

Intellectual Property Rights and Economic Development

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Abstract

This essay offers a critical assessment of how a productive system of intellectual property rights (IPRS) may aid or impede economic development. IPRS can be useful in promoting the growth of new businesses, rationalizing unproductive industries, and stimulating the development of innovative technologies. By increasing the cost of copying and allowing monopolistic activity by IPRS owners, they may impair development prospects. The competitiveness of markets and the effectiveness of relevant corporate rules and laws, together with elements of competition policy and technological development policy, determine the potential profits and losses. The available empirical evidence on these subjects is examined in the study. The evidence is consistent with the idea that, while Foreign Direct Investment and technology transfer increase when patent rights are enhanced, product innovation is sensitive to IPRS in developing nations. Altogether, there is a benefit to growth, but this benefit is reliant on how driven the economy is.

Keywords: Intellectual property rights (IPRS), IPRS owners, corporate rules and laws, Foreign Direct Investment, economic development

INTRODUCTION

Intellectual property means a product created by human mind and intellect such as inventions, literary works painting and other artistic works and symbols, names and images used in the corporate world. It is commonly acknowledged that intellectual property rights (IPRs) contribute to global economies' overall growth. IPR policies can have an impact on an economy's growth in both the domestic and international markets. IPRs can encourage economic growth in the recipient nations through a variety of routes. The transfer of technology and its beneficial side effects are the most significant.

IPRs thereby influence economic growth, which calls for more productivity, which calls for increased technological innovation. IPRs have a stronger impact on average growth in open economies than they do in closed ones. Resources in developing nations cannot be traded for capital that can be employed for production, transferred overseas, put up as security for a loan, or used to buy shares because of lack of a strong property rights framework and understanding of it. As a result,

there is less technological advancement, continued high risk due to lack of collateral, increased borrowing rates, and higher costs associated with financial intermediation. The most significant benefit of IPRs is that they give local businesses in recipient nations' technical know-how and competitiveness, which they may employ to increase their economic opportunities.

This study points out how intellectual property rights are important for the economy in developing countries.

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Received Date: March 11, 2023

Accepted Date: March 23, 2023

Published Date: March 27, 2023

Citation: Sheetal Sharma. Intellectual Property Rights and Economic Development. Journal of Intellectual Property Rights Law. 2022; 5(2): 35–42p.

The Functions of Intellectual Property Rights and their Mechanisms

Any system of intellectual property protection has two main economic goals:

1. The *first objective* is to encourage investments in knowledge development, and commercial innovation by securing exclusive rights to use and market newly developed technologies, products, and services. Without these rights, economically useful knowledge could be occupied by rivals without any reward. Companies would be less eager to jostle the costs associated with financing research and commercialization initiatives. Defective IPRs have an adverse dynamic externality from an economic perspective. They fall short in addressing the issues of R&D uncertainty and competitive appropriation concerns that are intrinsic in the personal information marketplaces.
2. The *second objective* is to compel (or encourage) owners of intellectual property to make money off of their inventions and ideas in order to foster the widespread dissemination of new information. Information is a kind of societal good since it is fundamentally non-competitive and because its creators could find it challenging to forbid others from acquiring it. It is economically profitable to make innovative technology and goods broadly available at minimal manufacturing costs after they have been developed. These expenses might be fairly cheap because they might only require manufacturing a second duplicate of a CD or video or a blueprint.

These goals fundamentally trade off with one another. By lowering the incentives to share an invention's benefits, an excessively protective IPRs regime could restrict the social benefits of creativity. However, a system that is too ineffective could discourage innovation by failing to deliver a sufficient return on investment. Therefore, it is necessary to find a balance in policy that is appropriate to market circumstances and supportive of growth.

Grouping several types of IPRs together is deceptive because they all operate differently. It is therefore, useful to quickly outline the main methods. The first advantage of patents is the ability to halt the manufacture, transfer, importation, or use of a technology or product that is defined in the patent claim and that must demonstrate uniqueness and practical use. Devices that offer temporary monopoly rights for incremental inventions are industrial designs and utility models. Patent applications are typically made public after a predetermined period of time in most countries. In exchange for releasing technical information, patents thereby produce a protected commercial advantage. Several features of the patent scope have an effect on the strength of protection that is actually provided. The rights of plant breeders, which are subject to stipulations on their uniqueness and disclosure as well as other factors, are a similar sort of industrial property. They are designed to promote the creation and application of fresh seed types in agriculture.

The use of distinctive names and symbols to sell goods and services is protected by trademarks. In order to prevent misleading customers and play a crucial part in lowering consumer search costs, trademarks and brand names must be sufficiently distinctive. These rights motivate businesses to spend money on brand awareness and high-quality products. They encourage licensees to protect the value of assets by providing products with guaranteed quality standards [1]. If trademarks were not protected, rival companies may sell lower-quality copies of well-known brands as the originals. Incentives to maintain quality would be reduced in this scenario, and consumer search prices would increase. In competitive economies, market dominance through trademark abuse is generally thought to pose little threat, but in nations with substantial entry hurdles, such marks may be associated with significant market power.

Some business-generated ideas might not be patentable, might not be worth the cost of filing for a patent, or could be better off being kept under wraps. They prefer to keep the specifics of such processes hidden or under lock and key. Laws prevent competitors from discovering trade secrets through unethical means. This protection ends if the technology is obtained legally, such as by independent

invention or reverse engineering. It is advantageous to protect trade secrets because doing so encourages the development and commercialization of sub-patentable ideas. As a result, trade secret rules encourage learning by using the legal system to facilitate adaptive innovation.

The exclusive right to reproduce and profit commercially from certain manifestations of ideas after they have been fixed in a medium is granted to individuals by copyrights, which also protect computer software, literary, and artistic works. Copyrights for derivative works, performing and broadcasting artists' adjacent rights, and the moral rights of the original artists are a few examples of related IPRs [2]. Copyrights are subject to scope limitations for a variety of public policy reasons, just like patents. The fair-use doctrine, which permits making a finite number of copies for research and educational purposes, is the most important restriction.

Numerous technologies do not easily fall within these well-established protection subcategories. Some nations allow computer programmes to be patented due to the possibility that they have features of industrial utility in addition to their expressive components. Given that integrated circuit designs frequently incorporate artistic features and that technology advances swiftly in this sector, exclusive rights to these designs are typically granted for a shorter length of time than those granted to patents. In light of the possibility that standard copyrights may not be adequate for protecting this kind of content, two recent agreements made at the World Intellectual Property Organization seek to provide stronger protection in some areas for electronic transmissions of internet resources, broadcasts, and databases.

Patents for biotechnological breakthroughs and plant breeders' rights are particularly contentious topics, particularly in poor countries. Because biotechnology inventions may not fully embody an inventive step, it might be claimed that patents create significant and unnecessary protection in this field. To stimulate investment in these riskier technologies, however, according to representatives of biotechnology companies, patents are necessary. There are serious issues that giving the farmers unrestricted access to unique seed varieties for their own use and competitive research will eventually drive up farming prices and decrease biodiversity.

Enforcement is the last component of an intellectual property system.

Punishing free riders who break the law and punishing companies that try to exercise their rights in ways that are anti-competitive necessitate two opposing duties for such enforcement. To achieve these objectives, extensive legal and scientific information must be acquired.

Relation of IPRs with Economic Growth

Neoclassical economists like Adam Smith and academics like [3] recognized that productivity is influenced by saving rate, population growth, and technological innovation. Solow incorporated technology into the equation describing the production function. However, his paradigm uses exogenous technology. The primary problem with Solow's model is that technology is not factored into the equation for growth.

Convergence feature is a key assumption of Solow's model. Barro (2001) [4] links the idea of decreasing returns to the importance of capital in the neoclassical paradigm (technology). Lower capital per employee economies typically have higher rates of return and faster growth as compared to economies with higher capital per employee levels. The steady-state levels of capital and output per worker in the neoclassical model depend on factors that may vary among nations, such as the propensity to save, the pace of population growth, and the location of the production function features, making convergence conditional. The preservation of property rights, market distortions, and government policies on consumer spending are a few more international issues to take into account.

The neoclassical paradigm has been criticised for leaving technological advancement as an exogenous component. It lacked sufficient explanatory ability to explain output and forecast growth.

In order to account for economic output and long-term growth, economists are seeking more sophisticated methods.

The goal of developing endogenous growth models was to increase productivity, which is related to accelerating innovation and boosting human capital investment. Theorists of endogenous growth emphasise the need for markets and institutions in both the public and private sectors which encourage innovation and provide incentives for individuals to be creative.

Romer's (1986) theory states that competitive businesses that invest in knowledge generation can reflect positive, long-term growth rates without relying on exogenous technical development [5]. Romer's findings have been explored by a number of scholars. There have been substantial modifications and reinterpretations of the significance of human resource, imperfect competition, and infringement on intellectual property. Imperfect competition suggests that welfare might not be at its best. If you were a social planner, would you like to see more or less money going toward innovation? The fact that a monopolist generally cannot fully reap the social benefits of an innovation, indicates that inadequate private capital has been invested in it.

It has been suggested by Lucas (1988), Rebelo (1991), and Barro (1995) that the neoclassical model might be broadened to take into account human capital in the forms of education, expertise, and health [–8]. As per Gary Becker (1990), "embodied knowledge and capacities" make up human capital. He asserts that "economic progress depends on improvements in technology and scientific knowledge, hence development obviously depends on the accumulation of human capital" [9]. Human capital has two effects on economic expansion. First, according to Rogers (2003), increases in H will be correlated with changes in Y if human resource (H) is a production factor like in the formula $Y=f(A, K, H, L)$ (growth) [10]. Employees with greater education or experience generate more than unskilled labours do. Second, the rate at which other components accumulate may be impacted by the level of human capital. The task of evaluating human resource is difficult. In various studies, aggregate years of education were used to measure human resource [Barro and Lee (1996, 2000)] [11]. Development and modifications in educational capital, as per Benhabib and Spiegel (1994), are unrelated. But they find that changes in educational resource are related to the development of technology.

Falvey, *et al.* (2006) talked about the various ways people can buy technology. The level of development determines how IPR protection affects growth [12]. Other elements that encourage economic growth include market expansion, quality control, information diffusion on a national and international scale, and the composition of global R&D. Maskus and others (2005) [13]. How important is the policy climate in the host nation for more robust, effective IPR protections? It is important to comprehend the implications for wellbeing, according to Nair-Reichert and Duncan [14]. Increased protection's impact on wellbeing depends on how the economies are configured. If more protection provides for access to commodities that are not otherwise available, it may boost welfare in a small country with limited production and innovation capabilities. Higher levels of protection are likely to have a negative impact on welfare in a country with greater manufacturing capacity and the possibilities for repetition but restricted capacity for innovation as measured by its R&D Braga and Fink [15]. Higher standards of protection are also likely to drive out local producers, increase costs, and transfer rent from native consumers and producers to international titleholders [16].

Relation of IPRs with Economic Growth

Relation between IPRs with Economic Growth taken from Intellectual Property Rights and Economic Growth: The Case study of Middle Income Developing Countries [17] PERVEZ ZAMURRAD JANJUA and GHULAM SAMAD.

They suggested paradigm's definition of the process of economic growth. IPRs play a crucial role in the empirical concept, it is emphasised. It focuses emphasis to the growth of IPR-based industries via

international commerce, FDI, licencing, and R&D (innovation). The cumulative influence of IPRs on the economy via numerous channels will encourage development. The Figure 1 shows how IPRs and economic growth are related.



Figure 1. Relation of IPRs with Economic Growth.

When knowledge-intensive items traverse international borders, intellectual property rights (IPRs) have an impact on trade flows. Because patent holders and their rivals fight with one another to better inventions and generate new ideas, the patent system fosters technological and commercial rivalry. The impact of higher patent rights on commerce, according to Raffiquzzaman (2002) [18], is unpredictable because trade volumes simultaneously increase and decrease as a result of market expansion and the market power effect. Depending on which effect predominates, trade flows may decline if the market power effect is greater than the market growth effect. If the contrary happens, improved IPR protection will result in increased commerce.

According to Soete's (1981) [19] argument, international patent activity in a country can be attributed to R&D expenditures made by the country. There is a substantial body of evidence that shows that societal rates of return on R&D are far higher than private rates of return. These rates of return demonstrate the significance of R&D for economic growth and serve as one of the key arguments in favour of government support for R&D. Economic theory postulates that higher R&D levels have positive effects on the expansion of all productivity-enhancing elements. Helpman and Coe (1993) [20]. R&D output is computed by dividing the percentage of R&D stock used in manufacturing by the rate of return on R&D. The rate of R&D subsidies is determined by the elasticity of consumer demand for novel products. It is discovered that if the demand is more elastic, a stronger protection of Southern IPR will induce the North to increase the optimal subsidy rate. On the other hand, it is found that if the demand is less elastic, stricter Southern IPRs will push the North to reduce the appropriate subsidy rate Lin (2002) [21].

The Northern welfare rises while the Southern welfare falls in the steady state as long as the Southern IP protection is improved. The overall picture shows that in order to maximise welfare, a Southern IP protection regime that is neither as strong as the North prefers nor as lax as the South loves is required.

Economists have emphasised the role of foreign direct investment (FDI) and licencing in the process of economic growth. Access to foreign multinational companies' technological and managerial resources is made possible by these FDI and licencing flows. In developing nations, there is a wide range of empirical evidence about the relationship between IPRs and FDI. The conclusion reached by Mansfield, Lee, and Seyoum (1996) [22] and others is that the level of development and the country's IPR protection framework affect the amount and nature of investment. FDI and licencing are significant means of transferring technologies, claim Yang and Maskus (1998) [23]. Stronger patent rights and foreign direct investment (FDI) are not clearly correlated, according to Helpman (1993), Kondo (1995), and Katayama (2005), and other researchers [24–26]. However, Javorcik (2005) discovered empirical proof that the composition of FDI is influenced by the degree of IPR protection in the host nation [27]. For instance, because building up a production unit is more expensive than putting up a distribution network, weak IPR laws cause FDI ventures to switch from manufacturing to distribution.

According to Maskus's 2005 research, foreign direct investment (FDI) is influenced by the recipient countries' degree of technology (lower, medium, and high level) [16]. Investment in lower technology goods and services, such as hotels, electronic assembly, distribution, textiles and clothes, depends more on market opportunities than it does on the strength of IPRs. According to the study's findings, IPRs can be a useful instrument for attracting inward foreign direct investment, but, other factors including technical development plans, competitive regimes, and market liberalisation and deregulation are also essential.

Using Intellectual Property Rights to one's Advantage

Higher IPRs, it is usually believed, will promote significant new technical inflows, a boom in local innovation and cultural sectors, and a quicker closing of the technological gap between developing and developed countries. It must be acknowledged, nevertheless, that improved Intellectual property laws itself are very unlikely to yield such benefits. Compare the political systems of East Asian countries, many of which have recently altered, with those of sub-Saharan African countries, many of which have longstanding and quite potent laws (although with limited ability to enforce them) [1, 2]. The previous category receives little FDI and insufficient local and international patents. The latter group, which attracts the most of FDI to developing nations, is increasingly reliant on IP protection. It is possible that greater IPRs will not be enough to bring about technical advancement and transformation.

According to the studies stated above, IPRs may boost both domestic and international economic activity, albeit these advantages would depend on the context. Since situations in different countries vary substantially, IPRs should have a greater favourable impact on countries with complementary endowments and policies. The challenge for countries is to ensure that their new policy regimes function as proactive tools for promoting beneficial technical change, benefits for consumers, and innovation.

CONCLUSION

Intellectual property rights (IPRs) are widely recognised as one of the main forces behind economic development in underdeveloped countries. The Trade Related Intellectual Property Rights (TRIPs) agreement must be followed by developing countries because they are WTO members.

IPRs may either favourably or unfavourably advance growth and development, according to economic theory. Although there is little data, it suggests a positive correlation and is dependent on other elements that support the benefits of intellectual property protection. In conclusion, IPRs might provide practical, commercial answers to issues that arise in the sectors of information acquisition and transportation. However, their existence might cause problems due to the possibility of costs and anticompetitive exploitation.

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