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EDITORIAL TEAM

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EDITORIAL NOTE ON THE VOLUME 8, ISSUE 2, 2019

Editorial Note

Dr. Ming-Liang Lai
Assistant Professor,
Graduate Institute of Intellectual Property, National Taipei University of Technology (Taiwan).

This journal has been included in SCOPUS and WESTLAW citation databases since 2015. It is a mark that the steady efforts of the editing team and all authors in maintaining the quality of the publications, as well as the high visibility of the articles in the related academic field. We would like to express our appreciation to all the authors, reviewers, editors, advisors of the journal. The editorial board welcomes submissions from legal, management, or interdisciplinary areas related to intellectual property issues from all over the world. We will not limit the scope of the journal to any single jurisdiction, which can confirm the articles in the journal covers all aspects.

In this issue, the selected articles are from different jurisdictions and areas of intellectual property rights. The first article in the issue is about the protection of content in media over the top (OTT) and in Indonesia. The team of Tasya Safiranita investigated the protection of the OTT under the Indonesia Copyright Law. Next, Prof. Lin researched the modes of Taiwan IT companies' merger and spin-off over the view of globalization. According to the result of the research, he found three important conclusions. In the article by Prof. Madi presented that industrial and commercial property rights mortgage between the provisions of Jordanian trade and civil laws. The opinion of the author is that regulating the pledge of the industrial and commercial property rights in a special legislation is a must. The fourth article in this issue is the research from Dr. Santika to discuss the sustainable use of genetic resources and traditional medicinal knowledge, especially from Indonesian perspective on utilization preservation and advancement of culture. Last, the team from Prof. Wu displayed that an exploring study on pioneering indicators of patent

quality. In addition to expressing our gratitude to all contributors who made this issue possible, we strongly hope you keep supporting us in the future. Your help can maintain the goal and quality of the journal.

Dr. Ming-Liang Lai

Assistant Professor

Graduate Institute of Intellectual Property

National Taipei University of Technology (Taiwan).

CALL FOR PAPERS

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New Thoughts of Taiwan-China Relationship in Globalization: Take Taiwan IT Companies Merger and Spin-Off Modes as Discussion Cores

Chin-Lung Lin*

Assistant Professor, Department of Political Science, R.O.C. Military Academy

Abstract

The trend of globalization swept across the world, and changed our environment rapidly. Some Information Technology (IT) enterprises inclined to adopt merger and spin-off to accomplish organization reform and rebuilding. Hence, the study took the cases of high tech companies' merger and spin-off as an empirical research methodology, and discussed the chance of another thinking model of the co-opetition relationships between Taiwan and China in the trend of globalization. Finally, the study found: 1. There are common concepts in the business management and administrations. 2. China could try to adopt partition instead of merger under the assumption of respecting individual social differences, glocalization development, and life community of global village. 3. Evading hostile takeover.

Keywords: Globalization, Corporate Merger, Corporate Spin-Off, Hostile Takeover

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1. Introduction

China has established the regime since 1949; however, as the declaration of the martial law ended in 1987 in Taiwan, finishing the period of mobilizing the rebellion in 1991, and China counterpart has implemented open-door policies since 1978 at the same time, the relations between Taiwan and China has become softened and tender. More exchanges and activities from non-government organization of both Taiwan and China occurred frequently and developed deeply as well. There was one thing remained unchanged- political ideology, which was still standing in the way of the development of the relationships between Taiwan and China. Nowadays, as the sweeping of globalization, traditional national boundaries have worn off, and all of us were just like living in global village. We could take a look at the history; three mighty countries UK, France, and Germany had given up political, judicial and economic sovereignty to aim for much more national interests, and brought up the strong transnational political and economic entity European Union (Ching-Chung Huang, 2016).[1] Accordingly, if the leader of the countries kept the traditional thinking mode and stifled in the ideology, the development of the relationship of Taiwan and China would not be better or probably brought in some unexpected regretful disaster because of the inaccurate forecast. In the trend of globalization, the concept was also applicable to business management. In order to adapt to the environment quickly, corporate was sometimes subject to merger and spin-off, and those actions also increased the feasibility when arranging the corporate resources. Merger and spin-off not only decreased the company's cost due to economic scale, increased the competency in the global market, but also help them achieve the goal of sustainability. Concerning the studies of development of the relationship between Taiwan and China, most of them were from political perspective, put emphasis on the successful integration cases of EU (Chih-Wen Ku, 2010),[2] or discussed the co-opetition of Taiwan and China from the perspective of global governance (Hao-Lin

1 Ching-Chung Huang (2016), The Conditions of Neo-Functional Hypothesis About the Spillover Effect: The Comparative Analysis between European Integration (1986-2009) and the Cross-Strait Relations (1987-2011), Taipei: Think & Executive Culture Communication Company.

2 Chih-Wen Ku (2010), The Divergence and Convergence of the Cross-Strait Relations: A Neo-Functionalism Analysis, National Defense Journal, Volume.25 (4), 2010, pp.39-58. (in Mandarin) Wen-Heng Chao (2002), The influence of cross-strait interaction in the WTO: The comparison with APEC, Theory and Policy, Volume.16 (3).

Yuan, Tsan-Hung Shen, 2012).[3] However, considering macro-scope and multi-dimensions, that would be helpful for clarifying the controversial issues of the relationship between Taiwan and China as long as citing practices as an empirical research methodology (Kuo-Chang Huang, 2009).[4] Hence, the study talked about another mode of thinking of relationships between Taiwan and China in the trend of globalization and opening the new page for Taiwan and China through the cases of corporate mergers and spin-off.

2. The Advancement of Business Competitiveness-Corporate Merger

2.1 The Launching of Corporate Merger

The concept of corporate merger[5] and spin-off[6] was originated from the complexity of commercial law. It seemed to contain lots of tips for running business, but actually, that was not real. Briefly speaking, took the family which was under the

3 Hao-Lin Yuan, Tsan-Hung Shen (2012), Types of Possible Cross-Straits Cooperation: An Approach of Global Governance Power Typology, Mainland China Studies,Volume.55, No.2, pp.75-103.

4 Kuo-Chang Huang (2009), Review of Empirical Legal Research Method, The Taiwan Law Review, Vol. 175, 2009.12, pp.1-17. (in Mandarin) Zhi-Chung Lin, Zhao-Zu Chen & Chueh-An Yen (2011), Let Jurisprudence See the Experience of the World: Introduction of Database of Empirical Study of Law in Taiwan, The Humanities and Social Sciences Newsletter, vol. 12, no. 2, pp.14-32.

5 Article 4 (2), Business Mergers and Acquisitions Act, Taiwan stated that: "Merger and acquisition include merger, consolidation, acquisition, and division of a company." Article 4 (3), Business Mergers and Acquisitions Act, Taiwan stated that: "Consolidation and merger refer to an act wherein any and all companies involved pursuant to this Act or any other applicable law are dissolved, and a new company is incorporated (consolidation) to generally assume all rights and obligations of the dissolved companies; or by any company surviving the merger from all the companies involved (merger), with shares of the surviving or newly incorporated company or any other company, cash or other assets as the consideration." Article 4 (4), Business Mergers and Acquisitions Act, Taiwan stated that: "Acquisition means any company acquiring shares, business or assets of another company in exchange for shares, cash or other assets under this Act, the Company Act, the Securities and Exchange Act, The Financial Institutions Merger Act or the Financial Holding Company Act."

6 Article 4 (6), Business Mergers and Acquisitions Act, Taiwan stated that: "Spin-off means the division refers to an act wherein a company transfers all its independently operated business or any part of it under this Act or other applicable law to a surviving or a newly incorporated company as the consideration for that surviving company or newly incorporated company to give shares, cash or other assets to that company or shareholders of that company."

rules of kinship in Civil Law as the metaphor, and we could understand the mystery. In fact, the so-called corporate merger was like the marriage of two families.

By means of the marriage, the families could carry on their ancestral, and also increase the labor for the agricultural community. In addition, the families could build up their network, created synergies from the resources, and maximize the efficiency of resources as well. None the less, the marriage should be based on the consents from both of man and woman, otherwise that would be contrary to the public order and social customs. In brief, the marriage had something to do with carrying on the ancestral was like corporate merger and spin-off had something to do with competitiveness. Accordingly, corporate enlarged the scale of the organization by merger and acquisition (M&A), and also synergized from the integration of all the resources. Finally, the corporation achieved sustainability (Igor H. Ansoff, 1988).[7] It was similar to families synergized from the mutual function of all the resources and continued their heir at last.

2.2. The Synergy of Corporate Merger

Nowadays, as the trend of globalization swept across the world, the corporates usually improved their competitiveness and pursued sustainability in global market by merger and spin-off and. When it came to corporate merger, corporates often acquired core technology, marketing tunnels, brand equity and intellectual property rights, by merger, which could enlarge the scale of organization, and created synergies through increasing economic scale; then, it improved the corporate competitiveness in global market (David Henry, 2002.)[8] Generally speaking, there were two types of combinations of two corporations, including M&A. The reason why the corporation decided to merge with or acquire another company was increasing corporate scale, market share and competitiveness, but the most essential part was to create synergies. Therefore, M&A became one of the best strategies for

7 Igor H. Ansoff (1988), The New Corporate Strategy, New York: John. Wiley & Sons, Inc., Sep 1988, pp. 55-74.

8 David Henry (2002), Mergers why most big deals don't pay off a business week analysis shows that 61% of buyers destroyed shareholder wealth, Business Week, Oct 2002, pp. 60-70.

corporate transformation and it also made the corporate grow faster.[9] Undoubtedly, each coin had both sides, though M&A could be helpful for the corporation to enlarge the organization scale and create the synergies; however, also brought about the unfair competition to the market. Theoretically speaking, if the company seized more than 51% shares issued, it could reorganize the board of directors and complete the process of merger. Even it could merge with another company; it still needed to pay attention to the issue of Antitrust. Especially those hostile takeovers sometimes involve in the unfair competition. Therefore, the target company would adopt some options to prevent M&A, such as: Shark Repellent, Poison Pills, Restructuring Defense, buying back outstanding shares, issuing new shares, Scorched Earth Policy, White Knight strategy (Shiang-Ming Hong, 2017).[10] Honestly speaking, no matter common merger or hostile takeover, both of them were for better performance. Common merger mainly focused on creating synergies, while hostile takeover was for substituting those executives with poor performance (Morck, R., A. Shleifer and R.W. Vishny, 1988).[11] In accordance with this concept, it was generally believed that companies adopting common merger performed much better than those took over other companies hostilely (Healy, P., K.G.Palepu, and R.S. Ruback, 1997).[12] Shortly speaking, if we took marriage as a metaphor, hostile takeover was like those rich guys forced the women marry them with power in ancient China. This behavior not only broke the public order and was against social customs, but also caused the women committed suicide eventually. In short, hostile takeover and unfair competition contrary to Antitrust Law was similar to those rich and mighty guys who forced the women to marry them and broke the public order and social customs.

9 William F Glueck, (1979), Business Policy: Strategy formation and management action, Englewood Cliffs, NJ: Prentice Hall, 1979.

10 Shiang-Ming Hong (2017), The strategy to avoid hostile takeovers and legal analysis, Securities Services Review, Volume.658, April 2017, pp.23-35.

11 Morck, R., A. Shleifer and R.W. Vishny (1988),"Management Ownership and Market Valuation: An Empirical Analysis", Journal of Financial Economics, Vol 20, January-March 1988, pp.293-316.

12 Healy, P., K. G. Palepu, and R.S. Ruback (1997), Which Takeovers are Profitable? Strategic or Financial ?, Sloan Management Review., Vol .38 (4), July 1997, pp.45-57.

2.3. The Case of Failure Corporate Merger- BEN-Q v.s. Siemens

2.3.1 The Background of Corporate Merger

In terms of business practices, there were plenty cases of successful corporate merger. Many corporations in Taiwan extended their business boundaries and improved their competitiveness through merger. For example, Foxconn Technology Group merged Chi Mei Corporation, BEN-Q merged Siemens Corporation, HTC Corporation merged Dopod International Corporation, etc. Without a doubt, there were still cases of failure corporate merger, take BEN-Q as an example. BEN-Q merged the mobile phone division of Siemens in 2005 because it owned more than 600 items of patents and 10% market share in global market. Both of them were complimentary to each other in marketing, brand and manufacturing, and expanded organization scale and created synergies. In view of the huge business opportunities, BEN-Q announced their merger with the mobile phone division of Siemens, and that was also the first case of merging and acquiring foreign brand in Taiwan. In comparison, for Siemens, was free from the burden by spin-off. From this case, no matter BEN-Q or Siemens, both of them took their development strategies into account and voluntarily approved the M&A with hope to create double-win in the highly competitive market (Kai-Lin Faung, 2012).[13]

2.3.2 The Valuation of M&A of BEN-Q and Siemens

Formally, it seemed that they were complimentary to each other; actually, they were not! What were the key factors made the case end up with failure? According to scholars' perspective, first, mobile phone market was too competitive and multivariate, but BEN-Q-Siemens was poor at product development and improving the speed. Second, they found corporate culture was the toughest to integrate. In fact, BEN-Q was an OEM company while Siemens was an OBM company, therefore, their cultures were totally different, and they needed a long time to adjust. Moreover, in 2005, as BEN-Q declared their merger with Siemens, Anssi Vanjoki, executive

13 Kai-Lin Faung (2012) , Analysis of Business Judgment Rule under Taiwan's Legal Framework – A Case Study of Ben-Q's Acquisition of Siemens' Mobile Division, Chengchi Law Review, Volume.128, August 2012, pp.261-349.

president of Nokia, said "Two turkeys won't bore an eagle". It seemed to predict the synergy in this case would not be as much as expected.[14] Obviously, even though the combination of two top brands, they were not necessarily capable of creating synergy, not to mention for those non-top brands, even they merged together; they were still hard to become leader brand. In brief, cultural identity was essential for creating synergies. This was like marriage, husband and wife needed to pay attention to identity of "home". In that case, they could maintain relationship and kept it forever.

3. The Advancement of Business Competitiveness-Corporate Merger and Split

3.1 The Launching of Corporate Spin-off

As mentioned, the concept of corporate merger and spin-off was originated from the complexity of commercial law. It seemed to contain lots of tips for running business, but actually, that was not real. If we explained corporate merger in terms of family relationship by marriage, then you would understand corporate spin-off as the concept of parenthood defined in Civil Law. In Chinese world, in accordance with Confucianism, home was a place where all of family members shared the properties and lived together. Not merely they lived in the same house, but also had economic linkage with the other family members. Therefore, four to five generations lived under the same roof was not impossible. However, until Qin dynasty, laws mandated the married men to move out and establish their own family. If there were two married men living in the same house, they would be asked for paying double taxes. Hence, this regulation was the pioneer for the systems related to dividing up family properties. Shortly speaking, when the children grew up, they should move out and live on their own. Accordingly, more and more family members were reproduced through dividing up family properties. In addition, by means of this action, individual were capable of living on their own, individuals helped each other as well, and family members even brought glory to their family! Comparatively speaking, if the family members lived together for several generations, they still

14 China Times editorial: "Two turkeys do not make an Eagle", 18 Feb 2011. https://tw.news.yahoo.com/社論-兩隻火雞生不出-隻老鷹-20110217-110443-922.html.

broke up because of quarrels about resources distribution. Eventually, they faced the problem of dividing family properties. In that case, it would not be helpful for enhancing coherence, and it might even make the resources allocation decentralized, not to mention glorified the family. Undoubtedly, when it came to affection, dividing the families' properties or not was a question with no correct answer for Chinese. However, in terms of rationality, dividing family properties when parents were healthy not merely motivated each family member to work hard, but could make the whole family glorious one day. Additionally, that could prevent the family members from quarreling for heritage.

3.2 The Synergy of Corporate Spin-off

Compared to corporate merger, another way to enhance competitiveness was spin-off. There were some reasons regarding walking on the road of spin-off, such as, conflict between branding and manufacturing, tax strategy, organization over-inflation, business complexity and differentiation, etc. Therefore, through business differentiation and division of assets, besides effectively monitoring and avoiding risk, they could make the company achieve specialization and obtain efficiency. Nowadays, spin-off had already become an essential tool for organization adjustment. Aside from preventing from diluting Earnings Per Share (EPS) of parent company and the influencing the manifestation of subsidiary's value, spin-off could also ease the company by disposal of the division with low performance. In addition, corporate could enlarge the scale and extend business boundary by spin-off, the earnings of subsidiary could also be recognized in parent company, and both of parent company and subsidiary would arrive at double-win situation. In general, because of the flexibility of the related regulations, the type of spin-off would differ from the object of allotment. In that case, corporate could adopt the proper way for spin-off in accordance with their need for rebuilding the organization.

3.3 The Case of Successful Spin-Off- Acer v.s. Ben-Q

3.3.1 The Background of the Spin-Off

In terms of business case, there were plenty cases of successful corporate merger. Many corporations in Taiwan extended their business boundary through spin-off, and improved their competitiveness. Took Acer as an example, Continental Systems Inc. had been one of subsidiaries of Acer, they had been acknowledged as Acer before 2001. Since 2001, Continental Systems Inc. has been spun off from Acer, and it was known as Ben-Q . Then, Ben-Q took brand marketing and manufacturing apart in 2007. Ben-Q was in charge of sales and marketing affairs, while manufacturing was the business of Qisda. From the case above, considering separation of brand marketing and manufacturing, tax issues, strategic alliances, or diversification, spin-off could be helpful for releasing the pressure of the company. Besides of increasing the competitiveness of the corporation, spin-off could also decrease the risk for the corporation at the same time.

3.3.2 The Valuation of the Case of Spin-Off of Acer and Ben-Q

Being under lots of pressure in the competitive environment and urging for diversification due to oversizing the organization, the corporation made up their mind to spin off and downsized their organization to aim for specialization and higher efficiency. Generally speaking, the corporations could make an advance in their efficiency and create value by means of spin-off (Seoungpil, A., and Denis, D. J, 2004).[15] E.g. Continental Systems Inc. was established in 1984, and being spun off from Acer in 1994. Simultaneously, it changed its name to Ben-Q, and tried hard on promotion of the brand. Since 2000, Ben-Q has been active on the M&A market. Owing to M&A, the stock price of Ben-Q has come to the highest point NTD173 per stock. From 2001, Acer started to split manufacturing from brand marketing. Acer was responsible for brand management, while Wistron, one of Acer's subsidiaries took charge of original equipment manufacturing. Afterwards, from the performance of Acer and Wistron, it was proved that spin-off brought in the benefits for them. Despite Ben-Q has suffered great loss from merging with the mobile phone division of Siemens in 2005, it still carried out spin-off and took branding and manufacturing apart as Acer had done in 2007. Parent company, Ben-Q, focused on manufacturing, and changed name as "Qisda Corporation"; however, its subsidiary Ben-Q kept the

15 Seoungpil, A., and Denis, D. J. (2004),"Internal capital markets and investment policy: evidence from corporate spinoffs", Journal of Financial Economics, Volume. 71 Issue 3, March 2004, pp.489.

original name “Ben-Q”, concentrating on brand management. In 2010, the EPS (after-tax) reached NTD1.94. Frankly speaking, the corporations could increase competitiveness by spin-off; however, there were still some failure cases. Took Siemens as an example, Siemens spun off its mobile phone division to Ben-Q in 2005, which was one of well-known failure cases. (D. L Michael, S. W. Mandel, J. D. Wager, 2002)[16]

4. The Managerial Decision Making of Corporate Manager- Adopting merger and spin-off in alternation.

Owing to the influence of globalization, for effectively adjusting to the rapidly-changing environment and the purpose of gaining higher profit and return, the corporation usually heightened market share and competitiveness through M&A. Without a doubt, when the corporation processed M&A, the higher risk would be incurred. People believed that the corporations would put themselves in danger if they processed M&A without controlling the risk effectively. There were four characteristics of highly challenging M&A case, such as: merging with larger company, turning from a loss to profit, crossing-culture, and business variation. As you could see, when the manager decided to process M&A based on organization strategy, the manager must consider all of the reasons might give rise to failure, and thought about the risk the company would take following the failure. Additionally, faith and exercising the due care of a good administrator were essential to corporate manager that was why they should be blamed for the failure.

In comparison, some companies acted in a diametric, and cultivated the individual subsidiary specializing in manufacturing, marketing, or R&D by spin-off. Obviously, these kinds of groups would be honored because the parent companies and subsidiaries developed in their own specific area, and they were complimentary to each other. In terms of group, spin-off did not disperse the resources, but increased the competitiveness. Accordingly, every single subsidiary could pay much more attention to their business and became the third-party company for the group, and shared human resources, material resources, and financial resources with other

16 Michael, D.L., S. W. Mandel and J. D. Wager (2012), Stars Split, Harvard Business Review, July 2002, pp.113~121.

members of the group. Apparently, from the case of the spin-off of Siemens, and that of Acer, it was significantly to support spin-off was a new strategic idea. If we explained spin-off from the perspective of family relationship, dividing family properties when parents were healthy not merely motivated each family member to work hard, but also could make the whole family glorious one day. Additionally, that could prevent the family members from quarreling for heritage. Honestly speaking, the environment was so rapidly-changing that corporate managers had a hard time establishing a universally standard operation procedure on making decisions of merger and spin-off. Therefore, facing lots of options of strategies for making progress in the competitiveness, whether the managers chose M&A or spin-off, was quite a big problem. Obviously, according to " rule of 80/20", the larger scale of the corporation would become larger; however, for fear of losing efficiency when oversizing, how to balance synergies and efficiencies was an important issue for corporate managers. Besides, the issue of unfair competition aroused. Consequently, to advance the competitiveness of the corporation in the global market, corporate managers must accurately seize the right moment to initiate merger or spin-off.

5. The common Principles of Business Management and Administration

Whether there were common principles of business management and administration has been a controversial issue for a long time. Some advocators believed that the principles of business management could be applied in public sectors; therefore, administration was a miniature of business management. There were some common principles between business management and administration. There were several principles and concepts which could also be applied in administration, including four management functions: Planning, organizing, leading, controlling and other theories such as organization change and development, performance, competitiveness, competitive strategies, etc. (Nicholas Henry, 1999).[17] Therefore, there was no difference between public and private sectors. Comparatively speaking, those against proposed structure and goals made differences between business management and administration (Knott, J. H, 1993; Weinberg, Martha Wagner, 1983).[18] Scholars J.S.Ott, A.C.Hyde, and J.M.Shafritz

17 Nicholas Henry (1999), Public Administration and Public Affairs, 7th ed., Englewood Cliffs, New Jersey: Prentice-Hall, Inc, 1999.

18 Knott, J. H (1993), Comparing Public and Private Management: Cooperative Effort and Principal

have pointed large structural difference lay between business management and administration. Then, ideology of business management and administration was different as well, and they put emphasis on different value. In detail, business management advocated capitalism and emphasized capital, return, profit, and investment return; administration focused on people's opinions, putting emphasis on protection of human right and legal fairness and justice (Ott, J.S., Hyde, A.C., & Shafritz, J.M (eds), 1991).[19] Therefore, there was a huge structural difference between both of them. D. H. Rosenbloom (1998) also listed other differences from the perspective of administrative regulations. He reckoned private sectors only provided goods and service, while public sectors did not merely offer goods and service, but also had responsibilities for regulation of the public (Rosenbloom, D. H, 1998).[20]

Despite of the disparity in structure and goal between administration and business management, for obtaining much more efficiency, administration and business management needed to make adjustment for localization, and endeavored to streamline. Just like Deng Xiaoping (1962) said" A good cat is good at poaching rats, whether it is black or white (Xiaoping Deng, 1962)."[21] Briefly speaking, both business management and administration maximized efficiency and their terminal goal was also making fortune. Nowadays, in order to adjust to the highly mercurial and global environment, the corporations carried out M&A or spin-off for organization development and change, and increasing their competitiveness. Actually, it was proved that making good use of M&A and spin-off would enhance flexibility in the aspects of human resources, finance, research and development and sales. In addition, the cost might be decreased as result of economic scale, and improved the competitiveness and helped the corporations achieve sustainability.

- Agent Relationships, Journal of Public Administration: Research and theory, Vol.3, No.1, January 1993, pp.93-119. Weinberg, Martha Wagner. (1983), Public Management and Private Management: A Diminishing Gap, Journal of Policy Analysis and Management, Vol.31, 1983, pp.107-125.

19 Ott, J.S., Hyde, A.C., & Shafritz, J.M (eds) (1991), Public Management: The Essential Readings, Chicago: Nelson-Hall Publishers,1991, pp.217-235.

20 Rosenbloom, D. H (1998), Public Administration: Understanding Management, politics, and Law in the Public Sector.4th ed, New York: McGraw-Hill Companies, Inc., 1998, pp.463-464.

21 Xiaoping Deng (1962), The speech in the Communist Youth League of China: How to restore agricultural production, Selected Works of Deng Xiaoping, Volume 1, pp.323-324.

Interestingly, shall we take M&A and spin-off assisted corporation in implementing organization development and change or rebuilding as a reference, and considered the possibility of Chinese leader dealing with the affairs of Taiwan and China in this way. Undoubtedly, as the trend of globalization swept across the world, social mainstream value would change with the environment. If the political system was not changed, that would result in speeding up the collapse of it. Obviously, the purpose of administration was to make the political system could operate effectively, while the goal of the corporation was to strive for sustainability. Although public and private sectors seemed totally different in terms of form, their final goal was almost same. Moreover, according to political theory (David Easton, 1965),[22] political system was influenced by the economic factors. Similarly, economic system would also be affected by political factors. It was significantly proved that the principles of business management and administration could be applied alternately. Considering the strategies in global market, corporate managers took cost, benefit, and effectiveness into accounts when facing the selection of merger, spin-off, or other ways to rebuild the organization. Besides from caring about maximizing economic benefits, corporate managers must control political and legal risk as well. Similarly, after systemizing political system, the authorities needed to make economic life of capitalism highly predictable. The authorities could set clear rules for every participant in the economy and enabled the participants to decide what they could do and know the responsibilities and obligations they should took on. The concept of cost-benefit analysis first articulated by the United States Supreme Court in Mathews v. Eldridge, the Supreme Court held that: first, the private interest that will be affected by the official action; second, the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and finally, the Government's interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requisites would entail.[23] What was more, Chinese leader,

22 David Easton(1965), A Framework for Political Analysis, Prentice-Hall, Inc, Englewood Cliffs, N. J., pp.25

23 Eldridge, 424 U.S. at 335 (“identification of the specific dictates of due process generally requires consideration of three distinct factors: First, the private interest that will be affected by the official action; second, the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and finally, the Government's interest, including the function involved and the fiscal and administrative burdens

Deng Xiaoping had proposed Cat Theory, which leaded Chinese political and economic development much more open. Hence, we could deal with the relations between Taiwan and China by the corporations' experience of merger and spin-off in alteration, which could effectively improve the competitiveness of the nation. Consequently, political system could not only solve the problem of organization change and resources allocation and so on, but also diverted corporate competitiveness into that of nation.

6. New Thinking Model of Competitive Strategy in the Trend of Globalization

6.1 The Myth of Expansion of Political Boundary: The Merger of International Business ≠ Sovereignty Annexation

In human history, people expanded their countries' boundary and acquired natural resources by war. Referring to Chinese history, there was no dynasty falling out of this track. Inspecting those wars, most of them were originated from the ambition of politicians. Politicians aimed for expanding boundary and pursuing for natural resources in the name of nationalism; however, it resulted in devastating life for all of the citizens. It was skeptical about the different final results of the competitive strategy between corporation and public sectors in China. In fact, from the merger case of Ben-Q and Siemens, it significantly showed the key factor of merger was integration of international culture. Thus, the annexation of territories in the name of nationalism did not get any agreement from local people, the intruders could not integrate the different culture, and believed in selfish departmentalism of its nation. This action would bring in failure and lost the sovereignty in short time. Briefly speaking, expanding the boundary through wars had heightened the competitiveness of the country; while it still ended up with failure because it had no support from local people. Just like the hostile takeover of corporation and unfair competition against Antitrust Law. And also like in traditional Chinese agricultural society, the rich guy and mighty officials threated the girl to marry them, which broke the public order and customs.

6.2 The Myth of National Identity: If Two Countries With Same Language and Race＝Same Country

that the additional or substitute procedural requirement would entail.") ◦

From the perspective of history, Taiwan had been mandatorily colonized by Netherlands since 1624, and then kept being colonized by Qing Dynasty, Japan, and Kuomingtang. Dutch, Japanese, Qing Dynasty, and Kuomingtang were all foreigners. Coveting the rich natural resources in Taiwan and the strategically important position, they started their mandatory colony. Similarly, liberation movement in Xinjiang, was indifferently a mandatory colony. In fact, mandatory colony was not based on the consent of the colonized; hence, it gave rise to ethnical wrangles afterwards. Actually, it did not mean that if Chinese moved to the place of other ethnicities, and that place would become part of China (Bruce Jacobs, 2013).[24] Otherwise, Mongolians had ruled China and established Yuan Dynasty. Therefore, Chinese government has proposed that Taiwan is part of China. If it was legitimate in international laws, would China be part of Mongolian empire (Feng Xuerong, 2015)?[25] Further, if the proposal of China was reasonable, no wonder the governments of south-eastern Asia would be afraid of "China's rise", and leaded to the following social movements against Chinese people. Accordingly, Chinese emigrated to south-eastern countries might not purely because of economy, the liberation of south-eastern countries from China might be the hidden purpose.

6.3 Learning from History: European Union pursued higher national benefit in the form of city states

Honestly, in accordance with Neo-Realism, issues of relative gain existed between countries, and it was almost impossible for cooperation of different countries (Joseph M. Grieco, 1988).[26] However, seeing from the history, the split city states pursued common interests and joined in the political entity as a member country. For example, in medieval century, Greek split into several city states, and each state was governed by different leaders. However, confederation was formed for seeking common interests. It was similar in Chinese history. In Zhou dynasty,

24 Bruce Jacobs (2013), "Taiwan is not part of China," BBC Chinese News, 3 May 2013. http://www.bbc.co.uk/zhongwen/trad/china/2013/05/130503_taiwan_china

25 Feng Xuerong (2015), What's yours is mine too, that of mine since ancient times – The 5 Big Laughs from China's historical viewpoints. http://news.ltn.com.tw/news/world/breakingnews/1291032

26 Joseph M. Grieco (1988), "Anarchy and the Limits of Cooperation: A Realist Critique of the Newest Liberal Institutionalism", International Organization, Vol.42, No. 3, Summer 1988, pp.485-507.

and the following Wei & Jin Dynasties and Five Dynasty, each kingdom governed themselves on their own. Similarly, Qin Dynasty had ever been a mother country of Mongolia, Vietnam, and Korea. Briefly speaking, the reason Mongolia, Vietnam, and Korea succumbed to Qin Dynasty voluntarily was for seeking much more national interests. Hence, member countries of European Union voluntarily forsake political, judicial, and economic sovereignties for pursuing much more national interests (Kalypso Nicolaidis, 1993; Jeffrey J. Anderson and John B. Goodman, 1993; Wen-Heng Chao, 2002).[27] Each member country, like city state in the medieval century, diverted to integration from co-opetition. In fact, this was just what Neo-Functionalism had emphasized "Spillover of economic integration could contribute to the political integration." However, there was one thing must bear in mind. The successful integration entailed collaboration of each member instead of competition. Otherwise, it would decrease the credibility and make the possibility of political integration lower (Wen-Heng Chao,2002).[28]

Nowadays, China government proposed merger as a way to improve the competitiveness of the nation, and the result would be like the merger case of Ben-Q and mobile phone division of Siemens. Actually, Chinese leader, based on historical setting of nationalism, Deng Xiaoping insisted to take over Hong Kong with political promise of " one country, two systems" and "unchanged within the following 50 years". However, Qin Dynasty had ceded Hong Kong to U.K. step by step since 1842 to 1860, and claimed the sovereignty of Hong Kong until 1997. Within 155 years, it was inevitable that different politic, economic, and education systems had made peoples' lifestyle, ideology, and mainstream value completely different (Wen-Heng Chao, 2002).[29] Regrettably, although China took over Hong

27 Kalypso Nicolaidis, "East European Trade in the Aftermath of 1989: Did International Institutions Matter," in Robert O. Keohane, Joseph S. Nye, and Stanley Hoffmann eds (1993), After the Cold War, (Cambridge, Mass.: Harvard University Press, 1993), pp.196-245; Jeffrey J. Anderson and John B. Goodman (1993), "Mars or Minerva? A United Germany in a Post-Cold War Europe," in Robert O. Keohane, Joseph S. Nye, and Stanley Hoffmann eds., After the Cold War, (Cambridge, Mass.: Harvard University Press, 1993), pp. 23-62. Wen-Heng Chao (2002), The influence of cross-strait interaction in the WTO: The comparison with APEC, Theory and Policy, Volime.16 (3).

28 Wen-Heng Chao (2002), The influence of cross-strait interaction in the WTO: The comparison with APEC, Theory and Policy, Volime.16 (3).

29 Wen-Heng Chao (2002), The influence of cross-strait interaction in the WTO: The comparison with APEC, Theory and Policy, Volime.16 (3).

Kong in 1997, it still had problem integrating and wiping out the huge gap between China and Hong Kong. Therefore, it contributed to Umbrella Revolution, which was the largest –scaled demonstration in the history of Hong Kong on 26th September, 2014. From this case, it was undeniable for those rulers and group leaders that they displayed the ruling power in the name of nationalism. However, it turned out to fulfill the need of nationalists, but bring in double-loss for both China and Hong Kong.

6.4 Chinese National Leader's New Thinking Model of Competitive Strategy: Substitute Separate Government for Merger

As everyone knew, regarding the trend of the world, it's less possible to remain the status/situation for a long time. It was a proverb which was not only an epitome of the development of China, but also a significant evidence for the corporate merger and spin-off. Especially, the co-opetition of Acer and Ben-Q was praised wide and far; therefore, in 1994 , Kun Yao Lee, the chairman of the board of Continental Systems, insisted to split from Acer, and changed their name into Ben-Q. They endeavored to develop their owned brand. Additionally, they had begun a succession of merger actively since 2000. Simultaneously, Acer had started spin-off process, Acer focused on brand management, while Wistron, one of subsidiaries of Acer, took charge of OEM. Afterwards, from the high revenue and stock price of Acer and Wistron, it was proved that the spin-off was beneficial to both of them. Despite suffering the great loss from merging with mobile phone division of Siemens in 2005, Ben-Q imitated Acer and spin their manufacturing off in 2007. Parent company concentrated on manufacturing and changed their name into Qisda; Ben-Q was subsidiary and was in charge of brand management. In 2010, the after-tax earnings per share reached NTD1.94. From the case above, it significantly proved the spin-off strategy had created double-win for their businesses.

Without a doubt, China had vast territory, numerous populations, and rich natural resources. Hence, besides of large economic scale, China was also at an advantageous competitive position. However, each coin had two sides, owing to oversizing, China had difficulty integrating and creating synergies, which made its competitiveness lower than that of Taiwan and Hong Kong. At the times of globalization, because the inputs of the political system changed rapidly, for

improving the competitiveness in this trend, Chinese leader must have a macro view and precisely seized the opportunities. Otherwise, confining itself to the traditional political ideology would not be good for the proper development of Taiwan and China. Additionally, it would also hurt "China's rise" reputation, and just increased the concerns from neighboring countries. However, how to make Chinese leader have a macro view of competitive strategy, which enabled him/her precisely respond to the variations of the environment.

Honestly speaking, in the trend of globalization, traditional national boundary gradually vanished; in addition, the national sovereignty was replaced by borderless organization step by step. Therefore, if the thought was still confined to the traditional political ideology, that would obviously not meet the demand of the international environment. Seeing from the rise of European Union, free competition made bigger country become bigger. To pursue mutual interests, the members of European Union voluntarily forsake political, judicial, and economic sovereignty. Consequently, European Union became a borderless political entity. Similarly, we could learn from the ancient Chinese family. In ancient Chinese family, families should move out and lived on their own after they were married. Each family member had their own businesses, and they could glorify the family by working hard. Accordingly, those countries of same language and same races, including Taiwan, China, Hong Kong, Mongolia, Tibet, and Xinjiang, could be seen as one big family. Then, we could also regard those member countries as partners. Each country would rationally determine whether joining in the family considering its benefit. Finally, they would be integrated and showed the effect of partition. Honestly speaking, this situation was just like what Neo-functionalism emphasized that obtaining the opportunities of political integration through spillover. On 6th June, 2012, Puerto Rico held a referendum about political position issue. 61% of people in Puerto Rico were for being one state of U.S.A., 33% of them chose enlarging autonomy power, and only 5% of them wanted to be independent completely (R.Sam Garrett, 2013).[30]

30 R.Sam Garrett (2013)," Puerto Rico's Political Status and the 2012 Plebiscite: Background and Key Questions", Congressional Research Service, June 25, 2013. http://fas.org/sgp/crs/row/R42765.pdf.

Obviously, this competitive strategy was subduing the enemies without fighting, which was mentioned in “The Art of War”.

7. Conclusion and Suggestions

Honestly speaking, in terms of Integration Theory, David Mitrany, master of Neo-functionalism, proposed "Doctrine of Ramification" to interpret that the demand of dependence would increase automatically; therefore, the cooperation between countries would not be limited on specific area. Ernst Haas, a scholar of Neo-functionalism, proposed "Spillover Effect". He considered spillover to be a helpful way for political integration. Both of them put emphasis on the importance of integration for different political and economic entity. Particularly, in the trend of globalization, traditional national boundary gradually vanished, and was replaced by the global village. The successful integration of European Union brought in big trouble for traditional national sovereignty. Hence, how to integrate politic and economic entities and change their situations from competition to co-opetition became a noteworthy issue.

Undoubtedly, there was no completely perfect system, but only a comparatively better one, especially in the trend of globalization and rapidly changing environment, it was unable to establish a universal standard operation procedure. Therefore, due to respective development, there was a huge difference between Taiwan and China in politics, economy, law, society and culture. However, as time passed and the trend of globalization influenced, those differences might reach consistency. In view of the failure M&A case of Ben-Q and mobile phone division of Siemens, and the hostile takeover could be against Anti-trust as well. The key point to formalize the relationship between Taiwan and China was to effectively integrate the differences and establish partnership based on mutual trust. Consequently, the study proposed those findings and suggestions:

7.1 There are common concepts in the business management and administrations.

Without a doubt, the purpose of administration was to make the political system could operate effectively, while the goal of the corporation was to strive for sustainability. Although public and private sectors seemed totally different in terms of form, their final goals were almost same. Then, political system was influenced by the economic factors. Similarly, economic system would also be affected by political factors. It was significantly proved that the principles of business

management and administration could be applied alternately. What was more, considering the strategies in global market, corporate managers took cost, benefit, and effectiveness into accounts when facing the selection of merger, spin-off, or other ways to rebuild the organization. Besides from caring about maximizing economic benefits, corporate managers must control political and legal risk as well. Similarly, after systemizing political system, the authorities needed to make economic life of capitalism highly predictable. The authorities could set clear rules for every participant in the economy and enabled the participants to decide what they could do and know the responsibilities and obligations they should took on by themselves. The concept of cost-benefit analysis first articulated by the United States Supreme Court in Mathews v. Eldridge, the Supreme Court held that: first, the private interest that will be affected by the official action; second, the risk of an erroneous deprivation of such interest through the procedures used, and the probable value, if any, of additional or substitute procedural safeguards; and finally, the Government's interest, including the function involved and the fiscal and administrative burdens that the additional or substitute procedural requisites would entail. What was more, the success of "Cat Theory", which was proposed by Chinese leader, Deng Xiaoping, guided China tend to open in the development of politics and economy. To sum up, when it came to the relationship between Taiwan and China, we could learn from corporate competitive strategy adopting merger and spin-off in alternation, which was an effective way to turn corporate competitiveness into national competitiveness.

7.2 Respecting individual social difference

Cultural, social, custom and other factors influenced the transition of political system. There were huge gaps in political, economic, social, and cultural values between Asian and Western countries. Those gaps made differences for social mainstream value and related regulations. Even in western world, for various issues of politics, economy, society, and culture, there were still different values of law. Took U.S.A. and Canada as examples, both of them were developed countries, but they had totally different regulations about the legitimacy of having guns. Therefore, different countries and political entities should respect individual social and cultural disparity. For example, American and Canadian government enacted law to protect

Indian minority. Hence, whether Taiwan and China should tend to merger? Or split? It should show respects for regulations originated from different culture, history, and habits from country to country. By contrast, the discrepancies of regulations not only could diversify the development of law, but also eliminate the problem of homogeneity and standardization coming after globalization. Former Chinese leader, Deng Xiaoping had promised Hong Kong "one country, two systems" and "unchanged within 50 years", which significantly meant that owing to the disparities of political, economic, social, and educational system formed by long-term separation with Hong Kong, Chinese government showed great respect to different life styles, ideologies, and social mainstream value.

7.3 Glocalization-oriented development

Glocalization, which was a marketing strategy international companies adopted to approach local market and respond to diverse consumers. This concept was also applied to other social observation. Robertson Roland thought glocalization contained two characteristics, universality and distinctiveness, and both of them relied on each other but kept independence at the same time. Briefly speaking, once local things or concepts became internationalized, which meant those things or concepts were developed universally (homogenization). However, when those concepts were applied to another places, they would be amended and combined with regional features, and conditions, and became part of local (diversification). Took basic human right as an example, basic human right was a universal value. That was why European countries and U.S.A. all enacted related law and protected it by constitution, and the laws were even transformed to transnational law. The process showed that the development of human right was started from universality. However, the so-called basic human right value was also variant on account of different culture, history, and religion, which was unable to meet the standard of European countries and America. In brief, the implementation of basic human right must take care of the distinctiveness of different areas. Accordingly, the conflict and combination of the universality and distinctiveness during glocalization would enlarge the value of basic human right and make it meaningful. In addition, glocalization also made this universal value could be displayed in diverse way.

7.4 Global Village of Life Community

Nowadays, as the trend of globalization swept across all the world, traditional national boundaries vanished gradually, and was replaced by global village. In accordance with System Theory, either the main systems or the subsystems affected each other. Hence, it was obvious that traditional national sovereignty was pulsed to face the severe challenge of altitude due to globalization. Nowadays, there were a lot of issues which could not just being solved completely by single country, such as acquisition, distribution and usage of natural resources, environment protection, or other disasters and accidents. Comparatively speaking, it needed efforts from the members of global village to take care of those issues. For instance, Green House Effect exacerbated the global warming, the sovereignty issue on the South China Sea gave rise to the arguments about the ocean resources, smog problem in China (particulate matter 2.5 was higher than the standard) spread to other north-eastern countries and caused air pollution, and the rise of Islamic State in Iraq and al-Syria (ISIS) brought in Anti-Terrorism accidents and other issues of European refugees. Since those issues mentioned above were all transnational, each member countries in the global village should work together and tried to reach consensus actively to solve the problems effectively. In detail, as the trend of globalization swept across all the world, to keep the political system in equilibrium, when every sovereign nation enacted laws or policies, it should stand in the shoes of other member countries and proposed effective solutions.

7.5 Substituting partition for merger

When it came to the thinking model about competitive strategy of Chinese leader, Chinese leader should take a macro view of the competitive strategy, which could enable him/her to precisely grasp the moments of environmental variations, and improve national competitiveness in this global trend. Otherwise, confining itself to the traditional political ideology would not be good for the proper development of Taiwan and China. Additionally, it would also hurt “China’s rise” reputation, and just increased the concerns from neighboring countries. From the cases of spin-off like Acer V.S. Wistron and BenQ V.S. Qisda, they showed the purpose of adopting spin-off strategy was creating double-win among the group and the corporations. Similarly, why not learning from ancient Chinese families, each member worked

individually and brought in glory to their family by their own way. In detail, China could see all the ethnicities using same language and with same race as a whole family; additionally, China could treat Taiwan, China, Hong Kong, Mongolia, Tibet, Xinjiang as partners. Each of partners would decide whether joining in the "family" or not considering their own interests rationally. Ultimately, that would lead to integration in the form of partition. This was like what Neo-functionalism had emphasized, achieving political integration through the spillover of economic integration.

7.6 Avoiding Hostile Takeover Taking Place

Honestly speaking, because of needs of organization rebuilding or transformation, the corporate managers would increase synergies and make advancement in competitiveness through M&A. M&A included merger, acquisition, and spin-off. However, not every case of M&A had attained the consent from the target company. Comparatively, this situation was the so-called hostile takeover. Whether or not the hostile takeover, all of the M&A cases were for better performance. None the less, there was still a little difference, common M&A was pursuing synergies, while hostile takeover was for removing the current executives with bad performance. Therefore, it was said that the common M&A would outperform hostile takeover, and hostile takeover might involve in the unfair competition and it was against the Act of Anti-Trust. The case of Ben-Q and Siemens showed that common M&A might end up with failure owing to the cultural gap, not to mention hostile takeover, which would incur much more risk. Similarly, we could introduce the concept of hostile takeover to the issue of the relationship between Taiwan and China. It did not only have something to do with the survival of the merged sovereignty, but also involved in the consent from people in the merged countries. From history, we found that most of the cases of merger were not based on free will, planting the seeds of hatred among ethnicities in the long run. There were plenty of cases in the world. For example, Baltic states (Estonia, Latvia, Lithuania) was annexed by Soviet Union, and became one of Union of Soviet Socialist Republics, Russia intruded Chechen, Nazi Germany invaded Poland, France, Netherland, Belgium, and Japanese invaded Taiwan, South Korea, and China. However, there were still lots of merger cases was on the basis of the free will of

local people, and even became one of the acquirer through referendum. Such as, Puerto Rico had held referendums about the issue of becoming the 51th state of U.S.A. several times. Obviously, compare to common M&A, the transaction cost of hostile takeover was much higher, and it was more likely to plant the seeds of hatred among ethnicities in the long run.

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Industrial and Commercial Property Rights Mortgage Between the Provisions of Jordanian Trade and Civil Laws: A Critical Analytical Study

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Abstract

We will start this research from the inevitable result to the effect that the investment of industrial and commercial property rights via its pledging has become a fact that cannot be denied.

However, the pledge of such rights independently of pledging the business premises, although useful, may lead to some difficulties in terms of the nature of this pledge, or the law applicable to its pledge agreements due to its special nature.

Based on the brief provisions wherein legislators dealt with the subject of the pledge of these rights in the Guarantee of the Movables Rights Law No. 20 for 2018 and the regulation of Transfer, Mortgage and Seizure of the Trademark No. 55 for 2014, we will raise a question of the extent of this law and regulation empowerment to solve these practical problems which accompany the pledge of these rights. And whether the general rules related to the civil or commercial pledge are sufficient to be applied on such confidential and important rights? To answer the above-mentioned questions, this article provides a critical analytical methodology.

As a result, the findings of the study indicate that the possessory pledge is not appropriate to the industrial and commercial property rights and the cancellation of the law on Placement of Movable Assets as Security for Debt and being replaced by the Guarantee of the Movables Rights Law removed the industrial and commercial property rights outside the security mortgage. Therefore, regulating the pledge of the industrial and commercial property rights in a special legislation is a must.

Keywords: Industrial and Commercial Property Rights; Mortgage, Commercial Law; Civil Law, Jordan.

1. Introduction:

We will focus in our article on the mortgage of the commercial and industrial property rights as a whole without separation of each of them unless it becomes necessary since the different types of commercial and industrial property rights commonly share their legal, economic and social nature. In respect of legal nature, they are all intangible rights exercised on intangible objects. Regarding nature, the commercial and industrial property rights with all their types are based on competition and there is no importance of such rights therein unless they are merged in economic projects. With respect to the social nature, they are similar to each other because the protection of these rights is governed by social justice due to their significant importance for commercial and industrial advancement and progress and for achieving development. Furthermore, the recognition of these rights maintains order and security in the community, which every state seeks.[1]

The special nature of commercial and industrial property rights distinguished them from other movables, whether those fall under possessory pledge – the movables subject to no registration- or even the other movables which the dispositions therein are subject to registration. This article is mainly aimed at the analysis of the provisions related to commercial and civil pledges and the attempt to apply the same provisions on the confidentiality of the commercial and industrial property rights, since they are intangible rights of civil, commercial and economic nature at the same time.

In the light of the enactment of a particular law related to the Guarantee of the Movables Rights No. 20 for 2018 and the regulation of Transfer, Mortgage and Seizure of the Trademark No. 55 for 2014. Based on the brief provisions wherein legislators dealt with the subject of the pledge of these rights, we ask the extent of this law and regulation empowerment to solve these practical problems which accompany the pledge of these rights. And whether the general rules related to the civil or commercial pledge are sufficient to be applied on such confidential and important rights.

1 El Kalioubi, Samiha, Industrial Property, 6thedition, Dar Al Nahda Al Arabia, Cairo, 2007,pp. 11-13.

Guided by the foregoing, this article is divided into two sections, in the first section we will address the lack of a comprehensive legal organization, and the second section will spotlight on the necessity for comprehensive legal regulation for pledges of commercial and industrial property rights.

2. Lack of a Comprehensive Legal Regulation:

The legislator was more interested in the subject of the trademark pledge and ignored the other property rights, as the said referred to the necessity of giving regulation that regulates the provisions of this law, nevertheless, such regulations were badly deficient to set the guidelines of this pledge. Therefore, we find that jurisprudence tended to the application of commercial pledge provisions and reference to the general rules in the civil law in case of need. Accordingly, we ask about the extent of these two legislation's effectiveness in closing the gaps related to themortgage of these rights.This will be discussed in the first and second subsections respectively. In the first subsection, we will address the application of the commercial law and in the second subsection we will address the extent of the consistence of the general rules of pledge in the civil law to be applied if it is required to refer to.

2.1 Application of Mortgage Provisions in the Trade Law:

The second part of the Jordanian Trade Law No. 12 for 1966 discussed the commercial mortgage contract with respect to the articles from 60-67 thereof. By reading the provisions of these articles, we find that the nature of the pledge which governs commercial and industrial property rights and business premises differs due to the difference of the guaranteed debt of this pledge since this debt may be a commercial or civil one. Article 60 of the Jordanian Trade Law states that for specifying whether the mortgage is commercial, it is required to consider the nature of compliance according to which mortgage is concluded to guarantee the same payment. Concerning the first case, a commercial mortgage shall be applied whilst for all other cases; it shall be referred to the general rules of pledge.[2] It is noteworthy

2 Nassif, Elias, Al Waseet Encyclopedia in the Trade Law, Part II, Commercial Contracts, Al Mouassassa Al Haditha Lil Kitab, Tripoli, Lebanon, 2008, B.E, p. 153.

that a commercial mortgage is a form of the possessory pledge, which was treated by Mecelle (*Majallah el-Ahkam-i-Adliya*).[3] This commercial pledge was stated to conform to the nature of the commercial transaction in terms of expeditious proof, procedures, implementation and others.

By reading the provision of Article 62 of Jordanian Trade Law which addresses "delivery of the mortgaged asset", authors find that this Article expressly refers to the pledge, which the business premises with all its materials is governed by, including the commercial and industrial property rights, namely, "commercial mortgage". This is prescribed in this Article as its deemed that the business premises are included in the movable property. It is further understood from Article 62 that a commercial mortgage object is a form of the commercial form of the possessory pledge which is addressed by the general rules because the delivery of the mortgaged object or the transfer of its possession to the mortgagee creditor is the essence of the possessory pledge since without transfer of possession, this pledge will not have any legal effect. However, the commercial mortgage is distinctive from the possessory pledge because the possessory pledge is applied to the movables and the property,[4] whilst the commercial pledge is applied only on the intangible and tangible objects since the commercial transactions are based on expeditiousness and simplicity,[5] yet, the form of this pledge is determined according to the basis of the nature of debt guaranteed by a mortgage as we stated. In case that this debt is commercial, commercial rules shall be applied, whilst if the debt is civil, general rules shall be applied. Yet, is the commercial mortgage or possessory pledge consistent with the nature of the business premise, commercial and industrial property rights?

Before we answer this question, it should be stated that commercial and industrial property rights are intangible movable funds, which comprise intangible

3 See Baz, Salim Rustom: Magazine's Explanation, 3rdedition, Dar El Ilm Lil Jamie, Beirut, 1998, p.332.

4 For more details see Al Maamouri, Moataz Mahmoud: Possessory Pledge between Configuration Rules and the Rules of Inclusion of the Mortgagee – Legal Comparative Study of Islamic Jurisprudence, 2015, 4th edition, 7thvolume, Al-Hilly Journal for Legal and Political Science, p.735. See also Al-Azzam, Amjad Hassan: Al-Wajeez Explaining Jordanian TradeLaw, B.E, AlWaraq Establishment for Publishing and Distribution, Amman, 2008, p. 296.

5 Osman, Abdel Hakam Mohammed: Principles of Commercial Transactions Law No. 18 of 1993, Contracts and Operations of Commercial Banks, 1994, Part I, Dubai, (no publisher), p. 191.

and financial parts, the same is applied to the business premises, which are also an intangible movable object resulting from the consistence of the material and tangible elements for the purpose of commercialization, customers attraction and increase.[6] Thus, the business premises in turn becomes a movable intangible object which has an independent, financial value different from its elements. It means that the business premises is deemed one of the intellectual property rights that is applied on immaterial objects because the material consideration of the business premises has been changed,[7] accordingly, authors find that the possessory pledge or in its commercial form "commercial mortgage"[8] is inconsistent with the nature of the business premises, commercial and industrial property rights in case that these rights were mortgaged pursuant to the business premises and this is for the following reasons:

1- Transfer of the possession of the movable object from the mortgagor debtor to its mortgagee creditor or to a third person serves as a general rule that is the center of the commercial mortgage provisions, which is addressed by the applicable Jordanian Trade Law with respect to the business premises and its elements, nevertheless, this mortgage may not include the transfer of the mortgaged fund possession as Trade Law addressed such matters on the securities and has not explicitly stated the transfer of possession when mentioning the bonds mortgage. The evidence that Article 63 stated the commercial mortgage, which is connected with the business premises and its elements is that item section 2 of this Article, wherein is indicated that "For valid delivery it is sufficient by the handing over of the keys of the locked business premises which contain the goods and objects under pledge, provided that the business premises do not carry the debtor's signboard, and by the handing over of a representative title as may be required by trading practices". The legislator sets forth this provision to confirm that delivery means the business premises and all related thereto.

6 Al-Oqaily, Aziz, Al-Waseet in Explaining the Commercial Legislations, 1stEdition, Dar Al Thaqafa for Publishing & Distribution, Amman, 2008, p. 86.

7 Al Salihi, Kamran, Sale of Business Premise, 1stedition, Dar Al Thaqafa for Publishing & Distribution, Amman,1998, pp. 112-116.

8 Nassif, Elias, Commercial Contracts, op. cit., p. 150.

2- The essence of the commercial mortgage of the business premises and contents is represented in the transfer of the mortgaged fund possession from the mortgagor debtor to the mortgagee creditor because without transfer of the possession, such a mortgage shall have no legal effect. It is commonly known that whatever cannot be seen or deemed an intangible object shall not be transferred, the same is with the business premises and the intangible elements thereof, which constitute its basis. Moreover, possession is applied on the tangible material movable object, which contradicts the nature of the intellectual rights.[9] Therefore, we find the Trade Law legislator has mistaken when dealing with the same business premises and its elements as that of the material movable object because possession transfer is a condition for the validity of the mortgage against others.

3- The mortgaged object, represented in the business premises and its goods, with delivery to the mortgagee creditor prevents the mortgagor debtor from engaging in his business properly, consequently, it is not for the benefit of the mortgagee creditor- because the mortgagor debtor – on one side will be incapable of obtaining the necessary funds for the payment of debt value to the mortgagee creditor,[10] on the other side the mortgagee creditor shall incur an additional meaningless burden for his capacity as a creditor. Thus, we find Article 65 (1) of Trade Law states that:"The creditor is bound to exercise on the debtor's behalf all the rights inherent to the goods or titles received in mortgage".

4- One of the significant financial rights of the holder of the commercial and industrial property rights is his right to give licenses of use, and such licenses are not deemed just simple licenses but general agreements include giving licenses of patents, trademarks, practical awareness and other prospective property rights in addition to technical assistance provided to the licensee. These agreements are deemed an important factor for economic development of the developed countries and are normally distinguished by technology transfer and use of the local raw materials.[11] Hence, it is important to properly make use of these licenses, the owner

9 Pasha, Mohammed KamelMorsi, Reasons for Acquisition of Ownership, Possession and Obsolescence, 2nd edition, Al Alamia Printing Press, Egypt, 1952, p.17.

10 Nassif, Elias, Al Kamel in Trade Law (Trading Establishment), 3rdedition, Dar Oueidat for Publishing, Beirut, 1997, p. 192.

11 Translation of the Arab Society for Intellectual Property, 2004, WIPO Intellectual Property

of the intangible rights shall control the use of the license especially with respect to the goods quality (compliance with quality standards set by the licensor) and the conditions whereby the same are marketed, so that such control can be effective. The owner licensor is required to exercise control by himself because exercising rights by the licensee is deemed exercised by the licensor himself in terms of all purposes for the protection of this right and at the same time, this does not mean that the licensee may claim for the property rights with respect to this moral right. Within the framework of the above mentioned, we find according to the form we formerly stated that the commercial mortgage requirement for the transfer of possession and looking upon it as a basis in the contract, constitutes an obstacle not only for good faith in exploiting the holder of such rights but also it hinders the economic development of the State.

5- It is found that the commercial mortgage comprises two significant elements, the first is the business premises mortgage and the second is the mortgage of the business premises intangible elements in case of their close link thereto, a matter which renders it necessary primarily to mortgage the business premises as it is deemed an intangible and independent fund from its elements as we previously referred to, additionally, this mortgage shall be registered in the commercial register. However, this procedure is not sufficient to state that the associated commercial and industrial property rights have been mortgaged and that same mortgage has become a proof against others. Nevertheless, mortgage procedures prescribed by laws shall be followed, regarding their registration in the record related to each of them whether it is the record of the trade marks, patents or industrial designs, these records are independent of the commercial records because they are subsidiary to a specialized registrar in the Ministry of Industry and Trade, Department of Commercial and Industrial Property,[12] since Article 39 of the Trade Law with respect to the elements of a business premise has referred such elements regulation to their special laws. Furthermore, Article 74 of the Trademarks RegulationNo. 1 required the publication

Handbook: Policy, Law and Use, 4th edition, WIPO publications, p. 112.

12 A visit to the industrial and commercial property department at the Ministry of Industry and Trade,dated 11/09/2017, and reviewing the mechanism of registering such industrial and commercial property rights and it was found, through the interviewwith Ms. Zain Al-Awamleh, who works as a registrar of trademarks in this department, that the commercial registration section is separate from the industrial and commercial registration section.

of any change that occurs to the trademark records and the entry of mortgage in the trademark records is deemed a change that occurs to the record and this change shall be published in the official gazettes so that this contract becomes an authority against others. This procedure shall be accompanied by a signature on the commercial trademark records to reinforce the contract against others. Publication shall be in two official newspapers after payment of the due fees.

Authors find, on one hand, that when the TradeLaw legislator in Article 39 thereof referred to the laws related to the business premises element only for its deficiency and its failure to apply its provisions on such elements including the commercial and industrial property rights. On the other hand, the legislator wanted to add confidentiality and independence to these elements to be consistent with the nature of each of them, and this matter provided a glimpse of hope to the authors that calls for finding provisions related to the mortgage of these rights and meets the same nature apart from the infeasibility of their link to the provisions of the commercial mortgage most of the time.

6- Article 19 of the Trademark Law refers to the possibility of mortgaging the trademark irrespective of the business premises if both are not closely related to each other and upon the agreement of the parties- with respect to the trademark-, this means to us that the legislator released both the mortgagor and the mortgagee from obliging them to a commercial mortgage- which is only in the form of a possessory pledge, the legislator further allowed subjecting these rights to a security mortgage since their mortgage was away from the business premises. Regarding a patent, which has no similar provision, it is not subject to what is aforesaid and its mortgage is only associated with the business premises.

These reasons constitute an obstacle against the mortgage of the commercial and industrial property rights if they are associated with them or not, however, debt nature was commercial. These reasons further urged the creditor’s authorities to refrain from resorting to or accepting this mortgage and in case they accept it, such creditor authorities shall resort to the application of foreign laws' provisions.

In the light of the insufficiency of the commercial mortgage to apply its provisions on the mortgage of these rights, we ask whether the commercial provisions which to our opinion are more related to these rights, in particular, have not stated more to guarantee the protection of the rights mortgage, then will the civil rights will be able to do so? We will try to answer in the following subsection:

2.2. The Extent of Consistence of the Mortgage General Rules in the Civil Law for Application Upon Need for Reference thereto:

In the event that the provisions of the Trade Law, as we find, fail to be compatible with the special nature of the commercial and industrial property rights, then, can the provisions of the Civil Law, which controls the general rules of mortgages be consistent with the special nature of such rights?

We find that the general rules in the Civil Law regulated two types of mortgage, namely, security mortgage and possessory pledge. The first type was restricted to property mortgages and stated a special exception on including the movables governed by registration of this type of mortgage and mentioned an example of the vehicles and vessels and ignored reference to the intangible movables whether related to possessory pledge or security mortgage, though they are governed by registration. We may attribute the failure of this legislation to be consistent with the intangible movables for the reason that the provisions of Civil Law are precedent[13]compared with the provisions of the intellectual property legislation or at least the Jordanian legislator envisaged them then - despite their actual existence. Whilst the second type of mortgage, stated absolutely the mortgage of the tangible movables without reference to the intangible movables, this type further referred to a mortgage of the property as a possessory pledge and insisted on the necessity of the transfer of the possession therein without approving the feasibility of the transfer of possession on property mortgage- though the provisions of its mortgage had been fully regulated in security mortgage.

13 Melhem, Mohammad Salem, The Historical Development of the Jordanian Civil Law, 1/12/2011<http://alrai.com/article/6286.html> dated 20/11/2018 at 14:30.

Whereas the economic system had been developed and has led to the emergence of the intangible movables and to the enactment of legislation related to such movables, which provisions were regulated by their derivation from the international agreements, that is to say, these provisions were very accurate and organized. However, unfortunately this legislation sufficed with only reference to the possibility of the mortgage of these intangible movables and the necessity of registering this mortgage in its record without detailing in the provisions of the mortgage. For example, paragraph 4 of Article 19 of Trademark Law states that: "assignment, mortgage, or seizure of the trademark or all the legal dispositions related thereto shall be governed by regulations issued by the Minister for this purpose and shall be published in the official gazette".

Mortgage regulations aforesaid discussed a group of the procedures related to mortgages without mentioning the objective provisions of this mortgage. Therefore, we have to abide by the general provisions stated in the Civil Law, accordingly, we face the legislative fact which had not been amended since its enactment, we find that a provision expressly provided for confining the application of the security mortgage to the property, thus, it prevented the application of the provisions of this mortgage on the intangible movables. In the meantime, it is unacceptable to apply the provisions of the possessory pledge as stated that these rights are intangible of a special nature rather than being material movables. The legislative provisions of possessory pledge regulate the provisions of material movables mortgage and are consistent therewith.

Article 1329 of Jordanian Civil Law states that: "security mortgage shall be applied on property…" means to us that the intended property is other than the movable one which may not be possessed[14], we find that the intangible rights may not be possessed as prescribed by Article 38 of the Jordanian Trade Law which states: "The business premises includes a group of tangible and intangible elements differ as may be the case, particularly, customers, trade name, logo, the right of rent,

14 Sanhoury, Abdul Razzaq, Al-Waseet in Explaining the Civil Code, Property Right, VIII, Dar Ihya al-Turath al-Arabi, Beirut, p. 278.

trademarks, patents, permits, industrial designs and models, industrial tools, commercial furniture and goods."

Therefore, whatever can be possessed is governed by the provisions of the insurance mortgage and there are two provisions in the Civil Law that can be interpreted that the commercial and industrial property rights shall be subjected to insurance mortgage: The first provision is the previous interpretation of the provision of Article 1329, and the second provision deemed these movables are subject to registration, and article 1334 explicitly approved the mortgage of any movable governed by the registration of the provisions of security mortgage.

In contradiction to what we stated before regarding the possibility of reference to the provisions of Articles of 1334 and 1329 for the mortgage of the intangible movables as an insurance mortgage, however, the provisions related to possessory pledge are free from mentioning that there are movables that can be excluded from possessorypledge, paradoxically, all the provisions related to possessory pledge insisted on the requirement of the transfer of the possession even though that is not envisaged or logic as set forth in Article 1402, wherein it is set out on the possessory pledge of the property mortgage. The possessory pledge of the property mortgage shall be in force with respect to others only when it is registered in a registration department together with the possession of the charger creditor. This Article provides for the possession of the property along with its registration so that the possessory pledge shall be deemed enforceable. This matter refers to the fact that the legislator considered the possession matter in relation to the possessorypledge, and the possessory pledge of the intangible movable is not possible withouttransferring the possessory.

Accordingly, we find that it is necessary to apply the general provisions of the Civil Law on the intangible movables in the absence of the regulation of the mortgage objective provisions in its law. Priority is given to the application of security mortgage provisions; however, we face the same problem when it is required to find express special provisions on the mortgage of these intangible rights in the light of great economic value forthese rights and the need for them as a means for credit in big projects on both local and the international levels.

It should be noted that the legislative provisions related to mortgages whether in the Jordanian Trade Law or the general rules in the Civil Law if they are not compatible with the nature of the intangible movables, then, what is the solution? We shall answer this point in the coming section, which is entitled as the need for a comprehensive legal regulation to mortgage such rights, wherein we will consider the justifications for the requirement of a comprehensive legal regulation and to what extent it is possible to accept the practical application to furnish this regulation which unifies the industrial and commercial property rights.

3. The Requirement for a Comprehensive Legal Regulation to Mortgage the Commercial and Industrial Property Rights:

We find that the provisions related to the mortgage of the commercial and industrial property rights in the intellectual property legislation are insufficient for the objective regulation of the mortgage of such rights and nobody can argue for giving regulation related to the transfer and mortgage of the trademark property and their fulfillment of such objective, since such regulation referred in one article therein, namely, Article 8 of trademark mortgage and did not add more in terms of the subject of mortgages than the provision of Article 19 of Trademark Law. Nevertheless, we find that the source of deficiency is not in this regulation, but what is mentioned in paragraph 5 of Article 19, which states: "The procedures of the transfer, mortgage and seizure of the trademark property specify …. as per regulation…". This paragraph of Article 19 determines that the regulation is concerned only with the procedures and this is stated in Article 8 of this concerned regulation.

Furthermore, we can say that there is no existence of a comprehensive legal regulation to mortgage these rights by stating the impossibility of the extraction of a legal regulation emerging from the enforceable provisions in each of the Trade Laws, Civil Law or even the provisions related to the legislation which regulates these intangible rights. For example, we find that Article 39 of the Trade Law, in terms of specifying the merchant rights on business premises elements, refers to the laws related to such elements and this means that any element of the business premises elements maintains its nature and itself in its mortgage on the independence of the

legal provisions related thereto[15] as if we were going around in circles because each section of legislation refers to another.

Therefore, we say that the requirement is dire for the existence of a comprehensive legal regulation that regulates the objective provisions for the mortgage of these rights. We will consider in the first subsection the justifications for the requirement of a comprehensive legal regulation and in the second subsection, the possibility of the acceptance of the practical application for the existence of this regulation which unifies the commercial and industrial property rights.

3.1 The Justifications for the Requirement of a Comprehensive Legal Regulation:

The interest of the great states in the intellectual property in this century, since it is deemed a basic part of the economic politics of these states, requires that this local legislation is coping with this international orientation, so that any of these states can provide the most legislative protection of their nationals, and it is not advisable to suffice with the minimum limit of this interest,[16] that is to say that the intellectual legislation shall suffice with the provision of the possibility of mortgages without the regulation of such mortgage objective provisions. The serious repercussions of the mortgage of the intellectual property rights in the cultural, commercial and legal field in the light of massive production movement requires the specialists and experts to insert the intellectual rights in a comprehensive regulation according to the laws and regulations. We will summarize the justification for the requirement of a comprehensive legal regulation to mortgage these rights as follows:

1- The generalities we find with respect to the mortgage of commercial and industrial property rights, whether in the general rules of the Civil Law or Trade Law and associated with mortgages may not be applied to such rights of this extent of importance, regulation and comprehensiveness in the legislative provisions related thereto, since the matter of the existence of a comprehensive legal regulation to

15 Shafik, Mohsen, Egyptian Commercial Law, Part I, 1stedition, Cultural Publishing House, Alexandria, p. 647.

16 Anajjar, Mohammed Mohsen Ibrahim, Legal Regulation of the Commercial and Industrial Property Elements, 1stedition, Dar Al Gamaa Al Gadida for Publication, Alexandria, 2005, p. 15.

mortgage such rights is a necessity to seek to obtain it and its application starts with the interested researchers, then, passes to the experts and specialists and ends with those concerned with the enactment of such legal legislations.

2- We find that the source of subjecting the commercial and industrial property rights to the provisions of the possessory pledge is jurisprudence rather than the provisions of law or in particular, its source is not Civil Law which is deemed the major pillar to regulate such in kind insurances because if its source is law as we find, it shall be subject to a security mortgage rather than possessory pledge on account that they are movables subjected to registration and the basis of the regulation of such rights shall be the legislative provisions rather than jurisprudence opinions.

3- Moreover, we find that the legislative provisions whether in Civil or Trade Law govern the traditional mortgage contracts, whether it is a property mortgage or the mortgage of the material movable with respect to the civil law or mortgage of business premises in terms of the Trade Law, which justify the requirement for recent legislative provisions that serve updated mortgage contracts.

4- It is worth mentioning that whoever is interested in the intellectual property rights, that such rights in the advanced states are founded on the idea of co-existence rather than the idea of accumulation and co-existence means that the innovator selects one law to apply its provisions to the contracts he entered into, for example, if such an innovator selected the Trade Law, he may not apply the provisions of the special law- the legislation related to the intellectual property- and if he got one of them, he may not get the other.[17] If we applied this idea for being interested in the commercial and industrial property rights or in case that we envisaged that it will be applied by one of the concerned persons because of its internationality, then, the Trade Law shall not serve the interest of the concerned parties. Moreover, the special legislation is free from a regulation that governs such contracting, so we find the importance of the existence of a comprehensive legal regulation to serve these contracts and to be emanated from the relevant special legislation such as mortgage independent regulation which regulates mortgage objective provisions.

17 Translation of the Arab Society for Intellectual Property, op. cit., p. 146.

5- The legislator's requirement in Article 8 of transfer and mortgage of the trademark property, that the contract of the mortgage of the commercial and industrial property rights shall be in writing and certified by the concerned checker and registered, and granting the charger the proof of the trademark mortgage according to the form prepared to this end, is to our opinion an alternative form of possession and it suffices to protect the charger creditor, we even find that this provision means more than that by stating that the mortgage contract of the trademark is a possessory pledge without transfer of the possession. Since neither the civil law legislator nor the commercial one regulates the provisions of this type of possessory pledge because we find that this possessory pledge is of a special type that takes into account the nature of these rights and the concerned parties and the third party simultaneously.

3.2 The Possibility of the Acceptance of the Practical Application for the Existence of this Regulation which Unifies the Commercial and Industrial Property Rights:

According to the previous first subsection and by shedding light on the justifications for the existence of a comprehensive legal regulation to mortgage the commercial and industrial property rights, we find that we are direly in need for a special type of mortgage that is compatible with the formal mortgage in respect of an unconditional transfer of possession, even if the transfer of possession protects the charger creditor and others. However, such protection can exist without the requirement for the transfer of possession because the existence of the record that is related to the registration of such rights serves as instruments of declaration[18] and the legislator's requirement that for the enforcement of the legal dispositions which are applied to the commercial and industrial property rights, they will be registered in the said records replacing the transfer of the possession of the mortgaged fund and this leads to the protection of others. The charger creditor can be protected from the

18 Taha, Mostafa Kamel, Commercial Contracts, B.E, Dar al-Fikr Al-Jamieh, Alexandria, 2008, p. 359.

dispositions of the charge debtor in the mortgaged object or harming the former through imposing civil penalties against the charge debtor.[19]

Based on the foregoing authors find that the existence of a special type of mortgage that is consistent with the formal mortgage is an important and necessary requirement to overcome the negatives, which encounter the mortgage of the commercial and industrial property rights and this legal regulation spreads and its practical application on all the difficulties which counter the mortgage of these rights.

Practically, the practical application referred to the existence of a legal regulation to narrow some gaps we referred to in the general rules of the Civil Law and the Trade Law in terms of the mortgage of the commercial and industrial property rights, this law is called Placement of Movable Assets as Security for Debt Law No. 1 of 2012.[20] Initially, we found that the movables which the law was interested in are the movables which are subject to registration. Nobody denies that legislators succeeded when enacting such law to take into consideration the special nature of the mortgage of these movables, since they are subject to registration and shall be dealt with in a different manner from the movables feared of their loss or trafficking and the other matters we referred to above, which threaten the interest of the charger creditor regardless of some defects which marred this law. Unfortunately, this law was cancelled altogether and is replaced by the new law, the law of "the Guarantee of the Movables Rights". However, the new law did not block the legislative deficiency which marred the cancelled law, it rather cancelled any provision that can be inferred with respect to the mortgage of the commercial and industrial property rights to close an important gap which mars some of the laws (Legislations of the Intellectual Property, Trade Law, and Civil Law). Initially, we find that this law is contradictory in its provisions to the tangible rights. Article 3 states that: "A-The provisions of this law shall be applied to the transactions and contracts which involve a condition requiring the guarantee of the fulfillment of the compliance with stating guarantee right on a debt, right or movable fund including:

19 Tanagho, Samir Abdel-Sayed, Personal and In-Kind Insurance, B.E, Dar El-Maaref Establishment, Alexandria, 1996, p. 125.

20 See Article 45 of the Guarantee of the Movables Rights No. 20 for 2018 which abrogated The Placement of Movable Assets as Security for Debt Law No. 1 of 2012.

B- The subject of the guarantee may be any movable assets whether material or immaterial or outstanding or future rights".

The same law in Article 5/A/2, provides that: The provisions of this law shall not be applied on any of the following transactions and contracts: "The rights established a guarantee for compliance with respect to the material and immaterial movable assets which any legislation requires their registration". According to this provision, this law excluded the commercial and industrial property rights from stating that for the mortgage of these rights there shall be special rules to control it.

On consideration of the reasons requiring this law draft- guarantee of rights with movable funds- we find that these reasons are mentioned as follows:

"To facilitate financing medium and small establishments under better conditions through facilitating loans by guarantee of the movable funds which are not subject to registration without possession by declaring them and identify priority to the creditors' rights, and for acceleration the implementation process with respect to the guarantee and facilitating to obtain the rights, this draft law included the following basis:

1- To establish guarantee rights on the current and future intangible and tangible assets whether fixed or changeable by concluding an agreement between the creditor (the guaranteed) and guarantee offeror (the guarantor) irrespective of formal procedures.

2- To empower the creditor to enforce rights guarantees against a third party through the same declaration in a central record established for this end.

3- To prioritize creditors' rights according to enforcement against the third party including declaration date and time in the record.

4- To specify the mechanism of getting the creditors' rights through effective expeditious enforcement on the guarantee along with maintaining judiciary control."

These binding reasons should have included the intangible rights; however, this law deemed the registration of these rights as an obstacle against its enforcement thereon.

Enactment of the law of the guarantee of the movable assets to debt and cancellation of a placement of movable assets as security for debt Law have deprived the legislative system the possibility for the existence of a comprehensive legal regulation, which regulates its mortgage provisions, conform to its nature and related legislation and be compatible with the practical fact of its mortgage.

Therefore, we find it necessary to reconsider the guarantee of the movable assets to debt and that its declaration was not an obstacle at any time with the establishment of any right against it and vice versa, we find that their registration gives it confidentiality that makes it superior to the movables which are not subject to registration.

Regarding mortgage retail, we find that Civil Law provisions whether related to insurance mortgage or possessory pledge are in conflict with the nature of the commercial and industrial property rights with respect to indivisibility because the rules of mortgages in Civil Law do not permit the indivisibility of the two types of mortgage, whilst the partial mortgage of the trademark of some services and funds registered for it are the subject of contradiction in jurisprudence[21] because an opinion finds that this is impossible because the trademark registered with funds and services grant its owner an absolute right. Additionally, the trademark is of a material nature and for this reason the trademark as a general rule, cannot be divided into parts, which consequently would have the value of the material objects. Nevertheless, in case that this question has been clearly regulated in law, it would be possible to mortgage the trademark explicitly partially as is the case with patent as we will see, particularly, some of the laws expressly regulated the partial mortgage of the trademark. [22]

21 Fayadhullah, Hussain Tawfiq, Jalal, Nasser Khalil, Legal Aspects of Mortgaging the Trademark, Journal of Sharia and Law, Sixty-Second Issue, publication date: 4/2015, p.9 .

22 Article 23 (1) of the Bahraini Law No. 11 of 2011 on the Protection of Trademarks states: “The ownership of a trademark may be transferred wholly or partly with or without compensation, as

On the other hand, another opinion permits the partial mortgage of the trademark with reference to the provisions permitting the transfer of its ownership, partially. When we refer to Jordanian Trademark Law, we find that it did not refer expressly to a mortgage or the partial assignment of the trademark, as Article 19 (1) states: "The transfer, assignment or mortgage of the trademark is permissible without the transfer of the ownership of the business premises using the trademark for distinguishing its goods, assigning or mortgaging it. Furthermore, the trademark seizure may be independent from the business premises". However, does this mean that we cannot assume that the contract of the trademark mortgage may be divided so that it includes only a part of the goods which the mortgagor sticks the trademark thereon? Based on the fact that the partial assignment is impermissible according to the Jordanian Trademark Law. The answer to this question is negative; it means that with our reference to the provisions of the Jordanian Trademark Law, we find that it has not been explicitly referred to the partial assignment of the trademark, which shall be applied too on its partial mortgage. Nevertheless, according to our opinion, we find it is possible and can be inferred from the two following provisions:

1- Article 12 of Trademark Law states that: "If a trademark incorporates matters in common use in the trade or otherwise is neither in such common use nor has an obvious feature, the registrar or the high court of justice may require, in deciding whether such trademark shall be entered or shall remain entered in the register, as a condition for maintaining it entered in the register, that the proprietor shall disclaim any right to the exclusive use of any part or parts of such trademark, or of all or any portion of such matters, to the exclusive use of which the registrar or the court holds him not to be entitled, or that he shall make such other disclaimer as the registrar or the court may consider needful for the purpose of defining the rights of the proprietor of the trademark under such registration, provided always that no disclaimer by the proprietor of the trademark entered in the register shall affect any of his rights except to the extent resulting from the registration of the trademark in respect of which the disclaimer is made."

well as by inheritance. Such marks may be mortgaged or seized with or without the business premises or the exploitation project for which the mark is used to distinguish its goods and services. Acts of transferring ownership shall be in writing to be valid".

We find that this provision referred to the compulsory partial assignment of the trademark according to the decision of the High Court of Justice or the registrar. Yet, we are interested in the possibility of the partial assignment or in other words that the trademark is indivisible if it is registered for more than one sort of goods and services, therefore, based thereon, we abide by this provision and allow the partial mortgage of the trademark with respect to a part of the goods or the services providing that this will not deceive the mortgagee creditor and shall be subject to his knowledge and satisfaction.

2- Yet, in the second provision, we find paragraph 2 of Article 25 referred to the possibility of the partial license of the trademark by stating that "The trademark owner may license one or more persons, under a notarized contract to be filed with the Registrar, to use the mark for all or some of the goods. Likewise, the trademark owner shall have the right to use it unless otherwise is agreed upon…"

If the legislator authorized partitioning in the trademark licensing contract pursuant to the above text, whence more appropriate is that it would not permit to partitioning if potential harm is possible; since the license is directly based on the use of the trademark, we see that the mortgage of the trademark must be subject to fragmentation if its nature permits that, i.e. the encumbered trademark to be registered for more than one class of goods or registered for goods and services at the same time.[23]

In respect to the patent, the Jordanian legislator explicitly stated in Article 27/A that: "A patent title shall be transferable wholly or partially with or without compensation and be subject to pledge and seizure."

As long as the Jordanian legislator permits the partial transfer of the patent title, then it may– by analogy – be partially mortgaged. However, we wonder how the patent may be partially mortgaged, where it relates to a product or a method of manufacture or both that may lead to solving a certain problem in any particular

23 See Article 7 (5) of the Jordanian Law No. 33 of 1952 on Trademark & its amendments.

field,[24] while the same could not be for the trademark that relates to more than one product or service?

We find the answer to this question in the provision of Article 18 of the Patent Law, which granted the owner of the patent who made improvement or amendment to its original invention, the right to obtain an additional patent which would be valid for the remainder of the protection period of the original invention as long as the original patent is valid and the legislator made it subject to the same law relating to the original patent.

From here, we find the answer to our previous question that the owner of the original patent can mortgage apart from the additional patent and vice versa and thus he/she could partially mortgage the patent, which in our opinion has a unique specialty of the patent different from that of the general rules of the mortgage, as stated in the provision of Article 1333 of the Jordanian Civil Law: " Mortgage is indivisible; every part of the mortgaged property shall secure the whole of the debt, and each part of the debt is secured by the mortgaged property." Which means that all the mortgaged object and each part of it deemed a guarantee of the whole debt and any part thereof, as stated in Article 1382 of the Civil Law, which states: "The provisions of Article 1333 of the present Law, concerning the indivisibility of the property mortgaged as security for the debt, applies to possessory pledge and the entire property remains to secure the whole debt or parts of it."

4. Conclusion:

Through the current article, our findings and recommendations, we hope that we have tried our best to provide the intellectual legal library as much as possible with the needs of both the researcher and investor in order to live up to the level which we all aspire to in such legal thinking.

24 See Article 2 of the Jordanian Law No. 32 of 1999 on Patents & its amendments.

4.1 Findings:

1- The possessory pledge is not appropriate to the industrial and commercial property rights and gets it out of nature as defined by law for the following reasons:

2- The interest of the pledger is in conflict with possessory pledging of the industrial and commercial property rights in several ways. The pledger does not accept to remove his/her hands away from these rights and transfer the possession to the pledgee, as the pledger, when entered into the pledge agreement, desired to support his/her business, expand in it and face an economic crisis without removing his/her hands away from the subject-matter of such pledge and transferring its possession to someone else leading to freezing his/her business and being deprived from its re-pledging again since its re-pledging requires to transfer its possession to the second pledgee, a matter which is legally impossible as the possession is in the hands of the first pledgee, thus preventing the pledger from exploiting the pledged property in the manner he/she deems fit to solve his/her economic crisis.

3- The feature that transcends the security mortgage for the possessory one is that, in case of the security mortgage, the pledged funds are kept in the hands of the pledger against registering such a pledge; and what is practically happening, in case of the intangible movables, subject-matter of the current study, is that these rights remain in the hands of its holder and being managed as he/she deems appropriate, with only delivering the registration certificate as being the proof of ownership. Thus, we find that the rationale for transferring the possession is not available for the intangible movables and that merely the intangible hand-over, i.e. the certificate, is not sufficient to apply the provisions of the possessory pledge on it.

4- The mortgage of the industrial and commercial property rights has not received sufficient care and attention from the legislator in the intellectual property legislation as the legislator simply cited that these rights are susceptible to a mortgage without indicating its features and that such mortgages should be subject to registration and even when the legislator tried to pay more attention to the mortgage of the trademark, regardless of the other rights, he pointed out the necessity of issuing special regulations governing the provisions of such mortgages; however,

unfortunately, these regulations fell well short of even outlining the mentioned mortgage.

5- The Trade Law defines only one type of mortgage; which is the possessory pledge. Accordingly, if the debt is commercial or if the trademark is closely related to the business, it can be pledged only on the basis of the possessory pledge that is subject to the provisions of the Trade Law.

6- Upon the interpretation contrary to the stipulation of Article 1329 of the Civil Law, it may consider all that cannot be acquired subject to the provisions of the security mortgage. Therefore, we can find two stipulations in the Civil Law, through which we can say that the industrial and commercial property rights should be subject to the security mortgage, which are: firstly, the aforementioned interpretation contrary to the stipulation of the Article, and secondly, considering that such movables are subject to registration and that the stipulation of Article 1334 expressly permits pledging of any movable, which is subject to registration, for the provisions of the security mortgage.

7- The cancellation of the law on Placement of Movable Assets as Security for Debt and being replaced by the Guarantee of the Movables Rights Law removed the industrial and commercial property rights outside the security mortgage or, at least, the possessory pledge without transferring the possession.

4.1. Recommendations

4.1.1 In the Civil Code:

1- Providing expressly for the inclusion of the intangible rights in the provisions of the security mortgage as being of the movables subject to registration that are stipulated for in Article 1334.

2- The applicability of the possessory pledge's provisions that are contained in Section II to the intangible rights without transferring the possession.

3- Amending the stipulation of Article 1333 related to the indivisibility of the pledged property to secure the debt in order to be conformed to the nature of the intangible rights as being divisible for its high value if being pledged without division, a matter that may lead to be the value of the collateral is higher than of the debt.

4.1.2 In the Trade Law:

1- Amending the stipulation of Article 62 so that a commercial mortgage agreement can be concluded without requiring the transfer of possession.

2- Regulating special provisions for the intangible rights' pledge if being pledged independently of the business premises and in a business capacity.

3- A broader and more comprehensive regulation of the rights and obligations of both pledger and pledgee, where all the stipulations of the Trade Law have failed to set a comprehensive regulation of these rights and obligations.

4.1.3 In the Intellectual Property Legislations and the Regulation of Transfer, Mortgage and Seizure of the Trademark or Patent:

1- Providing expressly the possibility of pledging the trademark in a divided manner if the trademark, itself, is on more than one class of goods.

2- Issuing the regulation for transferring and pledging the patent, where these regulation shall include what should be included in the regulations for the pledge of the trademark and to provide for all the formal procedures that result from pledging the trademark or patent for its pledge, registration, write-off the pledge and its expiration as well as the procedures related to the execution against the pledger in case of the coercive dispossession. Moreover, this regulation shall include the measures to be followed if there is an international registration for the trademark or patent in more than one country and a pledge registration in one or some of these countries.

3- Enactment of a special legislation to regulate the pledge of the industrial and commercial property rights, determining expressly the type of such pledge, rights and obligations of its parties.

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The Protection of Content in Media Over the Top and Telecommunication Network in INDONESIA Copyright Law Perspective

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Huala Adolf, Eddy Damian, Miranda Risang Ayu Palar

Abstract

Over The Top is a Media Platform in the form of multimedia services through operator-owned networks and hitching on telecommunications operator infrastructure, can be in the form of video, audio, voice, telecommunications, news, or other commercial services including market place, online stores, etc. Examples: YouTube, Facebook, Google, Instagram, Whatsapp, etc.

Over the top (OTT) is a term used to refer to content providers that distribute streaming media as a standalone product directly to viewers over the Internet, bypassing telecommunications, multichannel television, and broadcast television platforms that traditionally act as a controller or distributor of such content.

In another way OTT is where a telecommunications service provider delivers one or more services across an IP network. It embraces a variety of telco services including communications, content and cloud-based offerings.

OTT also called as "Over The Top" it is a term used in broadcasting and technology business reporting to refer to audio, video and other media transmitted through the help of via internet as a standalone product, without requiring users to subscribe to a traditional cable or a satellite pay TV-service like Comcast Since its entry into the market, this disruptive player in the OTT streaming domain has wooed the internet-savvy generation, esp. the millennials, with its expansive content library. Its OTT platform continues to upgrade the standards for delivering high-quality content and a great user experience. A recent study indicates that the company garners, on average, 12% market share in developed countries like the U.S, where it is the 2nd largest OTT operator.

Keywords : Content, Internet, Provider, and Telecommunications

Introduction

Over The Top, which is defined as a service that is delivered through a network, an operator's infrastructure, but does not directly involve the operator. This is a service that hitches an operator but does not include or involve the operator, the service can be video, audio, voice, telecommunication, news, conference, data center, cloud services, networking services, games, mobile messaging and others.

Companies that are able to compete are companies that are able to implement technology into their companies. One type of technology implementation in terms of increasing business competition and sales of products is by using electronic commerce (e-Commerce) which can help market a variety of products or services, both in physical and digital forms. In the use of these technologies, various parties associated with companies such as investors, consumers, the government will play a role and can provide enormous benefits for the smooth running of business processes.[1]

In this increasingly sophisticated era of development, many terms from the media that really need to be raised are some of the main problems in the world of intellectual property. One of them is over the top (OTT) which is quite popular both in the world of telecommunications, the world of government or the world of academia.

Regulation of PP No. 82/2012 concerning the Implementation of Systems and Electronic Transactions and Permen Kominfo No. 21/2013 concerning Cellular Content and FWA - must be refined with the aim of producing regulations that accommodate the interests of each operator and regulator. In this case the difficulty is that in addition to being challenged by some circles within the country, also OTT businessmen do not want a regulation that binds their freedom of operation. Therefore, in addition to perfecting regulations, there is also a need for ongoing

1 Siregar, Riki R. 2010. Strategy to Improve Company Business Competition with the Application of E-Commerce.

socialization of the need for regulations that can lead OTT to share profits and responsibilities.[2]

1.Identification

1. What is the concept of regulating the creation of laws on the progress of Information Technology in Indonesia?
2. What is the legal protection for the commercialization of creation in the Content through Media Over The Top which is done without permission through Media Over The Top based on copyright law in Indonesia?

2.Method

The method is one of the elements that is needed to get the results in this writing and the steps used are as follows:

Approach Method is approach used in this paper is a normative juridical and comparative juridical approach. Normative juridical, namely research by explaining the provisions in the applicable legislation.

Comparative juridical meaning is based on legal comparison.[3] Qualitative descriptive, namely in the form of research with a method or case study approach (Case Study). This research concentrates intensively on one particular object that studies it as a case. Case study data can be obtained from all parties concerned, in other words the data in this study were collected from various sources.[4]

Library research on the collection of legal materials, then carried out with the literature study stage to add insight related to the problem and get further information about the development of OTT Media.

2 OTT Service Controversy, Abdul Salam Taba accessed: http://selular.id/insight/2014/12/kontroversi-layanan-ott/

3 Soerjono Soekanto, Introduction to Legal Research, UI-Press, Jakarta, 1986, Page. 52.

4 Nawawi, H. Hadari, Descriptive Research Method, Gajah Mada Universitas Press, Yogyakarta, 2003, Page. 23.

3.Result and Discussion

A.The concept of regulating the creation of laws on the progress of Information Technology in Indonesia.

Technology and telecommunications can be utilized in various fields, among others in the fields of education, business, government and social.

The advancement of technology and science has affected many aspects of human life that had never been imagined before.[5]

One aspect affected by technological developments is the aspect of art, especially music. Technological developments can influence the development of music. Especially in the current technological era, social media acts as a medium to facilitate access to music - the music we want. The presence of social media and the availability of many platforms such as YouTube, Instagram, Facebook and others are used by creative and innovative musicians to distribute their works in the form of videos in various platforms or they can sell songs online at the iTunes service. This is a new field for artists and musicians so they can make money.

The support of the government regarding the progress of the era through the era of Industrial Revolution 4.0, what must be prioritized is harmonizing the rules and policies to support the Industrial Revolution 4.0 to be a strategy that will be implemented by the Indonesian government, because the Industrial Revolution 4.0 familiarize yourself with artificial intelligence, big data, internet of things (IoT), virtual reality, augmented reality and new technologies that emerge and require us as humans to have to begin to adapt to these changes. Intellectual Property, is the result of the process of human thinking abilities manifested in a form of creation or discovery. The right to creation is used or utilized by humans to improve the welfare or happiness of life.

5 Ahmad M Ramli, Copyright, Digital Disruption of Creative Economy, Bandung, PT. Alumni, 2018, Page. 27.

As human copyright is something that must be given an award, because the process of thinking to create a product is not an easy thing. For example, copyright works in the field of information technology that make significant changes in all fields of government or society. Rapid technological developments bring progress to almost all aspects of human life[6.]

Intellectual works have existed since the existence of human civilization, that is, since the stone age, until now, since the beginning of independence, the nation and the Indonesian state have determined to realize what is aspired together, namely a just and prosperous society, spiritual and material[7] Intellectual work is personal wealth that can be owned and needed with other forms of work.[8] Some classifications in the OTT Media example that are known in the community include: WhatsApp as a global communication media, also known as online transportation service media, namely GOJEK, Grab, and Facebook which are also very popular with the public as social media.

The development of information and communication technology does not escape the challenges that need to be faced other than broad opportunities. Information technology can also mean the process of collecting (storing), storing (processing), processing (transmitting), transmitting, producing, and sending from and to industry or society efficiently.[9]

B.Legal Protection For The Commercialization Of Creation in the Content through Media Over The Top Based on Copyright Law in Indonesia

Telematics Law is the definition of Telecommunications Law, multimedia content and informatics which is abbreviated as Telematics Law. At present

6 Man Suparman Sastrawidjaja, Standard Agreement on Maya World Activities, Cyberlaw: An Introduction, Print I, Jakarta, Ellipse II, 2002, Page. 14.

7 Eddy Damian, Copyright Law, Alumni, Bandung, 2009, Page 1. There is also J. A. L. Sterling, World Copyright Law, Sweet and Mexwell, 2003, Page. 5.

8 Tim Lindsey, Eddy Damian, Simon But, Tomi Suryo Utomo, Intellectual Property Rights, An Introduction, Alumni, Bandung, 2006, Page. 3.

9 Sinta Dewi Rosadi, "Principles of Data Protection for Credit Card Customers' Privacy According to National Provisions and Their Implementation", Sosiohumaniora Journal, Vol. 19, No. 3, November 2017, Page. 206

information is a commodity that has high economic value because not all parties are able to process from a raw data into information that fits their needs. Announcements are readings, broadcasts, exhibitions, creations using any tool whether electronic or non-electronic or doing in any way so that a work can be read, heard or seen by others.

Information technology and electronic media are considered as pioneering symbols, which will integrate all world systems, both in socio-cultural, economic and financial aspects. From local and national small systems, the process of globalization in recent years has moved quickly, even too quickly, towards a global system.

Based on this according to the opinion of the author, that OTT is a service with content in the form of data, information or multimedia that runs through the internet network. It can also be said that OTT services are "hitchhiked" because they operate on an internet network owned by a telecommunications operator.

In this case copyright has a special role to protect everything that is found on internet media, but in reality Some examples of companies operating in OTT services are Facebook, Twitter, Youtube, Viber, and others. OTT service companies such as Whatsapp and others generally have no form of official collaboration with telecommunications operators, giving rise to controversy for telecommunications companies in Indonesia until now, some circles such as the Indonesian government intend to form regulations regarding the limits of OTT players. Based on this, communication technology is demanded and leads to efficiency and can penetrate territorial boundaries without being blocked by national borders, without time constraints. One technology that has managed to answer these needs is the internet.[10]

10 Tim Lindsey, Introduction of Intellectual Property Rights, PT Alumni, Bandung, 2006, Page. 161.

4.Conclusion

Based on this, the authors argue that the reason, operators lose because SMS or telephone services are increasingly used, customers communicate more often via data networks. Also from another point, it can be concluded by the authors that OTT operators and organizers should work together to improve service in the realm of digital content to obtain appropriate protection and benefits when viewed from the current development. The increasingly widespread use of the internet and the proliferation of social media services and instant messaging offered by OTT players such as Goolge, Microsoft, Apple, Yahoo, Facebook, Research In Motion, and so forth. Almost all customers who access the internet are now turning to messaging services such as BlackBerry Messenger, WhatsApp, Skype, Yahoo Messenger, and Facebook, which has now reached 1 billion users.

The author can predict in other words that the telecom operators that will experience the greatest impact with OTT services are operators in the Asian region, including Indonesia, which makes the operator's revenue from the voice data and SMS segments increasingly lost because customers communicate via OTT services. The author argues that operators and OTT should work together because without the content, data is no longer needed because of the rise of people who have switched from the SMS era and who are now using social media services. The boomerang is that the existence of OTT is an enemy for operators. Because in addition to not paying, the distributed application is a messaging service that takes a lot of network capacity and results in lowering the quality of services. As a result, it triggered an increase in user complaints and customer transfers from one operator to another with the reason that people prefer to buy a quota data package at the lowest possible price but still be able to carry out communication well.

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SUSTAINABLE USE OF GENETIC RESOURCES AND TRADITIONAL MEDICINAL KNOWLEDGE: INDONESIAN PERSPECTIVE ON UTILIZATION PRESERVATION AND ADVANCEMENT OF CULTURE

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Abstract

Prof. James W. Black, 1988 Nobel Prize Winner of Medicine said: **"the most fruitful basis for the discovery of a new drug is to start with an old drug"**, this statement shown significant roles of long existed traditional medicine as the prior art in medicine product development. Many modern drugs and vaccines are based on Genetic Resources (GR) and Traditional Medicinal Knowledge (TMK). Patent protection for medicines derived from GR processed with TMK have been major discussions and raised uptight antagonism between developing countries and developed countries. From economic view, the word herbal market continue to rise and estimated will reach US $ 150 billion by 2020. Despite the bio-diversity richness with at least 30.000 species of medicinal plants and the issuing of significant laws that potentially play significant roles in national medicine patent development, the statistical data of Indonesian Patent Office shows unfortunate irony in 2016 where domestic patent registration was only 1.440 comparing to 7.766 foreign patents, with 96 % on medicine registered patents were for foreign products. This paper will focus on the quest for intersection between proper utilization, strategic promotion and comprehensive protection of genetic resources and traditional medicinal knowledge according to national patent law and the law of advancement of culture. The result shows that the key points lies in improvement of normative legal framework and operation system by creating legal and functional platform to regulate and implementing proper utilization, strategic promotion and comprehensive

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Law of Republic Indonesia Number 13 year 2016 on Patent and Law of Republic Indonesia Number 5 year 2017 on Advancement of Culture

preservation of GR and TMK sustainably and productively to escalate national medicine development that serve community empowerment, utility and economic growth..

Keywords: Genetic Resources, Traditional Medicinal Knowledge, National Medicine Patent Development, Collective Action.

1.INTRODUCTION

1.1 Statement of the Problems

The patent protection for pharmaceutical products [1] especially medicines derived from Genetic Resources (GR) processed with Traditional Medicinal Knowledge (TMK) have been major discussions and debate, raised the uptight antagonism between developing countries and developed countries. This debate mainly related to contradictive demands regarding the patent development for medicine. As the most comprehensive and acknowledged measures of intellectual property – including patent. The Agreement on Trade Related Aspect of Intellectual Property Rights (TRIPs Agreement) obliged all WTO members to recognize patents in all fields of technology. [2] Developed countries focused on publicly open access to GR and maximum protection for patented medicine with private, exclusive and monopolistic rights, while developing countries demand the recognition of state sovereignty, the Prior Informed Consent (PIC) regarding the access to GR, Disclosure of Origin (DoO) and benefit sharing of the profit resulted from the patent.[3] The increasing utilization of GR and TMK as sources for drugs development of pharmacy industries not only significant to increase the amount of medicine invention statistically but also has potential and important effect for public health since the availability of resources potentially increase the affordability of medicines.

Those debates come contra productive for public health, they distracted the effort of creating beneficial medicine product into a nerve-wracking and endless arguments which failed to reconcile the lack of trust between developing countries

1 Van Wijk, Jeroen and Gerd Junne, Intellectual Property Protection of Advanced Technology, Changes in the Global Technology System: Implications and Options for Developing Countries 27, The United Nations University. Inst for New Technologies Working Paper No. 10, October 1993.

2 Article 27 (1) TRIPs Agreement : "patents shall be available for any inventions whether products or processes, in all fields of technology, provided that they are new, involve an inventive step and are capable of industrial application. Patents shall be available and patent rights enjoyable without discrimination as to the place of invention, the field of technology and whether products are imported or locally produced."

3 Kadidal, Shayana, Subject – Matter Imperialism? Biodiversity, Foreign Prior Art and The Neem Patent Controversy, IDEA: The Journal of Law and Technology Volume 37, 1997. pp.371,

whose owned abundance GR and TMK and developed countries with advanced technology, capital and business power. As mega – biodiversity country, this tension affect badly on Indonesian medicine development. Despite the bio-diversity richness with at least 30.000 species of medicinal plants, the statistical data of Indonesian Patent Office shows the unfortunate irony in 2016 where the number of domestic patent registration in 2016 was quite low, only 1.440 registrations comparing to 7.766 foreign patents registered in the exact same year, with 96 % on medicine registered patents in Indonesia are for foreign products.

Although large number of society broadly depend on traditional medicine to cure the health problem in their daily life, the lack of further examination and scientific research due to the limited supporting equipment, technological knowledge and capital leave traditional medicine stuck in personal use of each person in community while the massive potential of such GR and TMK remain unrevealed and unutilized. Legislative approach has been taken by issuing the new patent law through Law of Republic Indonesia Number 13 year 2016 and Law of Republic Indonesia Number 5 year 2017 on the Advancement of Culture. These legislative products expect to play the role in bridging the gap between cultural issues regarding the nature of GR and TMK and commercial utilization in the form of patented medicine, therefore this paper focus on providing critical thinking to answer 3 (three) statements of the problems:

(1) Can Indonesia Patent Law and Law on Advancement of Culture effectively promote sustainable use of Genetic Resources and Traditional Medicinal Knowledge in escalating national medicine patent in Indonesia?

(2) What are the main challenges and prospects in sustainable use of genetic resources and traditional medicinal knowledge for medicine product development?

(3) What improvements are necessary for sustainable use of Genetic Resources and Traditional Medicinal Knowledge in national medicine patent development?

1.2 Objectives

This paper aims to analyze the rules and regulations on Patent Law and Law on Advancement of Culture of Indonesia in promoting sustainable use of GR and TMK and escalate national medicine patent in Indonesia**,** the main challenges and prospects in community development in order to be able to be active participants and also to identify and analyze what improvements are necessary for sustainable use of GR and TMK that serving preservation, protection, promotion and productive utilization of GR and TMK national medicine patent development.

2. THEORITICAL STUDIES

2.1 Genetic Resources (GR) and Traditional Medicinal Knowledge (TMK): Endless Medicine Potential

The scope of definition for Genetic Resources in this research is in accordance with Convention on Biological Diversity (CBD), in short GR are parts of biological materials that contain genetic information or value and are capable of reproducing or being reproduced,[4] including material of plant, animal or microbial origin, such as medicinal plants, agricultural crops and animal breeds. This scope shows the significant role of GR in providing material for traditional medicine[5] development. GR gained massive attention worldwide regarding the potential to secure public health. While in developed countries the utilization of complementary and alternative medicine products and services highly extensive[6], the use of traditional medicine is substantial in the developing world. In India 70 % (seventy percent) of

4 Genetic Resources always possess actual and potential value. See Osawaru, Moses and Matthew Chidozie Ogwu, Conservation and Utilization of Plant Genetic Resources, 2016, http://www.researchgate.net/publication/288331566.

5 WHO defines traditional medicines as "the sum total of the knowledge, skills and practices based on the theories, beliefs and experiences indigenous to different cultures, whether explicable or not, used in the maintenance of health, as well as in the prevention, diagnosis, improvement or treatment of physical and mental illness." World Health Organization, Traditional Medicine: Definitions, 2000, http://www.who.int/medicines/areas/traditional/definitions/en.

6 Barnes, Patricia M. et.al. Complementary and Alternative Medicine (CAM) among Children, United States, 12 National Health State Republic, 2008, pp. 1-24, and according to WHO, the percentage of the population that has used CAM is 31 % in Belgium, 48 % in Australia, 49 % in France, 70 % in Canada and 77 % of pain clinics provide acupuncture in Germany.

the population depend on traditional medicine for primary health care, more fantastic percentage occurred in Ethiophia, where the utilization of traditional medicine reach 90 % (ninety percent). According to data provided to WHO, 70 % (seventy percent) of Chile population and 40 % (forty percent) of Colombia population have used traditional medicine and in China 40 % (forty percent) of all health care delivered from TMK. In economic view, traditional medicine already conceive multibillion dollar industries and pharmacies sector are intensively investigating and exploiting the potential of medicine product development from traditional medicinal knowledge.[7]

The contribution of GR is compelling, as much as one third to one half of pharmaceutical medicine originally derived from plants. The combination of GR and TMK[8] not only provide raw materials for medicine development, they are also significantly raised the efficiency of research and most of the time provide the traditional medicine in complete form.[9] TMK as the part of traditional knowledge has been an inseparable part of community's daily life and history for centuries. Although most of traditional knowledge spread verbally there are many traces of writing version of TMK for example in Indonesia:

(1) ***Usada* (*Book of healing*)**: This knowledge was inscribed on *lontar* leaves *(dried founds of a type of palm)* which are now kept in the Balinese Cultural Document Office in Denpasar.[10]

(2) ***Serat Kawruh* (*a Treatise on All*** Manner ***of Cures*)** Written information on herbal medicines kept in Surakarta Palace Library, present systemic information on herbal medicines, which contain 1.734 preparations made of natural element and which use method is furnished by spells.

7 Abbot, Ryan M.D.,J.D.,M.T.O.M, Documenting Traditional Medical Knowledge, World Intellectual Property Organization, 2014, pp. 7., https://www.wipo.int/export/sites/www/tk/en/resources/pdf/medical_tk.pdf

8 World Health Organization (WHO), General Guidelines for Methodologies on Research and Evaluation of Traditional Medicine, 2000, http://apps.who.int/iris/bitstream/10665/66783/1/WHO_EDM _TRM_2000.1.pdf, archived at https://perma.cc/4HZY-45KQ,.

9 Article 16 of the 1994 United Nations Convention on Biological Diversity (CBD), see Glowka, Lyle, Francoise Burhenne-Guilmin and Hugh Synge, A Guide to the Convention on Biological Diversity, IUCN Environmental Policy and Law Paper No. 30, 1994, pp. 84-85.

10 Beers, SJ., Jamu : The Ancient Indonesian Art of Herbal Healing, Hong Kong, Periplus Editions (HK), ltd, 2001, p. 17.

(3) ***Serat Centhini* (Book of Centhini)**[11] the 18th century works of 12 volumes contain information about religious, spiritual and mystical element of healing, regarded as sacred and the most important book as it contains 1.734 recipes collected and written down during the period of Pakubuwono IV (1788 -1820) although it contains much information and advice of a general nature and numerous folk tales, it still an excellent account of medicinal treatment in ancient Java. [12]

(4) ***Primbon :*** the guidelines presented systematic content from the types of the sickness, identifying the sickness through the symptoms, kinds of natural medicines, dosage of medicines and how to compose, present and use the traditional medicines.[13]

The existence of TMK and traditional medicine as the product has begun centuries ago as valuable information and guidance in selecting and obtaining plant material with potential therapeutic interest. Although plant- derived compounds used as drugs are generally used in ways that correlate directly with their traditional uses as plant medicines, [14] the development of traditional medicine into pharmacy industry remain stuck because the effectiveness and the safety of these medicines has not been supported by further and comprehensive research, only few traditional medicines have been able to reach the status as *Phytopharmaca* (the clinical based herbal medicine).

11 Santoso, Soewito, The Chentini Story : The Javanese Journey of Life, Singapore, Marshall Cavendish Edition, 2016, pp. 138-139.

12 Heinrich, Michael, Joanne Barnes, Jose Prieto-Garcia, Simin Gibbons, Elizabeth M. Williamson, Fundamentals of Pharmacognosy and Phytoteraphy, Second Edition, Churchill Livingstone, Elsevier, 2012, p 13.

13 Al Makmun, Muhammad Taufik, Sisyono Eko Widodo, Sunarto, Construing Traditional Javanese Herbal Medicine of Headache : Transliterating, Translating and Interpreting Serat Primbon Jampi Jawi, Procedia- Social and Behavioral Sciences, Volume 134, 2014, pp. 238.

14 Fabricant, Daniel S. and Norman R. Farnsworth, The Value of Plants Used in Traditional Medicine for Drug Discovery, 109 Environmental Health Perspectives, 2001, pp. 69-75.

2.2 Law of Republic Indonesia Number 13 year 2016 on Patent and Law of Republic Indonesia Number 5 year 2017 on Advancement of Culture: Framing Utilization of Genetic Resources (GR) and Traditional Medicinal Knowledge (TMK) Through Legal Approach

Indonesia Patent Law 2016 seek to accommodate medicine patent development alongside with important related issues such as public health, environment, protection of resources, society upgrading, promotion of trade competition and technology transfer. Regarding GR and TMK, Article 26 Patent Law regulate in case an invention related to and / or derived from GR and / or traditional knowledge, the information concerning the original source of such GR and / or traditional knowledge ought to be clearly and accurately stated in patent application description in accordance with the regulation enacted by official authority followed by benefit sharing of the utilization of GR and / or traditional knowledge in accordance to law, regulations and international agreement.

Considering TMK as integral part of culture, Indonesia Law Advancement of Culture 2017 (ILAC-2017) provides opportunity for sustainable utilization of GR and TMK (also Traditional Technology) as the object of the advancement of culture[15] by taking GR as raw materials and TMK as information sources followed by research and development to discover scientific data and explanation. ILAC - 2017 regulates in the field of medicine development, everyone is granted an opportunity in the broadest sense to conduct research utilize GR (with prior informed consent – PIC) using traditional (medicinal) knowledge and traditional technology in order to create beneficial and economically viable product: Medicines. Further, the potential possibility of patent protection also provided with the requirement to prove the utilization of GR and TMK based on PIC and disclose the source of such GR and TMK followed by fair and equitable benefit sharing to interested parties.

15 Article 5 Law of Republic Indonesia Number 5 year 2017 on Advancement of Culture : Object of culture has been defined as oral tradition, manuscript, traditional customs, rituals, traditional knowledge, traditional technology, arts, languages, folklore games and traditional sport, briefly : any elements of culture (unofficial translation)

3. METHODOLOGY

This research is preceded with juridical normative method by studying and examining the law and regulations literature on theories and concept related to the sustainable use of Genetic Resources and Traditional Medicinal Knowledge as important sources in medicine development. The main method of analysis is by examining data and information from law and regulations books, journal, references and other sources to formulate the concepts, theories and implementation strategy regarding the sustainable use of GR and TMK and national medicine development that serve proper utilization, strategic promotion and comprehensive preservation.

4. RESULT OF ANALYSIS

4.1Genetic Resources and Traditional Medicinal Knowledge in Indonesia: Utilization or Exploitation?

For thousand years, humankind freely used and exchanged biological and genetic resources around the world,[16] this situation rapidly changes due to arising issues like biodiversity prospecting,[17] biodiversity piracy and the privatization and monopolization of natural resources and associated traditional knowledge, particularly in medicines, through intellectual property, especially patents. [18] According to the calculation of *The Rural Advancement Foundation International (RAFI), approximately* ¾ medicine sources worldwide "founded by" pharmacy companies prior to the utilization and process by indigenous people as traditional and local medicine,[19]70 % of the rainforest plants identified as having anti-cancer

16 Latifa, Emmy, Access to Genetic Resources in Indonesia: Need Further Legislation?,Oklahoma Journal of Law and Technology, Vol.11, No. 1, Article 2., 2015 pp. 4. http:// https://digitalcommons.law.ou.edu/cgi/viewcontent.cgi?article=1001&context=okjolt.

17 In short Biodiversity prospecting defines as "the exploration of biodiversity for commercially valuable genetic and biochemical resources"; see Reid, Walter, et. Al.,, A New Lease on Life, in Biodiversity Prospecting : Using Genetic Resources for Sustainable Development, World Resources Institute (WRI) USA, 1993, pp. 1.

18 Hamilton, C, Biodiversity, Biopiracy and Benefits : What Allegations of Biopiracy Tell Us about Intellectual Property, Dev. World Bioeth,6, 2006, p. 158 -173.

19 Stenton, Gavin, Bio piracy within the Pharmaceutical Industry: A Stark Illustration of How Abusive, Manipulative and Perverse the Patenting Process Can Be Towards Countries of The South, European Intellectual Property Review, 26 (1), Hertford shire Law Journal 1(2), 2003

characteristic by national cancer institute and 25 % of drugs used by western pharmaceutical companies derived from rainforest.

The ironic problem of national medicine patent development in developing countries like Indonesia lies not in the absence or lack of utilization of GR and TMK, but in the massive utilization (mostly by foreign parties and big industries) without proper concern of community development, society upgrading and state sovereignty aggravated by the poor and ineffective implementation of existed regulations, leads the utilization to the cruel and destroying exploitation. The data validated this irony through unfortunate statistic, Indonesia as mega – biodiversity country with billions of GR and uncountable TMK with significant contribution to human life[20] contains at least 30.000 species of medicinal plants, [21] but approximately only 6.000 which are identified and used by various ethnic communities in Indonesia in their preparation of traditional medicines [22] and only 286 plants are officially registered as traditional medicinal plants in the Materia Medika at the Department of Health.[23] Traditional medicine has not integrated to National Health Care System despite the fact that mega biodiversity country like Indonesia, strongly rely and based on conventional western medicine.[24]

The fact that the world herbal market continues to rise and estimated will reach US $ 150 billion by 2020 haven't change the fact that there are still unfortunate statistic occurs in Indonesia. Back on 2014, there were 1.160 herbal industries, consisting of large industries and 1.144 SMEs with 15 million of workforces, but it's unfortunate that the export value of this industry dominated by herbal raw materials: 730 tons to Hong Kong and 155 tons to Germany. [25] This data shows that abundant

20 According to Indonesian Central Bureau of Statistics, in 2010 there are approximately 300 ethnics and about 1.340 tribes (sub ethnic), http://www.bps.go.id/menutab.php?tab-6. And each ethnic and sub ethnic possess wide range of traditional knowledge in medicine and medications.

21 The Ministry of Trade of Republic Indonesia, Indonesian Herbal: The Traditional Therapy, Trade Research and Development Agency Ministry of Trade, Republic of Indonesia, 2009.

22 Erdelen,W.R. K.Adimihardja, H. Moesdarsono & Sidik, Biodiversity, Traditional Medicine and the Sustainable use of Indigenous Medicinal Plants in Indonesia, Indigenous Knowledge and Development Monitor, Nov. 1999, www.nuffic.nl/ciran/ikdm/7-3/erdelen.html.

23 S.J.Beers, op.cit., p. 7.

24 Ibid, pp. 55

25 Handayani, Traditional to Rational and Modern Phytopharmaca, Proceeding of Surabaya International Health Conference, July 13-14, 2017, pp. 31-32.

GR and uncountable TMK in Indonesia have always been massively exploited by another party and poorly utilized for national interest.

4.2 Intellectual Property and Cultural Advancement – Based Legal Action on Genetic Resources and Traditional Medicinal Knowledge and Escalation of Medicine Development

Although historically and theoretically international movement of patent as intellectual property started from developed to developing countries, [26] both sides have strong different point of view concerning the need, urgencies, the benefit and the burden of intellectual property system. The strongest dispute revolves around weather intellectual property protection is the monopoly and industry domination tool of developed countries to sharpen their hegemony and prolong the exploitation of developing countries, or this intellectual property protection is an important tool for developing countries to achieve proper and beneficial utilization of resources, technological advancement, increase growth, social and economic welfare by encouraging sustainable development.[27]

Despite the strong differences perspective concerning *TRIPs Agreement*, the fact shows an urgency to build reconciliation between TMK as the product of ongoing and collective development and patent regime based on western property platform acknowledged by *TRIPs.* The reconciliation lies in the attempt to find the intersection between the collective and dynamic nature of TMK and their needs to be sustainably and protected with ongoing protection with the patent requirements such as the needs for fixation, novelty and defined inventor as static moment in life[28] with certain period of protection.

26 Chon, Margret, Copyright and Capability for Education: An Approach from Below, in Dutfield, Graham, Intellectual Property and Human Development, Cambridge, 2011, pp. 2821-2912.

27 Su, Evelyn, The Winners and the Losers : The Agreement on Trade – Related Aspect of Intellectual Property Rights and its Effects on Developing Countries, Houston Journal of International Law, Vol 23 (1), 2004.

28 Picart, Caroline, JS. and Marlowe Fox, Beyond Unbridled Optimism and Fear: Indigenous Peoples, Intellectual Property, Human Rights and the Globalization of Traditional Knowledge and Expression of Folklore: Part 1, 15 International Community Law Review 319, 2013, p. 330-334.

The key point is the harmonization between national laws and international regulations in order to guarantee the effective implementation and to create collaboration platform in achieving a balance between preservation and utilization. Prof. Agus Sardjono brilliantly describes the importance (and urgency) of symphonizing two critical national regulations: Intellectual Property Laws (consistently to this research will focus on Patent Law) and Indonesia Law on Advancement of Culture (ILAC – 2017) in creating strategy towards effective and efficient manner [29] for Indonesia in order to reap fruitful and sustainable benefit from the abundance of GR and TMK.

Internationally, the protection and utilization of GR and associated TMK mostly refers to Convention on Biological Diversity (CBD). [30] CBD has three major objectives: conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of benefits arising out of the utilization of GR, including by appropriate access to these resources and by appropriate transfer of technologies.[31] In the term of implementation, CBD supported by Nagoya Protocol on Access to Genetic Resources and Fair and Equitable Sharing of Benefit Arising from Their Utilization to the Convention on Biological Diversity providing more details and practical measurement.

Considering Intellectual Property as an international issue in this globalization era, the symphonizing of Patent Law and ILAC -2017 requires the harmony with international law. The research found basic principles as the critical intersection between Patent Law, ILAC – 2017 and CBD in order to implement sustainable use of GR and TMK for Medicine Patent Development:

29 Sardjono, Agus, Symphonizing Intellectual Property Laws in the Advancement of Culture, Padjadjaran Law Journal, Vol. 4 Number 3, 2017, p. 437 – 453.

30 Convention on Biological Diversity (CBD) is the first global Agreement on conservation and sustainable use of biological diversity. This convention put the conservation of biological diversity as a common concern of human kind, signed in 1992 at United Nation Conference on Environment and Development (UNCED) and entered into force on December, 29th 1993.

31 Article 1 CBD

(1) Prior Informed Consent (PIC)

Prior Informed Consent (PIC) is the implementation of state's sovereignty in determining access permit to its resources and the legal consequences of entitlement. PIC has been practically and effectively applied into international environmental rules as a useful mechanism in regulating trans-boundary movement of substance that suspected to have potential harm to national or local environments. [32] PIC broadly defined as consent or permit, means agreeing by choice and having the freedom and capacity to make that choice. The rights of national and local government (including indigenous local communities) in granting PIC is essential due to the fact that there are numerous pharmaceutical companies, research institutions (both local and foreign institution) acquiring and using GR and associated TMK without any PIC and conducting biodiversity piracy by obtaining patent in their own state.[33] PIC is the form of acknowledgment and respect for the rights of indigenous people over their knowledge, innovation, technology and practices alongside with the constant effort to promote the wider application, innovative and beneficial use with the approval and involvement of the holders of such knowledge. [34]

To implement PIC measurements in practice, there are some critical issues for host country to be precisely regulated. First: the entitlement, legalized authority weather its national government, local institution / authority, local communities or certain institution / council should be given the right to grant PIC and to determine specific rights and obligation between parties (access provider and users) and to set the procedure for PIC system. [35] Finally, contracts, Material Transfer Agreement,

32 For example the Basel Convention on the Control of Trans- boundary Movements of Hazardous Wastes and their Disposal, 2014, article 4 (1) requires that hazardous waste not be exported without written consent from the importing state

33 Hansen, Stephen. A. and Justin W. Van Fleet, Traditional Knowledge and Intellectual Property : A Handbook on Issues and Options for Traditional Knowledge Holders in Protecting their Intellectual Property and Maintaining Biological Diversity, American Association for the Advancement of Science, New York Avenue, NW Washington DC, 2013, pp. 12-14.

34 Article 15.5 of the CBD states: "access to genetic resources shall be subject to prior informed consent of the Contracting Party providing such resources, unless otherwise determined by that party."

35 Jeffery, Michael, I, Bioprospecting: Access to Genetic Resources and Benefit Sharing Under the Convention on Biodiversity and the Bonn Guidelines, The Singapore Journal of Intellectual and

license agreement or other legal agreements can be the platform to formalize permission and consent to take certain resources and use the related knowledge.

(2) Disclosure of Origin (DoO)

In the case of medicine invention derived from GR and associated TMK the disclosure of source, location of material and the detail description of the knowledge holder are very important since it's the holder that invent the proper and beneficial use of GR. DoO is an important issue regarding the transfer of material or cross nation patent on medicine. There is a compelling need for an international system of mandatory DoO requirements to prevent misappropriation of benefit where intellectual property is improperly granted and to create certainty and transparency of source and further as the basis for the distribution of benefits. In order to build integration with the patent system, host country may impose obligation in which evidence for taking PIC from the holder of knowledge should be provide along with patent application. Article 26 verse (1) Indonesian Patent Law also states any invention related or derived from GR, the patent description should precisely describe and disclose the source of origin as the effort to track the commercialization of intellectual property and promote effective platform of benefit sharing.

(3) Fair and Equitable Benefit Sharing (FEBS)

FEBS potentially contributes to the sustainable development by promoting sustainable use of GR and proper utilization of TMK. FEBS encompass broad aspect, socially, economically, environmentally and legally. FEBS is not merely concern about the commercial interest but also the protection, proper utilization and sharing result. The form of benefit strongly depends on the type of utilization. Globally, the classification consist of commercial and noncommercial utilization.[36] In the term of benefit sharing, according to Nagoya Protocol (Annex) there are monetary benefits for example access fee, royalty payments, license fees for commercialization, research funds. Non-monetary benefits include sharing of research and development results, participation in product development, collaboration, cooperation and

Comparative Law, National University of Singapore, 2002, p. 747-808.

36 The draft of Indonesia's Law on Traditional Knowledge and Traditional Cultural Expression also use this classification.

contribution in education and training, technology transfer, society upgrading, community and contributions to the local economy, food and livelihood security benefits, social recognition and joint ownership of relevant intellectual property rights.

In sharing of benefits, it's important to open up to the possibilities in adopting non private – monopolistic ownership. Based on the nature of GR and TMK, state ownership in the form of custodianship,[37] joint ownership[38] and community – geographical – based ownership and custodianship [39] in order to formulate common platform of state holder and stake holders. As another option, Common platform for benefit sharing can be create through contractual agreement with mutually agreed terms. For example the Agreement between South Africa's Council of Scientific and Industrial Research (CSIR) the patent holder the extraction process of appetite suppressing molecule named P. 57 from The *San's* traditional knowledge of *Hoodia's* and obtained a patent. In this case the benefit sharing agreement came later after the commercial exploitation of P. 57 revealed.[40] Based on the agreement The San would receive 6 % of all royalties received by the CSIR from the sale of Phytopharm products and 8 % of milestone income for certain target achieved paid into a joint Trust of CSIR and the South African San Council to increase the standard of living of San's community.

(4) **State Sovereignty**

State sovereignty is a "formal – legal condition. Positively, state sovereignty indicates a dimension of responsibility to achieve self – mastery enabling condition for a state to possess the internal resources and power to decide which kind of policy

37 As adopted for Traditional Cultural Expressions on Article 38 verse (1) Law Number 28 year 2014 on Copyright

38 As adopted on Collective Trademark according to Article 1 verse (4) jo article 46 verse (4) Law Number 20 year 2016 on Trademark and Geographical Indication

39 As adopted on Collective Trademark according to Article 1 verse (6) jo article 53 verse (3) Law Number 20 year 2016 on Trademark and Geographical Indication

40 CSIR licensed it to UK pharmaceutical firm: Phytopharm. Phytopharm then developed a new "cure" for obesity on the basis of P.57 and obtained a patent for its application, which they licensed to Pfizer for US $ 21 million, further its application into a food supplement and / or prescription medicine had considerable financial potential for the dietary control of obesity; an estimated $ 3 billion per annum in the USA alone.

it wants to become and acts accordingly and successfully. [41] There are numerous ideas that the state in globalization is powerless, empirically this argument is a myth,[42] because normatively giving up state sovereignty would lead to giving up the important value of freedom and self-determination.[43] In relation with GR and associated TMK, state sovereignty strongly and primarily related with access to GR as the process of obtaining samples of biological or other material containing genetic material from within a country's borders for purposes of research, conservation, commercial or industrial application.[44] CBD changed the common fallacy that were often regarded GR as freely accessible to be exploited without any consideration by confirming that GR lay under the territorial sovereignty of states where they are found, therefore the regulation and requirements of access should be subject to the state's regulation.

State has sovereign rights to determine the rules, terms, conditions, measurements and requirements of access to GR and associated traditional (medicinal) knowledge in accordance with their national law and policies [45] and at the same time creates adequate beneficial access concerning utilization of GR and TMK proportionally balance between preservation and productive utilization and provide transparent information and procedures for utilization by potential users. Specifically, Nagoya Protocol mandates the designation of a national focal point to provide "authorized information" as follows:[46]

a. Information on procedures for obtaining PIC and establishing mutually agreed terms, including benefit sharing;

41 Further understanding of "Positive Sovereignty" can be found in Jackson, Robert.H. Quasi – States: Sovereignty, International Relations and the Third World, Cambridge: Cambridge University Press, 1990, pp. 27, and Schwarzenberger, Georg. A Manual of International Law, London: Stevens, 1967, pp.52.

42 The "Powerless State" argument was first triggered by Weiss, Linda, The Myth of the Powerless State, Ithaca, Cornell University Press, 1998.

43 Macedo, Stephen, "What Self – Governing Peoples Owe to One Another: Universalism, Diversity, and The Law of Peoples, Fordham Law Review, Vol. 72, 2004, pp. 1721 – 1737.

44 Laird, Sarah and Rachel Wynberg, Biodiversity Prospecting & Access and Benefit Sharing, IUCN, Gland, Switzerland and Cambridge, United Kingdom, 2003, p. 30.

45 Article 15 paragraph 1,2,3, and 5 of 1992 United Nations Convention on Biological Diversity

46 Article 12 Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing Utilization to the Convention on Biological Diversity.

b. Information on procedures for obtaining PIC or approval and involvement (as appropriate) of indigenous and local communities and establishing mutually agreed terms including benefit sharing.

c. Information on competent national authorities, relevant indigenous and local communities and relevant stakeholders

(5) Sustainable Use and Sustainable Development

It is a fact that pharmaceutical private sectors are major user of GR and TMK. Ironically. despite the fantastic amount of financial returns for the industry, it also known that financial returns or otherwise have been very thin or almost non – existent for the host countries and indigenous communities,[47] contrary to the monetary benefit, the indigenous communities and host countries are the ones with highest risky impacts, socially, environmentally and economically. Thus, the protection of GR and TMK is not undertaken as an end in itself, but as instruments of wealth creation and sustainable economic development. The key points of sustainable use are preservation, utilization and development.

Sustainable use and sustainable development mostly involve non legal action, collective action and integrated society participation by creating a system for collective management of Intellectual Property with custodianship system of intellectual property. This association could file the patent registration with joint ownership and in charge in negotiating license, compulsory license and further collect and distributes the uprising benefit and even provide legal assistance in case of infringement. The existence of this association is critical since historically indigenous communities are particularly disadvantaged in negotiating with companies and require external support and assistance to gain adequate access to justice. Considering the dominant of non-legal aspect, sustainable use of GR and TMK requires both frameworks and practical means.

Article 18 verse (1) ILAC – 2017 regulates community participation in documenting and updating the object of the advancement of culture. As the earliest

47 Gurib – Fakim, Ameenah, The Sustainable Use of Biodiversity – Industry and the CB,, 2014. www.researchgate.net/publication/252986000.

stage a participation plan could be established by involving stakeholders in wide scale including communities, government agencies from national and local level, researcher, and industry actively in decision making and formalize the commitment by officially declare the common commitment. This commitment from state holder and related stake holders further will result codes of ethic and policies in the form of Codes of ethic and research guidelines, institutional policies and corporate policies as the instruments conducted with consistency to guarantee the sustainable use of GR and TMK. At the implementation stage, research and development of Traditional Knowledge (including TMK) and traditional technology shall initiate collectively by government, scientist, local community and business entity in cultural mainstreaming as continuous and consistent efforts in bringing concrete contribution of new medicine patents or develop traditional medicines into clinical based herbal medicines (*phytopharmaca)* with insurable safety and efficacy. At this point, Patent system – vice versa- also productively contribute in advancement of culture by providing the platform to develop traditional medicines into clinical based medicine, from scattered GR, TMK and traditional technologies into concrete and beneficial medicine product.

Further, the advancement of culture can obtain the financing source (aside from state budget) from benefit sharing as a result of commercial utilization for example by pharmaceutical company as private investor (local or foreign) who obtain patent from the utilization of GR and TMK. Government can create mutually beneficial agreement with those company to obtain compulsory license to produce generic version of such medicine for local consumption

5. CONCLUSION AND FINAL THOUGHTS

The utilization of GR and TMK in Indonesia medicine patent development still far from proper, although the research found the massive potential of these resources and knowledge to be the strategic determinant factor for national medicine development. The challenges mainly in the term of implementation of basic principles addressed in critical related legal regulations: Prior Informed Consent, Disclosure of Origin, Fair – Equitable Benefit Sharing and State Sovereignty. The key point lies in creating functional platform in regulating and implementing the utilization of GR and TMK properly to serve preservation, protection and productive utilization by enacted suitable ownership framework symphonizing with benefit sharing among state holder and stakeholders. Further research and evaluation are expected to formulate best practices to sustainably utilize GR and TMK as the instrument of national medicine patent development through collective partnership and community empowerment in achieving social welfare.

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An Exploring Study on Pioneering Indicators of Patent Quality

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Abstract

The patent which demonstrates the innovative ideas is an important intangible asset to measure the progress of technological innovation. However, the quality and value of patents need to be approved for market certification. For patent holders, it is a kind of gambling to guarantee that the quality of patents could bring values, which indirectly affects the research and development (R&D) performance of companies. The purpose of this study is to construct the pioneering indicators of patent quality and their setting criteria. Using the certified U.S. patent information during 2001-2004 as samples, this study adopted statistical methods to select the experimental indicators from certified patents and is expected to deduce the content of the quality indicators of patents for drafting. The result of analysis shows that there are three indicators and one aid as well as their setting criteria. The series of indicators and criteria are expected to help assignee to verify the quality of patents in early days of application effectively.

Keywords: Patent, Patent quality, indicators, R&D

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1. Introduction

Recently, high technologies have greatly emerging and rapid innovation and development have become core issues for these new emerging industries. Following this international trend, research and development (R&D) has been one of most significant sources for enterprises to improve their competitiveness[1]. Based on the resource-based theory, the competitive advantages of companies originate from the heterogeneous resources. The heterogeneous resource held by the enterprises determines the heterogeneity of enterprises[2]. Those valuable, rare, hard-to-imitate and irreplaceable heterogeneous resources empower enterprises with sustainable competitive advantages[3]. Therefore, the reasons why enterprises focused on R&D and technological innovation are to obtain valuable intangible assets, which are called as a strategic asset by Amit and Schoemaker[4] in pursuit of long-term competitive advantage of enterprises and are expected to bring maximum economic returns for enterprises.

The market, defined by traditional capitalism is mainly dominated by tangible resources and the exchange and communication of currency and goods. However, with the advent of the knowledge economy era brought by the advances of information technology, the mainstream of market values is converted to the possession of technology, knowledge, patents and other intangible assets. In terms of intangible assets, especially the innovative ideas and concepts, directly affect the enterprises. Whether these affected enterprises could be adapted to the changes, adjusted and could grab new opportunities in rapidly changing business environment or not, the patents become an important intangible asset to demonstrate its innovative ideas and abilities in obtaining legal protections and an important indicator to measure the abilities of technology innovation. Since the end of 1970s, the patents, used as the indicator to measure the output level of technology innovation of

1 Hamel, G., & Prahalad, C. K. (1994). Competing for the Future: Harvard Business School Press.
2 Wernerfelt, B. (1984). A resource-based view of the firm. Strategic Management Journal, 5(2), 171-180.
3 Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. Journal of Management, 1(17), 99-120.
4 Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. Strategic Management Journal, 14(1), 33-46.

enterprises, have been widely used[5]. Grindley and Teece[6] suggested that in high-tech industry, the patents are seen as a key to getting the competitiveness of enterprises.

Under the trend of the protection of international trade, the competition of enterprises in the market has been transformed into a legitimate weapon in excluding competitors with the assistance of intellectual property as a lawsuit - making international competition as a normal behavior. In 2011, Central Bank in Taiwan has spent approximately 5.8 billion USD on overseas intellectual property, up 18% than that of 2010. However, the income from overseas intellectual property is approximately USD$ 750 million. This fact reflects that the level of royalties on intellectual property out of business revenues has been promoted gradually (Fig 1).

[Insert Figure 1 about here]

Taiwan possesses a large amount of U.S. patents, but lack of core and important ones. In the era of rapidly developing knowledge economy, possessing core technique is essential of high-tech industry competition. Once enterprises invented new or better techniques, the old ones will be washed out. The enterprises that initiate innovations will probably replace the original enterprises and become new monopolist[7]. Therefore, in the future market, the strategy of flexible utilization of intellectual property rights is much more important than possessing sophisticated technology. R&D capacity is the most important source for enterprises to improve their competitiveness[8]. Enterprises adopt Internal R&D resources and external technology transfer to acquire technologies. In the process of R&D, the accumulated and developed innovation experience and capabilities of R&D and the intangible

5 Griliches, Z. (1990). Patent statistics as economic indicators : a survey. Journal of Economic Literature, 28(4), 1661-1707.

6 Grindley, P. C., & Teece, D. J. (1997). Licensing and cross-licensing in semiconductors and electronics. California Management Review, 39(2), 8-41.

7 Phillips, K. L., & Wrase, J. (2006). Is Schumpeterian 'creative destruction' a plausible source of endogenous real business cycle shocks? Journal of Economic Dynamics and Control, 30(11), 1885-1913.

8 Hamel, G., & Prahalad, C. K. (1994). Competing for the Future: Harvard Business School Press.

assets created by R&D activities are equipped with the feature of heterogeneity that could help enterprises obtain excess returns[9].

Many factors will affect the willingness of enterprise in implementing their R&D plans and thus affect the R&D output of companies, such as patents[10]. Nevertheless, the quality of patents affects their firm values. Therefore, in recent years, many patent analyses are practiced to measure the quality of patents. In the past, researchers have constructed many patent indicators, however, most of which are lagging indicators because they followed up the certified patents only. The evaluative indicators of certified patents are not able to offer real and effective references for the quality of patents in the early days of the application of patents. Therefore, the purpose of this study is to extracts information of patents issued by famous domestic and international research institutions in order to construct indicators of patent quality.

2. Literature Review

This study lays emphasis on the factors of investment in implementations of innovative activities and the performance of the patent outputs. From the perspectives of definitions and the R&D process, this study found that research and innovative activities are good ways in promoting enterprise values. Therefore, using patents as the output variable of R&D and innovation activities, it is necessary to conduct better management and comprehensive strategic planning. The quality of patents is the hottest topic for discussion in recent years. Jou[11] pointed out that patent quality is a prerequisite of patent values, and that patent value is the practice of the patent quality. How to track or even guarantee that these patents are equipped with a certain degree of quality before being certified and bring values for enterprises? Thus, this study adopts the analysis of patent indicators and expected to construct a set of methods in order to manage patent quality.

9 Grant, R. M. (1991). The Resource-based Theory of Competitive Advantage: Implications for Strategy Formulation. California Management Review, 33(3), 114-135.

10 Jana, T., & Dulakakhoria, S. (2014). Role of patents in availability and affordability of tuberculosis care technologies. Current Science, 107(5), 761-767.

11 Jou, Y. P. (2006). Marketing Intellectual Property. CommonWealth Press, Taipei.

2.1 Benefits of R&D

R&D is a critical condition for sustainable development of enterprises[12] and also the most important source for enterprises to improve their competitiveness[13]. From the perspective of the nature of R&D, Myers[14] pointed out that R&D is an important value-added activity; the value of the enterprises is composed by the current assets and future growth opportunities of the enterprises; and R&D could bring growth opportunities as well as surpassing capacities in generating profit for the companies. Griliches[15] used 157 US enterprises as samples to process one study and firstly and explicitly indicated that R&D investment and the acquisition of patents can enhance the value of enterprises. The study of Chan et al.[16] also showed that when high-tech companies announce the increase of investment in the aspects of R&D, their stock price will have positive reactions in the stock market.

While defining the R&D processes, Kelm et al.[17] also suggested that any of the stages may affect the relationship between R&D and reaction of stock market. In addition, a significant number of literatures have supported this conclusion, such as Hall et al.[18] and Hall and Bagchi-Sen[19]. These scholars all suggested that patents, as the R&D investment of innovative activities, reflect technological updates of the companies, and can indeed have valuable contributions for enterprises. Eberhart et al.[20] further found that in comparison with those enterprises who announce to

12 Dosi, G. (1988). Sources, Procedures, and Microeconomic Effects of Innovation. Journal of Economic Literature, 26(3), 1120-1171.
13 Hamel, G., & Prahalad, C. K. (1994). Competing for the Future: Harvard Business School Press.
14 Myers, S. C. (1977). Determinants of corporate borrowing. Journal of Financial Economics, 5(2), 147-175.
15 Griliches, Z. (1990). Patent statistics as economic indicators : a survey. Journal of Economic Literature, 28(4), 1661-1707.
16 Chan, L. K. C., Lakonishok, J., & Sougiannis, T. (2001). The Stock Market Valuation of Research and Development Expenditures. The Journal of Finance, 56(6), 2431-2456.
17 Kelm, K. M., Narayanan, V. K., & Pinches, G. E. (1995). Shareholder Value Creation during R&D Innovation and Commercialization Stages. The Academy of Management Journal, 38(3), 770-786.
18 Hall, B. H., Griliches, Z., & Hausman, J. A. (1986). Patents and R and D: Is There a Lag? International Economic Review, 27(2), 265-283.
19 Hall, L. A., & Bagchi-Sen, S. (2002). A study of R&D, innovation, and business performance in the Canadian biotechnology industry. Technovation, 22(4), 231-244.
20 Eberhart, A., Maxwell, W., & Siddique, A. (2008). A Reexamination of the Tradeoff between the Future Benefit and Riskiness of R&D Increases. Journal of Accounting Research, 46(1), 27-52.

increase the budget for R&D, those enterprises who have already increased the investment can truly bring excessive benefits for shareholders. Based on a comprehensive literature review, this study proposes that R&D investment and the acquisition of patents have positive influence on the value of enterprises.

2.2 Input of R&D and Output of Patents

R&D can be divided into "input" and "output." Input refers to the invested funds, manpower, equipment and other resources for R&D and output refers to outcomes of R&D, such as products, technologies, patents, and the like. With the advances in information technology and the improvement in the level of industrialization, the investment of enterprises in R&D activities has been gradually increased. The ultimate goal of increasing R&D investment is to develop new products, improve products, improve processes and reduce production costs in order to enhance enterprise competitiveness in the market.

Compared with other indicators, the saying that economists believe that patents can better measure innovation output is well upraised. However, not all innovations can apply for patents or pass verification and certifications. Different quality of patent will also result in its distinctive and dramatic economic returns. However, because patent is equipped with the feature that its descriptive documents should be put into public, it becomes very easy the public to acquire information of patents with the rapid development and construction of electronic database; all of these developments are closely related to R&D and innovative activities. Furthermore, its standardization, objectiveness and frequent updates of regulations have made patenting system a reliable indicator for measuring innovative activities, as well as an alternative way in measuring the contribution of the innovative activities to productivity of enterprises[21][22].

21 Griliches, Z. (1990). Patent statistics as economic indicators : a survey. Journal of Economic Literature, 28(4), 1661-1707.

22 Acs, Z. J., Anselin, L., & Varga, A. (2002). Patents and innovation counts as measures of regional production of new knowledge. Research Policy, 31(7), 1069-1085.

Patents are related to the amount spent on R&D[2324]. Kondo[25] studied the relationship between R&D expenditure and patent output as well as pointed out that R&D investment plays a significant role in patent output. However, Kondo's study missed the explicit explanation about the fact that: whether the content of the patent output is an exact quantity or the factors of patent quality included. Gayle[26] considered that the patent includes many unimportant innovations that cannot reveal the authentic level of innovation. Therefore, instead of observing the quantity of the patents, observation of patent quality is an improvement in the aspect of measurement of innovation output. Bloom and Van Reenen[27] have conducted research on 200 major industrial manufacturers in UK and found the owing of the patents which are cited widely can effectively improve the enterprise value.

In other words, only the patents with relatively higher quality could generate values for enterprises. In any case and any stage, the investment on R&D and patent rights of enterprises will affect the values of enterprises; it is the "indirect effects" of the investment on R&D and patent rights of enterprises towards the profits of enterprises. In addition, there are “direct effects” of the investment on R&D and patent rights of enterprises on the value of enterprises, which equals to the benefits of R&D and patent rights and has not been reflected on the profitability. However, it is obvious that these benefits will hereafter have direct impact on the expectation of the market towards the value of enterprises[28].

23 Jana, T., Dulakakhoria, S., Wadia, N., Bindal, D., & Tripathi, A. (2014). Patenting trends among the SAARC nations: comparing the local and international patenting intensity. Current Science, 106(9), 1190-1195.

24 Janodia, M. D. (2015). Research and development spending and patents: where does India stand among SAARC and BRICS. Current Science, 108(6), 1041-1042.

25 Kondo, M. (1999). R & D dynamics of creating patents in the Japanese industry. Research Policy, 28(6), 587-600.

26 Gayle, P. G. (2001). Market concentration and innovation : new empirical evidence on the Schumpeterian hypothesis. Discussion papers in economics / Center for Economic Analysis, Department of Economics, University of Colorado at Boulder ; 01,14 ([Elektronische Ressource] ed.). Boulder.

27 Bloom, N., & Van Reenen, J. V. (2002). Patents, Real Options and Firm Performance. The Economic Journal, 112(478), 97-116.

28 Sougiannis, T. (1994). The Accounting Based Valuation of Corporate R&D. The Accounting Review, 69(1), 44-68.

As the valuable achievements of the R&D and innovation activities, the patents' output has significantly reduced the uncertainty percentage of R&D and innovative activities. Patents mark that the innovation activities are put into practice from the stage of R&D. In other words, patent is a variable generated by the R&D and innovation activities. The increase of the value of enterprises and the improvement of performance are the real output of innovation in terms of economy. Kondo[29] pointed out that investment in research and innovation can enhance enterprise value and operating performance and also bring profits and benefits for enterprises. The patenting system, as a motive mechanism, not only guarantees that the contribution of the pioneer R&D and innovation can be awarded, but also receives sufficient investment for its subsequent R&D and innovation[30].

Cuddington and Moss[31] pointed out that while measuring of the input of R&D and innovation and output of performance, enterprises normally adopt R&D expenses (investment funds) as well as the number of scientists and engineers engaged in research (manpower involved) as input indicators; patent as the similar indicator for the output of innovation. However, as the output indicator of innovation, patent has its natural limitations; that is because the tendency towards different industries, different area and different stages are all different[32]. For different industries and enterprises, whether to adopt the strategies of patents or business secretes in order to protect innovation achievements, the enterprises will need to take into account which one could effectively prevent competitors from imitation and which one could generate higher level of benefits. In next section, this study will sort them out from the outline of regulations to the valuable topics for discussion based on the features of patents.

29 Kondo, M. (1999). R & D dynamics of creating patents in the Japanese industry. Research Policy, 28(6), 587-600.

30 Suzanne, S. (1991). Standing on the Shoulders of Giants: Cumulative Research and the Patent Law. The Journal of Economic Prespectives, 5(1), 29-41.

31 Cuddington, J. T., & Moss, D. L. (2001). Technological Change, Depletion, and the U.S. Petroleum Industry. The American Economic Review, 91(4), 1135-1148.

32 Griliches, Z. (1990). Patent statistics as economic indicators : a survey. Journal of Economic Literature, 28(4), 1661-1707.

Ernst[33] also considered that the patent is one of the most important tools for modern business management and that is also the physical interface between technologies and the laws. Therefore, the quantity of patents possessed by one company is an important indicator for the technological strengths of the enterprise. At the same time, in some ways, patents are always connected with a certain degree of monopoly marketing powers. At present, many high-tech enterprises, both at home and abroad, possess a large quantity of patents. However, is the large quantity enough? For successful enterprises, they have good patent management systems, appropriate R&D and Planning to maximize their profits and returns. Rivette and Kline[34] pointed out that with the assistance of licensing, cooperation, strategic alliance, litigation and cross-licensing, even using patents as defense, enterprises are able to generate considerable returns. By then, another problem arises, what types of patent could make the above-mentioned statement possible? In next section, we will discuss on the issue of the quality and values of the patents.

2.3 Values and Quality of Patents

Patents which are the outcome of R&D create property from information[3536]. Patent analysis is a systematic method to arrange patent information. Through searching and researching patent information, people can make statistics, analysis and comparison among the items involved in patent documentations and the content of technique of different cases (Table 1). Under the assistance of the expertise' knowledge, subject analytic is conducted and is expected to be used widely in the fields of nations, technology, industrial departments and companies[37]. Hall et al.[38] noted that patent analysis is not only an effective tool for planning of technologies and R&D and the management for intellectual properties, but also can be used as the

33 Ernst, H. (2003). Patent information for strategic technology management. World Patent Information, 25(3), 233-242.

34 Rivette, K. G., & Kline, D. (2000). Rembrandts in the Attic: Unlocking the Hidden Value of Patents. Harvard Business School Press.

35 Bera, R. K. (2009). The global importance of patents. Current Science, 96(5), 643-645.

36 Senan, S., Haridas, M. G., & Prajapati, J. B. (2011). Patenting of microorganisms in India: a point to ponder. Current Science, 100(2), 159-162.

37 Pavitt, K. (1988). Uses and Abuses of Patent Statistics, in Handbook of Quantitative Studies of Science and Technology. Amsterdam.

38 Hall, B. H., Griliches, Z., & Hausman, J. A. (1986). Patents and R and D: Is There a Lag? International Economic Review, 27(2), 265-283.

judgmental basis for analysis of the technological competition, the analysis of technological tendency and scope. At the same time, patents are capable of protecting the achievements of R&D. Whether to adopt patents or business secretes to protect innovation achievements, enterprises will have to consider which one could effectively prevent competitors from imitation and which one could generate higher level of benefits. Nevertheless, most of the research institutes and enterprises tend to publish their research achievements in the form of patents.

[Insert Table 1 about here]

Patents provide abundant information of technological innovations. With the help of the information disclosed by patents, we can get access to the technical information of competitors. Therefore, the appropriate utilization of patent information could effectively shorten the expenses and time of R&D and help enterprises effectively manage the allocation of the resources for R&D[39][40]. Therefore, patent analysis aims at the source of competitive technological information. Patent analysis is one of the analytic methods frequently adopted by enterprises for their strategies manipulation and competition analysis; patenting is also an intelligence analysis method for enterprises to acquire the competitive advantages over competitors.

3. Research method

This study will consider plenty of literatures and current empirical patent indicators, and then use patents which filed by worldwide well-known research institutions and enterprises that have outstanding performance on patent granted to do the verification. Selected research institutions refer to table 2, enterprises refer to table 3.

[Insert Table 2 about here]

[Insert Table 3 about here]

39 Narin, F. (1995). Patents As Indicators for The Evaluation of Industrial Research Output. Scientometrics, 34(3), 489-496.

40 Ernst, H. (1998). Industrial research as a source of important patents. Research Policy, 27(1), 1-15.

As figure 2, this research will collect and arrange literatures to conclude the patent indicators which can be used to apply for early evaluation of patent quality, then using multiple regression analysis to verify whether these indicators are representative or not. Also by means of analyzing actual patent information objectively to discuss whether these indicators can accurately reflect patent drafting quality. Based on above mentioned process, this research will conclude which indicators could actually represent patent drafting quality.

A patent takes about five years from publishing to be cited, of which about 70% of the patent document is not cited or referenced only once or twice. Furthermore, be cited six times, or a higher number of patent only accounts for about 10%[41]. Hence, this research is going to search all the granted patents in 2001 to 2004 and sort by the number of cited in different UPC (United States Patent Classification) code, then pick out top 10% as high quality patents. Therefore, according to the reason that for the most part of Taiwan's industries are located in IPC code (International Patent Classification) G and H category, so this research will narrow into these two classes in order to adjoin real industrial situation in Taiwan.

[Insert Figure 2 about here]

4. Results of analysis

To construct and verify the patent drafting indicators in the early stage of patent applying, we arrange plenty of literatures and figure out current empirical patent indicators then conclude the patent drafting indicators which include the number of claim, the number of independent, the number of citing patent and the number of filing country, as well as the dependent will be TileRate which represent patent quality. The following table shows detailed definition of the indicators above.

[Insert Table 4 about here]

41 Narin, F. (1995). Patents As Indicators for The Evaluation of Industrial Research Output. Scientometrics, 34(3), 489-496.

Following patent quality indicator TileRate set by this research, former 10% samples have been screened and selected as good quality samples. There are 18,469 patents in group G and 16,307 in group H.

From literature review, it can be summarized at the first stage that patent quality has been closely affected by claim count, independent claim count, citing prior patent count and filing country count. However, the correction and their related linkage still need further rectified by regression test. The hypothesis of this study has considered that the above four patent quality indicator can affect each other. In order to test this hypothesis, multiple regressions will be used to analyze these samples (Table 5 and 6).

[Insert Table 5 about here]

[Insert Table 6 about here]

From sample analysis of original sample groups, it can be found that there are big standard deviations among them for several extreme statistic figures in there. Thus, it is needed to conduct secondary adjustment. In this regard, this research adopts expert judgment. Ruling out some extreme data, good sample patent quality has been integrated into statement statistic, and based on the result, we assume the criterion values which shown in table 7.

[Insert Table 7 about here]

Despite of the criterion value has been assumed, in order to ensure these indicators could be used to evaluate the patent drafting quality, here comes two stages in this testifying stage. At the first stage, it is examined through national and outside national organization. At the secondary stage, it is examined through famous international entrepreneur. In this research, former 10% good patent quality that was chosen between 2001 and 2004. The patent performance of these patent groups is as Table 8.

[Insert Table 8 about here]

As we can clearly assumed the criterion value of good patent drafting quality, they still need to be verified whether they could be applied to general industries. Hence, in this stage, good patent quality samples selected by this study and good patent quality samples selected by famous institutes have been conducted for T-test. The outcome of T-test has shown that writing indicator of good patent quality selected by this research could provide with characteristic which could be applied to general industries (Table 9).

[Insert Table 9 about here]

After verified with selected famous research institutes, it seems these criterion value could be applied o general industries. In order to get further check, cross-verification with the patent of well-known enterprises in domestic and abroad will be taken.

The test of patent performance has chosen 10 of top 50 global enterprises of the well-known enterprises in domestic and abroad selected by the list of IFI CLAIMS® 2012 Top US Patent Assignees (refer to Table 3). Taiwan's selected enterprises have been put into this test of patent performance as this study targets for the later analysis. This study focus on the top 10% good patent quality performance between 2001 and 2004 and its performance will be test samples in this study. The test of patent performance is shown as Table 10 and 11.

[Insert Table 10 about here]

[Insert Table 11 about here]

5. Conclusions

After the above analysis and regression test, we could use three indicators and one aid for inspecting patent drafting quality. Furthermore, by means of T-test, they all could be applied to general industries. Hence, consult with the average performance of selected patents, we set the criterion value. For G category patents, which mainly represent the machinery industry in Taiwan: 24 claims, 4 filing countries, 14 citing prior patents and 4 independent claims for aid. Besides, for F category patents which mainly represent the electronics industry in Taiwan: 21

claims, 4 filing countries, 16 citing prior patents and 4 independent claims for aid. Table 12 clearly shows these criteria in form.

[Insert Table 12 about here]

Since current academic and practical assessment of patent quality often use patent citation analysis, this assessment information would take a long period after the patent been citied so that it is a bit lag behind practical need. Hence, one of main contribution of this project is to establish a set of assessment of patent quality that can be employed to judge patent quality directly from patent claims and its disclosure content. In this way, it will avoid the waste of R&D resource and will be useful for future patent portfolio strategy and patent management. This project lies in the construction and validation of the drafting quality indicators of pilot patents. Using the samples of certified U.S. patent information during 2001-2004 as samples, this study adopted statistical methods to select the experimental indicators out of certified patents and is expected to deduce the content of the quality indicators of patents for drafting. This series of indicators are expected to become ways for the applicants to certify the quality of patents in early days of the application.

The main contribution of this study is to establish a set of assessment of patent quality that can be employed to judge patent quality directly from patent claims and its disclosure content. In this way, it will avoid the waste of R&D resource and will be useful for future patent portfolio strategy and patent management.

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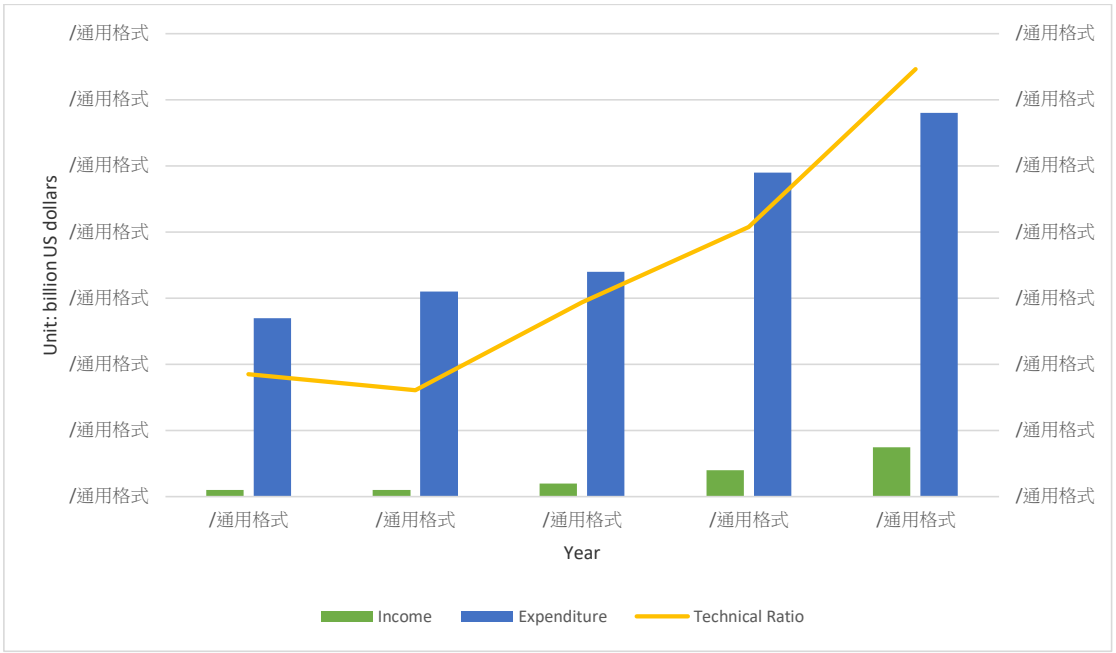

Fig 1: Income and expenditure of Taiwan enterprises' royalties

Source: Science & Technology Policy Research and Information Center, STPI

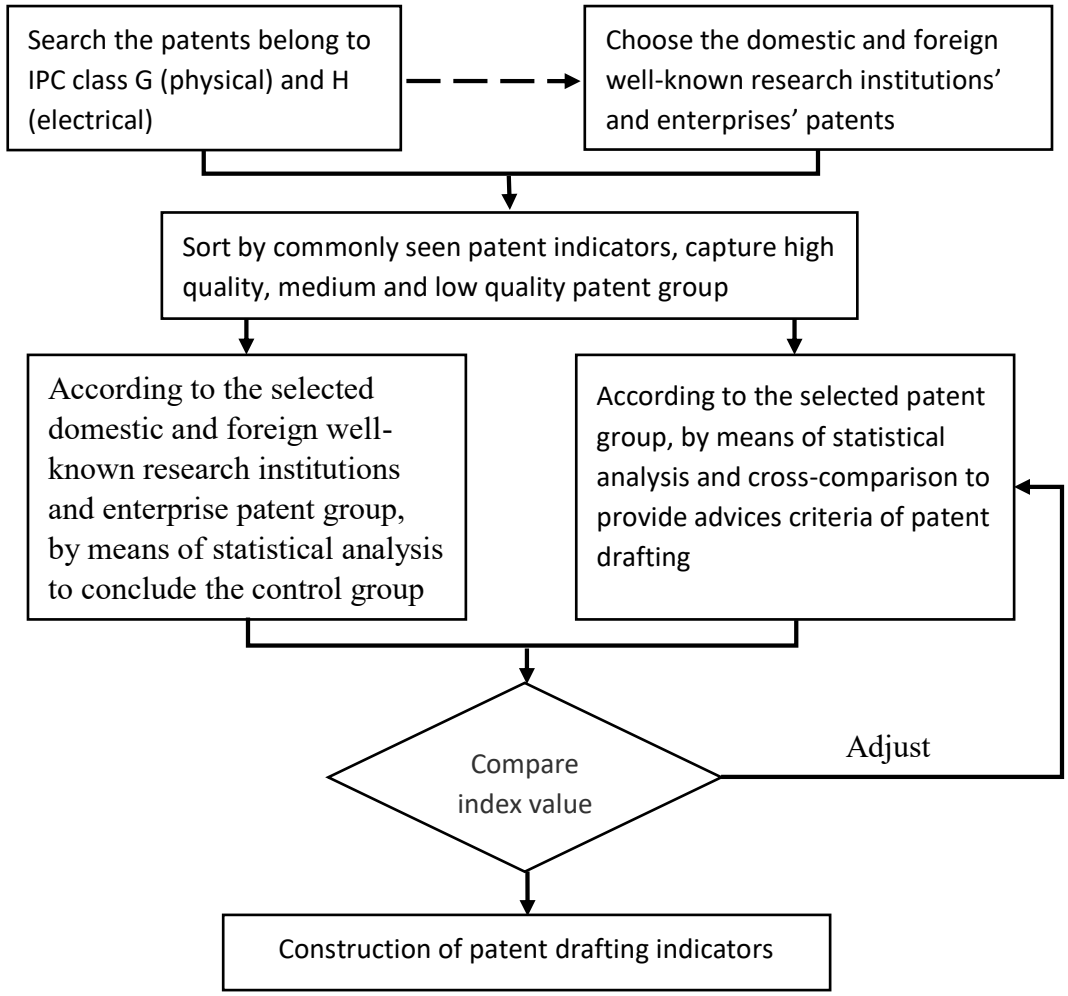

Fig 2: Research structure

Table 1: Main strategic and value application of patent analysis

Applications	Enterprises' strategies	Value
Technology competition analysis	Compare enterprises with their patent portfolio and strategies, identify the growth and decline of competitor's technologies	Improve product management strategy and decision-making, early control of the prospective technology
Risk assessment	Evaluate potential patent technologies, analyze the risk of cooperative development opportunities	Trade patents more efficient, reduce the uncertainty and risk of investment and decision-making
Patent portfolio management	Confirm valuable patents and products, as well as their potential market	Increase the return of patents (through authorization, trading or developing), early detect the potential market of substitutes
R&D management	Plan and assess the target technologies and products, seek leading technologies	Improve the efficiency of R&D, improve the sense of invention
Products field monitoring	Review the contents of new patent and its ownership, infringement confirmation	Early detect potential impact, more proper maintenance of intellectual property rights

Table 2: Selected research institutions

Foreign research institutions		
Nation	**Initials**	**Full name**
Japan	AIST	Advanced Industrial Science Technology
Australia	CSIRO	Commonwealth Scientific Industrial Research Organisation
German	Fraunhofer	Fraunhofer
Canada	NRC	National Research Council
United State	SRI	Stanford Research Institute
Netherland	TNO	Nederlandse Organisatie voor Toegepast Natuurwetenschappelijk Onderzoek
South Korea	ETRI	Electronics Telecommunications Research Institute
Domestic research institutions		
Nation	**Initials**	**Full name**
Taiwan	ITRI	Industrial Technology Research Institute
Taiwan	III	Institute Information Industry

Table 3: Selected enterprises

Rank	Granted	Assignee Name	Nation
1	6478	International Business Machines	United State
2	5081	Samsung Electronics Co Ltd KR	South Korea
3	3174	Canon K K JP	Japan
4	3032	Sony Corp JP	Japan
5	2769	Panasonic Corp JP	Japan
6	2613	Microsoft Corp	United State
7	2447	Toshiba Corp JP	Japan
8	2013	Hon Hai Precision Industry Co Ltd TW	Taiwan
9	1652	General Electric Co	United State
10	1624	LG Electronics Inc KR	South Korea
48	650	Taiwan Semiconductor Manufacturing Co TW	Taiwan

Table 4: The operational definition of variables

Patent drafting indicators	
Variable	**Definition**
Claim Count	The number of claim when applying patent
Independent Claim Count	The number of independent when applying patent
Citing Prior Patent Count	The number of citing patent when applying patent
Filing Country Count	The number of filing country when applying patent
Patent quality indicator	
Variable	**Definition**
TileRate	The percentile sort by the number of cited in different UPC

Table 5: Multivariate regression test results with the G category patent

Claim Count	Filing Country Count	Citing Prior Patent Count	Independent Claim Count	Linear Model	Goodness-of-fit
V	V	V	V	Non-Significant	
V	V	V		Non-Significant	
V	V		V	Non-Significant	
V		V	V	Significant	0.023
	V	V	V	Significant	0.020
V	V			Non-Significant	
V		V		Significant	0.019
V			V	Significant	0.014
	V	V		Significant	0.016
	V		V	Significant	0.011
		V	V	Significant	0.019
V				Significant	0.006
	V			Significant	0.001
		V		Significant	0.015
			V	Significant	0.009

Note: Checked item is selected as variable, all dependent variable is patent quality (TileRate)

Table 6: Multivariate regression test results with the H category patent

Claim Count	Filing Country Count	Citing Prior Patent Count	Independent Claim Count	Linear Model	Goodness-of-fit
V	V	V	V	Non-Significant	
V	V	V		Non-Significant	
V	V		V	Non-Significant	
V		V	V	Significant	0.018
	V	V	V	Significant	0.014
V	V			Non-Significant	
V		V		Significant	0.014
V			V	Significant	0.013
	V	V		Significant	0.009
	V		V	Significant	0.009
		V	V	Significant	0.014
V				Significant	0.007
	V			Significant	0.001
		V		Significant	0.009
			V	Significant	0.008

Note: Checked item is selected as variable, all dependent variable is patent quality (TileRate)

Table 7: Assumed criterion value based on the average of each indicator

G Category Patents				
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Independent Claim Count**
Assumed criterion value	24.16	3.74	13.66	3.81
H Category Patents				
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Independent Claim Count**
Assumed criterion value	21.27	3.50	15.75	4.04

Table 8: The patent performance of well-known research institutes

G Category Patents					
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Patent Count**	**Independent Claim Count**
Average of selected research institutes	23.1	4.92	6.52	61	3.28
H Category Patents					
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Patent Count**	**Independent Claim Count t**
Average of selected research institutes	20.8	3.94	4.88	83	3.17

Table 9: T-test result with selected famous research institutes

G Category Patents				
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Independent Claim Count**
With selected research institutes	Non-Significant	Non-Significant	Non-Significant	Non-Significant
H Category Patents				
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Independent Claim Count**
With selected research institutes	Non-Significant	Non-Significant	Non-Significant	Non-Significant

Table 10: The patent performance of well-known enterprises in domestic and broad

G Category Patents					
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Patent Count**	**Independent Claim Count**
Average of selected foreign enterprise	26.43	3.07	8.84	5284	4.77
Average of selected foreign enterprise	21.82	1.45	2.91	104	2.97
H Category Patents					
	Claim Count	**Apply Country Count**	**Citing Prior Patent Count**	**Patent Count**	**Independent Claim Count**
Average of selected foreign enterprise	20.45	3.29	7.99	3607	3.78
Average of selected foreign enterprise	13.21	1.92	2.05	576	2.13

Table 11: T-test result with selected well-known enterprises

G Category Patents				
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Independent Claim Count**
With selected domestic enterprise	Non-Significant	Non-Significant	Non-Significant	Non-Significant
With selected foreign enterprise	Non-Significant	Non-Significant	Non-Significant	Non-Significant
H Category Patents				
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Independent Claim Count**
With selected domestic enterprise	Non-Significant	Non-Significant	Non-Significant	Non-Significant
With selected foreign enterprise	Non-Significant	Non-Significant	Non-Significant	Non-Significant

Table 12：Recommended patent drafting indicators and criterion value

G Category Patents				
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Independent Claim Count**
Average	24.16	3.74	13.66	3.81
Recommended Criterion Value	24	4	14	4
H Category Patents				
	Claim Count	**Filing Country Count**	**Citing Prior Patent Count**	**Independent Claim Count**
Average	21.27	3.50	15.75	4.04
Recommended Criterion Value	21	4	16	4

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