

Legal Issues in 'Patent Law'

Issues: Is Software Without Modification of Hardware Patentable under The Indian Patent Law?

Introduction

- ❖ Under the Indian IP regime, software can be protected as a copyright or a patent. For software to qualify for patent protection, it must first satisfy the three major components of a patentable invention- **novelty, inventive step, and industrial applicability** like any other invention.
- ❖ In addition to the above-stated criteria, the invention must be a patentable subject matter and its disclosure must meet the formal and substantive standards of a patent application.
- ❖ The question for the patentability of software or to patent a software related invention arises from Section 3(k) of the Patents Act, 1970, which provides that “*a mathematical or business method or a computer program per se or algorithms*” are not inventions and therefore not patentable. Therefore, the Patent Act excludes a software or computer program from the Patentable subject matter.
- ❖ However, the expression ‘per se’ is nowhere defined in the Act which has led to ambiguity in the interpretation of the provision.

Detailed Analysis of Section 3(k) of Patents Act, 1970

❖ Section 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 programme **per se** or algorithms;...”* [Emphasis supplied]

- ❖ The intention behind adding the words ‘per se’ can be found in the Joint Parliamentary Committee’s views when they introduced the Patents (Amendment) Act, 2002. According to the Committee, *“the intention was to provide for patents to those computer programmes which can include certain other things which are ancillary to or developed upon such a computer programme, thus making them eligible to be called inventions.”*
- ❖ To provide clarity the Office of the Controller General of Patents, Designs & Trademarks issued the Computer Related Invention (CRI) guidelines of 2017, which stated that the word “*per se*” should be interpreted using a general dictionary meaning.

Detailed Analysis of Section-3(k) of Indian Patents Act, 1970 (Contd.)

- ❖ In 2015, the Patent Office released the Guidelines for Examination of Computer Related Inventions. These guidelines laid down a test to determine which computer programmes can be patented. This was the ‘subject matter’ test, requiring the computer programme to be either involved with novel hardware or create a technical effect changing the functionality or performance of the hardware. However, the CRI Guidelines of 2017 did away with this test.
- ❖ The CRI Guidelines of 2017 further clarified that “.....it is well-established that while establishing patentability, the focus should be on the underlying substance of the invention and not on the particular form in which it is claimed. What is important is to judge the substance of claims taking whole of the claim together. If any claim in any form such as method/process, apparatus/system/device, computer program product/ computer readable medium falls under the said excluded categories, such a claim would not be patentable. However, if in substance, the claim, taken as whole, does not fall in any of the excluded categories, the patent should not be denied.”

Relevant Case Laws

- ❖ ***Ferid Allani v. Assistant Controller of Patents*** [Case Number: OA/17/2020/PT/DEL, Delhi High Court, July 20, 2020]
 - The present case clarifies the ambit and complexity of section 3(k) pertaining to patentable subject matter related to computer related invention.
 - **Brief of the Concerned Invention:** The application was titled "Method and device for accessing information sources and services of the web". The objective of the invention is to provide easy, quick and direct access to required sources and services on the internet (web) without wasting precious network resources, such as bandwidth.
 - **Factual Matrix:** The present case before the IPAB involves the respondent refusing to grant patent to the concerned application on grounds of lack of novelty and under Section 3(k) of the Act. This order was challenged by the applicant before the IPAB which rejected the claims of the applicant and dismissed its appeal. Thereafter, the applicant filed a writ petition before the Delhi High Court challenging the said order of the IPAB. The Delhi High Court allowed the petition and directed that *“the patent would be re-examined and a decision on the patent shall be taken within a period of two months from today, after granting a hearing to the patent applicant.”* [Emphasis supplied]
 - **Issues Before the IPAB:** (i) Whether the patent application should be granted under Section 2(1) (j) of the Patents Act, 1970; and (ii) Whether the patent application must be exempted by the operation of Section 3(k) of the Patents Act, 1970.

Relevant Case Laws (Contd.)

- **Findings of the High Court in the Ferid Allani Judgement –**
 - a. The addition of the terms `per se' in Section 3(k) was a conscious step which were incorporated so as “*to ensure that genuine inventions which are developed, based on computer programs are not refused patents.*”
 - b. The legal position of the computer-based invention in India is similar to the Europe having similar provision (Article 52 of the European Patent Convention). The EPO and other Patent Office greatly emphasized "technical effect" and "technical contribution" for determination of the patentability.
 - c. The present invention achieves "**technical advantage**" and exhibits "**technical effect**". [Emphasis supplied]

- **Findings of the IPAB –**
 - a. The definition of "**technical effect**" or "**technical contribution**" is to be taken from the guidelines relating to Computer Related Inventions, 2013 (CRI guidelines, 2013).
 - b. One has to first construe the claims, then identify technical contribution provided by the claims.
 - c. The IPAB reviewed the features of the application and held that the software produces technical effect.
 - d. Therefore, the appeal was allowed and the patent was granted to Ferid Allani. [Emphasis supplied]

Relevant Case Laws (Contd.)

❖ Key Principles Laid Down in the Ferid Allani Judgement –

- Most of the inventions are based on computer programs" and "*it would be retrograde to argue that all such inventions would not be patentable*". [Emphasis supplied]
- Therefore, *without appreciating the technical effect produced by the present invention, the mere fact that a computer program is used for effectuating a part of the present invention, does not provide a bar to patentability.*
- For understanding "technical effect" and "technical advancement", reliance should be placed on the Draft Guidelines for Examination of Computer Related Inventions, 2013 which define the said terms.
- Thus, the invention MUST be examined as whole and the following factors are to be considered while deciding upon the patentability of such inventions-
 - i. technical effect achieved by it, and
 - ii. technical contribution. If the invention demonstrates a "technical effect" or a "technical contribution", it is patentable even though it may be based on a computer program.

Relevant Case Laws (Contd.)

❖ *Telefonaktiebolaget LM Ericsson v. Intex Technologies India Limited* [2015 (62) PTC 90 Del]

- The Court dismissed the arguments of the defendants on the count of the non-patentability of computer programmes under Sections 3(k) and 3(m) of the Act. The Court conducted a detailed analysis of the position of the law in the European Union, the United Kingdom and the United States, analysing the ‘technical features/character’ and ‘significantly more’ tests used in these countries. These tests are used here to allow the patenting of computer programmes despite the specific exclusion under the respective laws. These tests essentially require that as long as the invention itself is patentable, the mere factum of its implementation by ‘modern technical means in the form of a computer program’ should not be a bar to the granting of the patent. The patent that is granted here is not on the idea of invention, but the technical process by which the invention carries it out.
- The Court thereby held that: ***“thus, it appears to me prima facie that any invention which has a technical contribution or has a technical effect and is not merely a computer program per se and is patentable”***. [Emphasis supplied]

Relevant Case Laws (Contd.)

❖ ***Telefonktiebolaget LM Ericsson v. Lava International Ltd.* [2016 (67) PTC 596 Del] [Contd.]**

“Prima facie, it appears that these inventions which have resulted in an improvement (technical advancement) in telecommunication technologies and have had a huge effect upon the manner in which these technologies function thereby resulting in practical implementation and actual physical representation.”

“The ultimate object of the invention is an efficient encoder meaning that the synthesized speech quality in relation to the radio resource needed for transmission is as high as possible. Speech quality is an effect perceptible by humans and is not just an abstract entity. In order to perform such function of speech quality, the claimed encoder necessarily requires several hardware components.”

“Mere mention of an algorithm or a mathematical formula in a patent document should not be inferred to mean that the invention is nothing but an algorithm.” [Emphasis supplied]

Relevant Case Laws (Contd.)

- ❖ ***Accenture Global Service Gmbh v. The Asst. Controller of Patents & Designs & Ors.* [IPAB Order 283 of 2012, December 28, 2012]**
 - The IPAB in this case held that the law does not mandate the requirement of a novel hardware or a special modification or adaptation of an existing hardware for patentability. “*A hardware or computing system performing a novel function need not be novel and non-obvious in itself or need not be a special adaptation of an existing system for the software to be patentable subject matter in India.*”

- ❖ ***Enercon India Ltd. v. Aloys Wobben* [(2010) IPAB 176]**
 - In the present case an objection under Section 3(k) was taken to a computer programme invented for a better power output through wind turbines. The court, noting that wind turbines cannot be controlled manually and require advanced computer technology for the same, stated that “*such a computer program carrying out a technical process such as controlling the wind turbine to achieve a maximum power output cannot be called as a ‘computer program per se’*”. According to the court, such an invention would not fall under the objection arising from Section 3(k) of the Patents Act when the patent claim only comprises of some process steps to carry out a technical process or achieve a technical effect. [Emphasis supplied]

Software Patents Granted by the Patent Office

❖ Business Method Patents Granted to Facebook

- Facebook was granted a patent (*Application No. 830/CHENP/2009*) in February 2017 on a method “for generating dynamic relationship-based content, personalized for members of the web-based social network”. Facebook in its patent application stated that its invention was not merely a computer program as the said invention “includes hardware limitation and provides technical improvements and benefits like checking privacy setting associated with the user profile”. The Chennai Patent Office accepted this submission and accordingly granted Facebook a patent for its invention.

❖ Apple’s Patent on Media Management Program

- In May 2017, the Kolkata Patent Office granted a patent (*Application No. 461/KOLNP/2009*) to Apple on a ‘method for browsing data items with respect to a display screen associated with a computing device and an electronic device’. Apple argued that its invention brings about an “improved technical effect” and therefore, should be patentable. Apple’s argument was accepted by the patent office which accordingly, granted Apple a patent on the said invention.

Key Takeaways

- ❖ Section 3(k) of the Act states that computer programmes or software are not patentable by themselves. However, Section 3(k) provides a bar only for those inventions which are merely theoretical or abstract in nature based on algorithm simpliciter and fail to produce any technical effect.
- ❖ For a software to be patented, the applicant must show its connection with things ancillary to the invention such as with a hardware component or perhaps illustrate a technical effect created due to its application.
- ❖ In the landmark judgment of *Ferid Allani v. Union of India & Ors.* [Case Number: OA/17/2020/PT/DEL, Delhi High Court, July 20, 2020], the Hon'ble High Court of Delhi observed that most inventions of today are based on computer programmes, such as automobiles, washing machines, and refrigerators. All of these use some sort of computer programmes in-built in them. Thus, if a computer programme is rejected on the mere basis that Section 3(k) presents such a prohibition on patentability, modern-day inventions would lose the right to be patented.
- ❖ It has been established in the afore-mentioned judgement that if an invention demonstrates a technical effect or technical contribution, it is patentable even though it may be based on a computer programme.

THANK YOU!

Questions?

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