INTELLECTUAL PROPERTY, ECONOMIC PERFORMANCE AND COMMERCIALIZATION OF INTELLECTUAL ASSETS

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Abstract

Intellectual property (IP) is crucial for growth, prosperity, and competitiveness in the 21st century. The rapid development of ICT has reduced the costs of producing, processing, and disseminating information, accelerating the creative process. However, managing, protecting, and implementing IP rights across nations becomes more challenging as corporate innovation and industrial activities become more globalized. Long-term prosperity requires nations to invest heavily in their citizens' creative potential and their capacity to absorb and use new technology developed elsewhere. A well-designed IP system grants inventors limited-time exclusive rights, allowing them to transfer ownership to commercial entities or other users. Legal protections are essential for bringing innovative products to consumers and inspiring creators to share their work. However, it is equally important to ensure that newly discovered knowledge is openly available for future producers and rivals. Countries undergoing transition are establishing and revising IP laws to address these issues, with WIPO accords, WTO negotiations, and EU Partnership accords providing national policymakers with leeway. A well-designed and efficient IP system is just a means, not a goal in itself, to boost the economy's innovative capacity and overall competitiveness. To foster innovation and healthy competition, the political, legal, and regulatory atmosphere must be improved alongside the IP system. Evaluation, reporting, and accounting for IP are taking on more significance for developing innovative businesses, public research institutes, private equity firms, and other financing mechanisms.

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Government authorities need to monitor trends and identify useful solutions and appropriate criteria to establish appropriate criteria.

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Introduction

Growth, wealth, and competitiveness all depend critically on intellectual property. Due to the decreasing costs of information production, processing and dissemination made possible by ICT's fast growth, the creative process has been sped up. As business innovation and industrial operations grow increasingly globalized, however, the management, protection, and implementation of IP rights between countries become more problematic. Improved economic innovation and competitiveness depend on a robust intellectual property framework. As part of WIPO agreements, WTO discussions and EU Partnership accords, transitioning countries are developing and amending IP laws, adhering to particular principles. In addition to strengthening the IP system, the surrounding political, legal and regulatory climate must be optimized to promote innovation and robust competition.[1] More and more people are concluding that creative businesses, public research institutions, private equity firms, and other funding sources cannot expand without proper evaluation, reporting, and accounting for IP assets. Government officials must monitor the market, where they may identify issues, discover solutions, and establish standards, to guarantee the widespread use of best practices. Owners of IP may profit from their creations by selling, assigning or licensing the use of the IP to others.©[2] Commercial risk, benefit loss and market uncertainty all need assignment. On the other hand, there are costs and complications associated with joint ownership, such as taxes and the difficulty of negotiating a selling price with other joint owners. For public research organizations or small and medium-sized businesses, licensing agreements are crucial for realizing the full economic potential of an innovation. They let creators earn royalties and tap into the resources of other companies. The licensor's financial goals, the kind and stage of technology development, and other factors determine whether a non-exclusive or exclusive license is granted. Licensing helps companies in many ways as it lowers the cost and risk of establishing technology in other countries, speeds up the time it takes to bring breakthrough

[1] Bessant, J., *Government Support for Innovation* 234-56 (Caspian Publishing, London, 1997).
[2] *Ibid.*

goods to market, decreases spending on R&D, increases exposure for the brand, brings in new consumers and shields the company from legal liability.[3]

1. Intellectual Property and Economic Performance

Innovation is the primary source of growth in advanced economies, as it prevents the law of diminishing returns and keeps the economy growing. This is because once innovation has been created, it can be employed again without incurring extra costs throughout the manufacturing process. Some factors that contribute to innovation include the growing significance of the service sector, the advent of new forms of rivalry brought about by globalisation, and the advancement of state-of-the-art information technology. There is a direct correlation between the amount of money invested in intellectual property and the level of economic impact since intellectual assets have grown into critical strategic components of value growth inside companies. A link between R&D investment and higher productivity has been ascribed to gross rates of return (including net return to capital and depreciation) ranging from 10% to 20%, according to recent OECD research. Spillovers to companies not engaged in the study may increase the social return on investment.[4]

With the shift to an innovation-driven and knowledge-based economy, the production, preservation, sharing, and use of information for monetary gain have taken centre stage. This research looks at the value of IP in sustaining economic growth and the challenges posed by IP's growing importance in policymaking, particularly for nations whose economies are in transition. It analyses statistics from economic studies to determine the worth of investments in intellectual assets for productivity and economic growth, explores the fundamental rationales for patent protection and outlines some obstacles governments must overcome to unleash intellectual assets' full potential to boost economic development.[5]

1.1. Intellectual property's function in driving innovation

Inventions, literary and creative works, symbols, names, pictures, and designs used in commerce are all subject to intellectual property rights (IPRs), which provide monetary protection. Companies gain from these intangible assets because they encourage innovation in

[3] WIPO, Research and Innovation. Issues in University Industry Relations, Background Information Document prepared by the SMEs Division, *available at:* http://www.wipo.int/sme/en/documents/pdf/fp6.pdf (last visited on September 05, 2023).
[4] *Ibid.*
[5] Allison, R., M. Lemley and J. Walker, "Extreme Values or Trolls on Top? The Characteristics of the Most Litigated Patents" 158(1) *Pennsylvania Law Review* 1-38 (2009).

the private sector in a way that is optimum from a societal perspective. When businesses put money into research and development (R&D) and their brands, they may innovate, improve their products and services, and use new production processes.[6] These wagers, however, may be expensive, dangerous, and fruitless for years or even decades. Imitators pose a threat to innovators as they are unable to recuperate the expenses of original R&D into a profitable product or service.[7] This can lead to a weakened motivation to create and may lead to foregoing the invention process altogether.

Innovators can protect themselves against copycats by keeping the specifics of their ideas under wraps or constantly releasing new and better versions of their goods. Formal IPRs are a policy tool that encourages innovators to make their newfound knowledge publicly available so that other innovators can build upon it while protecting them from imitators for a period long enough to recoup the costs of innovation. IPRs may be purchased, traded or licensed out like any other asset since they are intangible. Invention and entrepreneurship thrive when there are suitable markets for the products they create.[8] The biotechnology industry is a good illustration of this "division of labour" because smaller firms conduct the bulk of the ground-breaking research and development, while bigger corporations acquire or license these innovations and devote their resources to clinical trials, product development, and distribution. Intellectual property rights are crucial for third parties to access a particular invention, as they promote spending on research and development, which results in new inventions.[9]

IPRs allow innovators to form contractual partnerships with third parties, allowing them to access the invention under favourable conditions. This ensures that inventors can disclose the essential elements of their innovation to society, preventing potential imitators from exploiting this information without their knowledge or consent. Various components of an inventive company's business are safeguarded by IPRs, such as patents, trademarks, copyrights and industrial design. It is common for several IPRs to apply to a single product, covering the underlying technology, the product as a whole and a design mark. Creative companies

[6] *Ibid.*
[7] Anton, J.J. and D.A. Yao, "Expropriation and inventions: appropriable rents in the absence of property rights" 84 (1) *American Economic Review* 190–209 (1994).
[8] Argyres, N.S. and J.P. Liebeskind, "Privatizing the Intellectual Commons: Universities and the Commercialization of Biotechnology" 35 *Journal of Economic Behavior and Organization* 427-454 (1998).
[9] Association of European Science and Technology Transfer Professionals (ASTAP), "Summary Report: The 2006 ASTAP Survey" (June 2006).

operating in multiple national markets must defend their IPRs in each jurisdiction.[10] IPRs are related to other innovation-fostering methods, such as government support for R&D in the commercial sector through purchases, grants, subsidies, preferential loans, awards and tax advantages. Public funding and research should be seen as incentives for more research, but patents are issued for innovations that have industrial relevance and should only be understood as a means to promote the commercial use of these innovations. Unlike other tools, however, patents do not immediately open the door to rivals.[11] While IPRs are available for inventions in any field, the government typically chooses publicly funded research and research areas. The government also gets control over outcomes in public procurement and awards, whereas the private sector typically does in subsidies and IPRs.[12]

1.2. Data about the impact of IP rights on financial outcomes

Intellectual property rights play a crucial role in driving innovation and economic prosperity. However, the policy challenge of balancing control and access to IPRs becomes more pressing as the importance of intellectual assets increases. Competition policy is essential for companies to exploit intellectual property rights to create creative firms without fear of abuses that might limit constructive competition. Patents are the only available systematic evidence of the relationship between trademarks and economic success, as they generally have a large impact on economic success and play an outsized role in economic performance.[13] Trademarks protect businesses' brand name capital, which includes time, effort, and money spent building consumer trust in their goods and services. Increased product diversity is seen as a primary driver of international trade's benefits, value-added and economic expansion. Copyright protection is automatically given to all creative works without any requirement for filing or registration, so there is a dearth of empirical information on the value of copyright to society and its influence on economic performance. A growing percentage of GDP in developed nations comes from "creative" copyright-based enterprises.[14]

More and more companies across the globe are filing for patents due to the skyrocketing value of patents in the previous 20 years. While this tendency has helped technology proliferate, it

[10] Baldwin, J. R., P. Hanl and D. Sabourin, "Determinants of Innovative Activity in Canadian Manufacturing Firms: The Role of Intellectual Property Rights" 1(2) *Statistics Canada Working Paper* 122 (2000).
[11] *Ibid.*
[12] Ziedonis, R. H., "Don't Fence Me In Fragmented Markets for Technology and the Patent Acquisition Strategies of Firms" 50 *Management Science* 804–20 (2004).
[13] *Supra* note 3
[14] Branstetter, L. G., "Do Stronger Patents Induce More Local Innovation?" 7(2) *Journal of International Economic Law* 359-370 (2004).

has also restricted certain companies' freedom of operation. The consequences of regulated vs. free access to IP on corporate innovation and economic success need more study, especially in today's rapidly evolving technology landscape. Evaluating the efficacy of patent regimes involves looking at three factors: the length of the patent period, the breadth of the patent in terms of the innovations it covers, and the height of the inventive step required for an invention to be patentable. These factors play a significant role in balancing innovation and anti-competitive restraint.[15] The TRIPS Agreement specifies a 20-year duration for patent protection, but countries like the United States, the European Union, Japan, Australia and Israel provide extended patent terms for certain products, up to a maximum extension of five years. Longer patent durations increase the incentive for would-be innovators but decrease the rate at which an invention spreads across the economy. The appropriate balance between these goals is not easily achieved due to variations between sectors, product markets and technological contexts.[16]

Patent systems seldom account for variations across these dimensions among sectors or technologies. Increasing patenting activity has been seen in several domains, including software and commercial methods, as well as in academic institutions and other PROs. Increased patents are issued as a result of stronger patent protection, but R&D spending does not always indicate increased innovation. A growth in patenting and the use of patents as a weapon of company strategy follows the introduction or strengthening of a patent system, whether by expanding the scope of rights or enhancing enforcement.[17] Patents play a significant role in biotechnology and medical devices but play a relatively minor role in software. Early-stage investors look at the firm’s patent portfolios when deciding which startups to back, as they consider the robustness of their patent portfolios. The patent system has been found to have varying effects on the economy, with a positive correlation between patent strength and R&D in countries with higher economic growth. However, this effect diminishes after patent protection reaches a certain threshold, reflecting concerns about patent abuse and coercion. To address this issue, patent pools and reasonable license terms are proposed. [18]

[15] Busquin, P. (2003), The Relevance of IPR for the Research Community, IPR Helpdesk Bulletin, *available at:* http://www.ipr-helpdesk.org. (last visited on September 21, 2023).
[16] Clarysse, B., "Spinning out New Ventures: A Typology of Incubation Strategies from European Research Institutions" 2 *Journal of Business Venturing* 183-216 (2005).
[17] Cohen, W. M., A. Goto, A. Nagata, R.R. Nelson, and J.P. Walsh, J. P., R&D Spillovers, “Patents And The Incentives to Innovate in Japan and the United States, Research Policy” 31: 1349–67 (2002).
[18] *Ibid.*

When businesses aggressively seek to limit entry into a market by filing or acquiring patents, this practice is known as a patent thicket. The practice of patent trolls, who amass patents of dubious value and then use them to harass or prosecute legitimate companies, is another source of concern. To avoid being sidetracked by lengthy patent court battles, these companies pay royalties to the "troll" as a settlement. Anxieties about competitors' potential strategic use of patents to thwart innovation have been heightened by the current upsurge in patent applications and approvals in several key nations.[19] More patents with questionable value have been issued due to insufficient patent office resources, leading to concerns about the quality of the patent examination process. This could exacerbate issues with patent thickets and trolls, increasing the burden on the judicial system and litigation costs for companies at the forefront of innovation. However, the patent system does indeed encourage innovation in vital, knowledge-intensive industries. Businesses and industries adapt to their existence by using the system and adapting their cutting-edge approaches accordingly. The advantage depends on how the patent is used, with possible outcomes including legal protection, commercialization of the inventor's work, licensing deals with other parties, cross-licensing arrangements and access to capital markets.[20]

2. Commercialization of Intellectual Assets

How to go about commercializing anything and why IP rights are so important. Many different types of legally binding business partnerships exist to commercialize intellectual property, including sales, assignments, and licensing agreements. This may be accomplished by the formation of a partnership, JV, or spin-off firm. IPRs are the legal framework that enables the transmission of information or the formalization of a business relationship. Knowledge may also be utilized internally, in which case IPRs serve to prevent copycat businesses from entering the market. To "commercialize" anything is to transform it into something that can be sold to the general public. Before bringing research findings to market, more research, product development, clinical studies or the development of procedures to scale up manufacturing may be necessary. This is significant since not all artists and innovators are interested in or equipped to commercialize their innovations. This class often includes PROs (Public research organizations).

2.1. Capacity to commercialize the invention

[19] *Supra* note 1
[20] David, P.A., D. Mowery, and W. E. Steinmueller, "Analysing the Economic Payoffs from Basic Research, Economics of Innovation and New Technology" 2/4 *Journal of Business Venturing* 73-90 (1992).

In the rapidly changing economy, not all institutions have the resources to commercialize an idea independently. For example, in the biotechnology industry, where most sales occur outside of the country, companies with intellectual property rights must find commercial partners. The commercialization process often takes a long time and banks may be hesitant to lend money to startups without a good chance of turning a profit in a reasonable amount of time. To turn a novel idea, concept or design into a marketable product, time and money are necessary.[21] Efforts in creativity and innovation, both internally and from external parties like workers, partners, advisers and consultants are essential. [22] The process requires persistence, concentrated management and considering the specifics of the target market. Prerequisites for economic profitability include customers, a party with control over the production and distribution of the produced goods and effective intellectual property management. Competent and efficient management of the commercialization process is crucial due to the dangers of commercialization. Public research organizations or companies that have strong management skills are more likely to generate economic value from intellectual assets. The quality of management determines the effectiveness of intellectual assets and technology use. Management practices, such as human resource management, information technology management, goal-setting and performance reporting, vary greatly across and even within nations and sectors. Once an organization has achieved IP protection, they face the challenge of commercialization.

Failure to stay abreast of market trends or to do so superficially is a major pitfall for IP owners. An early assessment of the intellectual property's technical and economic value is crucial for its successful commercialization. To increase the efficiency of their research and development (R&D), leading organizations have begun to depend on external sources for complementary knowledge and to round out their technology portfolios. Additionally, these companies have begun to better align their internal R&D activities with their commercial plans. Important considerations in highly competitive markets include IP type, market health, IP owner's financial situation, and resource availability. Consider the creator's possible impact on the IP's commercialization as a whole.[23] The commercialization plan for intellectual property should include market concerns early on, considering factors such as markets, consumers, rivals,

[21] Dodgson, M. and J. Bessant, *Effective Innovation Policy* 453-67 (International Thomson Business Press, London 1996).
[22] *Ibid.*
[23] Federal Trade Commission, "To Promote Innovation: The Proper Balance of Patent and Competition Law Policy, Washington DC." (April 2003).

technology and partnerships with research institutes, government agencies and other organizations. Conducting a fair analysis of potential market entry methods is also necessary.[24]

2.2. Legal vehicles for the commercialization of IP

Intellectual property (IP) owners can generate revenue from their IP through two main methods: selling or assigning the IP, or licensing the IP rights to a third party. When rights are transferred, the assignee becomes the owner of all rights formerly held by the assignor, but the assignor may revoke the license previously granted to the assignee. This can occur between separate entities or as part of an organization's internal agreements with employees, consultants and contractors.[25] The transfer of ownership must be documented in writing, often using a contract or deed to formalize the transfer. Intellectual property guarantees, a restriction of commerce provision, or a license back to the vendor are all potential restrictions that the parties may elect to include. Whether the intellectual property is licensed solely or assigned will influence the result of the transfer. The language of the documents regarding the purported transfer of IP will determine this.

There are several reasons why an assignment might be preferable over a license in some cases. An assignment might be appropriate, for instance, the commercial life of a patented invention is very short. A customer may also benefit from an assignment if it needs a patentable product to round out its product line and patent portfolio. The assignment isn't without its drawbacks, however. One is the difficulties in negotiating a selling price. Another is the danger that the assigned patent will never be effectively utilized or fail in the market. Finally, there's the possibility of losing out if the innovation turns out to be more valuable than predicted.[26] The assignment also has disadvantages, such as the need for permission from other joint owners before using or selling the patented innovation for commercial gain and the need to pay taxes if a company is sold as part of an assignment. Additionally, existing license agreements may be affected by a sale and may need conditions assuring continuation of such agreements.[27] To decide whether to assign intellectual property rather than issue a license, an IP owner should consider several factors. If the business would prefer not to enforce the IP, it may be preferable

[24] *Ibid.*

[25] Gambarella, A., P. Giuri, and M. Mariani (2006), "Study on evaluating the knowledge economy: What are patents worth? The value of patents for today's economy and society. Tender no. MARKT/2004/09/E, Lot 2, final report, (July, 2006).

[26] Geuna, A. and F. Rossi (2010), Changes to University IPR Regulations and the Impact on Academic Patenting, Working Paper no.15/2010, Department of Economics, University of Torino, *available at:* http://www.de.unito.it/web/member/segreteria/WP/Momigliano/2010/15_WP_Momigliano.pdf.

[27] Hale, K., *Creating the Portfolio Database*, 564-78 (Profiting from Intellectual Capital, John Wiley and Sons, USA, P. Sullivan (ed.)/1998).

to give up ownership. Additionally, the assignee should consider whether future use of the IP will be temporary or single-use and if there is no other method of commercialization that would better serve the goals of the company.[28]

Licensing is a crucial process for securing the full commercial potential of an invention, especially for public research organizations or small and medium-sized enterprises. It allows inventors and other intellectual property owners to profit from the use of their work in the form of royalties and benefit from the expertise of other businesses. When a licensor agrees to let another party (the licensee) use that right in exchange for compensation that right is said to be licensed. In such a scenario, the two parties often enter into a licensing contract outlining the stipulations of the relationship.[29] Licensing agreements are required by certain countries' rules, and the licensor maintains ownership of the leased property. If the licensor is able to locate an appropriate licensee and the license agreement is well-drafted, it may provide a stable revenue stream while limiting the licensor's exposure to risk. There is no one optimum moment to license an idea, but it is often recommended that independent entrepreneurs or innovators begin looking for licensees as soon as possible to offset the high expenses of patenting.

Intellectual property such as "know-how" (secret knowledge) is not licensed under patent law, but it is sometimes included in a licensed agreement to help the licensee put the innovation into effect. This includes information, processes and devices that are technical, trade, commercial or otherwise occurring or utilized in a business activity. The number of licensees who may use the licensed intellectual property determines the sort of license that will be granted.[30] The type and development stage of the technology, as well as the licensor's commercial goals, will determine whether exclusive or non-exclusive licenses are granted. A non-exclusive, widely held license is optimal if the technology has the potential to become a standard required by all participants in a certain market to execute their business. A potential licensee may reasonably request an exclusive license if the technology requires only one company to make significant investments to commercialize the product.[31]

It is possible to combine parts of exclusive, sole, and non-exclusive licenses into a single licensing agreement, allowing the licensee to save money on R&D and avoid wasting time and

[28] Jaruzelski, B., Dehoff, K., Bordia, R., and Hamilton, B. A. (2005). The Booz Allen Hamilton Global Innovation 1000: Money Isn't Everything. New York, 2005, *available at:* www.boozallen.com and www.strategy-business.com. (last visited on August 05, 2023).

[29] Kamiyama, S., J. Sheehan and C. Martinez, "Valuation and Exploitation of Intellectual Property" *STI Working Paper, OECD* (2006).

[30] Lerner, J., Patent policy shifts and innovation over 150 years, 92(2) *American Economic Review* 221–225 (2002).

[31] Mansfield, E., "Patents and Innovation: An Empirical Study" Management Science" 32(2) IJIPR 173-181. (1986).

money on fruitless R&D endeavours. A successful licensing agreement might pave the way for a long-term strategic alliance between the licensor and licensee. Licensing a product that may be infringing on another party's patent can be beneficial for corporations producing and selling products that may be infringing. A non-exclusive license under the patent can help avoid legal action for patent infringement. The licensor benefits from licensing their intellectual property and providing financial support for research, development, production and sales of new items. It can also help reach a wider audience by penetrating new markets abroad.[32]

Licensing can shape the licensor and licensee's future strategic relationship, leading to more licensing transactions or collaborations. It can also prevent legal action when one or both parties infringe on the other's rights. When working together for mutual gain, competitors might transform into allies. A license, either exclusive or non-exclusive, can bring in more cash over 20 years if the product's worth rises due to the success of the license and inflation. If the license isn't renewed at the end of the period, the licensor may reclaim ownership of the IP. Licensing disputes are avoided, especially when a prospective licensee is currently marketing a product that might be infringing.

Both exclusive and non-exclusive licenses can be tailored to the needs of the parties involved, with geographical or product category restrictions set. The licensee may be legally obligated to maintain the patent and take direct responsibility for invalidity and infringement concerns. Exclusive licenses require a larger initial investment and/or higher royalty rate than non-exclusive licenses, but they are more valuable as they prevent anyone from profiting from the copyrighted idea. The performance of just one party must be tracked under an exclusive license, and the licensor must monitor the performance of multiple non-exclusive licensees. Licensing reduces the cost and risk of establishing technology in foreign countries, shortens the time it takes to bring innovative products to market, saves money on research and development, raises brand awareness, attracts new customers and protects businesses from potential legal action.[33]

The patent owner stands to gain or lose a great deal from licensing, an essential component of IP rights. The owner of a patent cannot use or sell their innovation to anybody else without first obtaining a license from the party holding the exclusive license. If the selected licensee fails to market or sell the innovation successfully, this drawback will be much more pronounced. To stay away from this, make sure the licensee knows what they're getting into in terms of effort and how much money they need to pay the patent owner in royalties or sales. Disputes, costs,

[32] *Supra* note 28

[33] OECD, "SME Innovation and Intellectual Asset Management in Creative and Selected Manufacturing and Service Industries" Final Report, Working Party on SMEs and Entrepreneurship, Paris (2011).

and legal action may be avoided in the long run if, while drafting a license agreement, all possible outcomes and implications on the subject matter are carefully considered. Any changes, for better or worse, that could happen throughout the term of the licensing agreement should be anticipated and laid out in detail in the agreement's draft. It could be challenging to maintain tabs on a licensee's performance due to the ongoing attention that licenses (exclusive and non-exclusive) need and the possibility that other new developments will take precedence.[34]

Licensing agreements require negotiation with several parties, each responsible for commercializing the patent owner's innovation under the terms of the license. Non-exclusive licenses are often cheaper than exclusive licenses and the burden of initiating such an action against a third-party infringer often falls on the patent owner in the event of a non-exclusive license. Payment and negotiations will discuss the "consideration" (money) to be paid for the granting of the license, which will include license initiation costs, ongoing royalties, requirements for minimum royalties, milestone payments or other licensee contributions to the invention's commercialization. Royalty rates in licensing agreements depend on the specific and unique elements including the markup, the quantity of know-how or technical information contributed by the licensor and the patent and prototype transfer terms. Due to the complexity of licensing agreements and the risks involved, it is best to have an experienced professional assist you.[35]

2.3. Enforcing intellectual property rights as a prerequisite for a successful commercialization

Aside from the validity and commercial usefulness of the asset, the capacity to protect and enforce the intellectual property is a crucial consideration in every intellectual property transaction. It is probable that competitors will work to reduce the price of their own product while maintaining or enhancing the features of the new product in the wake of its release and, ideally, its commercial success.[36] Particularly if the company or its partners have poured resources into R&D to create the product, this can put an undue financial strain on them. The

[34] Qian, Y., "Do National Patent Laws Stimulate Domestic Innovation in a Global Patenting Environment? A Cross Country Analysis of Pharmaceutical Patent Protection" 89(3) *Review of Economics and Statistics* 436-453 (2007).
[35] Sagara, P., "Streamlining University/ Business Collaborative Research Negotiations – An independent report to the "Funders Forum" of the Department of Innovation, Universities and Skills" 45-89 (August 2007).
[36] *Ibid.*

success of a fast-growing company depends on the parties' ability to effectively safeguard their intellectual property rights (IPRs) at this stage.[37]

Because patents are unique property rights, their owners may ask their country's courts to issue injunctions prohibiting or preventing actions that can be seen as infringing on their patent. If the patent owner and complainant are experiencing unquantifiable damage and take immediate action, they may obtain an interim injunction while awaiting a final trial.[38] A final or permanent injunction prohibits infringement, and this is on top of that. Information on the people from whom the defendant obtained the supply of the infringing material and the people to whom the defendant has subsequently transferred the infringing material may also be obtained, together with orders to seize and destroy the infringing items. You may get these orders and details by requesting them via the right court. The courts also have the authority to put an effective freeze on the defendant's assets, which prevents such assets from leaving the jurisdiction or being used up until the conclusion of the trial.[39] If and when the issue is tried in court, the complainant will have the ability to make a claim for compensation for lost earnings or damages, depending on which they choose.[40] Another option is for the patent owner to try to negotiate a licencing deal with the infringement after the injunction has been imposed, so that the infringer may exploit the invention. This is a very reasonable choice. If a patent or exclusive licence holders are notified that their invention is being duplicated, they need an opportunity to claim their rights, regardless of the method used, in order to maintain their competitive edge, market share, and profitability.

Conclusion

Rapid progress in information and communication technology (ICT) has reduced the costs of producing, processing, and distributing information, which has sped up the creative process, and protecting and enforcing intellectual property is essential to promoting development, economic well-being, and global competitiveness. The task of monitoring, safeguarding, and enforcing IP rights across different countries presents increasing complexities in the face of expanding business innovation and industrial operations on a worldwide scale. The implementation of a well-structured intellectual property system provides innovators with the

[37] Thursby, J. and M. Thursby, "Who is selling the Ivory Tower: The Sources of Growth in University Licensing" 48 *Management Science J* 90-104 (2002).
[38] UK Commission on Intellectual Property Rights, "Integrating Intellectual Property Rights and Development Policy" London (March 2002).
[39] Vohora, A., M. Wright and A. Lockett, "Critical Junctures in the Development of University High-tech Spinout Companies" 33 *Research Policy J* 147-175 (2004).
[40] *Ibid.*

opportunity to obtain time-limited exclusive rights, enabling them to transfer ownership to business enterprises or other individuals. The presence of legal safeguards for IP is crucial in facilitating the introduction of novel items to the market and encouraging creators to disseminate their work.

Inventions, literary and creative works, symbols, names, photographs, and designs used in commercial settings all fall under the umbrella of intellectual property rights, which are the legal entitlements linked with these creations. These incentives facilitate private-sector innovative activity by aligning it with societal welfare objectives. Consequently, firms are encouraged to allocate resources towards research and development and brand capital to generate novel goods or services. IPRs serve as a catalyst for incentivizing inventors to disclose their knowledge to the public, hence fostering increased investment in R&D activities. The correlation between government assistance for research and development in the private sector and intellectual property rights (IPRs) is noteworthy.

IPRs are of paramount importance in facilitating the commercialization of intellectual property, which encompasses various modes such as sale, transfer or licensing arrangements. When operating in marketplaces characterized by intense competition, numerous factors must be considered, including IP attributes, current market circumstances, IP owner financial stability, and resource availability. Public research institutes and small and medium-sized businesses rely heavily on licensing agreements to ensure that innovations are fully commercialized. A higher rate of royalty or a larger initial investment is required for an exclusive license, but the value is higher since no one else can profit from the copyrighted idea. The patent provides the proprietor with the privilege to seek legal recourse from the national judiciary, requesting one or several injunctions to prohibit or deter activities that are deemed to infringe against the patent. The enforcement of IPRs is a necessary prerequisite for achieving effective commercialization in transactions involving intellectual property.