Insurance Patents: Indian Scenario

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The importance of intellectual property is well recognized in various industries but the Indian insurance industry has not yet opened its door to intellectual property. Whereas insurance companies world-wide are patenting various aspects of insurance products, the Indian insurance industry finds excuse in the argument that the Patents Act in India does not allow insurance products to be patented.

The paper explores various forms of intellectual property, with special emphasis on patents, which can be used to protect insurance methods and products. It attempts to undo the misconceptions about patenting insurance products and suggests by example, that insurance products can be protected under computer programs category.

Keywords: Intellectual property, insurance patent, insurance industry, computer program

Insurance is a contract that pledges payment of an amount on the happening of the event insured against. The Indian insurance industry dates back to ancient times and finds mention in the writings of Manu (Manusmrithi), Yagnavalkya (Dharmasastra) and Kautilya (Arthasastra). These ancient texts describe pooling of resources that could be re-distributed in times of calamities, such as fire, floods, epidemics and famine. Life insurance business in India started in the year 1818 and the general insurance business is more than 160 years old. At present, the products offered by Indian insurance companies can broadly be divided into three categories, namely, life insurance, general insurance and health insurance. Despite the long duration of the existence of the insurance industry and the wide range of products offered by them, no Indian insurance company has tried to protect the innovative products designed by them. The constitution of Insurance Regulatory and Development Authority (IRDA) in 1999 and the subsequent opening of the insurance sector for private companies, following the recommendations of the Malhotra Committee, have not brought about any major changes in this aspect. One of the various objectives of IRDA is to promote competition among insurance companies, so as to enhance customer satisfaction through increased consumer choice and lower premiums. It seems that IRDA, too, like the Indian insurance companies, is unaware of what intellectual property can do in promoting competition, else some kind of protection would definitely have been sought for by insurance companies to protect their innovative products. IRDA being a regulator, the responsibility to encourage the insurers to build innovative products and effectively protect them, squarely falls on its shoulders. Innovation is a key component in insurance market, be it through designing completely new products, or re-engineering existing products. Focus on innovation indirectly benefits conventional classes of business and brings in more business with better and more stable results. Importantly, it brings higher satisfaction to customers. The Indian insurance industry has long been serving millions of people. Now, they have the onus of protecting their intellectual property, as it will encourage them to produce more advanced products. The Indian liberalized insurance market presently has 24 general insurance companies, including the ECGC and Agriculture Insurance Corporation of India, and 24 life insurance companies which are yet to understand that their business shall be complemented by intellectual property.

Intellectual Property in the Insurance Sector

Intellectual property (IP) is no longer an unfamiliar term, but for the Indian insurance industry. While the economic benefits of a strong IP are well-known and, beyond any doubt; strong IP promotes innovation, forms an important part of a company’s portfolio and helps in acquisitions and mergers. But, the Indian

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insurance industry appears to be oblivious to the above facts. As compared to the US insurance industry, where the number of patents has increased many fold after the State Street case, there has been no increase in patenting activity in the Indian insurance sector. The Indian insurance industry, in general, has never placed much value on ingenuity or invention.

**Forms of IP Protection**

A patent, by definition, is an exclusive right granted by the government to make, use or sell the patented products. In other words, none other than the patent holder can manufacture or market the patented product. This in itself appears to be a sort of insurance. A patent is the best form of IP to protect insurance products.

Copyrights protect the expression of ideas rather than the idea itself. Although obtaining a copyright is less stringent than a patent, it is advisable to obtain a patent rather than a copyright for an insurance product because the claims are well defined in a patent.

Trademarks identify the source of the goods or services, rather than the goods or services themselves. A trademark is any word, name, symbol, sound, etc. that one uses in commerce to identify and distinguish one’s goods from that of others. For instance ‘LIC’ is synonymous with and the trademark of Life Insurance Corporation of India. A trademark (or service mark) is ideal to generate goodwill to the supplier.

Trade secrets are similar to patents in the type of material covered, but only last so long as the material or concept is secret. A trade secret is a formula, pattern, device or compilation of information used in business that gives one an opportunity to get an edge over competitors. Trade secrets can be of unlimited duration but their essence is secrecy.

**Patent Insurance vs Insurance Patent**

Patent insurance is an insurance policy provided by insurance companies to protect or insure a patent. Patent insurance is of two types: ‘patent liability insurance’ and ‘patent pursuance insurance’. Patent liability insurance is a defensive instrument, which helps the insured fight an infringement lawsuit filed by a rival company. It is also called ‘patent infringement defence insurance’. In this case, the insurance company pays a part of the legal expenses incurred and/or the damages imposed. Patent pursuance insurance, on the other hand, is an offensive instrument, which aids the insured fight against a patent infringing company. This is also called the ‘patent enforcement insurance’ or ‘offensive patent insurance’. In this case, the insurer pays a portion of the legal expenses incurred by the insured company.

Insurance patent on the other hand is patenting an insurance product. It is just another kind of patent obtained for an insurance product. Insurance patents largely comprise of business method patents. Patenting insurance policies and other financial vehicles is a growing trend world-wide. Insurers, investment bankers and money managers patent aspects of policies and their administration, pricing and underwriting, as well as innovative financial products and services. A patent can be obtained in various areas of insurance, like reversionary annuity, loan repayments in the event of disability, better methods to market insurance products, methods for insurance underwriting, new methods of calculating premium, etc. Such a trend could transform the Indian insurance industry, which has traditionally been a ‘follow-the-leader’ market.

Both patent insurance and insurance patents are largely unknown in India; the latter will be described more in detail in this paper.

**Dearth of Patents in the Indian Insurance Industry**

The reason cited by the Indian insurance companies for lack of patents is that patenting insurance products is not allowed by the Patents Act of India. But nowhere in the Patents Act 1970, or its various amendments, is there a reference to insurance products as being non-patentable subject matter. The companies cite Section 3(k) of the Patents Act, which prescribes that ‘a mathematical or business method or algorithms’ are not patentable. In the world of insurance, innovation leading to a patentable invention almost always involves what is called a ‘business method.’ A business method is an abstract idea of a new or better way to do business. But, an abstract idea alone is not patentable. Typically in the insurance industry, the abstract idea is made practical as a computer implemented business method. Nevertheless, patents cannot be filed under business method category in India as the Patents Act does not recognize business methods as invention. The only option left for insurance companies is to file the patents under the computer programs category. Needless to say,
patenting of computer programs per se is not allowed, but their application may be patented and hence the computer implemented business method can be patented under the application category of computer programs. Since most of the innovations in the insurance sector involve computer programs, this may be a viable solution for patenting insurance products, yet it must be clarified that insurance patents need not be necessarily associated with a computer.

**Computer Programs and Insurance Patent**

There is considerable ambiguity regarding patenting of computer programs under the Patent Act in India. According to Section 2(1)(j) of the Patents Act, an ‘invention means a new product or process involving an inventive step and capable of industrial application’. The new process ought to include software processes, if it is new, involves an inventive step and capable of industrial application.

Significantly, the Patents (Amendment) Act, 2005 does not define a mathematical / business method, a computer program per se or an algorithm. Thus, there is wide scope for development of new insurance products and improvement of existing products. For example, improved method of underwriting, a new method for evaluating claims, inflation provisions in annuity related policies, etc. could be insurance product innovations.

The business of insurance involves the projection of the outcome of stochastic processes, of future contingent events, such as:

- Claims development (for general/property and casualty insurance)
- Mortality/morbidity (for life and health insurance)
- Investment returns (for all types of insurance) and
- Investment contracts

In addition, insurance involves asymmetric risk. As a result, actuarial estimates can be enhanced in many cases by the use of stochastic modelling. In insurance, the process or method of developing a product can be patented through smart drafting of the claims. There is extensive use of software and calculations in designing an insurance policy. A software program that merely manipulates numbers will not fulfill the patentability criteria, but if the resulting numbers can make a useful product then the software does qualify for a patent. The importance of a patent based business transaction is well evidenced in the following case where in November 1997, Texas Instruments paid a staggering US$ 395 million to acquire Amati Communications, a small California based company founded by Prof Cioffi at Stanford University. The figure surprised many, as it appeared extremely high, given Amati Communication’s annual sales and financial situation. Why did a large semiconductor company pay such a high price for a small Silicon Valley start-up? The answer was simple. Amati Communications held 25 key patents on digital subscriber line (DSL) technology, which Texas Instruments considered crucial for entering the DSL market. The 25 patents covered some important areas of next-generation modem technology which have been adopted by the American National Standards Institute as the standards for DSL. Owning Amati Telecommunication’s patents allowed Texas Instruments to acquire a leading position in the new technology as well as promising profits from licensing the technology to other firms.

The most apt example for the insurance companies is the patent no 221272 (ref. 3) granted by the Indian Patent Office. The patent was issued for a computerized system and method of performing insurability analysis. The invention relates generally to insurance underwriting and, particularly, to a computerized system that gathers underwriting information, evaluates risk, and produces a point-of-sale decision on a client’s insurability. Automated underwriting systems ask for personal details needed to make underwriting decisions. A risk assessment interview begins with questions designed to prompt the applicant to disclose pertinent conditions. These questions are the same as the questions printed on a traditional insurance application form. Depending on the answers to the opening questions, known automated systems prompt the disclosure of further information about various conditions. Often, each condition disclosed by an applicant will have a set of associated perceptive question which are designed to gather further specific details in a controlled manner. The applicant’s characteristics and his or her answers to previous questions determine the order in which questions are asked in the assessment. For each applicant, questioning continues until an underwriting decision can be made. Conventional underwriting, including automated underwriting using such an interactive risk assessment questionnaire, yields an underwriting decision for various conditions based on detailed information about each disclosed condition. It is also known to refer complex cases to manual
underwriting. The system thus reduces the time span between proposal submitted and its acceptance.

Insurance patents need not be merely software or algorithms. In United States, Progressive Insurance, for example, recently patented its ‘pay as you go’ auto insurance invention. The patent describes logical steps to determine the insurance cost for a vehicle based on the operator profile and monitored driving characteristics. The invention uses a computerized GPS plus cell phone system to monitor driving characteristics. Since this is the first method to implement a ‘pay as you go’ auto insurance product, Progressive Insurance has been able to claim exclusive right to any method of insuring a vehicle that incorporates all its steps, irrespective of whether or not a computer or any other specific piece of equipment is used to carry it out.

US Case Studies

Innovative business processes could not be patented in the US until 1998. The patent-protection landscape changed radically in 1998 after a federal court struck down a decade old doctrine that held that business methods and processes fall outside the purview of the US patent system. The 1998 decision also held that nearly all inventions implemented by a computer software program were potentially patentable so long as they produced a useful, concrete, and tangible result. The case involved two Boston-based companies: State Street Bank and Trust, the largest mutual fund data processing organization in the United States, and Signature Financial Group (SFG), a small firm that had developed a system for implementing an investment structure for the administration and accounting of mutual funds, which allowed mutual fund companies to pool assets in an investment portfolio, providing economies of scale with regard to cost. When licensing negotiations broke down, State Street filed suit claiming SFG’s patent was invalid. Visa and MasterCard, filing friend of the court briefs, backed State Street. The financial services community claimed SFG’s new model was a threat to its operational freedom. But the software companies argued that they needed the creative latitude to protect innovation. Without patent protection, they claimed it would be difficult to finance the development of new products, concepts and technology. The trial court agreed with State Street, holding the patent invalid because the invention involved software for the mathematical processing of data and because that processing amounted to a method of doing business. An appeals court overturned the decision and held that inventions based on mathematical algorithms, formulas, or calculations can be patented so long as they produce a ‘useful, concrete and tangible result.’ The court also held that business methods were patentable, expanding the definition of what can be protected to include new business methods. The ruling gave innovators a new tool to enhance their value, and small companies who pioneer new business models can now conduct business on an equal footing with competitors many times their size.

Interest in patenting insurance products or concepts has been continuously growing in US.

Insurance related patents in US are patented under subclass 4 of class 705 reserved for insurance business methods, which are described as computer implemented systems or methods. These methods include processes for writing insurance policies, processing insurance claims, marketing insurance, and ways of structuring or packaging insurance products so as to produce new and useful results, such as insurance at reduced cost, reduced or spreading of risk, tailoring benefits to specific needs or claim exposures.

What can the Indian Government do?

Section 3, Clause (k) of the Indian Patents Act stipulates that ‘a computer program per se,’ (besides certain other restrictions) shall not be an invention. Since India is a party to the TRIPS Agreement, it should provide equal protection accorded in other countries in line with the purpose of paragraph 1 of Article 27 of TRIPS Agreement, which provides that ‘any inventions, whether products or processes, in all fields of technology’ shall be patentable subject-matter. The onus rests on the government to modify the Patents Act so that business methods become patentable subject-matter; thereby encouraging the insurance industry to innovate. Moreover, there is a lack of complete clarity in the Patents Act regarding patenting of software and computer programs. Hence, the government of India should make necessary modifications in the Patents Act to clear the cloud of confusion and promote innovation.

Conclusion

As technology advances in leaps and bounds, the business world including insurance business, takes rapid strides. New product development requires
investment of manpower and capital and there is always a need to ensure that the fruits of development go as far and as long as possible to maximize return on investment. Innovations need to be protected at any cost and the current laws or regulations should not come in the way of innovative spirit. In the highly regulated insurance industry, companies might resort to the idea of insurance development labs which shall focus only on developing insurance products. With the establishment of insurance development labs, an insurance company might become a pure product manufacturer by getting rid of its product development function and costs and buying or licensing products from others. This already has happened in the pharmaceutical industry where pure product development companies are playing a wider role in the drug discovery process. It is well known that a patent adds value to an invention. It is for Indian insurance companies to stop neglecting intellectual property in product development. The rules have to change if the insurance companies want to offer to their customers innovative products at lower premiums and increase their market share in the highly competitive business they are in. The insurance sector is a colossal one and is growing at a rate of 15-20 per cent and if it is to continue at this rate, then the insurers and their agents must be prepared to succeed and be profitable in a new environment, in which intellectual property will be protected by more than just the traditional trademark or a copyright.

References
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