

# Does Sri Lankan Patent Regime Adequately Incentivise Local Innovations? : A Critical Analysis

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**Abstract-** *The second decade of the twenty first century is witnessing the rise of global innovation competition. In a knowledge-based economy in which knowledge is used to generate wealth, Intellectual Property ('IP') is considered as a tool for technological and economic development. The term 'innovation' is broadly used to mean the creation of better or more effective products, processes or technologies that are accepted by markets and societies. Patent protection is granted for inventions and is designed to promote innovation. The current Sri Lankan patent regime falls far short of the potential benefits envisioned by the lawmakers; namely, promotion of the innovation potential and creating of an innovative culture in the country. The country is still in the initial stage of technological ladder and the industrial sector has suffered over the years due to marginal technological capabilities. Analysing the innovation landscape through the prism of patent statistics of well over a decade suggests that Sri Lanka is a patent granting country, as opposed to a patent producing one. The recent scholarly investigations suggest that there is reasonable nexus between a patent regime and the technological progress of a country. Against this backdrop, this research investigates whether the existing patent regime is adequately focused to promote local innovation viewed through the lens of empirical evidence.*

*Research Methodology:* This research was carried out primarily as a library-based research. In so doing, primarily and secondary sources were used. Furthermore, legal research and analysis of the domestic legal framework has been carried out with support of empirical evidence.

*Findings/conclusion:* The findings of this research suggest that Sri Lanka has fallen far behind in terms of patents, technology and innovation, when compared with her neighbours and emerging

*economies in East Asia. The poor patent filing is perhaps the single most obvious indication of a shortage of home-grown creativity. The patent applications filed in recent years remain dominated mostly by foreign patent applications. Thus, empirical evidence supports the view that not many firms in Sri Lanka are enthusiastic about filing patents. The survey evidence shows that patenting propensity among Sri Lankan Small and Medium-sized Enterprises (SMEs) is relatively low. In essence, the Sri Lankan patent system remains under-appreciated and under-utilized. From an innovation policy perspective, even though many factors could influence the innovation landscape of the country, including education policies, a country's technological absorptive capacity, its general institutional base to promote domestic research and development, the patent regime is a vital instrument in promoting innovation and Sri Lanka has probably not paid adequate attention to this important aspect in its economic development drive.*

**Keywords:** Intellectual Property, Patents, Innovation.

*"Innovators are those who see what everyone sees, but think of what no one else thinks."* - RA Mashelkar

## I. INTRODUCTION

As evident from the world leading irrigation systems and architectural wonders, during the reign of the ancient kings, Sri Lankans have proven to be a creative and innovative people. Even today the world is amazed as to how Sri Lanka's ancestors built huge reservoirs such as *Parakrama Samudraya* and how the country put together a flawless irrigation network (Fernando, 2014). Invention and innovation are no doubt the engine of economic growth and development of a country, paving the way for many countries to succeed in becoming globally competitive. The

protection of inventions lie at the heart of intellectual property which emanates from the need to reward innovation and creativity. 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 (Karunaratna, 2010). 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' (Machlup, 1958). The official name is 'letters patent', a literal translation of the Latin *litterae patentes*. Letters patent are official documents by which certain rights, privileges, ranks, or titles are conferred (Machlup, 1958). 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 (OECD, 2009). 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' Ordinance of 1859 became applicable to Sri Lanka (then Ceylon) (Amaradasa, S. and Pathirage, 2002). 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 (Amaradasa, S. and Pathirage, 2002). Since then, Sri Lankan Law relating to patent has been amended by several pieces of IP legislation and the current patent regime of the country is governed by Intellectual Property Act No. 36 of 2003.

A glimpse of IP Act reveals that Part IV of the Act contains detailed provision dealing with patent protection. Besides, Sri Lankan patent law follows the 'first to file' system as oppose to 'first to invent' system. By virtue of Section 63 of the IP Act, an invention is patentable if it is new, involves an inventive step and is industrially applicable. 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. Viewed from a user

perspective, the Sri Lankan patent regime has, however, come under heavy criticism for being less attractive to domestic industries, especially for SMEs.

As observed by Llewelyn, there seems to be a shortage of home-grown creativity in Sri Lanka (Llewelyn, 2010). Viewed through the lens of global innovation indicators, the country's performance is not so encouraging and is in line with this observation. Another striking feature of the Sri Lankan innovation landscape is the large presence of the SME sector. The most frequent type of innovation activity of SMEs is generally characterized by minor or incremental changes, together with innovative applications of existing products or processes (OECD & Eurostat, 2005). They are technically less complex (easy to copy simple products) and quite often have a short commercial life. Moreover, both large and small industries more often than not use simple and medium technology (Chandrasiri, 2003). This might be one of the reasons for a large number of minor and incremental technical advances to have a lower threshold of inventiveness. The technological progress that the country has so far achieved is not at all satisfactory in view of most recent figures and indicators. As a result, Sri Lanka has fallen far behind in terms of technology and innovation compared with her neighbours, as well as East Asian countries.

## II. EMPIRICAL ANALYSIS OF SRI LANKAN PATENT SYSTEM

The analysis of patent data paints a picture of the use of 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 last 10 years, there has been a general increase in patent applications, with a marginal decrease in year 2009, 2011 and 2012. 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. In fact, the number patent application is an indicator of innovation activities of the country, on one hand, and on the other, it is a measure of technological strengths of a nation.

The Statistical Story

Year	Resident Applications	Non Resident Applications	Total Applications	Resident Registrations	Non Resident Registrations	Total Registrations
1995	75	114	189	64	95	159
1996	50	114	164	98	107	205
1997	81	193	274	65	96	161
1998	54	158	212	44	97	141
1999	119	248	367	78	101	179
2000	71	250	321	59	169	228
2001	120	236	356	71	109	175
2002	123	202	325	59	54	113
2003	95	189	284	63	52	115
2004	120	195	315	103	85	188
2005	149	211	360	64	116	180
2006	153	270	423	68	69	137
2007	151	279	430	54	37	91
2008	209	241	450	89	70	159
2009	202	200	402	11	254	365
2010	225	235	460	220	284	504
2011	196	233	429	48	224	272
2012	365	29	394	60	28	88
2013	328	188	516	71	165	236

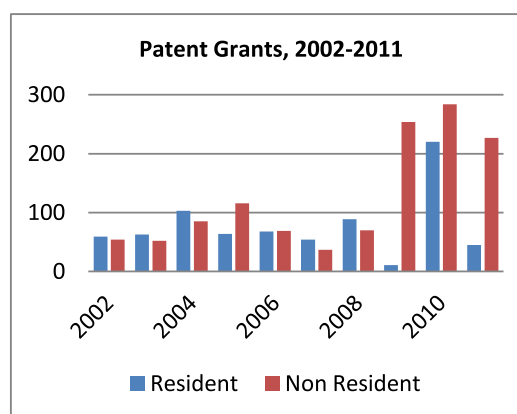
(Source: National Intellectual Property Office data)

As indicated in the above Table, the number of patent filings has been increased gradually from 284 in 2003 to 516 in 2013 over the last 12 years. This increase is more apparent in the years 2010 with 460 and 2013 with 516 applications. More interestingly, these are the highest figures that Sri Lanka has ever achieved in its recent history. Nevertheless, patent filings have slightly declined in 2012 to 394 applications. 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 just above 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 of concern.

Perhaps a better explanation for this phenomenon is that Sri Lanka is a country with a comparatively small market. Therefore, not many foreign firms are interested in filing patent applications. Conversely, if that might have been the case, then it may be equally applicable to relatively small

market economies in East Asia, where patent statistic 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 has been very few cases of infringement law-suits so far and the active use of 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.

Trends in Patent Grants: Resident and Non-Resident



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

Viewed from a different perspective, 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. It must be noted, however, that the gap between resident and non-resident 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 get granted patents. Not surprisingly, the rejection rate of patent application is considerably high, and in 2011 alone, it is more 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.

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 patent system by public research institutions such as universities remains minimal in the Sri Lankan context.

As it is evident, the above mentioned 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 very low in the Sri Lanka context. Significantly, the number of domestic patent applications and grants are 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 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 lawsuits and enhancement of the firm's reputation (Cohen, Nelson & Walsh, 2000). 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 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.

It is also important to consider factors that discourage the use of patent mechanism by Sri Lankan. Most notably, the type of innovations produced in the country does not qualify for

patent protection. Simply put, most of innovations are not obvious over prior art and do not possess an inventiveness step. Thus, new but obvious improvements are not rewarded by 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 (Correa, 2008). These are successive improvements upon existing products and processes which bring about increases in technical efficiency or/and improvements in quality (Galhardi, 1994). 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 individual nor companies is the cost factor. Colossal cost regarding acquisition, maintenance and enforcement of patent rights is a greater deterrence for applicants.

As adopted by global benchmarks of innovation such as OECD's Oslo Manual, the number of patent applications filed per year is a good metric of measuring the innovation potential of a country (Leuven, 1996). Analysing the innovation landscape through the prism of patent statistics of well over a decade suggests that Sri Lanka is a patent granting country as opposed to a patent producing one. This empirical evidence as such paints a picture of weak innovation character of the country. As seen from the figures above, the poor patent filing is perhaps the single most obvious indication of a shortage of home-grown creativity. In recent years, the patent applications filed remain dominated mostly by foreign patent applications.

A closer analysis of this statistics further reveals that the existing patent regime has a marginal impact on domestic innovations. This does not, however, imply that Sri Lankan people are less innovative or genius. As mentioned before, there may be a problem of access to patent protection as a large part of innovation falls short of patent protection, on one hand, and on the other hand, patent protection seems less attractive due to high transaction costs which may be well beyond the

means of domestic the industrial sector. Thus, given the specific characteristics of the innovation landscape of the country, it is suggested that Sri Lanka need to consider an introduction of a secondary form of protection offering a cheaper, simpler and an easier, no-examination protection regime for sub-patentable innovations of the country. An appropriate second-tier patent system may be designed by drawing examples from emerging East Asian economies such as South Korea and China. Perhaps most encouragingly, the policy space left by multinational legal framework can be used to design a most appropriate form of a second-tier protection that suits the specific needs of an individual country.

### III.CONCLUSION

Since its independence, Sri Lanka has not been able to make significant strides in terms of innovation and technological progress in the past six decades. Today, Sri Lanka embarks on a voyage of economic development after the end of an almost three-decade-long civil war in 2009. Undoubtedly, Sri Lanka needs to promote innovation at all levels to develop a culture of innovation. However, the Sri Lankan patent system remains under-appreciated and under-utilized. The current Sri Lankan patent regime falls far short of the potential benefits envisioned by the lawmakers; namely, promotion of the innovation potential to create an innovation culture in the country. Therefore, Sri Lanka should consider legal protection for less technologically advanced inventions that do not qualify for full-fledged patents since they fail to satisfy rigorous patentability criteria. In going forward, the policymakers of the country need to take concrete steps to promote domestic innovation and invention in order to realize Sri Lanka's aspirations to become a an invention-driven knowledge economy in the 21<sup>st</sup> century.

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