2. Incremental Innovations and the Existing IPR System in Sri Lanka

'A nation that does not invent and produce new things cannot prosper in this world, but will lie lamenting, being unable to beg'.
Munidasa Kumaratunga[202]

2.1. Introduction

Innovation has paved the way for many countries to succeed in becoming globally competitive. Today, human creativity is the cutting edge factor for success.[203] Viewed through the lens of a well-respected Sri Lankan intellectual and poet, Munidasa Kumaratunga, a country, an enterprise or an individual who does not look for new things and innovative ways cannot rise in a competitive world.[204] The same is certainly true for many developed and developing counties, especially in the face of current global economic slowdown. Invention and innovation are no doubt the driver of economic growth and development of a country. Their protection lies at the heart of intellectual property which emanates from the need to reward innovation and creativity. Intellectual property (IP) is a form of knowledge which societies have decided can be assigned specific property rights.[205] IP rights are becoming an increasingly essential foundation for innovation

202 M Kumarathunga, *Virith Wakiya* (Godage Publishers 2000) i.

203 A Dharmasiri, 'The Triple 'I' for Transformation' *Daily FT* (Colombo 20 June 2011), available at: <http://www.ft.lk/2011/06/20/the-triple-%E2%80%98i%E2%80%99s-for-transformation/> (accessed 30 August 2011).

204 M Kumarathunga, *Virith Wakiya* (Godage Publishers 2000) i. See also, DM Karunaratna, 'Copyright – Current System in Sri Lanka' *The Daily News* (Colombo, 30 October 2004), available at: <http://archives.dailynews.lk/2004/10/30/fea13.html> (accessed 20 May 2011).

205 Commission on Intellectual Property Rights, *Integrating Intellectual Property Rights and Development Policy* (London 2002) 11-12 (The Commission's definition, Intellectual property (IP) rights are the rights awarded by society to individuals or organisations principally over creative works: inventions, literary and artistic works, and symbols, names, images, and designs used in commerce).

and economic growth in the 21st century.[206] The concept of 'intellectual property rights' embraces a set of legally enforceable rights resulting from intellectual activity in the industrial, scientific, literary or artistic field.[207] The term 'intellectual property' has been used for almost one hundred and fifty years to refer to the general area of law that encompasses copyright, patents, designs, and trademarks, as well as a host of related rights.[208]

In brief, intellectual property covers a range of personal property rights attached to various products of the human mind.[209] It is intangible (i.e. not attached to any physical object in which creation may be embodied) and as a result IP rights are not enforceable by possession, but by law.[210] In the eyes of economists, the subject matter of IP rights by their nature are 'non-rivalrous' and non-excludable. Non-rivalrous means one person's enjoyment of the good does not prevent another's ability to enjoy it. Similarly, the subject matter of protection is non-excludable because one person cannot prevent other persons enjoying the good. In this sense, unlike physical property, knowledge, ideas and creations are considered as a 'public good'. This does not mean they are funded with public money. It means that, as soon as they are created, they instantly inure to the benefit of the general public.[211] In other words, everyone can take a free ride on the labour of persons who create public goods.[212] Most notably, IP rights exist as instruments of legal and economic policy of an individual country.[213]

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206 Business and Industry Advisory Committee (BIAC) to OECD, Discussion Paper on 'Creativity, Innovation and Economic Growth in the 21st Century: An Affirmative Case for Intellectual property Rights (Paris, December 2003) 6.

207 DM Karunaratna, *Elements of the Law of Intellectual Property in Sri Lanka* (Sarasavi Publishers 2010) 15.

208 L Benlty and B Sherman, *Intellectual Property Law* (3rd edn, OUP 2008) 1.

209 M Coulter, Protection in Ideas: The Patent Question in Mid-Victorian Britain (Thomas Jefferson University Press 1991) 2-3.

210 M Elmslie and S Portman, *Intellectual Property: The Lifeblood of Your Company* (Chandos Publishing 2006) 13.

211 EE Johnson, 'Intellectual Property and the Incentive Fallacy' (2012) 39 Florida State University Law Review 623, 629.

212 Ibid. See also, RG Bone, 'A New Look at Trade Secret Law: Doctrine in Search of Justification' (1998) 86/2 California Law Review 243, 263. RH Coase, 'The Lighthouse in Economics' (1974) 17/2 Journal of Law and Economics 357, 359-360. A classic example of public good is a lighthouse. It is extremely difficult to exclude ships from the navigational benefits a lighthouse provides, and all ships can enjoy this benefit without reducing its availability to others).

213 WR Cornish, 'The International Relations of Intellectual Property' (1993) 52/1 Cambridge Law Journal 46, 46-47.

Nevertheless, creating exclusive rights over information through IP rights has its own downsides. In hindsight, IP rights can of course generate social costs that would exceed perceived benefits. One of the vehement critics on IP rights, C.G. Weeramantry, has listed IP in scientific knowledge as a source of possible denigration of the right to share in scientific advancement and benefit.[214] Thus, one needs to recognize that, despite its importance, IP is not a sacred cow; it is merely a body of law which is intended to act as a measure of achieving a particular set of ends.[215]

2.1.1. Philosophical Underpinnings of IP

This section also merits a brief understanding of philosophical roots of IP protection. The philosophical richness of the justification of IP rights can be viewed through economic, moral, cultural and political dimensions.[216] Interestingly, the importance of innovation in economic thinking can be traced as far back as 1776. In his famous treatise on the *Wealth of Nations*, Adam Smith notes that 'the invention of all those machines by which labour is so much facilitated and abridged seems to have been originally owing to the division of labour'.[217] Although IP is not rooted in conventional property rights, it does not lack philosophical underpinnings. Several theories have been advanced to explain why society needs to grant IP rights. According to a leading study by Fritz Machlup, there are four well-known justifications for IP protection.[218] They are, namely, the 'natural-law' thesis, the 'reward-by-monopoly' thesis, the 'monopoly-profit-incen-

214 J Phillips and A Firth, *Introduction to Intellectual Property Law* (4th edn, Butterworths 2001) 7. (CG Weeramantry, one of the renowned academics from Sri Lanka and former vice-president of ICJ made his remarks in *The Slumbering Sentinels* (1983).

215 J Phillips and A Firth, *Introduction to Intellectual Property Law* (4th edn, Butterworths 2001) 9.

216 W Davies and K Withers, 'Public Innovation: Intellectual Property in a Digital Age' (Institute for Public Policy Research 2006)13-14.

217 WIPO, World Intellectual Property Report: The Changing Face of Innovation (2011) 77.

218 F Machlup, *An Economic Review of the Patent System* (1958) Study No. 15 of the Subcommittee on Patent, Trademarks and Copyrights of the Senate Committee on the Judiciary 20.

tive' thesis, and the 'exchange-for-secrets' thesis. Interestingly, natural right and moral reward theories are based on non-economic arguments.

Even more significantly, different jurisprudential approaches offer different rationales to justify IP protection.[219] The 'natural-rights' school of thinking assumes that the creator or inventor has a 'natural' property right in his intellectual achievement and society is morally obliged to recognize and implement his property right.[220] It has also been argued that everyone has a natural right to the results of his or her creative labour. This argument is founded on the Lockean 'labour desert theory'. John Lock, in his famous *The Second Treaties on Government*, has advanced the argument that everyone has a property right in the labour of his own body.[221] However, to the contrary, the utilitarian school of thought focuses less on how IP is created but more on its consequences. According to the utilitarian justification, IP rights are necessary because they contribute to general economic welfare.[222] In order to achieve this goal, property rights are granted to authors and inventors as an incentive to create and innovate, but some aspects must remain in the public domain to preserve future creations and innovations.[223]

Most significantly, according to some commentators, this utilitarian approach to IP is echoed quite clearly in the United States (US) Constitution,[224] which gives the US congress the power 'to promote the progress of science and useful arts, by securing for limited times to authors and inventors, the exclusive right to their respective writings and discoveries'.[225] This ideology is reinforced by the 'reward-by-monopoly' thesis, according

219 See generally, T Cottier and C Germann, 'Teaching Intellectual property, Unfair Competition and Anti-trust law' in Y Takagi, L Alliman and MA Sinjela (eds), *Teaching Intellectual Property: Principles and Methods* (WIPO 2008) 130, 134.

220 Ibid.

221 See C Colston and J Galloway, *Modern Intellectual Property Law* (3rd edn, Routledge 2010) 45.

222 E Derclaye, 'Intellectual Property Rights and Human Rights: Coinciding and Cooperating' in Paul LC Torremans (ed), *Intellectual Property and Human Rights: Enhanced Edition of Copyright and Human Rights* (Wolters Kluwer 2008) 136.

223 Ibid.

224 See Article 1, para 8, Section 8, *The Constitution of the United States of America (U.S.A)*, adopted in 1787. However, it might also be argued that the Constitutional IP clause mirrors natural right theory influenced by John Locke's social contract theory.

225 W Davies and K Withers, 'Public Innovation: Intellectual Property in a Digital Age' (Institute for Public Policy Research 2006) 14.

to which a creator or an inventor should receive a reward for his or her services in proportion to their usefulness to society.[226] Apart from these traditional justifications, more recently, the 'incentive-to-commercialize' or the 'incentive-to-invest in further development' thesis or so-called 'prospect theory' has attracted considerable attention to rationalize granting exclusive rights over the fruits of human intellectual effort and ingenuity. In essence, though, the incentive theory remains the dominant view of IP rights and it can also be traced as the 'engine of IP policy'. The incentive theory, in fact, holds that legal protection in the form of exclusive rights is granted by society to creative people as an economic incentive to engage in creative efforts.[227]

As is known, intellectual property is traditionally divided into two branches; namely, 'industrial property' and 'copyright'. In the strict sense, industrial property covers inventions and industrial designs, though it can possibly include trademarks, geographical indications and protection against unfair competition etc. But in the latter, the aspect of intellectual creation, although existent, is less prominent.[228] For the purposes of this chapter, industrial property will be considered with regard to patent and design regimes in Sri Lanka. Thus, the following analysis is limited in scope to ascertain whether and to what extent each system offers protection for incremental and minor innovations.

2.2. Patent Protection in Sri Lanka

2.2.1. A Brief Overview

The term 'patent' derives from the Latin verb *patere*. Patent, the adjective, means 'open', and patent, the noun, is the customary abbreviation of 'open letter'.[229] The official name is 'letters patent', a literal translation of the

226 T Cottier and C Germann, 'Teaching Intellectual property, Unfair Competition and Anti-trust law' in Y Takagi, L Alliman and M Sinjela (eds), *Teaching Intellectual Property: Principles and Methods* (WIPO 2008) 130, 134.

227 Kinney and PA Lange, *Intellectual Property Law for Business Lawyers* (2010-2011 edn, West Publishers 2010) para1:1.

228 WIPO, Intellectual Property Handbook: Policy, Law and Use (WIPO, 2004) 3.

229 F Machlup, *An Economic Review of the Patent System* (1958) Study No. 15 of the Subcommittee on Patent, Trademarks and Copyrights of the Senate Committee on the Judiciary 1.

Latin *litterae patentes*. Letters patent are official documents by which certain rights, privileges, ranks, or titles are conferred.[230] Patents are legal instruments used in economic life.[231] Economists view patents as a policy tool aimed at fostering innovation and diffusion of technology which would result in economic growth.[232] In the eyes of law, a patent is a legal title protecting an invention.[233] Defined more accurately, a patent confers the right to secure the enforcement power of the State in excluding unauthorized persons, for a specified number of years, from making commercial use of a clearly identified invention.[234] Patents grant their owner a set of rights of exclusivity over an invention (a product or process that is new, involves an inventive step and is susceptible of industrial application) as defined by the 'claims'.[235]

The legal protection conferred by a patent gives its owner the right to exclude others from making, using, selling, offering for sale or importing the patented invention for the term of the patent, which is usually 20 years from the filing date, and in the country or countries concerned by the protection.[236] The rationale underlying the patent system is to encourage invention and technical progress by providing a temporary period of exclusivity over the invention in exchange for its disclosure.[237] This *quid pro quo* rewards the patentee for investing, in most circumstances, substantial time and recourses in researching and developing an invention, by awarding the most powerful IP right.[238] Moreover, under the disclosure theory,

230 Ibid.

231 Organisation for Economic Co-operation and Development (OECD), *Patent Statistics Manual* (OECD 2009) 18.

232 See D Encaoua and D Guellec and C Martínez, 'Patent Systems for Encouraging Innovation: Lessons from Economic Analysis' (2006) 35/9 Research Policy 1423, 1423.

233 See, Article 28 of the Trade-Related Intellectual Property Rights (TRIPS) Agreement.

234 F Machlup, *An Economic Review of the Patent System* (1958) Study No. 15 of the Subcommittee on Patent, Trademarks and Copyrights of the Senate Committee on the Judiciary 1.

235 A claim form part of the specification. The specification is essentially a description of the invention and the best method of performing it.

236 Organisation for Economic Co-operation and Development (OECD), *Patent Statistics Manual* (OECD 2009) 18, 18.

237 Ibid 21.

238 J Henderson, 'Is the Application of Science and Technology a Necessary requirement for Patentability' (2009) IP Forum 29. According to Elizebeth Pesses, the

patents are considered as a contract between two parties: society and the inventor. Each party has its rights and obligations.[239] According to commentators, without patents, ideas have little protection. As soon as a product implementing a new idea hits the market, anybody can copy it and compete with the original producer without incurring the initial costs of invention and product development.[240] A patent thus gives its holder a lengthy breathing-space to enable the invention to be developed and marketed without competition, except from non-infringing substitutes. In this way, the patent holder can recoup his investment. The economic theory holds that the introduction of patent protection into a country will entail sacrifices in static efficiency, to the extent that it stimulates innovation, it may in the long term improve dynamic efficiency.[241]

2.2.2. The Origin of the Patent System

Although the modern patent system originated in the Renaissance city of Venice in the fifteenth century, the earliest form of patents might have existed in 500 BC in Sybaris, a Greek colony in southern Italy where monopolies were granted to new dishes for a period of one year.[242] What is

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patent system is often viewed as 'a carefully crafted bargain that encourages both the creation and the public disclosure of new and useful advances in technology, in return for exclusive rights for a limited period of time. This exchange is the '*quid pro quo*' of patent law.

239 P Weiss, *Patent Policy* (Rautledge 2010) 28.

240 D Vaver, 'Sprucing up Patent Law' (2011) 23 Intellectual Property Law Journal 64, 64-65.

241 See UNCTAD-ICTSD, *Resource Book on TRIPS and Development* (Cambridge University Press 2005) 364-365. Static efficiency, is achieved when there is an optimum utilization of existing resources at the lowest possible cost. Dynamic efficiency is the optimal introduction of new products or products of superior quality, more efficient production processes and organization, and (eventually) lower prices over time.

242 JN Adams, 'History of the Patent System' in Toshiko Takenaka (ed), *Patent Law and Theory* (Edward Elgar 2008) 101. See also, GA Nord, *The Law of Patents* (Kluwer Law 2008) 4-5 (Quoting from the historian Phylarcus, the Greek writer Athenaeus states: "The Sybarites, having given loose to their luxury, made a law that... if any confectioner or cook invented any peculiar and excellent dish, no other artist was allowed to make this for a year; but he alone who invented it was entitled to all the profits to be derived from the manufacture of it for that time; in order that others might be induced to labour as excelling in such pursuits").

remarkable is that the very idea of an incentive-based system has prevailed for over 2000 years and it has been closely tied to human civilization. Nevertheless, the patent system in the modern sense has its origin in Venice. Under the ground-breaking Venetian Statute of 1474 'men of great genius, apt to invent and discover ingenious devices' were encouraged and rewarded by the grant of a monopoly right for ten years over any 'new and ingenious device' which they invented and disclosed.[243] Thereafter, the British Statute of Monopolies in 1624 marked another milestone in the patent history of Common Law countries. Last, but certainly not least, the US Patent Act of 1790 established the US patent system with a constitutional mandate. According to Abraham Lincoln, the only United States President to ever issue a patent, 'the patent law added the fuel of interest to the fire of genius, in the discovery and production of new and useful things'.[244] Not surprisingly, by the second half of the 19th century, many countries had recognized the value of the patent system as a tool for technological and economic development; consequently, several systems for the protection of inventions were established.[245] In the realm of ancient Asia, though, exclusive rights of inventors were unknown.[246] Nevertheless, inventors were not forgotten and they were often held in high honor. In countries like China and Persia, periodic prize awards (for Chinese silk and Persian rugs) had been granted.[247]

2.2.3. The Introduction of Patent Law in Sri Lanka

Like any other IP right, a patent is a territorial right. Historically, the concept of patents, and consequently of IP rights, came into existence in Sri Lanka during the British colonial period, when the British Inventors' Ordi-

243 A Fitzgerald, *LBC Nutshell Intellectual Property* (2nd edn, Lawbook 2002) 144.
244 Abraham Lincoln, Second Lecture on Discoveries and Inventions (11 February 1859).
245 WIPO-Committee on Development and Intellectual Property (CDIP), Patent Related Flexibilities in the Multilateral Legal Framework and their Legislative Implementation at the National and Regional Level- Document prepared by the Secretariat (CDIP/5/4, 1st March 2010) 4.
246 FD Prager, 'The Early Growth and Influence of Intellectual Property' (1950) 34/2 Journal of Patent Office Society 110.
247 Ibid.

nance of 1859 became applicable to Sri Lanka (then Ceylon).[248] Perhaps even more significantly, the first Sri Lankan patent had been granted to a British engineer in January 1861 for the invention of a coffee pulping machine.[249] That law was replaced by the Patent Ordinance of 1906 which was based exclusively on the English Patent Law and was in force until the enactment of the Code of Intellectual Property Act No. 52 of 1979.[250] After the introduction of new economic policy, namely, the free market economy in 1977, the patent regime gained significance in the country's new industrial, technological and agricultural strategies. Thus, the Code of Intellectual Property Act marked a turning point in the evolution of the intellectual property system in Sri Lanka and it enacted, among others, the law relating to patents.[251] The Intellectual Property Act No. 36 of 2003 replaced the Code of Intellectual Property Act No 52 of 1979.[252]

The new Act was introduced to bring the Sri Lankan IP regime in compliance with TRIPS obligations. The rationale underlying its introduction has been spelt out in Parliament during the debate on the Bill as the promotion of national creativity, the protection of creative efforts, the enhancement of the integration of the national economy into the knowledge driven global economy, the attraction of more investment and the protection of consumer interests.[253] More importantly, the current law relating to patents is governed by the Intellectual Property Act No. 36 of 2003 and the regulations made thereunder. More specifically, Part IV of the Act deals with patent protection. Besides, Sri Lankan patent law follows the 'first to file' system as oppose to 'first to invent' system.[254] Viewed from a user perspective, the Sri Lankan patent regime has, however, come un-

248 RMW Amaradasa, MAT de Silva and RP Pathirage, 'Patents in a Small Developing Economy: A Case Study of Sri Lanka' (2002) 17 Journal of Intellectual Property Rights 395.

249 Ibid.

250 DM Karunaratna, *Elements of the Law of Intellectual Property in Sri Lanka* (Sarasavi Publishers 2010) 19.

251 DM Karunaratna, 'Issues Related to the Enforcement of IP Rights: National Efforts to Improve Awareness of Decision Makers and Education of Consumers' (WIPO Advisory Committee on Enforcement, Third Session, Geneva May 2006) (The 1979 Code was based on the 'model laws' prepared by the World Intellectual Property Organization (WIPO), which was intended to improve a development friendly environment in the country.

252 Ibid.

253 Ibid.

254 See Section 64 (2)(a) of the IP Act of Sri Lanka No 36, 2003.

der heavy criticism for being less attractive to domestic industries, especially for SMEs. Despite its comparatively long history, there are only a few cases available in the area of patent law and they hardly deal with any substantive patent law issues such as treatment of novelty and inventive step.

2.2.4. Which Inventions are Patentable?

Patents are granted in Sri Lanka in relation to an invention. An invention is defined by the Act as an idea of an inventor which permits in practice the solution of a specific problem in the field of technology.[255] Sri Lanka's IP Act provides protection for inventions relating to products as well as processes.[256] The followings are not regarded as inventions within the meaning of an invention in the Act and are thus excluded from patent eligibility:[257]

- discoveries, scientific theories and mathematical methods;
- plants, animals and other microorganism other than transgenic microorganism and an essentially biological process for the production of plants and animals other than non-biological and microbiological processes;[258]
- schemes, rules, or methods for doing business, performing purely mental acts or playing games;
- methods for the treatment of the human or animal body by surgery or therapy, and diagnostic methods practiced on the human or animal body; Provided however, any product used in any such method shall be patentable;
- an invention which is useful in the utilization of special nuclear material or atomic energy in an atomic weapon;

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255 See Section 62 (1) of the IP Act of Sri Lanka No 36, 2003. The 'word' technology may be understood as the systematic knowledge essentially required for the manufacture of a product.

256 See Section 62 (2) the IP Act of Sri Lanka No 36, 2003, the process patents are those patents which are for inventions which perform a function.

257 See Section 62 (3) of the IP Act of Sri Lanka No 36, 2003.

258 The clause in the IP Bill was scrutinized by the Supreme Court and the words *'other micro- organism other than transgenic micro organism'* were added after the word animal. See SC Special determination Nos. 14/2003 and 16/2003-the Supreme Court of Sri Lanka.

– any invention, the prevention within Sri Lanka of the commercial exploitation of which is necessary to protect the public order and morality including the protection of human, animal or plant life or health or the avoidance of serious prejudice to the environment.

As interpreted through the lens of TRIPS obligations, Sri Lanka being a contracting party is bound to provide protection for both product and process patents in all fields of technology whether products are imported or locally produced.[259]

2.2.5. Conditions of Patentability

Article 27(1) of the TRIPS Agreement requires that 'patents shall be available for any invention that is new, involves an inventive step and is capable of industrial application'. Although the TRIPS Agreement requires WTO members to implement and enforce a comprehensive set of minimum standards in the protection of IP rights, it does not however define the term 'invention', nor does it specify how the three criteria for patentability are to be treated.[260] When it comes to Sri Lankan Law, an invention is patentable if it is new, involves an inventive step and is industrially applicable.[261] Obviously, the Sri Lankan IP law has adopted a similar approach taken by the TRIPS Agreement, in deciding the criteria of patentability; namely, novelty, inventive step/non-obviousness and industrial applicability.

2.2.6. The Concept of Novelty

In the eyes of patent law, the concept of novelty has been evolved from the word 'new'.[262] Perhaps more importantly, 'novelty' is one of the essential conditions for an invention to qualify for patent protection. As per this requirement, a patent application for an invention needs to be 'novel'

259 See Article 27 (1) of the TRIPS Agreement.

260 See also, CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008) 26-27.

261 See Section 63 of the Act which deals with protectable inventions.

262 In practical terms, novelty is opposite to anticipation. For example, an invention is 'anticipated' if it was disclosed in a prior art reference or a prior publication.

or new before the date of filing of a patent application.[263] Pursuant to Article 27(1) of the TRIPS Agreement, an invention needs to be 'new'. The Sri Lankan IP Act does not provide a definition as such, for what novelty means, rather it provides that an invention is new if it is not anticipated by prior art.[264] Everything made available to the public, anywhere in the world, by means of written publication, oral disclosure, use or in any other way (i.e. exhibition or other non-written means) shall be considered as prior art provided that such disclosure occurred before the date of filing of the patent application claiming the invention.[265] It is, however, evident from the plain reading of this provision that Sri Lankan patent law requires an invention to meet the 'absolute' or 'universal' novelty standard as the first prerequisite of patentability.[266] Moreover, the idea of 'grace period' has also been recognized under Sri Lankan law, but in a restricted way. Section 64(3) of the IP Act provides an inventor with a grace period during which such disclosures will not destroy novelty.[267] In other words, inventions disclosed during that period would be eligible for protection, despite that they would have been deemed in the prior art in accordance with the general rule on novelty.[268] This one year grace period aims at ensuring that any disclosure of the invention by the inventor, his predecessor in title, or third parties (in which case six months) or who have abused the

263 CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008)1-2.

264 See Section 64(1) of the IP Act of Sri Lanka No 36, 2003.

265 See Section 64(2) of the IP Act of Sri Lanka No 36, 2003.

266 There are three kinds of novelty standards followed by different jurisdictions in the world, namely, absolute or universal novelty, relative novelty and local or domestic novelty. Absolute novelty means that invention is new throughout the world and thus all material made available to the public anywhere in the world forms part of the state of the art (i.e. UK and EPC). On the other hand, relative novelty means a publication available in any country will destroy novelty but use of the invention outside the country will not (i.e. USA). Moreover, local novelty is usually restricted to within the country, where only local knowledge and use can destroy such novelty.(i.e. New Zealand). CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008) 2-4.

267 According to Section 64(3) any disclosure under Section 64(1) would not affect a patent application 'if such disclosure occurred within one year preceding the date of the patent application by reason or consequence of acts committed by the applicant or his predecessor in title' and if such disclosure occurred within six months preceding the date of the patent application and if such disclosure was by reason or in consequence of any abuse of the rights of the applicant or his predecessor in title.

268 CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008)18-19.

rights (i.e. who have stolen the invention) of the applicant or his predecessor in title would not become prior art resulting in destroying the novelty of the claimed invention.

Novelty generally requires that the information must not have been available to the public prior to the original application date (the priority date).[269] Since the inventor is granted a patent for disclosing something new, it follows that if the invention has already been disclosed to the public, the applicant (the 'inventor') can disclose nothing new in return for the grant, and is either not entitled to be granted a patent, or if one has been granted, is liable to have it revoked.[270] The disclosure may have taken place within the jurisdiction or elsewhere in the world.[271] When assessing novelty, the disclosure of a particular item of prior art always has to be considered in isolation (test of comparison in isolation). In other words, it is not admissible to combine separate items of prior art, for example several documents.[272] To put it differently, only a single document of prior art that contains all elements of the claimed invention can destroy novelty. However, if in one document there is an explicit reference to another document, then the part or the entire second document is to be considered as a part of the disclosure of the first document. The same is true with regard to several different sections within one document of prior art.[273] According to commentators, in practice, the concept of novelty is narrowly construed by patent offices, requiring an almost 'photographic' disclosure of the invention in a single prior document in order to consider that novelty does not exist.[274] Viewed from a different angle, novelty exists in an invention if there is any difference between the invention and the known prior art.[275] In other words, an invention will be new if it differs from the prior art. In

269 UNCTAD-ICTSD, *Resource Book on TRIPS and Development* (Cambridge University Press 2005) 359.
270 Ibid.
271 Ibid.
272 M Philipp, 'Novelty and Inventive Step under the European Patent Convention' (Boehmert & Boehmert 2001) 4.
273 Ibid.
274 CM Correa, 'Designing Patent Policies Suited to Developing Countries Needs' (2008) 10/2 Econômica, Rio de Janeiro 88.
275 MJ Davison, AL Monotti and L Wiseman (eds), *Australian Intellectual property Law* (Cambridge University Press 2008) 65.

fact, not much difference is required; a simple difference is sufficient.[276] An examination with respect to novelty functions as a filter before the examination of the inventive step and in many cases is not considered as a major hurdle for inventors.[277]

2.2.7. Inventive Step

The terms 'inventive step' and 'non-obviousness' are interchangeably used to mean the level of inventiveness required from an invention. While under patent law in Europe and in many other countries this is generally described as an 'inventive step', in the United States the requirement is defined as 'non-obviousness'.[278] The word 'obvious' comes from the Latin term *ob via*, meaning 'on the road'.[279] In the eyes of patent law, it means that what is now being claimed for the patent was something which 'lay on the road' of those who were developing the art. In other words, it means something that would be the next logical step along the path from the problem to the solution.[280] The philosophy behind the doctrine of obviousness is that the public should not be prevented from doing anything which was merely an obvious extension or workshop variation of what was already known at the priority date.[281] It means that an invention must

276 M Franzosi, 'Novelty and Non-obviousness-The Relevant Prior Art' (2001) Training Course Materials on Obtaining, Enforcing and Evaluating Intellectual Property Rights in Europe, conducted by Boehmert & Boehmert – Munich, 2-6 July 2001, 1.

277 See, M Philipp, 'Novelty and Inventive Step under the European Patent Convention' (2001) Training Course Materials on Obtaining, Enforcing and Evaluating Intellectual Property Rights in Europe, conducted by Boehmert & Boehmert – Munich, 2-6 July 2001, 3-4.

278 UNCTAD-ICTSD, *Resource Book on TRIPS and Development* (Cambridge University Press 2005) 359-360.

279 JR Thomas and others, 'Panel I: KSR v. Teleflex: The Nonobviousness Requirement of Patentability' (2007) 17 Fordham Intellectual Property, Media and Entertainment Law Journal 875, 880.

280 Ibid. See also, J Richards, 'Obviousness and Inventive Step-New Differences?' [2009] Ladas and Perry LLP 3.

281 The UK Patent office (UKPO), The Inventive Step Requirement in United Kingdom Patent Law and Practice (2006) UKPO official website, 12, available at: <http://www.ipo.gov.uk/pro-policy/consult/consult-closed/consult-closed-2006/consult-2006-inventive.htm> (accessed 12 April 2012).

not merely be something new; it must represent a development over prior art.[282] The TRIPS Agreement, in fact, permits its members to consider 'inventive step' as synonymous with 'non-obvious'.[283] Moreover, the TRIPS Agreement does not define the concept of inventive step, but only requires members to grant patents for inventions which 'involve an inventive step'. It is undeniable that inventive step is one of the most critical aspects of a patent regime, as it determines the level of technical contribution required to obtain a patent.[284] Under Sri Lankan law "an invention is considered as involving an inventive step if, having regard to the state of the art relevant to the patent application, it is not obvious to a person having ordinary skills in the art".[285] This statutory language of the IP Act is the same as in many other jurisdictions and term 'inventive step' is used in the Act.

The inventive step is often evaluated by considering the 'unexpected' or 'surprising' effect of the claimed invention.[286] The claimed invention must have some inventive aspect to it. In other words, the invention must be something which is not only new but possessed of an inventive element, a quality which will be recognized by someone experienced in the field as being a real step forward in the area.[287] The inventive step requirement is intended to prevent exclusive rights forming barriers to normal and routine development.[288] Thus, it serves the function of a gatekeeper to patent protection. Determining whether or not the invention involves an inventive step depends on the specific details of each patent application and in particular the subject-matter of each claim.[289] More significantly, an inven-

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282 UNCTAD-ICTSD, *Resource Book on TRIPS and Development* (Cambridge University Press 2005) 359-360.

283 Ibid. See footnote 5 to art 27 (1) of the TRIPS.

284 CM Correa, 'Designing Patent Policies Suited to Developing Countries Needs' (2008) 10/2 Econômica, Rio de Janeiro 89.

285 Section 65 of the IP Act of Sri Lanka No 36, 2003. In the Sri Lankan context, the 'inventive step' requirement has been examined in 'Rigid T-Sack' case by the Commercial High Court. See, Amarasekare J in *Caderamanpulle v Mohamed Haniffa Ajmal* (CHC Case No: 33/2004/03, 22-23 decided on 18 February 2014).

286 UNCTAD-ICTSD, *Resource Book on TRIPS and Development* (Cambridge University Press 2005) 359-360.

287 M Elmslie and S Portman, *Intellectual Property:The Lifeblood of your Company* (Chandos Publishing 2006) 13.

288 TL Bittner, 'EPO Procedure' (2001) Training Course Materials on Obtaining, Enforcing and Evaluating Intellectual Property Rights in Europe, conducted by Boehmert & Boehmert – Munich, 2-6 July 2001, 2.

289 Ibid.

tion is non-obvious when it is sufficiently different from prior art.[290] Here lies the difficulty because a certain degree of difference is required and a simple difference is not sufficient. An invention is therefore non-obvious when it is significantly different from the prior art.[291] Most importantly, in contrast to novelty examination, the inventive step is assessed by comparing the invention as a whole against the state of art as a whole ('mosaicing') and thus it is permitted to combine any of the prior art (whether published documents, instances of prior use or common knowledge) in order to argue that an inventive step is lacking.[292] Not surprisingly, of all three conditions of patentability set out in the Sri Lankan IP Act, the inventive step is, in effect, the most difficult hurdle to overcome by inventors, especially for small and adaptive innovations.

Sri Lankan patent regime under the current IP Act is relatively young and very little exists in the form of case-law to clarify the provision of the Act in relation to inventive step. According to the author's knowledge, there has so far been no reported decision from the Supreme Court of Sri Lanka on the issue of interpretation of the inventive step. Nevertheless, the Commercial High Court of Sri Lanka, in one of the few cases on the subject, has emphasized the need to have access to expert evidence in assessing the inventive step.[293] As such, the principles and case-law from other jurisdiction may provide much needed guidance for the Sri Lankan judiciary. Besides, Sri Lankan court decisions are highly influenced by IP jurisprudence of Common Law countries, especially from the UK.[294]

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290 M Franzosi, 'Novelty and Non-obviousness-The Relevant Prior Art' (2001) Training Course Materials on Obtaining, Enforcing and Evaluating Intellectual Property Rights in Europe, conducted by Boehmert & Boehmert – Munich, 2-6 July 2001, 1.

291 Ibid.

292 United Kingdom Patent Office (UKPO), *Manual of Patent Practice: Inventive Step* (2012) UKPO official website, 13, available at:<http://www.ipo.gov.uk/> (accessed 12 April 2012).

293 See the observation of Chitrasiri J in *Michael Laurents Cyrille Chanderampulle v Mohamed Haniffa Mohamed Ajmal & Brothers* (CHC Case No: 33/2004 (03) 5-6), where he stated that 'I should state with humility that I do not posses such knowledge and expertise in the field of engineering to decide on novelty and inventive step…Therefore I am of the view that this court may come to an incorrect decision, if the court decides on novelty and inventive step…, without considering expert opinion on the subject.

294 See also, IN Abeyesekere, 'Copyright Law and Practice in Sri Lanka' (1998) 29/1 International Review of Intellectual Property and Competition Law 27, 31.

In the UK, the current test and the guiding principles in assessing the inventive step have emerged in the leading case of *Windsurfing International v. Tabur Marine*.[295] In this case, the Court of Appeal adopted a four steps inquiry in examining the inventive step: (1) to identify the inventive concept; (2) to assume the mantle of the normally skilled but unimaginative addressee and to impute to him 'the common general knowledge of the art'; (3) to identify the differences between that and the invention; (4) to ask whether it is obvious or not.[296] The Court of Appeal has further held that "the question of obviousness (inventive step) 'has to be answered, not by looking with the benefit of hindsight at what is known now and what was known at the priority date and asking whether the former flows naturally and obviously from the latter, but by hypothesizing what would have been obvious at the priority date to a person skilled in the art to which the patent in suit relates'".[297] Moreover, the 'person having ordinary skill in the art' (PHOSITA) is not a highly skilled expert or a Nobel prize winner, nor is he some form of lowest common denominator and to a large degree the capacities of the skilled person will be determined by the nature of the common general knowledge identified as being 'relevant'.[298] Perhaps, the notion of common general knowledge can be summarized as a part of the mental equipment or mental toolkit needed so as to be competent in the art concerned and a set of industry standards may be considered to be part of the common general knowledge.[299]

She argues that when deciding a case on copyright Sri Lankan judges still tend to follow UK law decided from 1911 onwards.

295 (1985) RPC 59.

296 JR Thomas and others, 'Panel I: KSR v. Teleflex: The Nonobviousness Requirement of Patentability' (2007) 17 Fordham Intellectual Property, Media and Entertainment Law Journal 875, 885.

297 The UK Patent office (UKPO), The Inventive Step Requirement in United Kingdom Patent Law and Practice (2006) UKPO official website, 8, available at: <http://www.ipo.gov.uk/pro-policy/consult/consult-closed/consult-closed-2006/consult-2006-inventive.htm> (accessed 12 April 2012).

298 United Kingdom Patent Office (UKPO), *Manual of Patent Practice: Inventive Step* (2012) UKPO official website, 5-6, available at:<http://www.ipo.gov.uk/> (accessed 12 April 2012).

299 Ibid 7.

The current British law position regarding the inventive step was succinctly stated in a leading case by Lord Justice Jacob as follows:[300]

> 'One can, of course, postulate a different policy under which a monopoly might make sense. There are old or obvious ideas which take a lot of work, expense and time to develop and turn into something practical and successful. Without the incentive of a monopoly, people may not do that work or spend the time and money. (The present case) is an example of an obvious invention which costs lots to bring to market. But patent law provided no protection for all that investment because the basic invention was obvious. The courts' job is not, however, to uphold any claim to a monopoly for an idea which requires investment and risk to bring to market, only those for ideas which are new, non-obvious and enabled'.

The above British decision from one of the leading Common Law patent jurists makes it very clear that the UK patent system does not reward all types of inventions, though they create value. In particular, the inventions that are new but obvious. Thus, this high patentability standard is now well-settled law in the British legal system.[301]

In US practice, courts applying the non-obviousness standard undertake a three-step factual inquiry, examining: (1) the scope and content of the prior art to which the invention pertains; (2) the differences between the prior art and the claims at issue; (3) the level of ordinary skill in the pertinent art.[302] The examiner then makes a final determination of non-obviousness by deciding whether a person of ordinary skill could bridge the differences between the prior art and the claims at issue given the relevant prior art.[303] The landmark case under the US law on the nonobviousness standard is the Supreme Court decision of *KSR International Co. v Teleflex Inc.* in 2007.[304] In *KSR*, the Supreme Court authoritatively held that 'a

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300 *Angiotech Pharm., Inc. v. Conor MedSystems Inc*., [2007] EWCA Civ 5 para. 50. (Judgment of Lord Justice Jacob with whom Lord Justice Tuckey and Lord Justice Mummery agreed).

301 This position of the courts has been criticized for 'looking at from the point of view of Einstein, and then everything is obvious'.

302 CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008) 39-40.

303 Ibid.

304 (2007) 127 S.Ct. 1727. In this case, the US Supreme Court unanimously held that the Court of Appeals erred in rigidly applying the 'teaching-suggestion-motivation' (TSM). Under the TSM test, a patent claim is considered obvious, and thus unpatentable, if some teaching, suggestion, or motivation to combine the prior art can be found in the prior art by a person having ordinary skill in the art.

person of ordinary skill is also a person of ordinary creativity, not an automaton' and raised the threshold for assessing non-obviousness.[305] Arguably, after the unanimous decision of the Supreme Court in *KSR*, US law is moving towards a tougher and higher standard of nonobviousness. Taken together, the *Windsurfing* and the *KSR* decisions can be viewed as 'traveling jurisprudence' which would certainly influence courts across jurisdictions in many parts of the Common Law world.

In determining inventive step, the European Patent Office has adopted a *problem-solution* approach.[306] The leading decision in this regard has emerged from COMVIK case.[307] According to the technical board of appeal of the European Patent Office, "for the purpose of the problem-and-solution approach, the problem must be a technical problem, it must actually be solved by the solution claimed, all the features in the claim should contribute to the solution, and the problem must be one that the skilled person in the particular technical field might be asked to solve at the priority date. In this context "problem" is used merely to indicate that the skilled person is to be considered as faced with some task (German "Aufgabe"), not that its solution need necessarily involve any great difficulty".[308]

In Europe, the goal of the method is to determine whether a claimed invention would be obvious to a skilled person based on a three-step test by: (1) determining the closest prior art; (2) determining the objective problem to be resolved in relation to this prior art by a comparison of the results; (3) determining the obviousness of the claimed solution in regard to further prior art and general technical knowledge.[309] Apart from that, the Indian Patent Act and the Patent Office Manual define 'inventive step' as a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to a person skilled in the art.[310] It is evi-

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305 CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008) 57.

306 See Article 56 EPC reads with Regulations of the EPC: Rule 27 (1) (c).

307 Case T 0641100, *COMVIK GSM AB v. DeTeMobile Deutsche Telekom MobileNet*. *GmbH* (Technical Bd. of Appeal Sep. 26, 2002), available at:http://www.epo.org/law-practice/case-law-appeals/pdf/t000641ep1.pdf (accessed on 20 May 2012).

308 Ibid 7.

309 CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008) 40.

310 See Section 2(f) Patents (Amendment) Act 2005. Indian Patent, Office *Manual of Patent Practice and Procedure* (Indian Patent Office Mumbai 2005). The recent

dent from the wording of the Indian Patent Act and recent judicial pronouncements[311] that Indian law also follows a high-degree of non-obviousness standard. From an economic perspective, increasing the standard of non-obviousness increases the expected value of patents, but it decreases the probability that a given invention will be protected.[312] Economists argue that the increase in the value of patents is the *dynamic* effect and the reduction in the probability of obtaining protection the *static* effect, of raising the standard of nonobviousness.[313] Thus, increasing the patentability standard weakens the static effect of the patent system and strengthens the dynamic effect.[314]

2.2.8. Industrial Applicability

Industrial applicability is the third criterion of patentability. In patent law, the term 'industrial applicability' or 'utility' may perhaps be used synonymously, but 'utility' could give a wider sense than 'industrial'. The underlying rationale is that patent protection should not be available for abstract ideas or purely intellectual creations that cannot be put to any use.[315] A patentable invention has to be concrete and should have a technical character. The term 'industrial' is used in a very wide sense, irrespective of the for-profit or not-for-profit nature of the industry.[316] Comparatively speaking, the threshold of industrial applicability is rather low in many jurisdictions. Under Sri Lankan Law, an invention shall be considered industrially applicable if it can be made or used in any kind of industry.[317] Since Sri

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changes in definition of inventive step has been embraced by Indian courts in *Mariappan v. A.R. Safiullah* (17) 2008-(Madras HC).

311 See the decision of the Supreme Court of India on 1 April 2013 in *Novartis AG v Union of India and Others* (2013) Civil Appeal Nos. 2706-2716 of 2013, available at: <http://supremecourtofindia.nic.in/outtoday/patent.pdf> (accessed 2 February 2014).

312 RM Hunt, 'Nonobviousness and the Incentive to Innovate: An Economic Analysis of Intellectual Property Reform' (1999) Working Paper No. 99-3, Federal Reserve Bank of Philadelphia 3.

313 Ibid.

314 JH Barton, 'Non-Obviousness' (2003) 43 IDEA:The Journal of Law and Technology 475, 494.

315 CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008) 81.

316 Ibid.

317 See Section 66 of the IP Act of Sri Lanka No 36, 2003.

Lankan superior courts have so far not had an opportunity to interpret the concept of industrial applicability, it is worth considering how other major patent jurisdictions deal with this requirement.

According to commentators, the term 'industry' is generally understood in its broad sense as including any physical activity of 'technical character' and it also includes commerce and is extended to extractive industries and any type of manufacture.[318] The situation under the European Patent Convention (EPC) is that there is no need to prove that the invention can actually be applied in the industry. All that is needed is that it should be susceptible to or capable of industrial application.[319] In US law, the concept applied is 'utility'. Hence, certain developments that do not lead to an industrial product may be patented in the US: an invention only needs to be operable and capable of satisfying some function of benefit to humanity (i.e. be useful). This concept is broader than the industrial applicability required in Europe and other countries.[320] All in all, however, according to the approaches taken by the US, Europe and other leading jurisdiction, there is no need to prove that it can be put to use in the industry; it is enough if it is demonstrated that it is capable of being put to use in industry.[321]

2.2.9. The Rights of the Owner of a Patent

Under Sri Lankan law, the statutory life of a patent is 20 years from the date of application for its registration.[322] From a legal perspective, a patent is not a right to practice, but to a right to exclude.[323] In that sense, patent is

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318 According to Article 1(3) of the Paris Convention, industrial property shall be understood in the broadest sense and shall apply not only to industry and commerce proper, but likewise to agricultural and extractive industries and to all manufactured or natural products, for example, wines, grain, tobacco leaf, fruit, cattle, minerals, mineral waters, beer, flowers, and flour. See also CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008) 84.

319 CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008) 81.

320 UNCTAD-ICTSD, *Resource Book on TRIPS and Development* (Cambridge University Press 2005) 361.

321 See CM Correa, *A Guide to Pharmaceutical Patents* (vol I, South Centre 2008) 81.

322 See Section 83 of the IP Act of Sri Lanka No 36, 2003.

323 Kinney and PA Lange, *Intellectual Property Law for Business Lawyers* (2010-2011edn, West Publishers 2010) para 2:1.

a negative right as opposed to an affirmative right. Pursuant to Section 84 of the IP Act, a patent confers its owner a bundle of exclusive rights to exploit the invention. Such rights include preventing third parties not having the owner's consent from the acts of making, using, importing, offering for sale, selling, and exporting the patented invention. Moreover, patent owners shall also have the right to assign, transfer or to conclude licensing contracts with regard to the rights conferred by the patent. This does not, however, mean that the exclusive rights granted by law for patent owners are without limitations.[324] Perhaps more importantly, the patent owner has a powerful weapon in his hands namely, the right to enforce his rights against any act of infringement. Most strikingly, in Sri Lankan context, there is no settled position of law regarding patent claim interpretation and infringement analysis so far. It is unclear whether Sri Lankan courts embrace the 'doctrine of equivalents' which is followed by other countries and thus Sri Lankan courts may need to look into principles and tests laid down by other jurisdictions such as the UK, the US, Europe and India.[325] As a general matter, in cases of violation of IP rights, Sri Lankan courts grant injunctions and award damages. The active use of the judiciary for patent litigation is an important aspect in enforcing patent rights. Although there are very few cases dealing with patent rights, the Sri Lankan Supreme Court in *St. Regis Packing (Pvt) Ltd v. Ceylon Paper Sacks Ltd.*, which is considered to be a progressive judgment, held that an infringement of an intellectual property is a continuous act giving a recurring cause of action.[326] Moreover, the current IP enforcement mechanism

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324 The possibility of granting compulsory licenses is provided for in the IP Act of Sri Lanka No 36, 2003 under Section 86 and it may operate as a limitation of the owner's right. Another possible exception on the rights of the owner of a patent is the prior user right recognized under Section 87 of the IP Act of Sri Lanka No 36, 2003.

325 There are two approaches in assessing a patent infringement: (1) literal infringement (2) the doctrine of equivalents (DOE). Historically, UK courts have followed the literal infringement analysis under which courts examine whether the allegedly infringing device falls exactly within the literal scope of the patent. Taking a different approach, however, the US courts have adopted (in *Graver v Linde* 339 US 605 (1950) 609) and developed over the years the DOE, which analyses whether the two devices perform substantively the same function in substantively the same way to obtain the same result. Arguably, DOE offers fair protection to a patent owner.

326 (2001) 1 Sri LR 36, 38 (as per Banaranayake J) This case involved the right of assignee of a registered patent. This patent was granted for a product called

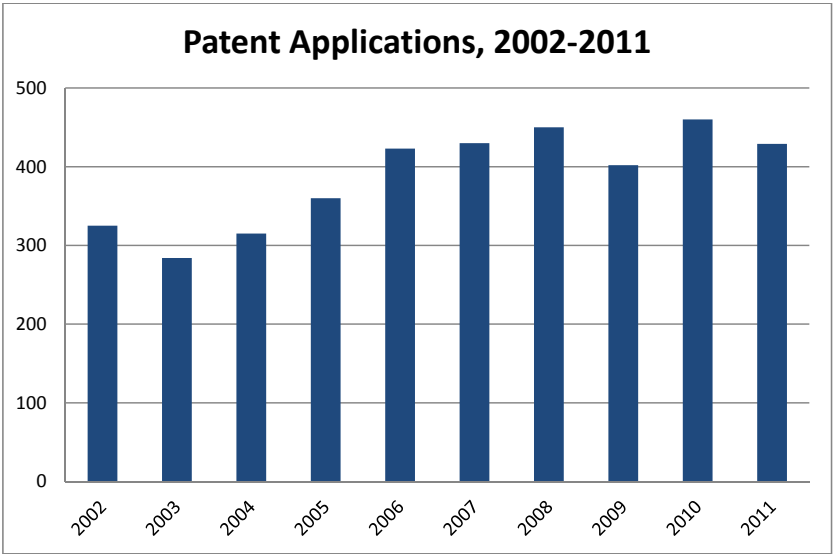
in Sri Lanka has also been strengthened with criminal sanctions which allows for the imposition of fine and imprisonment or both.

2.2.10. Empirical Analysis of Sri Lankan Patent System

The analysis in this section paints a picture on the use of the patent system in the Sri Lankan context, viewed through the lens of empirical evidence. The country's current patent system under the new IP Act came into existence in 2003. Since then, for almost the last 10 years, there has been a general increase in patent applications, with a marginal decrease in year 2009 and 2011. When compared with other fast-growing East Asian economies, the patent applications in Sri Lanka have not only remained low, but also recorded a slow growth. As mentioned before, the number of patent applications is an indicator of innovation activities of the country, on the one hand, and on the other, it is a measure of technological strengths of a nation.

"SAFE T PACK" a container used for packing tea as a cost effective alternative to plywood chest.

Figure 2.1: Trends in Patent Filings

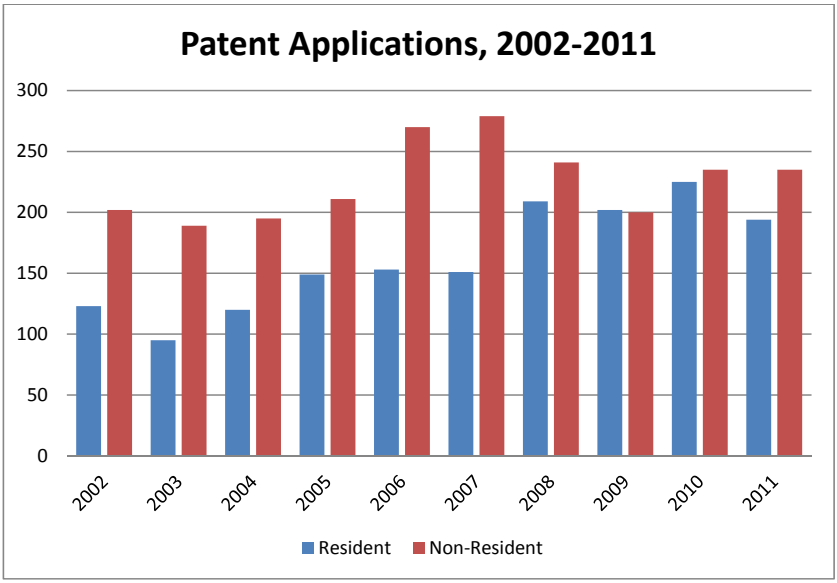


(Source: Based on data from the National Intellectual Property Office of Sri Lanka)

As indicated in Figure 2.1, the number of patent filings has increased gradually from 284 in 2003 to 429 in 2011 over the last 10 years. This increase is more apparent in years 2008 with 450 and 2010 with 460 applications. More interestingly, these are the highest figures that Sri Lanka has achieved in its recent history. Nevertheless, patent flings have slightly declined in 2011 to 429 applications. This may be attributed to the general economic slowdown which swept across every region in the world. Comparatively speaking, these numbers are almost negligible and are far from satisfactory. When compared with emerging market economies such as South Korea, China, and Malaysia, Sri Lanka has only less than 500 patent applications annually. It is evident from this data that the country's patent system has been under-utilized and it should, in fact, be a cause for concern. Perhaps a beter explanation for this phenomenon is that Sri Lanka is a country with a comparatively small market. Therefore, not even many foreign firms are interested in filing patent applications. Conversely, if that might have been case, then it may be equally applicable to relatively small market ecomomies in East Asia, where patent statistics prove otherwise. Nevertheless, it might still be argued that, although there is a modern legal framework, there is no aggressive enforcement of patent rights in Sri

Lanka which could increase the number of patent filings. There have been very few cases of infringement law-suits so far and the active use of the judiciary for patent litigation is not evident. Thus, there is plenty of evidence to conclude that inventors, industries and research institutions are not interested in enforcing their patent rights. Probably, this may also be a reason why there is a general lack of patenting in Sri Lanka.

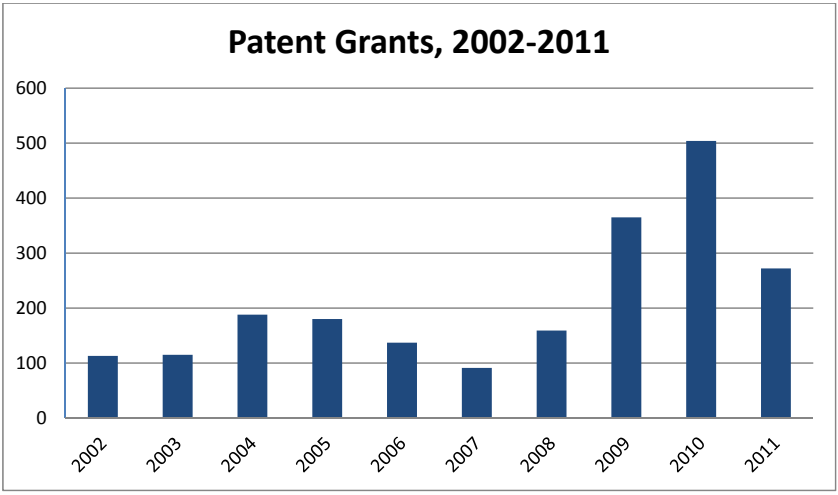
Figure 2.2: Trends in Patent Filings: Resident and Non-Resident



(Source: Based on data from the National Intellectual Property Office of Sri Lanka)

It is evident from Figure 2.2 that the majority of patent applications in Sri Lanka are filed by foreign applicants. This may be a cause for concern, but on the positive side, it can also be interpreted as a signal that the Sri Lankan market is becoming attractive for exploitation of foreign inventions. Non-resident patent filings can, in one way, be interpreted as defensive patenting to prevent possible infringements by local firms. Even more significantly, there has been a gradual increase of domestic applications over the last ten years, with a marginal decrease in 2003, 2009 and 2011. From an analytical perspective, only the number of domestic patent applications can be taken as a proxy of innovative activities of the country as non-resident applications do not emanate from local R&D activities.

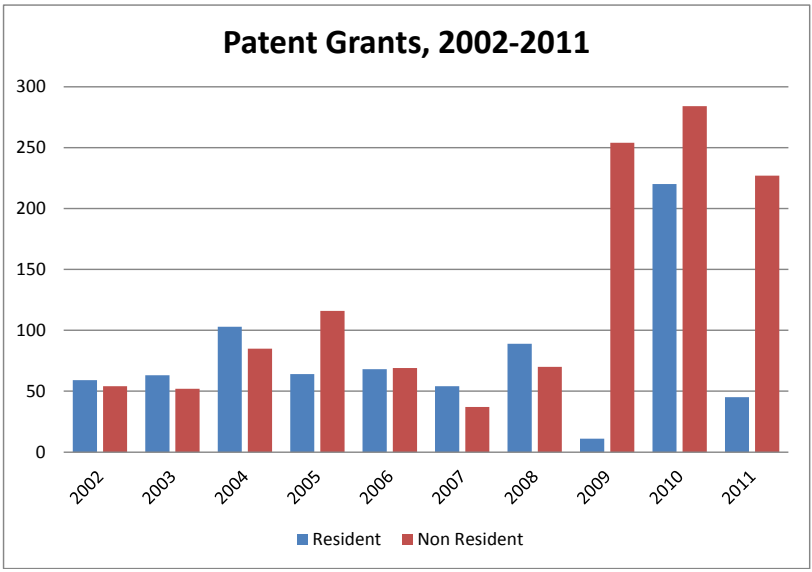
Figure 2.3: Trends in Patent Grants



(Source: Based on data from the National Intellectual Property Office of Sri Lanka)

As shown in Figure 2.3, patent grants, in general, have seen a slow growth from year 2002 to 2008. Most notably, from 2009 to 2010, there seems to have been a considerable increase in total granted patents by the Sri Lankan IP office. One of the reasons for this development, as we can speculate, is the increase in foregn applications and grants, with the dawn of peace after ending the three-decades-long civil war which would have enhanced business confidence among foreign investers.

Figure 2.4: Trends in Patent Grants: Resident and Non-Resident



(Source: Based on data from the National Intellectual Property Office of Sri Lanka)

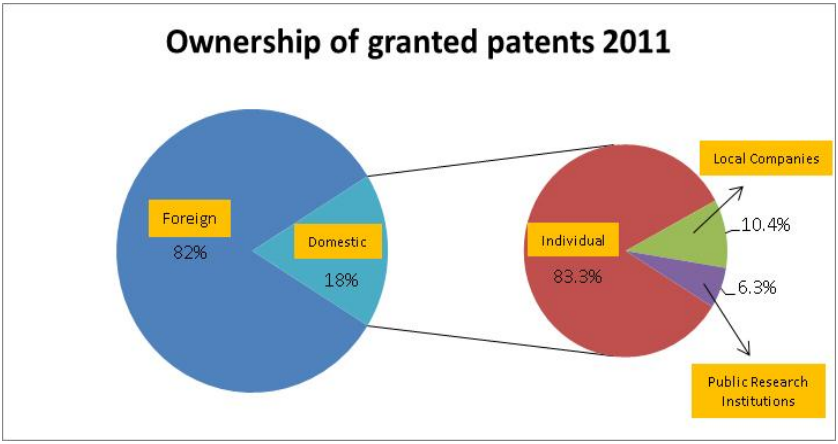
As evident in Figure 2.4, foreign patent grants are much higher than domestic patents in Sri Lanka. It is argued, however, that foreign patent filings and grants are an indication of the attractiveness of the market. Most significanlty, forein patents can be an instrument of technology transfer to the country. Viewed from the international technology transfer perspectives, if an inventor in one country files a patent application in another country it signals willingness to deploy that technology in the recipient country.[327] In that sense, a patent provides a direct (i.e. licensing) as well as indirect (i.e. data in patent application) source technology transfer. It must be noted, however, that the gap between resident and non-resident

327 KE Maskus, *Encouraging International Technology Transfer* (2003) Report for ICTSD/UNCTAD 9-23 (Technology transfer refers to any process by which one party gains access to a second party's information and successfully learns and absorbs it into his production function. Technology may be defined as the information necessary to achieve a certain production outcome from a particular means of combining or processing selected inputs).

patent grants is very wide in certain years, i.e. 2009 and 2011, with more than 80 percent being constituted of foreign grants. Alarmingly, the level of innovative activities has not been advanced enough to result in patents being granted. Not surprisingly, the rejection rate of patent application is considerably high, and in 2011 alone, it is more than 75 percent of the total domestic patent applications filed. Most notably, a large majority of applications, according to the Sri Lankan IP office, is basic inventions that are obvious and cannot be patented as they do not satisfy the test of inventive step as applied under the IP Act

As shown in Figure 2.5 below, a total of 82 percent of granted patents by NIPO in 2011 are owned by foreign entities. Most strikingly, only 18 percent of total granted patents is owned by Sri Lankan nationals. Interestingly, the patent grants for residents is very small in comparison with patents granted to foreigners. Probably, this data suggests that the patent system does not appeal to domestic industries, 80 percent of which are SMEs. In terms of the profile of domestic users, private individual inventors consist of the biggest share of 83 percent, followed by private sector commercial organisations with 10 percent of granted domestic patents. Moreover, the use of the patent system by public research institutons such as universities remains minimal in the Sri Lankan context. Interestingly, it was also demonstrated during our interviews with NIPO officials that most of domestic industries tend to file individual patent applications due to the application fee structure which is double the amount when it is filed by a company. Perhaps, this may be the reason why individual applications and grants are dominent with regard to patent grants to Sri Lankan residents.

Figure 2.5: Who owns Sri Lankan Patents?



(Source: Based on data from the National Intellectual Property Office of Sri Lanka)

2.2.11. Use of the Patent System

As seen in the previous discussion, the statistical indicators shed light on the functioning of the patent system in the country. It is rather disappointing to learn that the use of the patent system has been and is still very low in the Sri Lankan context. Significantly, the number of domestic patent applications and grants is not encouraging. No doubt there are possible explanations for this situation. One possible and most likely reason is that Sri Lankan inventors and firms do not generate enough patentable innovations. Another reason is the relatively small size of the market that might not provide adequate incentives for R&D activities. Moreover, Sri Lanka has a large presence of SMEs in its industrial sector and the SME sector is mainly confined to the simple end of technology. For these reasons, not many patents are annually added to the patent landscape of the country. As analysed by scholars, the prime motives for patenting include direct exploitation of patented inventions, prevention of copying, prevention of other firm's attempts to patent a related invention('patent blocking'), earning license revenue, use in negotiation, prevention of law-suits and en-

hancement of the firm's reputation.[328] Apparently, most of these motives have not been given due consideration by Sri Lankan individual inventors and firms despite the fact that a patent is a business tool which can be used to secure a commercial advantage for its owner. There is hardly any rigorous patent enforcement in courts with only a handful of decided cases for more than a century and a half. This shows a low rate of use and enforcement of patent law in Sri Lanka.

Moreover, the patent system might be called 'direct means' of technology transfer to the country and serves as a vehicle for bringing technology to the rural industrial base which mostly consists of SMEs.[329] Nevertheless, probably due to the lack of awareness on the part of domestic industries, the technology transfer aspect of the patent regime has poorly been grasped. Conversely, it might still be argued that even though technology is transferred through the importation of patented goods and patent licensing, the industrial sector in the country does not have the ability to absorb foreign technologies and engage in progressive imitation and adaptations. There is no reliable evidence that such transferred technology is used for technology learning and as a basis for further follow-on innovation. As evident from statistics, Sri Lanka has limited patent filing high-tech industries.[330] In fact, most of the products are still simple products such as tea and garments and that there are very few high-tech products. Not surprisingly, the majority of patents granted in Sri Lanka to domestic applicants are in low-tech areas such as mechanical, electronics, agricultural tools and equipments, domestic appliances, as well as food and beverages. It is also interesting to note that neither individual inventors and SMEs nor large domestic companies have made good use of patent information such as granted patents. Seen through Sir Isaac Newton's metaphor, inventors can see further by standing on the sholders of the giants and undoubtedly, such information is a valuble source of up to date scientific and technical information, which can be used to avoid duplication of work already done

328 WM Cohen, RR Nelson and JP Walsh, 'Protecting Their Intellectual Assets: Appropriability Conditions and Why US Manufacturing Firms Patent (or Not)' (2000) Working Paper No.7552, National Bureau of Economic Research 17.

329 Article 7 of the TRIPS Agreement states that transfer of technology is one of the fundamental objectives of the global IPR regime.

330 According to OECD definition, high-tech industries are characterized by technical products of which the manufacturing involves high intensity of R&D, i.e. computers, photo-copying apparatus.

elsewhere.[331] It may partly be attributed to the lack of awareness and the practical dificulties in accessing such information as evidenced by our survey.

It is also important to consider factors that discourage the use of the patent mechanism by Sri Lankans. Most notably, the type of innovations produced in the country does not qualify for patent protection. Simply put, most of the innovations are not obvious over prior art and do not possess an inventiveness step. Thus, new but obvious improvements are not rewarded by the current patent regime which follows stringent global standards of novelty and inventive step. This typical developing country scenario has rightly been observed by commentators. According to them, domestic firms generally follow 'imitative' or 'dependent' technological strategies, usually relying on external sources of innovation, such as suppliers, customers and competitors.[332] These are successive improvements upon existing products and processes which bring about increases in technical efficiency or/and improvements in quality.[333] Thus, in most cases, Sri Lankan firms mostly rely on alternative appropriation mechanisms such as secrecy even though their effectiveness is subject to debate. Another reason why patent system has neither become attractive to individuals nor companies is the cost factor. Enormous costs associated with acquisition, maintenance and enforcement of patent rights is a greater deterrence for applicants. Moreover, TK-based industries such as the cosmetics industry occupy an important place in the Sri Lankan industrial economy, and according to our findings, such industries are hesitant to use the patent system mainly because they do not want to disclose valuable information to competitors and face delays in the granting process as their product lifecycle is relatively short. They also fear that TK-based innovations generally lack novelty and inventive step.

The effectiveness of patents as an incentive to invest in R&D depends not just on what the patent system can and does provide, but also on what

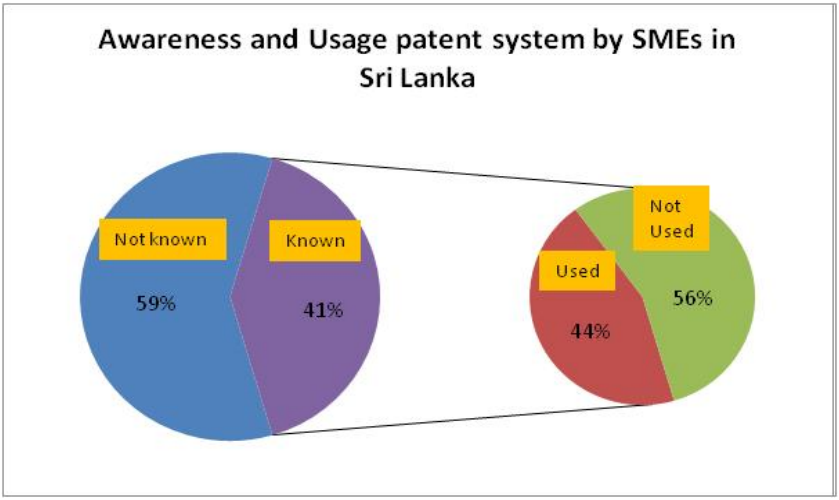
331 A Fitzgerald, *LBC Nutshell Intellectual Property* (2nd edn, Lawbook 2002) 144. See also, S Richetson, 'The Future of Australian Intellectual Property Reform and Administration' (1992) 3 Australian Intellectual Property Journal 3, 3-5.

332 C Correa, 'Designing Patent Policies suited to Developing Countries Needs' (2008) 10/2 Econômica, Rio de Janeiro 82, 89.

333 RM Galhardi, Small High Technology Firms in Developing Countries: The case of biotechnology (Avebury Press, 1994) 49.

investors think or perceive that it provides.[334] During our interviews, a number of firms confirmed that they more often than not use alternative appropriation mechanisms (non-IP strategies) such as lead-time advantage, secrecy and complementary sales. When it comes to IP mechanisms, they mostly rely on trademark protection. Due to the level of innovations they rarely apply for patents. The majority of small firms do not consider that patent protection is something that is important or necessary for their businesses. The following figure captures a snapshot view on the awareness and use of the patent system by the Sri Lankan SME sector. It needs to be interpreted with caution as there is a need for further rigorous research on the issue.

Figure 2.6: Use of Patent System by SMEs



(Source: Survey evidence gathered from personal and telephone Interviews)[335]

334 The UK Patent Office (UKPO), *The UK Intellectual Property Awareness Survey 2006*. The Report was prepared by R Pitkethly (2007) 11, available at: <http://www.ipo.gov.uk/ipsurvey.pdf> (accessed 20 June 2012).

335 The methodology employed to gather information was to conduct face to face interviews and detailed telephone interviews with owners and managers of randomly selected 25 representatives of SMEs in Sri Lanka, whose contact details were obtained from the Ministry of Productivity Promotion and other industrial sector organizations of Sri Lanka. These interviews were carried out in 2011 and 2012.

Fugure 2.6 suggests that nearly 60 percent of SMEs in Sri Lanka are not aware of the importance of the patent system as an appropriation mechanism. Perhaps more importantly, firms that are aware of patent system are not inclined to seek patent protection. As evident from the data, not many firms in SME sector are enthusiastic about filing patents. Our survey evidence shows that patenting propensity among Sri Lankan SMEs is relatively low.[336] The SME sector is still unable to reap the benefit from the patent system. In other words, SMEs are kept away from using the patent system. They seem to favour informal ways of protection such as lead-time advantages and secrecy. The survey evidence suggests that awareness about the patent mechanism is a major issue in Sri Lanka. It was also observed that the level of awareness is higher among individual inventors and large companies than the SME sector. As a result, propensity to patents is far fewer among the SME sector. This by no means explains that the propensity to patent is high among large firms. Survey evidence from large firms supports the view that there is a general lack of confidence in the legal mechanism for obtaining protection in Sri Lanka.[337] Moreover, individual inventors are also discouraged to apply for patents due to practical difficulties such as getting access to qualified persons for legal advice and for drafting patent applications. Most of the professional service providers are lawyers and they charge relatively high fees from their clients. In hindsight, it can be argued that Sri Lankan SMEs have not made productive use of the patent system in place in the country. In other words, the patent regime has not worked well for a vast majority of local industries creating a disconnection between patent mechnism and industrial landscape. Our survey provides ample evidence to prove the proposition that the role of the patent system in the innovation process is poorly grasped by local industries in their research and development activities. As interpreted through the lens of patent jurisprudence, neither the message of incentive rationale nor the prospect theory of patent law has been well re-

336 Propensity to patent refers to probability/tendency to apply for and/or to obtain a patent, given a patentable invention. Put differently, the percentage of patentable innovations that are patented. Propensity to patent depends on, among other things, market, size of the firm, and level of innovation. See E Mansfield, 'Patents and Innovation: An Empirical Study' (1986) 32/2 Management Science 173, 176.

337 For example, several legal officers from leading companies in Sri Lanka pointed out that they do not wish to apply for patent due to long delays in granting process, in some cases more than 3-4 years.

ceived by the relevant sectors in the industrial landscape of Sri Lanka.[338] In essence, the Sri Lankan patent system remains under-appreciated and under-utilized.

2.2.12. Adequacy of the Existing Patent Regime

The basic motivation of the legislature in support of the new IP legislation in 2003 is best illustrated by the wordings of Ravi Karunanayake, the former Minister of Commerce and Consumer Affairs (2003) when it was introduced in the parliament.[339] He emphasized that 'in a knowledge-based economy, one of the biggest aspects and one of the biggest intrinsic advantages is the knowledge of our people. There are hidden talents in people. Creativity is there. That is what we want to protect. We feel that this type of thing will certainly help our very creative minded people to get a foothold into the globalized world'.[340] Despite these optimistic words, the reality is very different and little substantive progress has been so far made in the creation of innovation in the country. In hindsight, however, the current patent regime falls far short of the potential benefits envisioned by lawmakers, namely, promotion of the innovation potential and to create an innovative culture in the country. As evident from previous analysis, the current patent regime has become almost unsuitable for protecting creative efforts of the country because the Sri Lankan innovation landscape is dominated by subpatentable innovations. Thus, the patent system is disassociated with industries, especially the SME sector whose use of the patent mechanism is disappointingly low. Moreover, the statistical data depicts that the technological landscape of the economy is still at the initial stage of the technological ladder. There remains a question whether technology transfer and technological learning really occurs in Sri Lanka. Based on our survey evidence, the catch-all-patent system has proved to

338 The 'incentive theory' argues that granting legal protection encourages innovations, while 'prospect theory' holds that patent system brings an array of prospects associated with cost and returns. See EW Kitch, 'The Nature and Function of the Patent System' (1977) 20 Journal of Law & Economics 265, 266.

339 R Karunanayake – the former Minister of Commerce and Consumer Affairs (2003), *Hansard Report-23 July 2003* (The Parliament of Sri Lanka 2003) 1048, 1049-1050. He made this statement in the second reading of the Code of Intellectual Property Law Bill in Parliament.

340 Ibid.

be ineffective and much less attractive for the SME sector which is considered to be the engine of growth in the country.

Contrary to the generally held view, the patent system has failed to deliver worthwhile protection for the industrial sector in Sri Lanka. In reality, we face a paradox: the patent regime, which was introduced to help boost domestic industries and creative minds to get a foothold into the globalized world, is increasingly becoming an obstacle to gain protection for the kind of innovations that Sri Lankans produce. This is clearly evident from the number of patent applications filed and granted. When asked, why there is a high rate of rejection, relevant officials revealed that most inventions that are filed with the National Intellectual Property Office (NIPO) are very basic and cannot fulfill the patentability requirements as provided in the Act. That is of course only an aspect of this problem. The truth is, however, that a large majority of innovations of domestic industries do not find their way to the patent registry in the capital city. As aptly observed by Carlos Correa, in most developing countries the innovation systems are fragmented and weak and they overwhelmingly depend on innovations made abroad.[341] Furthermore, a large part of firms have confirmed that they do not regard patents as a significant factor in their decisions to invest time and resources for development. Not only is there a clear lack of interest in patents in the SME sector, there is also an impression that the patent system is ineffective and unimportant for them. This may not be the case for large companies though we found mixed evidence. The patent regime does appeal to certain industries like large corporations. One of the major problems faced by small firms is the accessibility of the patent system because patents are simply too expensive for them. Viewed against the backdrop of the intention of the legislature, the main objectives of the patent law was to promote national creativity and the protection of the creative efforts of the nation. Unfortunately, the implementation of the current patent regime has probably not furthered this policy goal.

As pointed out in our interviews with the honorable members[342] of the Sri Lankan judiciary, without diluting the patentability standard, Sri Lankans should consider adopting an STP system of protecting incremental types of innovations that would not qualify for patent protection. As

341 C Correa, 'Designing Patent Policies suited to Developing Countries Needs' (2008) 10/2 Econômica, Rio de Janeiro 82, 90.

342 Interview with, Justice KT Chitrasiri/The Court of Appeal of Sri Lanka and Justice Saleem Marsoof/The Supreme Court of Sri Lanka. (20 and 29 August 2012).

our survey evidence suggests, the SME sector may be better served by such a regime as their innovative activities are characterized by relatively small incremental improvements to existing products rather than the development of completely new products. Such innovations should be promoted although, they have received little attention so far. From a policy perspective, it is neither logical nor practical to lower standards of patentability as they are interpreted in a global manner. Sri Lanka should continue to follow a similar line with the EPC, USPTO, PCT, JPO and many other jurisdictions in order in order to comply with international standards and developments. What may be more appropriate to consider is a different regime to deal with incremental innovations which have largely remained unnoticed by policy makers in Sri Lanka so far.

2.3. Design Protection in Sri Lanka

2.3.1. Introduction

The industrial design regime, which is one of the four pillars of industrial property protection, plays an important role in the market place today. It is needless to mention that the appeal of consumer goods of everyday life is influenced by the appearance of products. The more appealing such products are, the more likely it is that they will be bought by consumers.[343] Designs make a product attractive and appealing; hence they may add significantly to the commercial value of a product and increase its marketability. Design protection is wide enough to encapsulate designs of three-dimensional patterns such as toys, shoes, perfume bottles, cutlery, and even domestic furniture on the one hand, and two-dimensional patterns such as textiles and wallpapers, on the other hand. Industrial design protection worldwide has developed slowly, following a different path in each country, and even today, there are significant differences in various jurisdictions.[344] While a patent protects the technical solution or the inventive technical improvement in a product or a process, the new and original shape and external appearance of a useful object is protected by an indus-

343 Y Takagi and others (eds), *Teaching of Intellectual property* (WIPO and CUP 2008) 85.

344 D Musker, Community Design Law: Principles and Practice (Sweet & Maxwell 2002) viii.

trial design right.[345] Interestingly, industrial design protection suffers jurisdictional encroachments under copyright, patent, utility model, trademark and unfair competition law.[346] According to Article 25(1) of the TRIPS Agreement, WTO members have an obligation to provide for the protection of independently created industrial designs that are new or original. Nevertheless, the TRIPS Agreement does not provide a definition of novelty or originality. An industrial design may be defined as the (outward) appearance of a product or a part of a product which results from the lines, contours, colours, shape, texture, materials and its ornamentation.[347] Even though the protection of industrial designs is of vital importance to the promotion of trade and innovation, it remains a less harmonized aspect in the global IP arena.

2.3.2. Overview of Sri Lankan Law

The current legal protection of industrial designs in Sri Lanka is governed by Part III of IP Act No. 36 of 2003. It appears from the statutory language that industrial designs can also be protected under other IP regimes such as copyright, trademarks and unfair competition[348] and arguably, like in other jurisdictions such as European and US, the overlap of rights makes cumulative protection possible in the area of design rights in Sri Lanka. According to the Act, "any composition of lines or colours or any three dimensional form, whether or not associated with lines or colours, that gives a special appearance to a product of industry or handicraft and is capable of serving as a pattern for a product of industry or handicraft, shall be deemed to be an industrial design".[349] However, pursuant to Section 30 of the Act, anything in an industrial design which serves solely to obtain a technical result shall not be protected as an industrial design in Sri Lanka. From an IP law perspective, the exclusion of functional features of a prod-

345 S Alikhan and RA Masshelkar, Intellectual Property and Competitive Strategies in the 21st Century (Kluwer Law 2004) 8-9.

346 U Suthersanen, *Design Law in Europe* (2nd edn, Sweet & Maxwell 2010) 1.

347 See art 3 of the Council Regulation (EC) No. 6/2002 of December 12, 2001 on Community Designs (Community Designs Regulation-CDR).

348 See Section 28 of the IP Act; "The protection of industrial designs provided under this Part shall be in addition to and not in derogation of any other protection provided under any other written law".

349 See Section 30 of the IP Act of Sri Lanka No 36, 2003.

uct from the design protection arises from the policy consideration that the protection of function of an article should be left for patent and utility model protection. Moreover, even though there is no definition of the term 'product', it can be interpreted from the wording of Section 30 that a 'product' would mean an industrial or a handicraft item. In order to be eligible for protection under Sri Lankan law, any registerable design has to be new and must not be anti-social in the sense that it does not consists of any scandalous design or that it is contrary to morality or public order or public interest or is likely to offend the religious or racial susceptibilities of any community.[350] The Act does not provide any guidance as to what 'public order or morality' means, and arguably, it has to be understood in the light of the moral and socio-cultural climate of the country.

As stipulated in the Act, "an industrial design is new when it had not been made available to the public anywhere in the world and at any time whatsoever through description, use or in any other manner before the date of an application for registration of such industrial design or before the priority date validly claimed in respect thereof".[351] It is clear from the wording of the Act that Sri Lankan law imposes a high threshold of novelty or absolute novelty for design protection. Taken together, the emphasis on absolute novelty and exclusion of functional aspects of course creates difficult hurdles for designers.

Under Sri Lankan law, an owner of a registered industrial design can enjoy his exclusive rights to exploit by preventing others from unauthorized making, selling, importing, or using of any product that is protected by the design law.[352] The registration of an industrial design lasts for five years from the date of application and it can be renewed for two consecutive periods of five years. Thus, the statutory life of a registered design lasts for 15 years from the date of application.[353] Moreover, in order to further strengthen the position and the rights of the design owner, Sri

350 See Section 29 of the IP Act of Sri Lanka No 36, 2003. See also DM Karunaratna, *Elements of the Law of IP in Sri Lanka* (Sarasavi Publisher 2010) 116.

351 See Section 31, and as per this Section 31(2), a restrictive grace period of 6 months if provided, the design is displayed at an official or officially recognized, international exhibition. Moreover, according to Section 31 (3) an industrial design shall not be considered a new industrial design solely by reason of the fact that *it differs from an earlier industrial design in minor respects or that it concerns a type of product different from a product* (*emphasis added*).

352 See Section 47 of the IP Act of Sri Lanka No 36, 2003.

353 See Sections 45 and 46 of the IP Act of Sri Lanka No 36, 2003.

Lankan law has implemented the legal presumption according to which the person who makes the first application for a design is presumed to be its owner. In principle, Sri Lankan industries such as textiles and garments, toys, cottage industries like handicrafts, as well as the producers of gem and jewelry should have been prime candidates for design protection. Nevertheless, the relatively high novelty standard and non-protection of technical features prevent most incremental and minor innovations from receiving protection under this mechanism.

2.3.3. Empirical Analysis

Table 2.1: Industrial Design Applications and Registrations

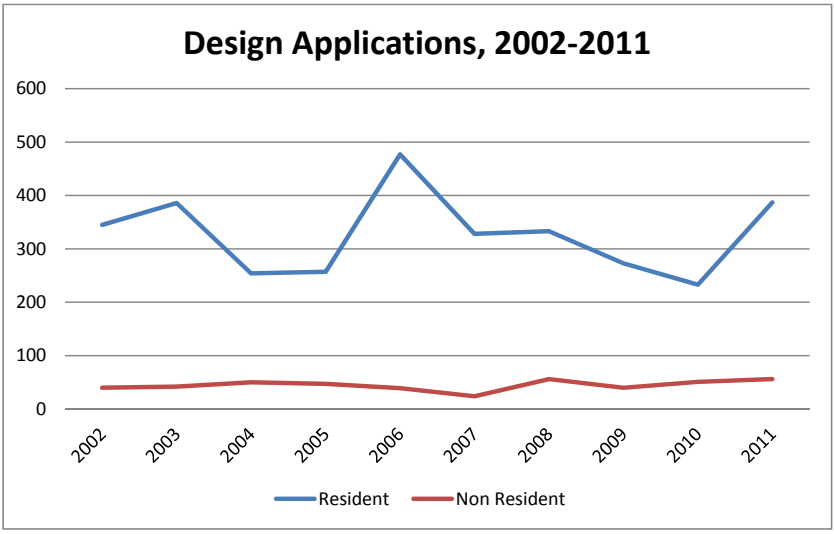
Year	Applications			Registrations		
	Resident	Non Resident	Total	Resident	Non Resident	Total
2002	345	40	385	253	13	266
2003	386	42	428	365	23	388
2004	254	50	304	224	40	264
2005	257	47	304	269	88	357
2006	477	39	516	422	45	467
2007	328	24	352	8	6	14
2008	333	56	389	85	4	89
2009	273	40	313	238	36	274
2010	233	51	284	228	37	265
2011	387	56	443	88	21	109

(Source: National Intellectual Property Office of Sri Lanka data)

The statistical evidence from the NIPO demonstrates that the application and registration of design rights in Sri Lanka has recorded a slow growth over the last 10 years with fluctuating numbers in certain years. As presented in Table 2.1, filings of design applications have recorded a small increase from 345 in 2002 to 385 in 2011. Notably, there has been a considerable increase in filing and registration in year 2006. Nevertheless, the increase has not remained constant in the following years. Significantly, in

recent years such as 2007, 2008 and 2011, there has been a decline in the number of registered designs. In other words, the rate of rejection seems to be very high. Most strikingly, over the last decade, the recorded design applications remain less than 500 per year. One conclusion that we can draw from this data is that the design regime has not been very attractive for domestic industries in Sri Lanka.

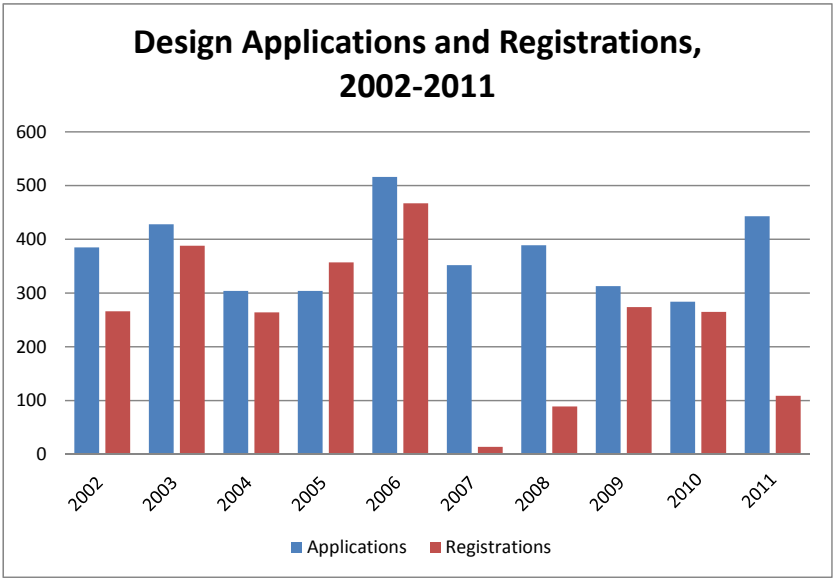
Figure 2.7: Trends in Design Applications



(Source: Based on data from the National Intellectual Property Office of Sri Lanka)

Figure 2.8, shows that resident applications constitute a large share of total design applications between the years 2002 to 2011 and it is more than 85 percent in 2011 alone. In stark contrast to patent applications, foreign applications for design protection remains low. Different conclusions are possible. One possible and most likely explanation is that, since Sri Lanka has a relatively small market, not many foreign applicants are willing to or interested in exploiting their design in Sri Lanka. Moreover, foreign design applications have remained more or less constant, with a marginal increase.

Figure 2.8: Trends in Design Applications and Registration



(Source: Based on data from the National Intellectual Property Office of Sri Lanka)

As shown in figure 2.9, even though the design regime has not created significant growth in terms of applications, the available data suggests that the system in place is working quite well in Sri Lanka. Nevertheless, it is rather disappointing to learn that there is a considerable gap between the design applications and registrations, most notably in 2007, 2008 and 2011, where the registered designs are as low as less than 100 annually. One possible explanation for this decrease in registrations would be that the high threshold of novelty filters out many applications for designs that were not universally new. There is yet another reason that might have been attributed to this situation. Probably, many design applications might have fallen into the exclusion clause for being functional and become unprotectable. As a fact, the scope of design protection is limited to the appearance of the product. Moreover, when visual features of the design serve only a functional purpose, such a design would not qualify for protection under the design regime. Furthermore, the survey evidence suggests that, due to the lack of awareness among industries, the number of application files for design protection is limited. Most strikingly, it was also revealed that design protection was not very attractive for fast-mov-

ing industries (of short product life cycle) such as fashion designers and manufacturers due to delays in the granting procedure. In particular, novelty examination for industrial designs applications is carried out by the National Intellectual Property Office (NIPO) of Sri Lanka and it generally takes quite a long time. Nevertheless, according to NIPO, design protection is mainly sought to protect items such as toys, garment hangers, bottles shapes and jewellery. Apparently, the relevant industrial sectors in Sri Lanka have not made very effective use of the protection mechanism available under design regime for their businesses.

2.3.4. Is Design Protection an Alternative to a Second-Tier Protection Regime?

An industrial design constitutes the ornamental or aesthetic aspect of an article.[354] From an economic perspective, the design right is a marketing tool which can incentivise innovation and support its commercialization.[355] Comparatively speaking, industrial design protection in Sri Lanka does not have to survive rigorous obviousness scrutiny as in US law or prove individual character requirement as in Europe. As a result, the available protection mechanism does probably not cause serious difficulties for designers in Sri Lanka. Nevertheless, in order to serve as an effective alternative to an STP regime, the industrial designs application and registration system in Sri Lanka would need to be made simpler and faster without insisting on rigorous standards for protection. In that sense, enforcing a very strict worldwide novelty requirement would create a hurdle which can dissuade and discourage the design industry from using the system. However, the major fault in obtaining protection for minor and incremental innovations under design law is that the scope of protection may be limited to the 'overall impression' of the design.[356] In other words, the law will not protect the underlying function or principle but rather the appear-

354 WIPO, 'What is an Industrial Design?' (2012) Official website of WIPO, available at: <http://www.wipo.int/designs/en/> (accessed 2 May 2012).

355 U Suthersanen, *Design Law in Europe* (2nd edn, Sweet & Maxwell 2010) 23.

356 U Suthersanen, 'Utility Models and Innovation in Developing Countries' (2006) ICTSD Issue Paper No.13, 32, available at: <http://unctad.org/en/docs/iteipc20066_en.pdf> (accessed 15 March 2012).

ance of the product. The problem that arises here is that minor innovations will not qualify for design protection.[357]

Under the 'functionality doctrine' design protection will not be available for features of a product which are solely dictated by its technical function. In other words, the functions that are necessary for a product to work effectively are generally defined as 'primarily functional' or 'solely functional'.[358] Arguably, the design regime is not there to grant rights for technical effect circumventing the underpinning rationale of the patent law. For this reason, technical innovation does not attract design protection and needs to be treated under a different regime. Thus, it may be argued that design protection does not amount to an alternative protection for an STP system. It may be true that design protection can be used in some circumstances, but certainly not in all circumstances; and such use will usually require using design protection for a purpose other than its intended use.[359] In principle, different forms of IP rights have been created to serve different underlying objectives, and when one right is used for another purpose for which it was not created, the objective of that regime can easily be undermined resulting in an imbalance in the entire legal framework. All in all, the industrial design regime does not offer the same benefits as an STP regime does. Conversely, in some cases, the design regime may be adequate, but arguably it will rarely be ideal.[360]

357 Ibid 30-32.

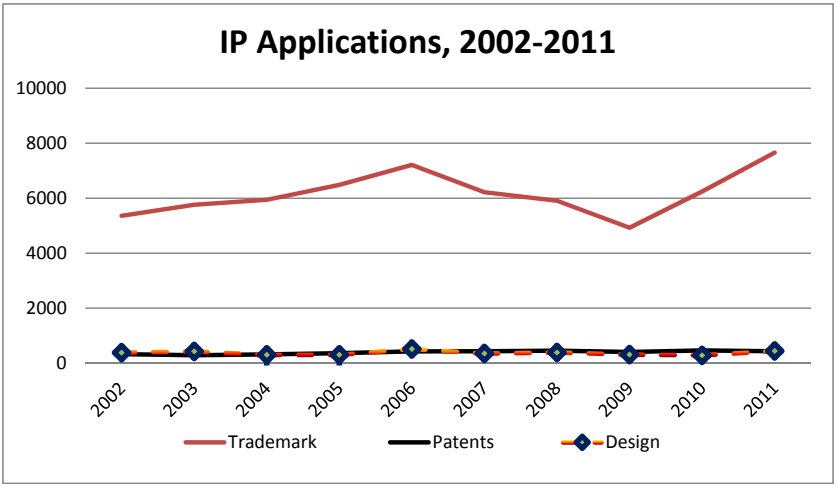
358 Y Takagi and others (eds), *Teaching of Intellectual property* (WIPO and CUP 2008) 85.

359 M Crinson, 'Is Some Novel Protection of Invention Needed in Canada' (1998) 12 Intellectual Property Journal 25, 49.

360 Ibid 49-50.

2.4. Comparative view of Different IPRs in Sri Lanka

Figure 2.9: Trends in Patent, Design and Trademark Applications



(Source: Based on data from the National Intellectual Property Office of Sri Lanka)

Even though an analysis of the trademark regime is well beyond the scope of this research, a comparative view on the disparate development of different industrial property regimes seems appropriate. As shown in Figure 2.9, trademark protection is the most commonly used IP instrument in the industrial landscape of Sri Lanka. Statistical evidence from 2002 to 2011 demonstrates that, on average, the number of annual filings of trademark applications remains more than ten times higher than that of patents and industrial design applications. Even more significantly, the gap between trademarks and patent applications is widening. The increased use of the trademark regime mirrors the socio-economic realities and the level of technological development of the country. Sri Lanka is still making simple products such as tea and garments and very few hi-tech complex products.[361] Moreover, it can be labeled as a raw material exporting country as opposed to a value-creating nation. Understandably, Sri Lankan firms in

361 WA Wijewardene, 'How Sri Lanka can move up' *Lanka Business Online* (Colombo, 20 October 2012), available at: <http://www.lankabusinessonline.com /> (accessed 1 January 2013).

low-tech sectors are more prone to rely on trademark protection as the most appropriate means of protecting their investments. The limited importance of patents and design rights for SMEs received further confirmation in our interviews with the industrial organizations. Thus, it comes as no surprise that the majority of registered industrial property belongs to trademark rights. The same is also evident from case law jurisprudence in IP law that only a handful of cases reported in the other areas, especially of patent and industrial designs, is making it difficult to develop the law in these areas. The Courts have apparently not had adequate opportunities to deal with the subject in a constructive way.[362] According to commentators, the unencouraging economic environment and lack of creative activity have largely contributed to this situation.[363]

2.5. Conclusion

IP law encompasses a range of property rights attached to various products of the human mind and is traditionally divided into industrial property and copyright. Not surprisingly, granting of IP rights is based on sound theoretical and philosophical justifications. In this chapter, only patent and design regimes have been dealt with especially from a Sri Lankan perspective insofar as to ascertain the adequacy of the existing IP framework to incentivise incremental and minor innovations in the industrial landscape of Sri Lanka.

Viewed from an innovation perspective, a patent is a policy instrument aimed at encouraging inventors to invest in R&D activities and their commercialization through securing exclusive rights. Moreover, it is hoped that the patent system stimulates indigenous technological development, promotes domestic inventive activity and facilitates technology transfer as well as technology learning. Sri Lanka being a commonwealth country inherited its patent system from the UK but gradually developed its own independent system. Despite the fact that the country's patent system is more than one and a half centuries old, its contribution to science and technological development has been minimal. It is observed that the strict requirements of global novelty and inventive step as implemented in the

362 DM Karunaratna, *A Guide to the Law of Trademarks and Service Marks in Sri Lanka* (2nd edn, Sarvodaya Vishva Lekha Publishers 2007) 3.

363 Ibid.

current patent law has created roadblocks in protecting the kind of innovation that emanates from domestic industries, especially for SMEs. Patent law jurisprudence, on the other hand, has not been adequately advanced as there are only a handful of cases that have gone up to the appeal level.

It is, of course, true that Sri Lanka has a smaller market and a less technologically advanced economy. The country is still in the initial stage of technological ladder, and needs to move into the rank of technological innovative nation through innovation. Empirical evidence has confirmed that the current patent regime, in most cases, does not provide suitable means of protecting the type of innovations that are generated in domestic industries. Patent protection will not be available for most of that type of innovation because of its high inventive step requirement. As confirmed by empirical evidence, for SMEs, patent protection is 'too demanding, too time-consuming, and too complex to handle. A relatively low number of resident patent filings and registrations provide ample evidence to prove this fact. There are also growing concerns that a uniform patent system may not be the right tool for incentivising local innovations in developing countries. Viewed through the patent landscape of the country, the country's patent system does not positively encourage domestic inventive activities. The government should also have a policy to enhance the use of the patent system and Sri Lanka needs to move from the labour-intensive garment industry to knowledge-intensive products. There is evidence that the state of IP awareness among large firms is much higher than in the SME sector in Sri Lanka. In sum, when judged by the policymakers' objectives, the Sri Lankan patent system has failed to live up to its expectations. There is compelling evidence to conclude that most SMEs in Sri Lanka are proceeding largely in ignorance of their IP entitlements. Without diluting standard for patenting, it may be appropriate to consider the introduction of an STP to capture incremental types of innovation which may fit the needs of SMEs in the country. There is, therefore, a need for an STP regime to protect innovation that falls into the gap at the interface of patent and design rights.

In contrast to the patent regime, the design regime has its objective of protecting the overall appearance of a product. Due to the lack of international consensus for harmonization, design laws in different countries vary in terms of criteria of protection. In the Sri Lankan context, industrial design must meet the standard of worldwide novelty. Perhaps even more importantly, based on policy reasons, the exclusion of functional aspects of a product makes it difficult, if not impossible, to protect incremental innova-

tions through design protection. Thus, innovations relating to mechanical or technical devices may not be served by the design regime. Put differently, design law in Sri Lanka cannot protect functional innovations. This brings us to the question of whether design protection is an alternative to an STP system. The answer is no. Nevertheless, in some cases, where the features of the product that serve to improve the product appearance and do not perform primarily functions of the product, such products would attract design protection under Sri Lankan law. When compared with the patent regime, the usage of industrial design protection has remained modest in recent years. As evidenced by empirical data, the majority of design applications are filed by domestic applicants. It does not, however, mean that the design regime has made some encouraging steps in terms of application and registration of designs. Most importantly, an urgent effort is needed to enable the country to move up the technological ladder. In the final analysis, a paradigm shift will be necessary if Sri Lanka wants to enter the ranks of emerging economies and beyond.