

Comments on Discussion Paper on Utility Models

Executive Summary

Small and Medium Enterprises (SMEs) form the backbone of Indian industry and efforts should be taken to incentivise innovation in this sector and to improve their performance. Utility models as a means of Intellectual Property protection has been losing favour with inventors in most countries except for a few countries like China. SMEs will benefit more from other measures like knowledge sharing and collaboration rather than introducing another tier of IP protection in the form of utility models.

There is no one-to-one correlation between IP protection and industrial growth and utility models may not help SMEs by ensuring innovation. SMEs have performed remarkably well in the last few years without any substantial increase in patent protection. In fact, the ratio of patents granted to foreign national when compared to that granted to Indians has increased over the years showing a dominance of foreign firms in the patent landscape.

Computer programmes have been excluded from patentable subject matter as per the Patents Act, 1970. The legislative intent for doing this was clearly to avoid foreign monopoly in this sector. Even then, patents have been granted in this sector and Indian software companies have been granted only very few patents compared to foreign companies and this poses dangers to the local industry. Computer programmes need to be kept out of the ambit of utility models to protect the local software industry and public interest.

The Free software movement has shown that innovation can happen at a much faster rate by promoting sharing than by creating monopolies. Efforts should be made to protect free software as a public good and this model of sharing could be extended to other sectors also to promote innovation.

Comments on
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Introduction

The motivating factor for the discussion paper on utility models seems to be the perceived benefit that Small and Medium Enterprises (SMEs) could obtain from this Intellectual property protection mechanism. This approach is based on the premise that protection in the form of state-granted monopolies helps the local industries.

The Utility Model – Should India adopt a mechanism which is on the decline?

The statistics on utility models available from the WIPO database shows that except for China and to some extent Russia no other country is showing an increasing reliance on the utility model; system. In fact, major countries that have utility model(UM) protection like Germany, Korea and Japan have seen a steady dip in the number of UM being filed or being granted.

Office name	Data	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Australia	Resident		170	217	165	169	128	901	695	762	528
	Non resident		57	26	29	18	34	139	99	136	126
	Total		227	243	194	187	162	1,040	794	898	654
Brazil	Resident		278		261	343			338	313	
	Non resident		11		14	22			20	11	
	Total		289		275	365			358	324	
China	Resident	2,02,113	1,75,169	1,48,391	1,06,312	78,137	70,019	68,291	57,092	54,018	55,744
	Non resident	1,689	1,506	1,645	1,343	1,212	604	615	392	341	333
	Total	2,03,802	1,76,675	1,50,036	1,07,655	79,349	70,623	68,906	57,484	54,359	56,077
Germany	Resident	11,226	11,495	12,484	13,543	13,973	14,362	14,030	14,243	15,562	16,005
	Non resident	2,690	2,852	2,985	3,095	3,165	2,995	3,084	2,945	2,994	2,909
	Total	13,916	14,347	15,469	16,638	17,138	17,357	17,114	17,188	18,556	18,914
Japan	Resident	7,361	7,187	8,160	8,523		5,718	5,932	6,216	7,551	10,882
	Non resident	1,658	1,730	1,920	2,070	2,106	1,645	1,762	1,577	1,890	1,731
	Total	9,019	8,917	10,080	10,593	2,106	7,363	7,694	7,793	9,441	12,613
Mexico	Resident			118	138	144	101	79			
	Non resident			36	41	48	22	10		105	106
	Total			154	179	192	123	89		105	106
Philippines	Resident		405	715	282	296	335				287
	Non resident		52	58	18	14	325				2
	Total		457	773	300	310	660				289
Poland	Resident	431	616	605	869	829	894	666		484	680
	Non resident	39	52	43	45	21	26	24		22	34
	Total	470	668	648	914	850	920	690		506	714
Republic of Korea	Resident	3,880	4,875	2,739	29,031		33,629	36,597	39,417	43,372	41,350
	Non resident	69	100	56	705		553	675	540	470	395
	Total	3,949	4,975	2,795	29,736		34,182	37,272	39,957	43,842	41,745
Russian Federation	Resident	10,500	9,250	9,311	9,195	6,958	8,230	8,053		4,743	4,044
	Non resident	419	423	446	373	285	273	258		99	54
	Total	10,919	9,673	9,757	9,568	7,243	8,503	8,311		4,842	4,098
Spain	Resident	2,127	2,495	2,321	2,449	2,510	2,538	3,051	2,783	3,223	3,108
	Non resident	132	146	152	137	113	131	179	160	182	175
	Total	2,259	2,641	2,473	2,586	2,623	2,669	3,230	2,943	3,405	3,283

Granted UM (WIPO data base : January 2011)

Office name	Data	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000
Australia	Residents		1,024	1,036	917	925	956	901	868	762	528
	Non Residents		231	193	159	134	137	139	121	136	126
	Total		1,255	1,229	1,076	1,059	1,093	1,040	989	898	654
Brazil	Residents		2,983		2,935	3,019			3,211	3,266	
	Non Residents		52		49	50			47	94	
	Total		3,035		2,984	3,069			3,258	3,360	
China	Residents	3,08,861	2,23,945	1,79,999	1,59,997	1,38,085	1,11,578	1,07,842	92,166	79,275	68,461
	Non Residents	1,910	1,641	1,325	1,369	1,481	1,247	1,273	973	447	354
	Total	3,10,771	2,25,586	1,81,324	1,61,366	1,39,566	1,12,825	1,09,115	93,139	79,722	68,815
Germany	Residents	14,242	14,047	14,834	16,406	17,021	17,053	16,945	17,363	17,126	18,899
	Non Residents	3,064	3,020	3,249	3,360	3,397	3,233	6,463	6,065	3,159	3,411
	Total	17,306	17,067	18,083	19,766	20,418	20,286	23,408	23,428	20,285	22,310
Japan	Residents	7,799	7,717	8,399	8,922	9,420	6,337	6,381	6,942	6,988	7,897
	Non Residents	1,708	1,735	1,916	2,043	1,967	1,649	1,788	1,661	1,818	1,690
	Total	9,507	9,452	10,315	10,965	11,387	7,986	8,169	8,603	8,806	9,587
Mexico	Residents			413	308	366	334	339			
	Non Residents			69	78	77	51	46		468	375
	Total			482	386	443	385	385		468	375
Philippines	Residents		512	395	519	519	573				536
	Non Residents		33	32	22	27	19				
	Total		545	427	541	546	592				536
Poland	Residents	734	667	604	625	600	648	732		1,057	1,274
	Non Residents	46	52	45	53	44	32	27		38	56
	Total	780	719	649	678	644	680	759		1,095	1,330
Portugal	Residents		83	62	56	47	47	48		52	50
	Non Residents		26	24	45	35	27	25		51	44
	Total		109	86	101	82	74	73		103	94
Republic of Korea	Residents	16,801	16,971	20,632	32,193		37,167	40,174	38,662	40,389	36,817
	Non Residents	343	434	452	715		586	651	531	415	346
	Total	17,144	17,405	21,084	32,908		37,753	40,825	39,193	40,804	37,163
Russian Federation	Residents	10,728	10,483	9,588	9,265	9,082	8,648	7,400		5,863	4,549
	Non Residents	425	512	487	434	391	300	222		166	82
	Total	11,153	10,995	10,075	9,699	9,473	8,948	7,622		6,029	4,631
Spain	Residents	2,447	2,512	2,521	2,665	2,725	2,784	2,853	2,928	2,981	3,062
	Non Residents	113	170	145	159	130	120	147	175	161	150
	Total	2,560	2,682	2,666	2,824	2,855	2,904	3,000	3,103	3,142	3,212

Filed UM (WIPO data base : January 2011)

So, this mode of IP protection is falling out of favour with inventors the world over and there does not seem to be any compelling reason for introducing it in India. The major reasons for the decline of the UM protection mechanism are the issues of validating the UM in the case of a litigation and the lesser benefit offered by it when compared to a patent. The interests of SMEs can be better protected by providing them with better financing and marketing solutions and also with better access to R&D institutions.

Legislative framework and treaty obligations

India is a signatory to the TRIPS agreement and has amended its patent statute to comply with its obligations under the agreement. India provides protection to intellectual property in the form of patents, designs, trademarks and copyrights. This IP framework provides the industry the adequate protection required and India is not obligated to provide any further protection.

While amending the Patents Act, 1970 in 2002 and 2005 for complying with TRIPS provisions, enough safeguards were incorporated in the Act to protect the interests of local industry as well as the general public. Hence, any proposal to increase the IP protection by introducing utility models should take into account the deliberations that took place prior to the amendments of the Patents Act, 1970 and the rationale behind the amendments.

The flawed hypothesis of greater IP protection leading to better industrial growth

Although some studies have suggested a direct correlation between IP protection and industrial growth, these studies are often too simplistic and do not take into consideration other factors like liberalisation policies and greater trade between countries that affect industrial growth.

As the objective is to incentivise the SME sector, a study of the filing and number of patents granted during the period from 2003 to 2010 provides an interesting picture. It is seen that the share of Indian entities in applications as well as grants have been reducing during this period, signifying lesser IP protection enjoyed by Indian companies.

YEAR		2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
FILED	INDIAN	3218	3630	4521	5314	6040	6161	7044
	FOREIGN	9395	13836	19984	23626	29178	30651	27243
	TOTAL	12613	17466	24505	28940	35218	36812	34287
	INDIAN/ TOTAL	25.51 %	20.78 %	18.45 %	18.36 %	20.70 %	16.73 %	20.54 %
GRANTED	INDIAN	945	764	1396	1907	3173	2541	1725
	FOREIGN	1524	1147	2924	5632	12088	13520	4443
	TOTAL	2469	1911	4320	7539	15316	16061	6168
	INDIAN/ TOTAL	38.27 %	39.98%	32.31%	25.3 %	20.72%	15.82%	27.97%

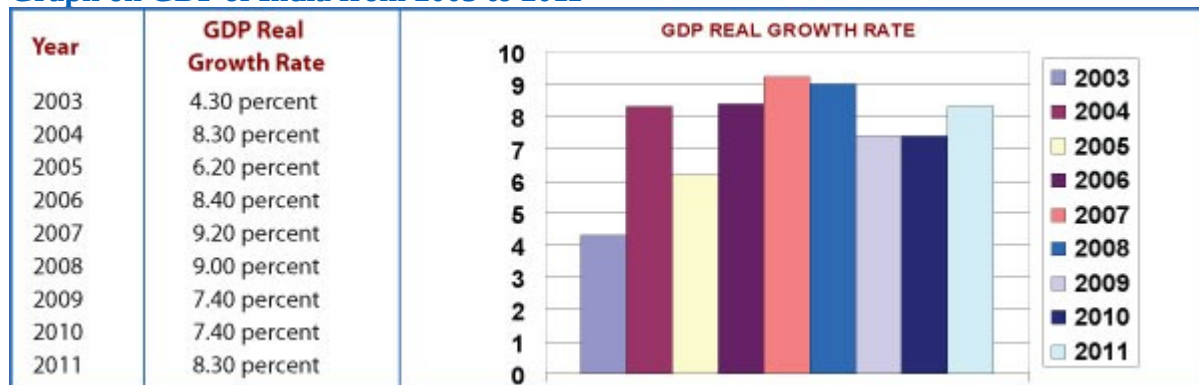
At the same time, Indian economy has done increasingly well over the last few years. Moreover the SME sector has performed remarkably well with double digit growth and it contributes 40 % to industrial production and 6% to GDP.¹ India has nearly three million SMEs, which account for almost 50 percent of industrial output and 42 percent of India's total exports. Small and Medium enterprises are the backbone of India's economy.² Thus the lesser Intellectual Property activity of Indian entities characterised by low patent filing and grants, do not have any correlation with the

1 <http://www.kapsole.com/market-report-smes-in-india-2011/>

2 http://www.tradeindia.com/newsletters/special_report/tips_13_feb_2007.html

robust performance of the SME sector as well as the economy.

Graph on GDP of India from 2003 to 2011



Another aspect to be considered is that the Indian pharmaceutical industry grew phenomenally when there was lesser IP protection during the process patent era. Thus, the Indian experience in IP protection itself does not match the hypothesis of greater IP protection equating to better industrial growth. Hence SME sector would benefit more from other measures like dispersing the results of R&D activities done by research organisations, creating platforms for sharing technology and greater financial and marketing support than providing protection in the form of Utility Models.

Need to exclude computer programmes from the ambit of utility models

Computer programmes are essentially algorithms for computers in human readable terms. Considering this aspect, algorithms, mathematical methods and computer programmes per se are excluded from patentable subject matter under the Patents Act , 1970. For more than a quarter century, beginning with a few stalwart thinkers and exponentially increasing in size and influence, a movement to build computer software by sharing - treating software programming languages like mathematical notation, for the expression of abstract ideas to be studied, improved, and shared again - has revolutionized the production of software around the world. The “free software movement,” believes that computer software expresses abstract ideas, and therefore concludes that the ideas themselves will grow best if left most free to be learned and improved by all. It has attracted hundreds of thousands, soon millions of programmers around the world to the making of new and innovative software through the social process that for centuries has been the heart of scientific research: “share and share alike.” Free software, often referred to by commercial entities as “open source software,” to prevent confusion between the social freedom of its making and the price at which they sell copies, has become the single most influential body of software around the

³ <http://business.mapsofindia.com/india-gdp/>

world. Free software operating systems now power everything from cellphones to home appliances to supercomputer clusters. There is no major or minor computer hardware architecture, no class of consumer electronics, no form of network hardware connecting humanity's telephone calls, video streams, or anything else transpiring in the network of networks we call "the Internet" that doesn't include free software. The most important innovations in human society during the last decade, the World Wide Web and the Wikipedia, were based on and are now dominated by free software and the idea of free knowledge sharing it represents .

Free software has ensured innovation in the software industry by the involvement of a large number of developers across the world. This model of sharing has proved to be a better option for innovation rather than the closed proprietary model. The free software movement has ensured greater adoption of technology and innovation in the SME sector. The innovation that has happened in the software industry even without the patent protection shows that state-granted monopolies in the form of patents are not required for organisations to innovate. The spread of the free software movement has resulted in free software being recognised as a public good the world over. Hence in the interest of the industry and the general public, computer programmes need to be kept out of the ambit of utility models.

Software patents do not offer benefit to the industry

Studies have found that patents in the area of software are more likely to be litigated and the disincentives outweigh the incentives to organisations.⁴ The recent study by James Bessen has shown that patenting in the software industry is done mainly by a few large firms and most software firms do not benefit directly from software patents.⁵

In India, it is seen that although the statute specifically excludes computer programmes per se from patentable subject matter many patents have been granted in the area of software. These software patents have been granted mainly to foreign companies. It is seen that in 2009-10, 141 patents were granted in the software area and of this only 5 patents were granted to Indian companies. In 2010-11, 213 patents were granted in the software area and of this only 8 patents were granted to Indian companies. Thus Indian companies will not gain in any manner if another level of protection in the form of utility models are introduced. In fact, this could lead to an arms race for acquiring monopolies by Indian as well as foreign companies. The foreign companies with their huge patent

4 James Bessen and Michael J. Meurer, *The Private Costs of Patent Litigation*, (Boston Univ. School of Law, Working Paper No. 07-08., 2007), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=983736

5 Bessen, James E., *A Generation of Software Patents* (June 21, 2011). Boston Univ. School of Law, Law and Economics Research Paper No. 11-31; Berkman Center Research Publication No. 2011-04. Available at SSRN: <http://ssrn.com/abstract=1868979>

portfolio will definitely have the edge in this race and this will erode the ability of Indian software companies to compete in the market place. This could also result in large number of litigations which will not be beneficial for the industry and the economy.

Patents Act and the legislative intent for excluding computer programmes from patentable subject matter

Section 3(k) of the Patents Act, 1970 that excludes computer programmes from patentable subject matter was introduced by the Patents (Amendment) Act, 2002 (No.38 of 2002). As per Section 3(k) of the amended Act , the following is not an invention within the meaning of the Act:

“a mathematical or business method or a computer programme per se or algorithms”

The Government of India issued the Patents (Amendment) Ordinance, 2004 amending the Patents Act, 1970 and S.3 of the Ordinance amending S.3(k) of the Act came into force from 1-1-2005. Section 3(k) of the Patents Act, 1970 was amended as :

“(k) a computer programme per se other than its technical application to industry or a combination with hardware;

(ka) a mathematical method or a business method or algorithms”

The Patents (Amendment) Bill, 2005 which included the proposed amendment to Section 3(k) was introduced in the Lok Sabha on March 18, 2005. Clause (c) of para 7 of Statement of Objects and Reasons of The Patents (Amendment) Bill, 2005 stated that a feature of the ordinance was to “modify and clarify the provisions relating to patenting of software related inventions when they have technical application to industry or in combination with hardware”. After deliberations in both the houses of Parliament, the proposed amendment to Section 3(k) was dropped. The Patents (Amendment) Act, 2005 repealed the Patents (Amendment) Ordinance, 2004. Shri Rupchand Pal, Hon'ble MP of Lok Sabha, while participating in the discussions, explained the rationale for moving the amendment to the bill in the case of software. He said that although the bill was introduced with the intention of providing patent for embedded software, this provision was opposed as it will not benefit our professionals and will only benefit the multinational companies. The press release dated March 23, 2005 on the Patents (Amendment) Bill, 2005 by the Ministry of Commerce and industry states that “It is proposed to omit the clarification relating to patenting of software related inventions introduced by the Ordinance as Section 3(k) and 3 (ka). The clarification was objected to on the ground that this may give rise to monopoly of multinationals.”

Thus the legislative intent in dropping the proposed amendment to modify Section 3(k) by providing for technical application to industry is clear . The legislature proposed to exclude all computer programmes from patentable subject matter. The legislature objected to patent protection on computer programmes as it would give rise to monopoly of multinationals. The problem of the monopoly of multinationals would also rise if software is protected using utility models.

Conclusion

The reliance on Utility Models have been decreasing in countries across the world and India could do well not to opt for a mechanism which is on the decline. Exclusions for patentable subject matter provided in the Patent Act should be extended in the case of utility models also. Computer programmes should be kept out of the ambit of utility models in the best interests of local industry and the general public. The Free Software model of knowledge sharing which has spurred innovation in the software sector could be a good model to adopt to ensure innovation in other sectors too. An example of such a model of innovation is the Open Source Drug Discovery project of CSIR. SMEs will benefit more from such knowledge-sharing exercises than from creation of barriers and monopolies.