BUSINESS METHOD PATENTS: AN OXYMORON?

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The practice of granting patents to business methods is antithetical to the core concepts of intellectual property rights. Patent protection is afforded to novel creations which have industrial and technical application. A business method can be understood as an effective method of conducting commercial transactions. These methods are a result of business instinct and creativity. An external ‘patent’ incentive is not required to motivate the creation of such methods. Competition and first mover advantage are mechanisms that have ensured that novel business methods are created continuously. Moreover, such methods are purely transactional in nature, lacking in physical instantiation and hence not patent eligible. Despite the apparent clarity on the treatment of such subject matter, software, a gift of the Information Age, has confused our understanding of business methods. This confusion is evident in the leading US cases – State Street Bank Co. v. Signature Financial Group Inc. and In Re Bilski, where the court grappled over whether a business method executed through software could amount to a patentable ‘invention’. Even the Agreement on Trade-Related Aspects of Intellectual Property Rights (‘TRIPS’) does not address this ambiguity. In contrast, the Indian law, under § 3(k) of the Indian Patent Act, 1970, clearly excludes granting of patents to business methods. Despite this express exclusion, along with the Competition Act, 2002 and the Yahoo v. Controller of Patents decision, our empirical study shows that the Indian Patent Office still grants patent protection to business methods! The paper seeks to address these issues in detail and suggests that judicial decisions and legislative provisions be reconsidered so that the disparity between law and practice in India can be addressed in an expeditious manner.

I. INTRODUCTION

The patent system, as generally believed, is founded on the theory that inventions and innovations can be encouraged by granting exclusive, time-limited proprietary rights, as a reward to the creators of these inventions.1 It is

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believed that without this incentive, fewer people would engage in such activities, as their inventions would be easily appropriated by others who have not shared in the time and costs of the invention. This would in turn lead to fewer inventions and hence a lower rate of technological progress and social well-being. From this perspective, the patent system seeks to reward the creator of the invention, to avoid free-riding and to ensure technological progress of the society. Since the patent system revolves around protection of an ‘invention’, the threshold question of what qualifies as an ‘invention’ and whether a business method would qualify as one, needs to be determined at the outset. Along with this, it is pertinent to examine whether the incentive theory of innovation is applicable to creation of new business methods.

The term ‘invention’ has not been defined by the Agreement on Trade Related Aspects of Intellectual Property Rights (‘TRIPS’) nor does it admit of a precise definition. Judge Peter Prescott rightly observes that:

“How, then, does the law define what is an ‘invention’? The answer is that nobody has ever come up with a satisfactory, all-embracing definition and I do not suppose anybody will. By its very nature, therefore, the subject cannot be reduced to a precise verbal formula. It is, indeed, something of a moving target, because the progress of technology continues apace.”

This implies that “…If something is an invention… we can call it “technology” for short.” From this understanding of ‘invention’, patent regimes have focused on protecting new and non-obvious creations that have some kind of industrial or technological application. Traditionally, technology was inextricably linked to hardware i.e. actual machines, devices and new chemical compositions – rather than pure concepts. In this sense, inventions...

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1 See generally Bishwanath Prasad Radhey Shyam v. Hindustan Metal Industries, (1979) 2 SCC 511, 517; David Vaver, Invention in Patent Law, 11 INT’L. J. L. & INFO. TECH. 286 (2003); See also Eric Johnson, Intellectual Property and the Incentive Fallacy, 39 FLORLAND ST. UN. L. REV. 623 (who contends that innovation is intrinsic and an external reward by means of a patent is not necessary to incentivize innovation).
3 See Peter Prescott J’s decision in the Matter of Patent Applications GB 0226884.3 and 0419317.3 by CFPH LLC, EWHC 1589 (2005)(Her Majesty’s High Court of Justice in England).
5 JUSTINE PILA, THE REQUIREMENT FOR AN INVENTION IN PATENT LAW 101 (2010).
were embodied in physical objects and being tangible, were readily identifi-
able.7 Due to the need for a physical object to qualify as an invention, processes were initially excluded from patent protection in most jurisdictions. In time, however, they were granted protection because they came to be understood as ‘physical transformations’ rather than mere abstractions.8 Business methods, though a type of process, continued to be excluded from patent protection since they lacked the essential characteristics of ‘industrial application’ and ‘physical transformations’. Even though business, commerce and finance were essential for economic progress, they were not considered practical arts and were kept out of the realm of ‘patentable subject matter’ in most jurisdictions.

This traditional understanding of ‘technology’ and ‘inventions’ underwent a tremendous transformation with the advent of the Information Age. The early twentieth century saw the growth and influence of software in every industry. As a result, economics, business, finance, and similar fields began to develop and resemble technological disciplines.9 Computer software and empirical tools started being employed in business methods. It is this transition that was the catalyst for the growing number of business method patents in the United States (‘US’).10

Therefore, the Information Age gifted us with software but at the same time left us confused with regard to whether the traditional understanding of ‘invention’ and ‘technology’ should be changed to accommodate this creation. Some have argued that computer programs are no less a piece of ‘technology’ than traditional inventions that were manifested in physical objects.11 On the contrary, there is a strong argument against extending protection to software per se, as such ‘technology’ does not involve physical instantiation which is at the heart of the concept of an invention.12 This argument is based on the fact that the real cognitive exercise in a computer program lies in the mental steps involved in creating the code and nothing else.13 The debate over whether software should be patentable or not becomes important even for assessing patent eligibility of business methods as business methods are very often computer programs.

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8 Id., Merges, 582.
10 Id.
11 Merges, supra note 7, 586.
We argue that business methods are not just a matter of craftsmanship but undertakings that require business instinct and creativity which cannot be crystallized into an ‘invention’ or considered as ‘technology’. Moreover, though patents are required to motivate technological advances, it is argued that they are not required to motivate business and commerce. We argue that competition in itself motivates the creation of new business methods and no external incentive is required for the same. This is evidenced by the fact that business methods have been in existence even before the creation of a patent regime and they have continuously developed without such protection. This has happened for a variety of reasons. First, these methods are hard to free ride on as they depend on the social, economic and managerial structure of the firm utilizing them. Furthermore, these methods are created to ensure that costs incurred in developing them are recouped and substantial profits are earned, therefore a patent is not required to ensure the same. More importantly, the first mover advantage enables companies to capture markets and create brand loyal ‘sticky’ customers. These and other arguments, which will be highlighted in the course of this paper, will demonstrate why business methods would not be appropriate subject matter for patent protection and why the incentive theory for innovation will not apply to such subject matter.

The growing trend of extending patent protection to business methods is a result of a paradigm shift from restricting protection to certain select creations to extending protection to ‘anything under the sun’. This shift is detrimental to the progress of developing nations as it adversely affects their patent regimes, stifles competition and free trade, imposes very high social costs and even inhibits innovation. Against this background, Part II will attempt to define and explain the concept of a business method through examples. Thereafter, the international debate on extending patent protection to such methods will be examined. Part III will seek to analyze the Indian position – law and empirical data, on patenting business methods.

II. UNDERSTANDING THE CONCEPT OF A ‘BUSINESS METHOD’

There is no clear definition of what constitutes a business method but it has been understood as a method of conducting business involving a range of activities relating to the transaction of goods and services. More technically, it can be understood as “a process, technique or means of computing or processing administrative, financial and management data that are utilized

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14 Id., 151; See D. Chisum, supra note 7, § 1.03.
16 Id.
17 Id.
for conducting particular types of commerce”. It has also been defined as a method of operating any aspect of an economic enterprise. The examples given below will help in understanding the concept of a business method.

Business method patents have been granted to methods of computerized tourism, advertising on the Internet, running an automated restaurant business etc. In addition to these examples, the most prominent example of a business method patent is Amazon.com’s ‘One-Click’ patent. The business method developed by Amazon was a method of purchasing items online with just one click of a mouse. This ‘one click’ system was extremely convenient for shoppers because once they had entered their shipping and billing details, they did not have to re-enter the same on subsequent purchases thereby making subsequent transactions faster. In 1998, Amazon’s competitor, Barnes & Noble, had implemented a similar system called ‘Express Lane’ on their website and Amazon filed a patent infringement application against them. In December, 1999, during the peak of the holiday shopping season, an injunction was passed against Barnes & Noble which brought their service to a grinding halt and required them to insert an extra mouse click into their ordering process.

Another interesting example of what can constitute a business method patent was an application filed by Bhatarmatrimony.com, a popular online marriage portal. The method sought to be patented was the service of a ‘Virtual Matrimony Meet’. This virtual matrimony meet was described as an “event that aims to provide an online platform for registered members of the same community to interact with their prospective partners from across the globe on a particular date and time set by the website”. The benefit of the virtual meet setup as compared to the previous ‘offline model’, according to the CEO of Bharatmatrimony.com, is that “unlike offline matrimony which was highly localized, virtual matrimony provides a platform for people to interact

25 Id.
26 Id.
27 Id.
29 Id.
with members of their particular community from all over the world’. Given the problems faced by ‘offline meets’, the ‘virtual meet’ business method of Bhatramartimony seeks to enhance the use of its website by increased participation of its members with the ultimate aim of improving profits and business of the company. Looking at this ‘business method’, one really wonders if patent law was ever developed to protect such ‘inventions’!

Another example to put the discussion into perspective and to bring out the essence of a business method and its impact on the economy is the business method of a credit card system. Our interface with the business model of the ‘credit card’ takes place almost every day. For the sake of argument, let us assume that this business model was ‘invented’ today. The credit card model does away with the requirement of paying cash up-front as it facilities payment through the swipe of a plastic card. The credit card company that ‘invented’ this model did so with the aim of creating customers and increasing profits by charging a fee for this ‘special service’. Though the technology used in the card itself may be patentable, the model/method of payment through a card would constitute the ‘business method’.

Though this method may seem ground breaking, novel and simply fantastic, the question is whether it can be patented? The concept of a ‘card’ in the credit card model may be new but the concept of payment on credit, i.e. buying a product without paying instantly, has been in existence since the very advent of commerce. Moreover, the implications of such protection could have disastrous effects on developing economies in particular. Imagine a developing nation with only one company (assuming this company has a very broadly drafted patent claim) having the sole right to issue credit cards- the social costs imposed by such patents would far outweigh the benefits. In absence of competition the company would not want to develop the existing credit card service which it otherwise would have had to in order to compete and stay in the market. This would also result in society being deprived of better and more efficient credit card services. Moreover, smaller companies would suffer since they tend to adopt business methods of larger companies in order to grow. This is only a glimpse into the problems that may arise if such methods are granted patent protection.

It is important to note that these concerns are not misplaced as similar problems have been witnessed in the past with inventions such as the light bulb, the steam engine and even the airplane. It is now a known fact that James Watt and Thomas Edison chose to make money from their existing inventions rather than improving them. This was also evidenced with the airplane, where the Wright Brothers drew out a very broad patent claim that

30 Id.  
inhibited the creation of any alternative aircraft until the Government stepped in during World War I to allow cross-licensing for defense aircrafts.\textsuperscript{32} These are examples which show that patents have in fact delayed the development of technology. However, these are cases pertaining to technology and ‘inventions’ that were patentable, had industrial application and that may not have had a direct implication on the markets and business of a country. Granting patents to business methods however, would not only delay the creation of improved business services but would also have a direct impact on the economy of a country, as such patents cause outright market distortions, increased dead-weight loss and lower societal welfare.

III. THE INTERNATIONAL POSITION WITH REGARD TO BUSINESS METHOD PATENTS

Having brought out the essence of what a business method is and having highlighted the problems that may arise if patents are used to protect such methods, this section will discuss the international perspective on business method patents by analyzing the position in the US and under the TRIPS.\textsuperscript{33}

A. BUSINESS METHOD PATENTS IN THE UNITED STATES: EXAMINING THE CASES OF STATE STREET BANK & TRUST CO. V. SIGNATURE FINANCIAL GROUP, INC AND IN RE BILSKI

Unlike the Indian Patent Act, 1970, the US Patent Act does not specifically exclude business methods from the purview of an ‘invention’.\textsuperscript{34} In the absence of an express exclusion, the courts of the US have had some trouble in defining the limits of patenting such methods. Though initially business methods were excluded from patent protection,\textsuperscript{35} the US Supreme Court in the State Street Bank & Trust Co. v. Signature Financial Group Inc. (‘State Street Bank’)\textsuperscript{36} explicitly removed this exception. This lead to a massive increase in patents being granted to business methods in spite of them not falling within the traditional definition of ‘inventions’. In the In Re Bilski case,\textsuperscript{37} the Court tried to narrow down the scope of such claims, however, in reality the scope still remains broad and uncertainty in this area still exists.

\begin{itemize}
  \item \textsuperscript{32} Id.
  \item \textsuperscript{33} World Trade Organization (WTO), Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), available at http://www.wto.org/english/tratop_e/trips_e/t_agm0_e.htm (Last visited on August 18, 2013).
  \item \textsuperscript{34} 35 U.S.C. §101.
  \item \textsuperscript{35} See e.g. Hotel Security Checking Co. v. Lorraine Co., 160 F. 467, 469 (2d Cir. 1908).
  \item \textsuperscript{36} 149 F 3d 1368 (Fed Cir 1998).
  \item \textsuperscript{37} Bilski v. Kappos, 130 S. Ct. 3218 (2010).
\end{itemize}

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In State Street Bank, a patent was sought for a computerized accounting system for managing mutual funds called a ‘Hub and Spoke’ configuration.38 The computer system was designed to calculate the daily gains and losses of pooled assets of various mutual funds, the ‘hub’, and to determine the proportional gains and losses of each fund, the ‘spoke’.39 The District Court invalidated the patent by relying on the Freeman-Walter-Abele test40 which required ‘physical transformation of the subject matter’ which was absent in the present claim.41 Also, the court reiterated the per se non patentability rule for business methods and emphatically pronounced the patent void.42

Interestingly, the Federal Circuit reversed the District Court’s judgment. Writing for a three-judge panel, Judge Rich found the patent to be not just a mere abstract idea but a “programmed machine” that produced a “useful, concrete, and tangible result”.43 The Court also did away with the “ill-conceived exception” of per se non patentability of business methods.44 The Court emphasized on the fact that there never existed a per se exception to the patentability claim of a business method.45 To reach this liberal conclusion, the Court stressed on the ‘usefulness’ of a process claim while downplaying the ‘concrete and tangible’ aspects of the test.46

The Court’s ignorance of the essential criterion of ‘inventive step’, over emphasis on ‘utility’ and equating experimentally derived methods to market driven methods are few but significant areas that have come under

39 Id.
40 This test was created in In re Schrader, 22 F.3d 290, 292 (Fed. Cir. 1994) and is a combination of the tests laid out in In re Walter, 618 F. 2d 758 (C.C.P.A. 1980), In re Freeman, 573 F. 2d 1237, 1245 (C.C.P.A. 1978) and In re Abele, 684 F. 2d 902 (Fed. Cir. 1982). The Freeman-Walter-Abele test was:
   “It is first determined whether a mathematical algorithm is recited directly or indirectly in the claim. If so, it is next determined whether the claimed invention as a whole is no more than the algorithm itself; that is, whether the claim is directed to a mathematical algorithm that is not applied to or limited by physical elements or process steps. Such claims are non statutory.”
42 Id.
43 State Street Bank &Trust Co. v. Signature Financial Group Inc., 149 F 3d 1368 (Fed Cir 1998), 1373 (quoting In Re Alappat, 33 F 3d 1526, 1544 (Fed Cir 1994)).
44 Id., 1375.
45 Id., 1376.
46 See generally David J. Kappos et al., A Technological Contribution Requirement for Patentable Subject Matter: Supreme Court Precedent and Policy, 6 NW. J. TECH. & INTELL. PROP. 152, 153 (2008) (“In State Street Bank and other opinions, the Federal Circuit has equated patentability to mere usefulness”).
The impact of this judgment on the market was also a cause of concern.\textsuperscript{48} With the broad ‘useful, concrete and tangible result’ test, it was feared that many business methods would be amenable to patent protection which would lead to market distortions and undesirable social costs.\textsuperscript{49}

As feared, the broad ‘useful, concrete and tangible result’ formulation did indeed open a floodgate to business method patents in the US. With the increasing number of processes and methods falling with the definition of ‘invention’, the US Supreme Court was called to decide on the patentability of Bilski’s business method application.

Bilski’s application was filed in 1977 and was described as “how buyers and sellers of commodities in the energy market can protect, or hedge, against the risk of price changes”.\textsuperscript{50} Under the claim, hedging of risks would take place in the following manner: a commodity would be sold by an intermediary to a consumer at a fixed rate, thereby insulating the consumer from risks of drastic price rises.\textsuperscript{51} The method also ensured that the intermediary would purchase the commodity at a fixed price in order to insulate him from unexpected price drops.\textsuperscript{52} In this way the intermediary ‘hedged his risks’.\textsuperscript{53}

The Federal Circuit Court held that the application was not patentable as it did not involve a ‘transformation of physical subject matter’ and therefore failed the ‘machine or transformation test’.\textsuperscript{54} However, in the Supreme Court, though the majority affirmed the Federal Court’s ultimate decision of non-patentability of the subject-matter, the ‘machine or transformation test’ was not relied on for the same. The majority in the Supreme Court held that

\textsuperscript{48} \textit{Id.}
\textsuperscript{49} \textit{Id.}
\textsuperscript{51} Bilski v. Kappos, 545 F. 3d 943, 949-50 (Fed Cir, 2008) (“A method for managing the consumption risk costs of a commodity sold by a commodity provider at a fixed price comprising the steps of: (a) initiating a series of transactions between said commodity provider and consumers of said commodity wherein said consumers purchase said commodity at a fixed rate based upon historical averages, said fixed rate corresponding to a risk position of said consumer; (b) identifying market participants for said commodity having a counter-risk position to said consumers; and (c) initiating a series of transactions between said commodity provider and said market participants at a second fixed rate such that said series of market participant transactions balances the risk position of said series of consumer transactions”).
\textsuperscript{52} \textit{Id.}
\textsuperscript{53} \textit{Id.}
\textsuperscript{54} \textit{Id.}
hedging was “a fundamental and long prevalent economic practice”\textsuperscript{55} and that it “is an unpatentable abstract idea”.\textsuperscript{56} Justice Kennedy who rendered the judgment on behalf of the majority, concluded by saying that “allowing petitioners to patent risk hedging would preempt use of this approach in all fields, and would effectively grant a monopoly over an abstract idea”\textsuperscript{57}.

Though all the judges agreed that the ‘machine-or-transformation test’ was “not the sole test for deciding whether an invention is a patent-eligible ‘process’, they differed on the treatment of business methods as a category for patent protection. The plurality opinion reasoned that business methods cannot be completely excluded from patent protection – “Section 101 of the US Patent Act precludes the broad contention that the term ‘process’ categorically excludes business methods”.\textsuperscript{58} Moreover, “The categorical exclusion argument is further undermined by the fact that federal law explicitly contemplates the existence of at least some business method patents: Under §273(b)(1), if a patent-holder claims infringement based on ‘a method in [a] patent’,”\textsuperscript{59} On the contrary, the minority judges (including Justice Stevens), were of the opinion that business methods as a category should be excluded from any kind of patent protection – “term ‘process’ (along with the definitions given to that term) has long accumulated a distinctive meaning in patent law […] We may infer that the term ‘process’ is limited to technological and industrial methods. […] As I read the history, it strongly supports the conclusion that a method of doing business is not a ‘process’ under §101.”\textsuperscript{60}

This difference of opinion shows that there is no set standard for determining whether business methods are patent eligible subject matter. However, the majority’s refusal to read in a per se exclusion provides an impetus for more such patents. This is evidenced by the fact that the number of business method patents that have been granted after this judgment show a marked increase.\textsuperscript{61}

Since the US has a well-established patent regime and a developed market structure, such a ‘pro-business method’ attitude of the courts of the US may not be a cause of concern. Developed countries like the US have robust markets that may be able to take the weight of business method monopolies. Given that the US is arguably the most dominant player in the intellectual

\textsuperscript{56} Id.; See Parker v. Flook, 437 U.S. 584 (1978); Gottschalk v. Benson, 409 U.S. 63 (1972).
\textsuperscript{57} Id.
\textsuperscript{58} Bilski v. Kappos, 177 L Ed 2d 792: 130 S Ct 3218, 3226-28 (2010) (“The existence of these well-established exceptions [does not give] the Judiciary carte blanche to impose other limitations that are inconsistent with the test and the statute’s purpose and design”).
\textsuperscript{59} Id., Part II A (Kennedy J.).
\textsuperscript{60} Id., Part IV (Stevens J.).
\textsuperscript{61} Duffy, supra note 9, 1287.
property right arena, its ability to influence other countries to grant similar protections cannot be undermined and is a cause of concern for developing nations.

B. BUSINESS METHOD PATENTS UNDER THE TRIPS

Article 27.1 of the TRIPS states that “patents shall be available for any invention, whether products or processes, in all fields of technology”, provided that they are new, innovative, and are capable of industrial application. Therefore, the TRIPS does not explicitly exclude business methods from patent protection.

The TRIPS specifies the minimum standards of intellectual property right protection that member nations must comply with. Member countries are, however, allowed some flexibility in implementing the provisions of the TRIPS within their legal systems. Not only does the TRIPS provide minimum standards but also seeks to achieve global harmonization of intellectual property rights. Therefore, the way countries treat business methods becomes important in determining whether such patents should be granted by all countries in order to achieve harmonization and whether this should be a new common minimum standard. In this regard, a glimpse into how countries treat such claims will reveal that the position with regard to business methods is far from uniform.

The US, Australia, Japan and Singapore are pro-business method patents and are considered ‘safe havens’ for such claims. On the other hand, China, Mexico and India are considered to be against business method patents. Though the European Patent Convention prohibits patenting of ‘methods or schemes per se’, the European Patent Office has granted patents to business methods that satisfy the ‘technical character’ requirement. Germany and the

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63 Id., Part I, Art. 1.
64 Id.
United Kingdom (‘U.K.’) are in line with Europe’s stance on business method patents.70

This trend shows that most developed nations recognize and accept business methods as patentable subject matter whereas the developing nations do not favour such kind of patents. In this respect, there is no international uniformity with regard to this subject matter. Though the US’ representative to the World Intellectual Property Organisation (‘WIPO’) stated that the US did not want to officially add anything to the TRIPS with regard to business methods,71 an informal agreement has been reached by the United States Patent Office, the European Patent Office and the Japanese Patent Office on the matter of business method patents.72 The agreement recognizes that business methods are important “for progress in electronic networking in present-day society” and that such methods should be granted patents if they satisfy the ‘technical character’ test.73 Such agreements along with pressure from various international intellectual property right associations which favour patenting of business methods, may force developing states to give in, despite the fact that these kind of patents maybe incompatible with their economic and developmental needs. The following sections of this paper will engage in an examination of the law, as well as the social and economic implications of business method patents for India.

IV. ANALYZING THE INDIAN POSITION WITH REGARD TO BUSINESS METHOD PATENTS

This part will first theoretically lay out the relevant provisions of the Indian Patent Act, 1970, and recent cases interpreting the provision regarding business method patents. After establishing the position of law in India, the gap which exists between law and practice will be highlighted with the help of a short empirical analysis. Thereafter, policy concerns that may arise if such subject matter is patented will be highlighted.

70 See e.g., Bpatg Automatische Absatzsteuerung GRUR 1999, 1078 (German case for method claims).
71 P. Salmon (Senior Counselor, WIPO), From a lecture given at George Mason University School of Law on the International Protection of Intellectual Property, February, 2001.
73 Id.
A. EXAMINING THE LAW WITH REGARD TO BUSINESS METHOD PATENTS

The relevant provision with regard to business method patents is § 3(k) of the Indian Patent Act, 1970 (‘Patent Act’) which was introduced by an amendment in 2002 and reads as follows–

“3. What are not inventions:

The following are not inventions within the meaning of this Act.–

[...]

(k) a mathematical or business method or a computer program per se or algorithms.”

This amendment clearly excluded ‘business methods’ from the purview of patent protection. Importantly, in the same year, the Parliament enacted the Competition Act, 2002, (‘Competition Act’) which aims at preventing practices that adversely affect competition.74 ‘Business method patents’ as the name suggests and examples in Part II of this paper show, clearly violate the principles of the competition and free trade. This follows from the fact that though a patent on an inventive product also creates a monopoly, a business method patent can be used to extend that monopoly not only to the creation of the product but also to the method of sale and other commercial activities surrounding the product. This may lead to the creation of an ‘unreasonable’ exercise of market power.

Even though § 3(5) of the Competition Act excludes the applicability of the Competition Act to intellectual property rights, the fact that business methods are not amenable to patent protection implies that protection under § 3(5) cannot apply.75 Therefore, the Patent Act, with the express exclusion under § 3(k) together with the Competition Act, brings forth the clear intention of the legislature to exclude business methods, in any form, from patent protection.

Though the intention to exclude business methods was clear, ambiguity arose with regard to the following two situations – what did ‘computer program per se’ mean, and whether a business method executed through a computer program and having technical application could be patented. In order to

74 The Competition Act, 2002, Preamble.
clear the ambiguity, an Ordinance was introduced in 2004 to amend § 3(k) to read as follows:

“3. What are not inventions.

(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;”

Though the business method exception remained unaltered, this amendment narrowed the exclusion of patents for computer programs and almost explicitly allowed computer programs having ‘technical effect’ to be considered patentable subject matter. Such a construction seems to show the legislature’s intent to align the meaning of ‘per se’ with the interpretation used in the case of Diamond v. Diehr where computer programs having technical application were held patentable.76

This Ordinance, however, was short-lived and in 2005 an amending Act restored § 3(k) to its 2002 form. The 2005 amendment deleted the words “other than its technical application to industry or a combination with hardware” from § 3(k) showing that the legislature did not intend to make computer programs with technical application to industry or combination with hardware patentable subject matter.77 It can also be concluded that the legislature intended to treat computer programs just like any other category in § 3(k) i.e. algorithms, business methods or mathematical methods.78 Using this interpretation, we can conclude that a computer program which executes a business method and has technical application should be excluded from patent protection.

If, however, this interpretation is not followed and it is assumed that computer programs that have technical application are fit for patent protection, the next question that arises is whether a computer program (in combination with hardware or having technical application) that executes a business method should fall within the purview of patent protection? This question gains importance as most business methods are executed through computer programs.

76 Diamond v. Diehr, 67 L.Ed 2d 155: 450 US 175 (1981) (Mentions that a rubber curing process controlled by software was patentable since it did not relate to software per se).
78 Id.
There could be two possible ways of dealing with such a situation. One approach could be that of assessing the result of the computer program. Thus, even if the program is essentially a business method but has some technical effect, the claim will stand because it is not a ‘computer program per se’.

The focus is, therefore, on the effect of the patent and not on its subject matter. This is known as the whole contents approach and The Draft Patents Manual has adopted this approach. It has also been applied by the Supreme Court in Bishwanath Prasad Radhey Shyam v. Hindustan Metal Industries as well as by the Himachal Pradesh High Court in Dhanpat Seth v. Nil Kamal Plastic Crates Ltd. This approach shows that the mere presence of a business method, which is a subject matter expressly excluded, does not invalidate the patent application as the invention will be evaluated as a whole. This results in an indirect inclusion of excluded subject matter thereby making such subject matter patentable. Therefore, this approach is not appropriate, as it contravenes the basic principles of statutory interpretation.

The other approach is a prima facie enquiry into whether the software executes a business method or not. Since the exclusion is carved out for all business methods, if the software executes a business method then whether or not it has technical application, the claim should fail. This approach, therefore, focuses on the subject matter and not on the result of the invention. The same was applied in the recent case of Yahoo v. Controller of Patents (‘Yahoo case’).

Yahoo sought to patent an invention titled “A method of operating a computer network search apparatus”. The Controller and later the Intellectual Property Appellate Tribunal (‘IPAB’) concluded that the invention is only a business strategy and hence is not patentable.

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79 Id; Interview with Mr. Mathews P. George, Alumni WBNUJS, Kolkata, Blogger at SpicyIP, 2012
81 ALF Report, supra note 77 (4.11.1 of the Manual states that a computer implemented invention means any invention the performance of which involves the use of computer, computer network or other programmable apparatus, or an invention one or more features which are realized wholly or partially by means of a computer programme/programmes).
84 Interview with Mr. Mathews P. George, Alumni WBNUJS, Kolkata, Blogger at SpicyIP, 2012.
86 Id.
87 Id.
88 IPAB, OA/22/2010/PT/CH.
89 Id., ¶ 1.
90 Id., ¶ 24.
The invention provided a service to advertisers who wanted to secure the most favorable location on a web page to place their advertisements. The method allowed advertisers to bid for these spots. By this bidding process, the ‘invention’ sought to place the advertisements in hierarchy based on value of payments made. Even though Yahoo argued that this was an invention as it was a novel method of bidding for advertisements, since it was a combination of the existing methods of an auction and the Yellow Pages, all happening in real time, the IPAB held:

The claimed invention “is nothing but doing the advertisement business electronically. Even the technical advance that is claimed over the existing art is only an improvement in the method of doing business and S.3(k) is clear that business method cannot be patented, the fact that there is an advance has not improved the case”.

In order to reach this conclusion, the IPAB examined various provisions of the Patent Act and reasoned as follows:

“S 3 lists what are not inventions and begins with the words “The following are not inventions within the meaning of this Act” and sub-section (k) excludes a mathematical or business methods or a computer programme per se or algorithms as patentable subject matter. Now this Section has to be read so that there is no conflict between S.2(j), 2 (ja) and S.3 (k). When the patentee explains that there is an inventive step which is a technical advance compared to the existing knowledge (state-of-the-art) or that it has economic significance that would not give him the right to a patent as such. The ‘inventive step’ must be a feature which is not an excluded subject itself. Otherwise, the patentee by citing economic significance or technical advance in relation to any of the excluded subjects can insist upon grant of patent thereto.”

The IPAB also contrasted the express exclusion of such methods in the Indian law with the ambiguous provisions of the US, U.K. and European enactments on the point. Thus showing that Indian law, in contrast to these enactments, specifically excludes business methods, there is no need for applying

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91 Id., ¶ 48.
92 Id., ¶¶ 16, 25.
93 Id., ¶ 48.
94 Id., ¶ 26.
95 Id., ¶¶ 37, 39.
the interpretation offered by courts of other jurisdictions in relation to matters regarding business methods.

In addition to these points, the IPAB fortified its reasoning by providing a theoretical conclusion that supplemented the statute’s express exclusion of business methods. It was observed that patents are usually granted as an incentive to the inventor, but business methods do not need such incentives because creation of better business methods is inherent in the art of doing business itself.96 Moreover, the IPAB highlighted that incentives are not required in this field because the method in itself ensures more profits.97

The decision of the Yahoo case has been cited subsequently in a dispute over the patenting of a mathematical method.98 In this case the appellant claimed that it had invented “A Chaos Theoretical Exponent Value Calculation System” which was denied patent protection on the ground that since it was a mathematical method it was excluded from protection under § 3(k).

The invention involved a system which used a mathematical method that could calculate a chaos theoretical exponent value at high speed and on a real time basis. This method could even calculate time series signals of noise including speech which were not stable dynamics but were temporarily changing dynamics (changing disposition and length).

The Yahoo decision was cited to establish that ‘inventive step’ must refer to a subject matter that is not excluded. In the present case, since the invention was itself a mathematical method, even if there was technical advance, the subject matter being excluded under § 3(k) could not be patented.

In addition to these decisions, the Indian Patent Office has recently published draft guidelines for the examination of computer related programs.99 These guidelines aim to foster consistency and uniformity in the examination of software related applications. The preliminary draft acknowledges that:

“The re-instatement of the original phraseology of section 3 (k) clearly indicates that the legislature intended to retain the original scope of exclusion and did not approve its widening

96 Id., ¶ 41.
97 Id.
as attempted through the ordinance. [...] Further, if the specification supports implementation of the invention solely by the computer program then in that case means plus function claims shall be rejected as these means are nothing but computer program per se.**100

It has been stated further, “The exclusions are carved out for all business methods and, therefore, if in substance the claims relate to business method even with the help of technology, they are not considered patentable”.101 Many illustrations of computer programs executing business methods are provided to show that such methods are not patent eligible.102

Given the Yahoo decision, the Electronics Navigation Research Institute case, the new guidelines of the Patent Office, the express exclusion under §3(k) and the existence of the Competition Act, it becomes clear that Indian law does not allow business methods to be granted patent protection.

**B. EMPIRICAL STUDY OF BUSINESS METHOD PATENTS IN INDIA: BETWEEN 2008 – 2013.**

The aim of this part is to bring forth the gaping disparity between the written law and its implementation with regard to business method patents in India. In our search on the Indian Patent Office website, we found a number of business methods that were granted patents and also found numerous business method patent applications that have been filed.103 A few examples are as follows:

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**100** Id., 36.

**101** Id., 11.

**102** See e.g., Id., 11 (An application titled, “System and Method for Billing Augmentation” was held as a business method. The Controller held that the subject matter of amended claims 1-9 recited a billing augmentation method in which a message from customer is received, analyzed for determining service charge category and accordingly billing event is generated to bill the customer an amount. The method was simply linking business entities; hence the method is essentially a business method, because the processing steps of the method relate merely to automation of business processing steps; Application titled, “An Interactive Computerized Method of Linking a Consumer and a Nutritional Pharmacologist”, offering the consumer's personalized nutritional information through a central network site. The Controller held that the subject matter of the alleged invention do not constitute of patentable subject matter and purely relate to a business method and software *per se* and as such the application for patent could not be processed further).

Patent No. 252951 is a patent that was granted to Huawei Technologies for “a method devised to monitor and manage economic arrears in the field of post-paid telephonic services”. The problem this invention sought to address was the unfavorable economic model of charging customers for calls made after the caller had actually made the call, thus the term ‘post-paid’. The present ‘invention’ creates a method by which the credit worthiness of the subscriber is assessed before the call is made rather than a control after the end of the call, thus making the model economically viable.

Another similar patent, which assesses creditworthiness, was granted to Punjab National Bank (Patent No. 217341) for a method to compute the credit risk rating of a client by analyzing the business operations of the said individual. The analysis includes scrutinizing the past transactions of the client in order to predict the individual’s future prospects in the industry in which he operates.

Both these methods are pure business methods since they seek to achieve business efficiency and profitability, either administratively or by enhancing customer services, using well-known principles of commerce. Even if it is assumed that these programs do have some ‘technical effect’, the ‘inventions’ are prima facie business methods and regardless of the result of the software they should not have been granted protection.

Given that these methods fall under the ambit of § 3(k) there is no requirement of checking whether they are novel, non-obvious and involve an inventive step. Even if this enquiry is made, many business method patents will fail to meet the basic requirements of patentability. In the patents mentioned above, checking the creditworthiness of a subscriber or a client is common practice in the financial sector and is so intuitive in this field that no reasonable person would call this an ‘invention’. Moreover, services provided by Banks and telephone companies implement business methods that ‘lock-in’ customers. They are in a way ‘sticky’, which means that customers become loyal and don’t easily change services. Therefore, with first mover advantage the business does not require patent protection.

Many policy considerations also follow from the grant of such patents. The most obvious is that of creation of ‘bad patents’, i.e. subject matter that is normally not considered appropriate for patent protection but ends up being protected due to the absence of concrete proof of prior art. In this regard, though checking credibility is intuitive in the field of commerce, there may not

105 Id., ¶ 1.
106 Id., ¶ 3.
108 Id., ¶ 7.
109 See Duffy, supra note 9, 1280.
be documented evidence establishing such a practice. Also, the economic ramifications of business method patents could lead to a situation where the society loses more than it gains. For example, if the scope of the present patents were broad, the patent holder could inhibit successive banks or telephone companies that might be able to refine and improve the method of checking creditworthiness from actually implementing their methods. This would in turn result in a less efficient economy.

Another interesting example of a business method patent that was granted was Afton Chemical Corporation’s patent (Patent No.240258). The patent was granted for “a method of enhancing fuel value of used or waste lubricating oil”. Interestingly, the patent protected not only the method of enhancing fuel value but also protected a business method for distributing and using waste oils. Though the patent over the method of increasing fuel value may still be legitimate, protection for the method of sale of this fuel is questionable.

This business method comprised of the following steps—first, the lubricating oil could be leased to a user for a pre-determined period at a price lesser than what the purchaser would have paid if he bought the oil, second, when the time period expired, the lubricant would be returned to the distributor who would then offer the lubricant for sale to a buyer who would in turn burn the lubricant for its fuel value. In this way, a higher percentage of used/waste lubricant could be recovered and sold for fuel value. The method also prescribed a penalty on the user if all of the lubricant was not returned to the distributor.

The patent granted above is a pure business method, without software, as it lays down a method for physical sale of the lubricating oil. It is surprising that such a subject matter was granted patent protection. Again, even if any enquiry into novelty, non-obviousness and inventive step was made, this business method would have failed these tests. This is because such a method of use and reuse clearly fits into the concept of ‘recycling’, which has been in existence for years. Also, the model of charging a penalty in case the oil is not returned on expiry of the lease period, is not novel as, at least in India, the same method is in use with respect to use of glass soft drink bottles.

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112 Id., Complete Specification, ¶ 1.
113 Id.
114 Id., ¶ 12.
115 Id., ¶ 1.
116 Id., ¶ 9.
Moreover, the way this patent claim was drafted shows us that granting such subject matter patents sets a bad trend as any inventor wanting to commercially utilize his patent will not only patent his invention but also patent a method of sale. This would result in a ‘patent over a patent’.

Many other business method patents have been granted by the Patent Office such as Cybersettle.com inc.’s patent for “A computerized system for automated dispute resolution through an Intranet website via the Internet or other communications linkage”118 and Google’s patents for various methods which are related to collection of information for the purpose of advertising.119

Our search also revealed that not only have pure business methods been granted patents, but also the fact that there exists non-uniformity among different Patent Offices with regard to this subject matter. As evidenced in the Yahoo case, while Yahoo was denied a patent, Google was granted one for a very similar business method.120

This leaves us questioning such non-uniformity. This can be attributed to several factors. There exists a high degree of subjectivity in deciding patent applications.121 For example, Yahoo’s examiner may have found it difficult to imagine that Yahoo’s claim could be inventive enough to merit protection, whereas Google’s examiner may have thought otherwise. In relation to the prevalence of this subjective element, it can be concluded that many times an examiner might grant a patent in a situation where he is unable to understand the subject matter involved, while in cases where he is capable of understanding the intricacies involved, he may not consider such subject matter as an ‘invention’.122 Moreover, non-uniformity could also exist due to the lack of clear guidelines to help Patent examiners. With regard to business methods, the Draft Manual actually applies the convoluted and incorrect method of ‘whole contents’ approach instead of simply laying down that such subject matter in whatever form is not patentable.123
According to Rochelle C. Dreyfuss, non-uniformity and the trend of granting business methods patent protection arises due to two problems— one, is a conceptual problem and the other, is the more practical problem of locating prior art.\textsuperscript{124} The conceptual problem arises due to the fact that standards of novelty and non-obviousness are not absolute and vary from the field at issue.\textsuperscript{125} As she points out, a lot depends on courts and patent offices in determining the standards of novelty and non-obviousness. Given the trend set by the various patent offices, it seems like they have decided that business methods should be patentable and hence have adjusted the standards to ensure such patents are generally granted. This trend is, however, offset by the IPAB’s decision in the Yahoo case which sets the bar for such patents at the right level. Unfortunately, business method patent continue to be granted even after the Yahoo decision. From our preliminary study, we have observed that there has not been a significant change in the Patent Office’s approach to such applications. In 2012-2013 itself, out of a hundred granted patents we found at least ten to be business methods.\textsuperscript{126}

These problems lead to the creation of bad quality patents which in turn lead to a variety of adverse social and economic costs. The next part of the paper will analyze the impact of such patents on the Indian economy.

C. BUSINESS METHOD PATENTS: A POLICY ANALYSIS

After having analyzed the kind of business method patents that have been granted in India, what is particularly noticeable is the fact that these patents protect methods that were well known before the patent application came along. For example, any bank would be aware of the method of checking the creditworthiness of their clients; whether such a check is done manually or by way of software, the method in itself is well known. Also, the method for online dispute resolution may have been quite obvious to an ordinary business person dealing with online transactions and frequently using video-conferencing, emails or chats to negotiate and resolve differences.

With a large number of patents being granted to common place business methods, large firms with adequate resources are the ones who profit

\textsuperscript{124} See Dreyfuss, supra note 15, 150.

\textsuperscript{125} Id.

\textsuperscript{126} See e.g. Patent No. 254770, Method For Providing Next Probable Login And The Presence Information Of An Offline User In An Instant Messaging System, Granted On 17/12/2012; Patent No. 251008, System And Method For Automatically Discovering And Grouping Resources Used By A Business Process, Granted On 16/02/2012; Patent No. 252732, A Method And Device For Enhancing A Conference Call By Displaying Hierarchy Of Participants, Granted On 29/05/2012; Patent No. 252220, Generating User Information For Use In Targeted Advertising, Granted On 02/05/2012; Patent No. 255438, Method Of Associating An Image With Phonebook During A Video Telephony Call, Granted On 22/02/2013.
from such patents. This is evident from the fact that a huge number of business method patents have been filed by Google.\footnote{Patent no. 252220, Generating User Information for Use in Targeted Advertisement, Applicant: Google, Date of grant: 02/05/2012; Patent no. 246911, A Method for Automatically Targeting Web Based Advertisements, Applicant: Google, Date of Grant: 21/03/2011; Patent no. 246483, Identifying and/or Blocking Ads such as Document Specific Competitive Ads, Applicant: Google, Date of Grant: 01/03/2011; Patent no. 246250, Apparatus for determining Prospective Advertising Hosts, Applicant: Google, Date of Grant: 22/02/2011; Patent no. 245648, Improving Content-Targeted Advertising using Collected User Behaviour Data, Applicant: Google, Date of Grant: 28/01/2011.} Moreover, patent filing and patent litigation require considerable amount of resources which may not be available to smaller firms. Financial and resource advantage of these large firms enable them to obtain patents for a large number of common business methods, thereby creating patent portfolios and hence capturing markets.\footnote{Pranesh Prakash, Arguments Against Software Patents in India, February 23, 2010, available at http://cis-india.org/a2k/blog/arguments-against-software-patents (Last visited on January 16, 2013).} In addition to this, broad patent claims and the degree of overlap between several business methods, create ‘patent gird-locks’\footnote{Id.} inhibiting start-ups and innovation. In the sphere of business and commerce, since competitors work in very close and related fields, such business method patents can enable one company to capture the entire market. Not only would an entire market be captured (using a non-novel, obvious and well know business method) but also innovation would be inhibited in the long run, as evidenced in the credit card and other example above.\footnote{See supra part II.} This means that a patent regime that allows business method patents, especially in the context of an emerging market like India, leads to a situation of dead weight loss.

Though it has been argued that market exclusivity through patents will act as an incentive for economic development,\footnote{See Duffy, supra note 9.} patent protection in the area of business and commerce is inconsistent with the market economics’ incentive foundation.\footnote{See Vincent Chiappetta, The Desirability of Agreeing to Disagree: The WTO, TRIPS, International IPR Exhaustion and a Few Other Things, 21 Mich. J. Int’l L. 333, 335-68 (2000).} The competition based incentive theory is premised on the fact that competitive forces of demand and supply are sufficient in ordinary course of undertakings, to incentivize the process of innovation by the market players in the economy.\footnote{Rudolph J.R. Peritz, Patents and Competition: Toward a Knowledge Theory of Progress, June 14, 2006, available at http://www.aals.org/documents/2006intprop/PeritzPaper.pdf (Last visited on January 16, 2013).} Thus, we argue that market competition in itself creates this incentive and is a better option for a developing nation. Market forces and competition have ensured, for centuries, innovation in business methods. Maybe the rate of innovation is slower in case of competition as compared to a patent regime; however, due to the social and economic costs attached to the
so thought of as ‘fast paced patent innovation’, a competition regime serves the interest of an emerging market better.

Furthermore, all that is achieved by granting patents can and has been achieved by mere competition in the case of business methods. This is in respect to the theories of incentive and disclosure on which a patent system is based. In the field of commerce, it is really competition that creates incentive for businesses to innovate and develop their methods in order to survive in the market. Also, since business methods are themselves profit oriented, an additional reassurance of profits by a patent is not required. Moreover, unlike a monopoly right granted by a patent, competition prevents a market participant from becoming complacent and producing low quality and stale services. Competition, therefore, ensures that competitors refine and remake their methods to better their services in the interest of society.

A varied range of business methods can reap large amounts of first-mover advantages because they are based on ‘loyalty’ and ‘stickiness’ of their consumers. For example, the credit risk agency, the online website, the image sharing network which were granted a patents could have reaped profits even without this patent since once a bank profiles their clients, or when a person registers as a member on the online dispute resolution website, or when two people use the same network for sharing images, there is no reason for any of them to go elsewhere. Once they are locked into these services they are less likely to shift to other agencies.

Moreover, business methods are largely in the public domain and hence patents are not required to ensure their disclosure. Additionally, the success of these methods depends largely on the firm’s policies, structures and on the ability to think and act with business instinct.

Therefore, as has been established by various studies, competition increases market efficiency, increases societal welfare and hence increases the growth and prosperity of the economy. On the other hand, monopolies cause dead weight losses and waste resources. A developing economy with scare resources requires a market with lesser private monopolies in order to incentives smaller firms, attain efficiency and hence reach a state of market equilibrium. One way forward for a developing economy like India is to strictly apply the law against patenting business methods in conjunction with the Competition Act.

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134 See Dreyfuss, supra note 15.
135 Id.
136 Id., 152.
V. CONCLUSION

Having discussed the treatment of business method patents both internationally and in the Indian context, it can be safely concluded that the effect of grant of patents to such ideas is antithetical to the notions of a liberal economy where the forces of demand and supply are considered apt for regulating and enhancing the prevalent rate of innovation in the field of business and commerce. Business methods being creative and intuitive business ideas requiring no external incentive to create should not be considered patent eligible subject matter.

The assertion that, merely tying a business method with a computer program will be sufficient to seek patent protection is unsound to the extent that the result of such a grant would violate the explicit statutory restriction that has been imposed by the Patent Act, under § 3(k). Though developed economies have implicitly broadened the scope of patent protection to methods of conducting business, especially after the landmark American judgments in the State Street case and the In Re Bilski case, these findings have little or no relevance in the Indian context.

Moreover, though the TRIPS does not explicitly exempt patents for business methods, a developing country like India should stay clear from granting such patents. If monopolies are doled out to every new way of transacting a business, the equilibrium between collective development and individual profits will undoubtedly be broken in favour of unreasonable individual profits. Given that the Indian economy is still fragile and cannot withstand the burden of more monopolies, it is only wise for us to follow the law to its letter.

Thus the imminent want for a thorough reconsideration of judicial as well as legislative provisions of the grounds considered essential for patent protection comes to the fore. A uniform and unambiguous interpretation of the statues, such as the Indian Patent Act and the Competition Act, ought to be carried out by the judicial and the executive officials so as to give effect to the true intention of these laws, for the benefit of the Indian economy.

Furthermore, the gaping disparity between law and its practice needs to be addressed and the ill effects of such ‘bad patents’ require immediate attention. The Yahoo decision is a welcome one and sets a sound precedent which should be followed to decide the validity of a business method patent application. This will result in achieving the aims of both patent protection and benefitting economic policies of a nation.