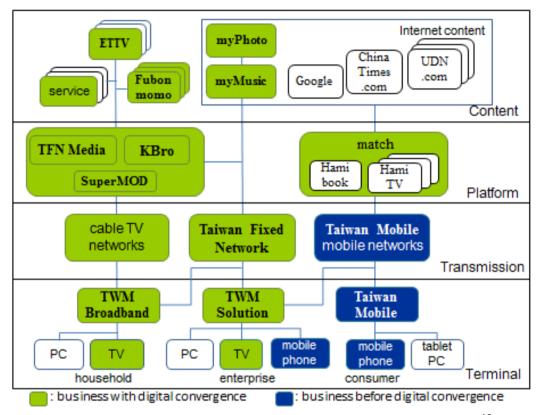


Figure 1: Positioning change and the topology of the Fubon Group. 12

This study used a four-horizontal-segments model for the value structure of the converged media environment to analyze the positioning change, value network and topology for the group. The first segment is Content, referring to the creation and production of content, which eventually be encoded in a digital format. Content is the material that consumers value for its information, entertainment, or exchange value, including movies, television programs, news, books, music, photos, and games. The second segment is Platform, where content is assembled, packaged, branded, and/or bundled into a product or service based on a specific business model, which is implemented in the platform with software and hardware. The front-end of the platform presents the product or service of digital content; the back-end of the platform may be supported by the "server." The third segment is Transmission, referring to the physical structure or carrier for the transmission of digital data, either wired or wireless, terrestrial or non-terrestrial, to form a variety of fixed and mobile networks with different standards for data transmission. Fixed networks include telephone line systems, cable TV systems, or, more generically, optical fiber or co-axial

#### "Four Screens and One Cloud" Convergence Services

In the area of telecommunications services, Taiwan Mobile has been reorganized and divided into three business groups for the consumer. household and enterprise markets. In 2008, Taiwan Mobile Group announced three new brands: "Taiwan Mobile," "TWM Broadband," and "TWM Solution." "Taiwan Mobile" provides mobile communication services for the consumer; "TWM Broadband" offers cable television service and broadband networks for households; and "TWM Solution" handles information communication services, including data and voice transmission, and mobile and internet services for enterprises, as shown in Figure 1.

With its strengths in mobile, fixed-line and broadband cable, the Fubon Group's cloud network connects the four screens of mobile phones, televisions, tablet PCs, and desktops. From the perspective of the individual consumer, a member of "Taiwan Mobile" can login with just one account through the four screens. For the household of "TWM Broadband," the home customer can enjoy the convergence services of cable TV, communication, video and Internet from "new TV," the digital TV services.

To reach the goal of convergence services, KBro and Taiwan Mobile launched the "Super MOD" service in 2012. 13 "Super MOD" is an integrated platform that combines video-on-demand, Internet TV, and connect TV via broadband cable to deliver digital content and services to household users. The services business model of "Super MOD" comprises two parts. The first is a broadcasting-type service composed mainly of free content available on the Internet, such as Youtube, FHM magazine, CommonWealth magazine, and weather forecasts. The second provides converged interactive services, some of them involving user-generated content, such as "myPhoto" online album, "myMusic" online music, and online games. Content such as "myMusic," previously "ezPeer," 14 can be available via mobile phones and digital TV. Jeng said:

copper cable. Mobile networks include various wireless networks. The fourth segment of the value structure of the digital convergence environment is Terminals, which refers to local devices for the input and output of signals and information, e.g. phones, TVs, PCs, tablet PCs, etc, also described as the "client." Terminals may require the downloading of application software ("app") from the server to access the product or service provided by the platform. See Lee, supra note 2.

http://www.kbro.com.tw/Product/prod connectty 01.aspx?B=1; http://www.twmbroadband.com/newty/connectty/newty-connectty-info.htm.

<sup>&</sup>lt;sup>14</sup> Through subsidiary Taiwan Fixed Network, in 2010, Taiwan Mobile invested in Taiwan Kuro Times, well known by it online music service "ezPeer"; the brand name "ezPeer" was changed into "myMusic" in 2012. See, e.g., Milestone, Taiwan Mobile, supra note 10; myMusic homepage, http://www.mymusic.net.tw/about/index?t=about.

We are creating an application store in the big screen..... Now that the Internet can be accessed via TV, we are establishing a platform where the applications will exist on the TV platform.

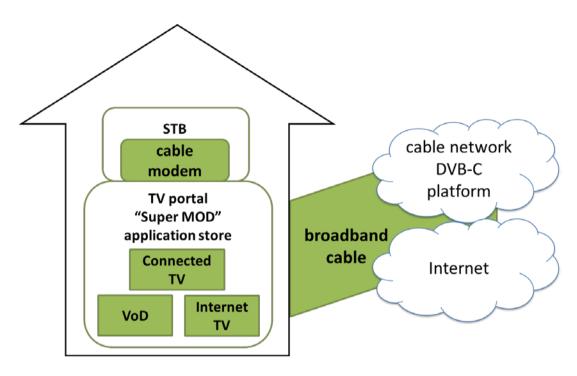


Figure 2: The converged services of "Super MOD."

### C. Vision and Challenges of the Fubon Group

The companies, business sectors and the solid lines connecting these companies or business sectors, in Figure 1, form the value network and the topology created by the pan-Fubon Group, which also imply the synergic services expected by the Fubon Group in the digital convergence era. The Fubon Group foresaw that the market demand for telecommunications would shift from its original communication function to entertainment. While the markets of mobile and fixed-line communications have steadily saturated, the markets derived from cable television still have huge room for growth. Jeng stated:

Cable TV fundamentally represents entertainment; therefore Taiwan Mobile's most recent slogan is "fun!" We are not an application company, we are an entertainment company. Voice and data will gradually become less important, but video is the future trend since

video can be watched on the PC, TV or any other device.

If you switch from Chunghwa Telecom's ADSL to my cable modem, you can watch all [programs] free of charge, even if you have to pay a bit more for using cable service. That's our selling point. Although this part is free, it is bundled with other parts [to generate revenue]. If we can draw attention from somewhere else to our cable modem......If I can attract more people to my cable modem, and if I can gain 10% of the users, that is something. Therefore, our board has bought this idea, even though it needs to invest a lot of money to build the platform.

Although [the platform] currently operates with no [profit]..... we know that there will be in the future..... Even though the service is free for now, the content and application on the platform have their purposes. That part of the service can generate revenue through advertising if the content and application are rich enough, although that objective still seems far away. However, what can be seen immediately is that we are achieving the goal of stickiness.

The Fubon Group adopted a simple strategy for its "Super MOD": initially provide the service free of charge to win customers, and then introduce fees for services and content. The short to mid-term objectives for the Fubon Group are the production and application of digital content to offer diversified content services for consumers. The challenges are how to enrich the digital content, include more video content and service items in order to promote the popularity and stickiness of "Super MOD," and then introduce more pay services.

#### III. Patent Analysis of Taiwan Mobile

## A. Patent Activities in the Emerging Stage

In the Fubon Group, Taiwan Mobile has a total of seventeen patents: sixteen invention patents and one utility model, as of May 5, 2014, searched at Taiwan Intellectual Property Office patent database (Chinese version). As shown in Figure 3, Taiwan Mobile received the first patent in 2002, and five patents were granted in 2003. Moreover, patent search results reveal that MOBITAI Communications and Trans Asia Telecommunications have one and three invention patents, respectively. Therefore, after acquiring MOBITAI Communications and Trans Asia Telecommunications, the Fubon Group should have gained four more invention patents. <sup>15</sup>

<sup>&</sup>lt;sup>15</sup> There is one invention application that was filed by Fubon Financial and the Industrial Technology Research Institute (ITRI), titled "A system and method for risk

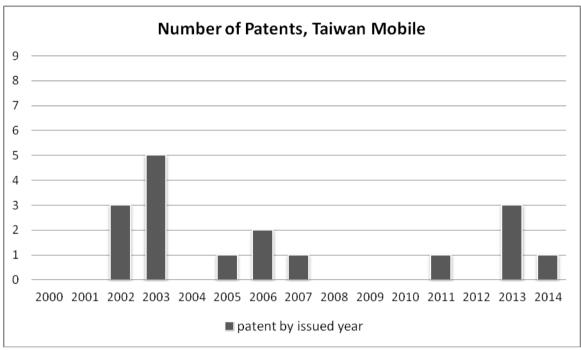


Figure 3: The number of patents of Taiwan Mobile, illustrated by the issue year, as of May 2014.

assessment," but rejected; it reflects a joint R&D project between Fubon Financial and ITRI. There are four applications published filed by Taiwan Mobile, but no patent granted yet, as of May 5, 2014, searched at China State Intellectual Property Office patent database. Other companies in the Fubon Group have not been granted any patents. Meanwhile, neither Taiwan Mobile nor any other companies in the Fubon Group have patents in the United States.

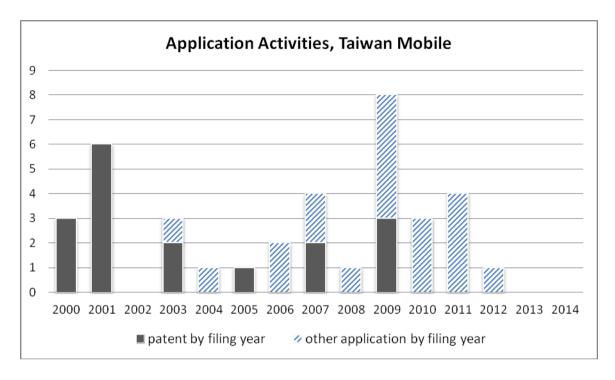


Figure 4: The number of patent applications of Taiwan Mobile, obtained by combining the numbers of issued patents and other published applications, illustrated by the filing year, as of May 2014.

Taiwan has adopted a laid-open system where all invention patent applications filed after October 26, 2001 shall be laid-open for eighteen months from the filing date (or the earliest priority date, if the priority right is claimed). Therefore, it is possible to examine the laid-open application database to search for applications which were filed eighteen months before the search date. According to the analysis for search results from the laid-open application database and patents granted, Taiwan Mobile has approximately thirty-seven patent applications since the year 2000.

In order to depict the overall filing activities, the issued patents, which were obtained in the years between 2002 and 2014 (Figure 3), were analyzed; the earliest filing date of the issued patent was in the year 2000 (Figure 4). Second, the filing dates of published applications were analyzed. Tracing the filing dates of both patents and published applications can reveal a proximate profile of filing activities. As demonstrated in Figure 4, the profile of filing activities is an up-and-down trend. The patent filing activities of Taiwan Mobile began in the year 2000 and reached its first peak in 2001; and it declined in subsequent years until it attained a further peak in 2009. Because of the 18 months delay for publishing applications, it is not clear how many

applications were filed in the past eighteen months. Nevertheless, there are only seven applications in the period between 2002 and 2006, but twenty applications in the period between 2007 and 2011. The number of applications in the period between 2007 and 2011 is nearly three times of the number in period between 2002 and 2006.

# **B.** Patent Activities Focus on Applied Technology, e-Commerce, and Telegraphic Communication

The International Patent Classification (IPC) of each patents <sup>16</sup> were analysed in order to investigate the trend as well as specific focus of Taiwan Mobile's innovation. As shown in Figure 5, the patents of Taiwan Mobile are mainly distributed among H04M (telephonic communication), G06Q (data processing systems or methods, specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes; systems or methods specially adapted for administrative, commercial, financial, managerial, supervisory or forecasting purposes, not otherwise provided for), H04L (transmission of digital information), and G06F (electric digital data processing), of which there are six, five, four, and four patents related, respectively. Those patents primarily deal with applied technologies of wireless communication networks, e.g. applied for Internet advertising, online trading, online deposit system and web page bookmark management. Since Taiwan Mobile is a telecom company, it is not surprising that most patents relate to H04M.

On the other hand, the importance of G06Q, so-called e-commerce or business method patent to laypersons, reveals that Taiwan Mobile also development technologies and applications for doing business. Among these G06Q-related patents, No. I423646 "Purchasing and billing method and system for mobile marketing platform," No. I410881 "Digital multimedia magazine release system and method," No. I407380 "System and method with the advertisement context of digital commodity on homepage," and No. 502190 "Commodity ordering method and its data processing system for wireless mobile communication network" are classified under IPC G06Q030, subclass of IPC specifically referring to commerce, e.g. marketing, shopping, and e-commerce.

The distribution of IPC of Taiwan Mobile's other applications (including rejected applications and applications under examination) slightly differs from that of the issued patents. As shown in Figure 5, the top IPC for other

Patents are systematically classified according to the areas of technology to which they pertain. The most common system is the International Patent Classification (IPC). *See* World Intellectual Property Organization [WIPO], International Patent Classification (IPC), <a href="http://www.wipo.int/classifications/ipc/en/">http://www.wipo.int/classifications/ipc/en/</a> (last visited Dec. 10, 2012).

applications is H04L, an IPC relates to transmission of digital information, e.g. telegraphic communication. This difference represents another focus for the R&D of Taiwan Mobile is system or application for telegraphic communication, besides H04M. However, among six published applications related to H04L, four cases have been rejected; only two remains under examination, *i.e.* publish No. 201409390, "Mobile Internet quality management system and customer complaint management method," and publish No. 201233115 "Method and system for managing a cloud bookcase." The second important IPC is H04W for wireless communication networks. However, among six published applications, five have been rejected; only one application remains under examination, which is publish No. 201233202, related to a bodyguard service application for a mobile communication device. Given the above rejection status, the rejection rate is between 67 to 83%.

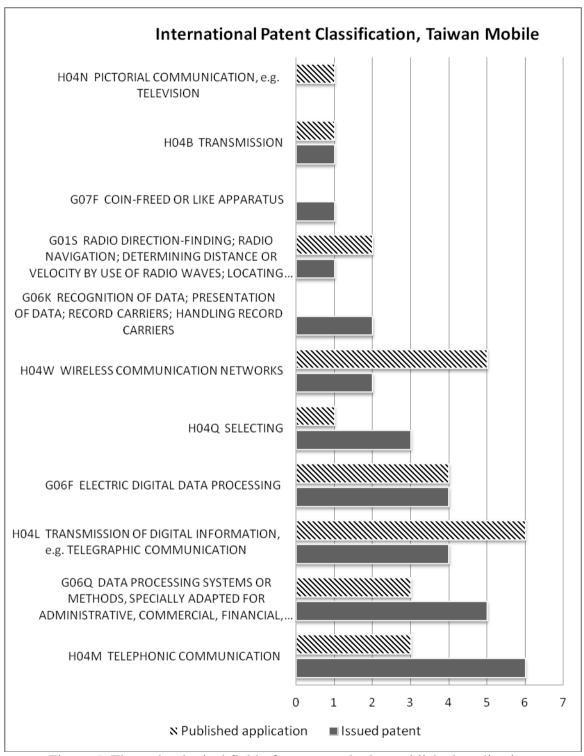


Figure 5: The technological field of patents and other published applications

of Taiwan Mobile according to International Patent Classification, as of May 2014

### IV. The Role of Patent in Digital Convergence of the Fubon Group

The Fubon Group has expanded its business through acquisitions, and stepped from mobile services into cable services to become one of the dominant MSOs in Taiwan. The business operations of the Fubon Group occupy and connect all four segments in the converged media environment, including Terminal, Transmission, Platform, and Content. "TWM Broadband" of Taiwan Mobile and the newly launched "Super MOD," for example, represent the integrated services of digital convergence. However, since this development requires a tremendous amount of innovative ideas and technologies, patents seem to play no role during the acquisition process, and seem to only play a minimal role in the development and implementation of the group's digital convergence services.

Very few companies/subsidiaries in the Fubon Group are involved in patent activities, and only Taiwan Mobile has obtained patents. Taiwan Mobile received its first patent in 2002; besides the year 2003 when five patents were granted, the number of patents received each year was no more than three. There is no stable growing trend observed from the application activities. The patent analysis results for Taiwan Mobile also show that such few patents with few inventors do not fully represent the R&D talent within the company. As to the technological fields of patents, most patents are related to application systems, e.g., online advertising, purchasing and billing, and telegraphic communication via wireless communications network. Such focuses can be explained, because Taiwanese telecommunications service operators completely adopt the standards, such as GSM (Global System for Mobile Communications) and WCDMA (Wideband Code Division Multiple Access), developed by foreign companies. The R&D of the Fubon Group, hence, mainly focuses on developing applications. There is no clear indication of patent planning in connection with planning new services. According to the quantity of patents, the number of inventors participated, and 67 to 83% patent rejection rate, the patent activities of Taiwan Mobile are still in the emerging stage. For Taiwan Mobile or the Fubon Group as a whole, their patent activities do not fully reflect their achievements in R&D or innovation potential.<sup>17</sup>

<sup>&</sup>lt;sup>17</sup> Comparing to Chunghwa Telecom, its filing strategy is directionally aligned with the business development in the vision of "multiple screens and a cloud" in digital convergence and the patent portfolios not only include technologies in data switching networks, secure communication, and positioning, but also in ticketing and digital TV. See Po-Ching Lee, A Case Study of Patent Development of Chunghwa Telecom in the Digital Convergence Era, 1

On the other hand, "SuperMOD" represents the latest achievement of digital convergence for the pan-Fubon Group, involving development activities in cross-market and cross-platform services. However, the development of the software and hardware required for the set-top boxes and technological integration is mostly outsourced to subcontractors for several seasons: one, the technologies of system firmware and software are outside the expertise of KBro; second, with the strength of information hardware industries in Taiwan, the development strategy of KBro focuses on selecting the right partners and components; third, the technological integration of software and hardware is not the core value, but the service models and better production of digital content. Moreover, lacking an in-depth understanding of patent rights and the kinds of inventions that can be protected by patents, the process of filing patents or advantages of possessing intellectual property rights are not considered during the outsourcing stage, even though KBro has contributed innovative ideas and methods to the construction of an integrated platform.

Patents may be utilized as offensive as well as defensive tools in business competitions. As the development of digital convergence has blurred industrial boundaries, the threats of patent infringements are no longer from the same fields. Lacking an awareness of the value of patents, it is hard to build patent rights with exceptional quality, not to mention using patent assets as offensive or defensive measures while dealing with threats of patent infringement. This study suggests that the Fubon Group may start with Taiwan Mobile to establish intellectual property management systems, in order to build patent portfolios and promote the management system throughout the entire Fubon Group gradually. Considering the important positioning of KBro in the pan-Fubon Group and its innovative efforts in digital convergence, this study also suggests KBro to establish management system for intellectual assets.

The patent portfolios can serve as a defensive protection in the short-term, while the development of patents will enable the group to carve out a niche

NTUT J. of INTELL. PROP. L. & MGMT. 217 (2012).

<sup>&</sup>lt;sup>18</sup> See, e.g., Steve Donohue, Verizon Lawsuit Targets Cablevision Boxes, ITV, LIGHT READING, Mar. 17, 2010,

http://www.lightreading.com/verizon-lawsuit-targets-cablevision-boxes-itv/d/d-id/675470; Todd R. Weiss, *Google Files Patent-Infringement Lawsuit vs. British Telecom: Report*, EWEEK.COM, Feb. 14, 2013,

http://www.eweek.com/mobile/google-files-patent-infringement-lawsuit-vs.-british-telecom-report/#sthash.7SIvz550.dpuf; Stuart R. Dunwoody and Benjamin J. Byer, *Patent Infringement Issues Affecting Media Companies*, MEDIALAWMONITOR, Sept. 6, 2012, <a href="http://www.medialawmonitor.com/2012/09/patent-infringement-issues-affecting-media-com-panies/">http://www.medialawmonitor.com/2012/09/patent-infringement-issues-affecting-media-com-panies/</a>.

in new markets and new services, thus enabling it to stand out among other telecom groups in the long-term. Innovative ideas and patented technologies may be implemented by other companies among the group via intra-group licensing. For example, Taiwan Mobile has already accumulated a sizeable number of e-commerce patents and applications, which can be employed in the products and services of digital convergence, such as the improvement of "SuperMOD" services, or as a defensive bargaining chip when faced with patent infringement risk. The management of digital copyrights should also be considered because the amount of digital copyright productions and licensing activities in the pan-Fubon Group will continue to grow.

#### V. Conclusion

In conclusion, the Fubon Group has broadened its dominion in the digital convergence value network from the Transmission and Terminal segments into the Platform and Content segments in the converged media environment. With its strengths in mobile, fixed-line and broadband cable, the Fubon Group's cloud network connects the four screens of mobile phones, televisions, tablet PCs, and desktops. Although faced with a new realm of digital convergence, patent strategy seems not to be the primary concern of the pan-Fubon Group in acquisitions or R&D.

Although Taiwan Mobile has granted seventeen patents in the last thirteen years, such quantities of patents and inventors involved, the high rejection rate of patent application, and no clear indication of patent planning in connection with new services reveal that the patent activities is in the emerging stage for Taiwan Mobile or the Fubon Group as a whole. It is recommended to establish patent management systems to reinforce the patent portfolios, especially in the fields of application system and method for converged services. The digital copyright management system is also recommended since the digital production and licensing activities in the pan-Fubon Group will continue to grow.

Bluebook Style: Po-Ching Lee, *A Case Study for the Fubon Group–The Group's Topology and Patent Activity in the Digital Convergence Era*, 3 NTUT J. OF INTELL. PROP. L. & MGMT. 72 (2014).

APA Style: Lee, P.-C. (2014). A case study for the Fubon group—The group's topology and patent activity in the digital convergence era. *NTUT Journal of Intellectual Property Law & Management*, 3(1), 72-87.