

The Leverage Intellectual Property Provides to Businesses in an Increasingly Competitive World

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Abstract

In recent years, intellectual property has become not only a popular subject for discussion and study but a serious item on the agenda of politicians, policy makers and business people within and across countries. The role of intellectual property as a means of income, trade and national economic and technological development is growing by the day. Certainly, intellectual property has become one of the formidable pillars of technologically advancing countries. To that extent it has a magic ring to it. Yet, its role remains by and large unchanged. The purpose of this paper¹ is to assess what exactly is the role of intellectual property and to distil the critical importance it is occupying as an armour of businesses in an increasingly competitive world. Moreover, the increasing stress being placed in Singapore on overcoming current deficits in the manufacturing sector (as compared to the standings of foreign competitor's) in innovation and R&D work makes it necessary to highlight the corresponding role of intellectual property (IP) towards the same goal.

Introduction

In recent years, intellectual property has become not only a popular subject for discussion and study but a serious item on the agenda of politicians, policy makers and business people within and across countries. Gone are the days when one could declare confidently that intellectual property is “the common heritage of mankind”ⁱⁱ and not be taken to task. These days all sorts of praises are being sung to intellectual property. The role of intellectual property as a national source of income has been exemplified by the US persistent attempt to place it at the centre of international trade. The same has been underscored by the repeated US charge that piracy in China of US intellectual property is one of the principal causes (the other being alleged restrictive trade barriers) for the trade deficit the US is experiencing with that country. ASEAN too have raised a number of times the necessity of their having a common arrangement in intellectual property and agreed recently to work out an intellectual property regime applicable to them. Whether or not they have concrete concerns of a regional character (or a national one like the US) which made such a recourse necessary, the fact that they talked about and vowed to do something has added to the mystique of intellectual property.

Intellectual property has certainly become one of the formidable pillars of technologically advancing countries. To that extent it has a magic ring to it. Yet, its role remains by and large unchanged. The purpose of this paperⁱⁱⁱ is to assess what exactly is the role of intellectual property and to distil the critical importance it is occupying as an armour of businesses in an increasingly competitive world. Moreover, the increasing stress being placed in Singapore on overcoming current deficits in the manufacturing sector (as compared to the standings of foreign competitor’s) in innovation and R&D work makes it necessary to highlight the corresponding role of intellectual property (IP) towards the same goal.

Intellectual Property: The Concepts

Very often, intellectual property appears to the non-lawyer as an esoteric subject, one of the new subjects lawyers use to promote themselves or to make an impression where there is no real justification for it. At times too, the way in which intellectual property is presented to the public, as some useful but technical discipline which only the initiated need to understand very well, has not served the business community well. Obviously, the community **MUST** know a great deal more about intellectual property than is usually the case if it is to prosper and stay competitive in a world which is getting smaller and smaller.

Conceptually, intellectual property is a legal device. There can be no doubt on that score. States have pushed through various legislations recognising certain ideas or information as being worthy of protection. The very fact that the word ‘property’ is used indicates that intellectual property is a legal animal. However, it is a peculiar form of property in that it combines an assortment of non-tangible entities, some more ephemeral than others, sheltering behind and as adjunct to musical concerts, libraries, machines or consumer articles.

At the risk of gross simplification, we may define intellectual property as ideas and information which have commercial value either immediately or in the distant future. Such ideas do not have to be made up by a scientist or an engineer. For all that we care, the idea can be the fruit of an intuition or perspiration. It can be an Eureka or the result of long years of search (R&D). Hence, whatever may be suggested by the word ‘intellectual’ is no

reflection of the reality of intellectual property. There is nothing intellectual about intellectual property, solely that it is a work arrived at by humans, through ingenuity or luck. It is true that these days the level of ingenuity required for certain innovations has gone up and that organised R&D (run by departments in corporate bodies) is the rule rather than the exception. Nevertheless, intuitiveness and unpredictability in innovation remain mysteries to this day.

Indeed, an English judge dispensed with such a fine distinction when he ruled that “what is worth copying is prima facie worth protecting”,^{iv} suggesting that the boundaries of intellectual property can be drawn at the point where ideas have no significance for the maker or producer. You may consequently consider the above words of mine and start wondering if they cannot be protected by intellectual property on my behalf since they will be used by yourselves towards some beneficial decision in the management of intellectual property. The hunch will work to some extent. The words as combined and expressed do indeed become protectable under copyright law. However, the very words I have used cannot be protectable subject matter on my account for the simple reason that if you give me proprietary control over certain words of the English vocabulary, soon there will be no other user of the same words except myself and all of you out there will be deprived of something that you have always considered as free as the air.

So we can say bluntly that the protection of ideas and information can be about anything at all including words and devices that we use in everyday life. But such protection can be meaningful if society’s needs to use ideas in some way or other are recognised. Otherwise, social life becomes stifled and impossible. The necessity to allow society the use of certain ideas without hindrance, or after the originator has had his full benefits, or such benefit as his efforts and expenses in arriving at the ideas justify, is taken care of by making use of ideas conditional on certain requirements being met by the owner. Technical ideas must be used not indefinitely but for a set period of years. Thus patents enable an owner a monopoly over technical solutions during a maximum of 20 years; industrial designs from 10 years to 15 to 25 (depending on the law of what country you read). Non technical ideas such as general information of cultural, entertainment and instructional value are protected under copyright during the life of their makers (or authors) and for fifty years after their death.

There is therefore a constant tangle between private interests and the public’s need for access to more ideas and information. The boundaries drawn and redrawn in the various legislations of countries reflect this tangle. The state seeks to balance private rights and the public interest and this is done at all stages, in the designation of what is protectable and the manner of use of intellectual property. The exploitation of intellectual property is subject to certain limitations and exemptions from private rights. But in all situations there must be justifiable reasons why public rights should override the individual intellectual property owner’s rights to use it himself or allow others to do the same (on a licence).

Protection Of Intellectual Property

There are two sorts of laws that protect intellectual property. The majority of them may be called tailor-made laws because they are designed to cover specific forms of ideas, technical (patent law, registered designs law), non-technical (copyright law) and a mixture of both (trademark and service mark law). These three have been the classical forms used for many centuries in the developed countries. There have however been certain laws which have been introduced to fit specific situations because the existing three-form-intellectual property

classification was considered inadequate for a number of reasons we cannot go into now. Such are *sui-generis* laws. The best example is of course the US Semi-conductor Chip Protection Act of 1984 which set the format for all countries to follow (because the US was the leading semi-conductor producing economy at the time). All countries including those of the EEC and Japan embraced the new form although some (like Japan) had been convinced that copyright was the proper terrain.

These are not cut and dried boundaries. Indeed the appearance of *sui generis* legislation in the 80s designed to rescue the lucrative gains in the making of semi-conductors from being encroached upon by unscrupulous imitators (it being understood that copying chips costs infinitely less than the making of them) should indicate that if ever new technological innovations, new forms of information emerge that find existing formats inadequate states would step in to fill in what is missing. Should the internet or allied means of tele-communications be ungovernable, as seems evident more and more, under the existing laws and governments feel that the intellectual property underpinning them is unsafe from the point of view of the makers and right-holders, we should expect a change in the legal machinery. The important point is to be ready to continue with the new arrangements if such become chosen and emerge as norm.

Aside from these forms, there are general laws of contract and confidentiality (trade secrets, if you like) that can come to the assistance of an intellectual property generator or user. Although the effect of these laws is not direct and may not be the best alternative for a proprietor of information, they stiffen the available “tailor-made” legal schemes and complement them.

Each of the laws we have mentioned display a great deal of technicality and it may not be proper, nor is it possible, to cover them here. The technical side can always be found out through legal professionals or by having a thorough reading of the various legislations and commentaries. Our concern is to provide a conceptual approach to understand intellectual property. We seek to correct the wrong impression created in many minds about the totally legal nature of intellectual property. Intellectual property is more than a legal device. Indeed, it is less law and more economic and technology policy oriented. The less people think it is all about law, therefore, the better.

The idea of technology as the most critical element in economic development is now widespread. At any rate, from the 1960s onwards this thinking has permeated economists and policy makers in general so much that intellectual property policy is not left for lawyers to devise or develop. The greater one understands the role of technology in economic development, the more will one appreciate the bias inherent in intellectual property towards a link with technology, trade and economic policy and transactions as a whole. Thus it will be counter-productive to leave intellectual property matters to lawyers alone and to assume that they will take care of everything. Neither the understanding nor the exploitation of intellectual property can be the province of lawyers alone; those directing businesses should grasp the complexities and take full control.

Exploitation Of Intellectual Property

Viewed against the role of technology and commercial information in the economic standings of nations and businesses, it will not be hard to view intellectual property as the “jewel” in the

crown of business opportunities, as a demarcator of territory (hence of markets), as the “arsenal” in competition among businesses and as a means to “quasi-rent”. We will go into each function briefly.

As touched upon already, intellectual property often stays in the background forming just part of the scene and never appearing to dominate the transactions involved whether the production of books, the establishment of new wafer plants or the expansion of the internet. Yet it underpins every success whether through the conscious decision of the owner or by virtue of the protection available in law generally. The general understanding in society that certain ideas cannot be tampered with except with the consent of the owner or through the intervention of the state is to some extent effective in deterring imitation or piracy. However, the efficiency and dependability of the protective scheme is at a maximum only when the owner grasps the nature of the property in his hands and devises the best means to protect them. The laws enacted specifically to provide adequate cover for commercial ideas embody the basic proviso that the owner must choose to do certain things in order to gain that advantage. Consequently, the owner cannot sit back and expect adequate legal cover and protection from unwanted competition.

The measure of success in the protective system of intellectual property is always the gains that businesses reap from it. These days there are special reports on the impact of innovations. Some indicate how certain countries have managed to score in the race for stronger hold on markets and in gaining a larger share of the technology trade. Thus it is estimated that the share of “intellectual property-based” goods in the export of the US has been increasing from a bare 10% or so some 50 years ago to 37% in 1986, to 50% today. In 1993, the US reportedly netted \$60 billion from patent royalties alone.^v Other countries have come to recognise that their chances of success in the competitive world market to be dependent on their proper and conscious use of intellectual property. No doubt this explains the importance attached to the TRIPs arrangement under the World Trade Organisation.

It may be that the share of intellectual property in export performance or for that matter in the general production and exchange of goods cannot be accurately gauged but businesses have to start to do so. The establishment of an intellectual property department alongside R&D is now gaining currency. This will allow businesses to keep track of their intellectual property, build up a portfolio and work out a strategy of use by themselves directly or through licensing.

Implicit in the concept of property is the right to exclusive use. Intellectual property entitles the owner to erect an invisible wall around his creations, to establish an artificial boundary both within and beyond the conventional national frontiers. In effect, it allows the owner to lay an invisible line demarcating what is in his power to do without interference by others. If it is a patent, the owner’s consent is required not only to produce the patented article but to sell it. The owner may decide to produce in one country only, depending on the attractions of the resources available, and to market them throughout the world from that country. A result of this is that if a patent has been issued on the same invention in all the important countries, he has virtually a global monopoly over the making or supply of the specific product. Practically all countries have to wait until he decides to supply them or produce in them.

The power that an intellectual property owner wields in demarcating his territory and therefore market is the most important aspect of intellectual property. Some countries have attempted to set limits to this power but, so far, the trend has been towards further extension

of the power and not less. The thrust of the TRIPs is to allow owners to use intellectual property fully and to reduce the incidence of any excuses that states might conceive to curtail the power it bestows on them.

Of course, an owner is not obliged to use his intellectual property. In fact, an owner may choose any one of three things: to do nothing, to exploit his intellectual property directly or indirectly. This gives rise to the possibility of accumulation of rights in the hands of corporations which have the financial muscle and market power edge over their competitors. Unless the use of existing intellectual property to sustain their achieved power diminishes, companies may not feel the need to introduce the latest innovation. Until the old is really old (obsolete) or their competitors start on a new range of products, companies may afford to keep quiet about their intellectual property holdings or acquisitions and preserve them as “arsenal” for eventual use. The permanence of stiff competition means that firms should have ready “guns” to be fired at a moment’s notice. You may have noticed that the release of a new product by one company usually precipitates a counter-action by others through the issue of similar or competitive products.

Naturally, businesses which do not afford to keep a roaster of innovations as security in the permanent ‘war of attrition’ may prefer to gain from them by selling them or hiring them out. The collection of royalties, called “quasi-rent”, is a convenient tool that imposes no obligation on businesses, quite unlike the lease of an ordinary flat or land which might entail a quantum of responsibilities. Reaping benefits from one’s ideas in this way is perfectly legitimate and may be the main route to success particularly for small businesses which cannot marshal the resources to move into new lines or products.

Major Problems In Intellectual Property

Everyone is aware these days that the number one problem businesses face in intellectual property is unauthorised use by others. Those who have not paid the necessary sacrifice to come up with new ideas may seek to lie low until the ideas are in circulation and imitate them or covertly put them to use. This phenomenon is appropriately labeled ‘free-riding’. The danger to society that would flow from ‘free-riders’, namely the drying up of the latent pools of creativity, has been recounted many times. A number of theories have also been woven around the perceived danger. Yet, the threat in itself is not specific to intellectual property; indeed, it accords with the nature of property in general. Nonetheless, as in other areas of property, the law provides adequate channels of resistance and prevention or punishment against “trespassers’ and perpetrators of unlicensed use.

From the point of view of businesses, the major problems can be traced back to their lack of sufficient emphasis on the management and exploitation of intellectual property. The impact of such lapse on the performance and competitiveness of businesses is entwined, in the first instance, with the nature of the specific right in question. Thus, if the right consists of protection by secrecy only, the dangers for such ideas easily escaping into the public domain, that is for them becoming free goods for everyone to use, are obvious. Maintaining secrecy as part of a business strategy in the use of intellectual property is not impossible but demands great care and a deployment of resources to assure that the ideas remain under lock and key, so to speak.

Everyone knows that goods which are available for sale can be a subject of study and scrutiny by competitors with a view to bring out similar or rival products. Such a process, called reverse-engineering, may be perfectly legitimate where the goods are not covered by some form of intellectual property protection other than secrecy. If, however, secrecy is the only element, once the competing product has effectively copied the features of the secretly held product or process or system, then the idea becomes as good as announced to the world. Consequently, it is up to businesses to make serious appraisal of their options before deciding to use the secrecy route.

Again, if rights (such as 'know-how' or 'show-how' but not exclusively them alone) are supposed to be protected through contractual means, the problems of falling out with the other party, of delivering what might be effectively dangerous ammunition to a future competitor (so long as they are not going to stay in the contractual relationship for ever) cannot be discounted. Although the law (and the courts) will normally compensate the victim of contractual non-performance and those affected by betrayal of the confidence they have vested in allowing others to access their confidential information, the damages will never be equivalent to what the victim would possibly have made of the idea put at risk of disclosure to the public.

The use of the classical forms of protection too has potential pitfalls. Most important of all, they require conformity to legal criteria and failure to observe those might nullify the certificate or registration or the right as such. A patent obtained with too broad claims about what the invention might do will be a convenient target by all those aware of its limitations. The risk of possessing such patents might be forking out further funds in an attempt to stop willful imitators. Where the proper formats and arrangements in the recognition of intellectual property rights have not been followed, therefore, keeping up with the state of use of similar or competitive ideas and ascertaining any breach of the right might be difficult and costly.

This does not mean that the classical forms of intellectual property protection, patents, copyrights and trade or service marks have no problems. They may be potential nuisances to the owners if the owners do not appreciate what they actually allow them to enjoy. These rights do not translate themselves into dollars and cents without the owners using them or allowing other to deploy them in the production of goods or services. If a patent is a basis for rights in an invention, the inventor will have to work out the potential uses and start building the avenues to market the invention.

Lack of awareness as well as poor management of the intellectual property portfolio of a business will necessarily exacerbate all these problems. The possession and exploitation of intellectual property rights cannot be a chance activity. Either one has to keep track of what one has and devise appropriate strategy to manage, deploy and maintain them or one will lose not only the rights but be involved in making further expenditures to stay without liability.

Possible Solutions For Problems In Intellectual Property

The best solution can be the making of informed decision as to the form of protection a business would prefer or that might best suit the idea. Whether to keep the idea under wraps, patent it, or sell it outright is something one has to resolve if one is to recoup one's expenses. One cannot expect to gain anything after boasting of one's idea among admiring listeners who can choose to use it immediately or patent it, to the horror of the 'first inventor'. The

successful business is one which does not ignore major decisions regarding the administration and exploitation of freshly available ideas and wherever possible works towards establishing an image to cash on. You may have noticed that shops, supermarkets and restaurants are out to build a selling image, to erect a reputation. Even such seemingly minor things as the use of packaging devices, plastic bags are not left to chance, the idea being that the customer's recognition of quality of service and/or products be cemented by the packaging and marks of that particular business and endear him to the business for years to come.

The incorporeal, indeed ethereal, nature of intellectual property may not prompt businesses to count it among their assets and capitalise on it. But in today's world, managing the intellectual property portfolio has the same, if not more, commercial and strategic significance than any other component of a business. Some companies have already realised this and set up entire departments decked out with the necessary manpower and facilities to generate and commercialise ideas. We have already mentioned the potential use that an accumulation of such valuable resources may be put to. Businesses need to work out a strategy for exploitation and should avoid the temptation to depend solely on possessing an arsenal which goes into obsolescence without anything being done about it.

The use of intellectual property in the creation or sustenance of market power needs no elaboration. The deployment of such intellectual property as means of defence, as a backup in the escalating race to reach the summit of market share seems obvious. But the way to do it must be pre-planned and pursued professionally. The constant availability of new ideas will necessitate keeping up with R&D work and innovating all the time. The constant urge to innovate will not be paramount in all fields and some fields might require more strenuous applications of man-hours or funds. But the flow cannot stop, lest a business drops out and vanishes.

Loopholes That Harm Businesses

There may be many problems that businesses face in the management and exploitation of intellectual property. But here we concentrate on a few special situations that businesses will have to work hard to avoid. Even strategically thinking businesses may be vulnerable in certain circumstances. One of these is where employment contracts they sign with their staff do not specify who can or cannot claim intellectual property rights. The law does provide rules for determining this question if ever it becomes a problem. But the strategy adopted by businesses in their management of intellectual property (generation as well as exploitation) may be hampered if their choices are not designed into a legally binding obligation on their employees.

Often employees will have been in receipt of training, gradual skill improvements and in possession of company secrets. The way in which they will use their skills or the secret ideas they have been entrusted will depend in large measure on the clauses incorporated in the contracts they have signed. If ownership of information generated in the company and how it can be used or not abused are not clearly laid down, court battles may not be the proper means to regain the lost advantages the company was expecting from the employee but did not. Courts are open forums where disputes regarding sensitive information crucial for the existence of companies may be aired for the first time and competitors would avail themselves of the pleasant opportunity.

Thus the employment contract must state where and how secrecy is to be adequately maintained and how the business will treat any intellectual property that may result from the employee's activity. In the event that the employee is to be debriefed when he leaves, the company must put in his contract what the procedures will be. Sometimes the manual that comes into his possession, possibly also protectable ideas he may have memorised in the course of his employment will have to be pointedly included as returnable and confidential or as belonging to the company. Where this has not been done and the employee ends up with an innovation in his spare time but using the ideas he has been experimenting on in the company's premises, there will be a lot of wrangling to establish whether the employee or the company has ownership.

Another loophole businesses may leave unattended might be possession of a "bad" patent. In their haste to claim too much, companies may apply for and obtain patents that do not find enough support in the invention itself. In such situations, the business will present itself as a convenient target for potential competitors. Those which take the supposedly protected idea and exploit it without permission will either have to be stopped which will require further legal costs and other expenditures or the idea has to be abandoned as worthless. The cure will always be to start out with a plausible patent claim even if they cannot always be substantiable.

Intellectual Property In The Age Of Information

Everyone now talks of globalisation, that the world is a small village in which information is the most critical commodity. The gist of this repeated statement is that there are powerful economic forces utilising IP as effectively as they might be expected, on a global scale. The gains of the such forces, usually referred to as multinationals, is increased and guaranteed by the invisible flow of funds from every direction. Costs all businesses, whether domestic, regional or global incur will inevitably involve intellectual property use or supposed use. The more information becomes the central element in international trade, the value component that corresponds to intellectual property will definitely rise.

Parallel to this development, it may become more and more difficult to trace who owns what intellectual property and where and whether the rights are still valid or flimsy. But businesses will nevertheless have to live with the idea that nothing comes cheap and that the going will increasingly get tougher. The only cure is not to sit back and watch but to join the race to get part of the pie and, at the very least, sustain one's edge once it has become a reality. If it has not happened yet, the job will be certainly cut out for you: innovate, innovate, innovate and get the ideas flowing at the same as you devise the appropriate formula to keep your grip on them as firm as you possibly can.

ⁱ This paper started as a talk, "Legal Protection of Intellectual Property", delivered at the Business Clusters Seminar (TAPPING THE BENEFITS OF SUCCESSFUL INNOVATION) organised by the Singapore Manufacturer's Association at Jurong Country Club, Singapore, 21 November 1995.

ⁱⁱ This was expressed by the Chinese delegation at the UNCTAD conference on technology transfer in Bangalore, India, in 1981. Quoted by Michael D. Pendelton, "Chinese Intellectual Property--Some Global Implications for Legal Culture and National Sovereignty", 4 *EIPR* 119-121, 1993 at 119.

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^{iv} Peterson J in the famous case, *University of London Press v University Tutorial Press*, 1916.
^v Fred Warshofsky, *The Patent Wars*, 1994.