**“A Critical Analysis of The Development of The ‘Inventive Step’ Criteria for Grant of Patent in UK and India”**

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**Abstract:** The object of the paper is to see whether the inventive step criteria for grant of patent in UK and India is appropriate. The untested notion such as person skilled in the art and the common general knowledge is to be discussed. The authorr has adopted the descriptive, comparative, analytical and case study methods as a research methodology throughout the course of this paper and he is relying on books, articles and online databases. The author is opined that the test laid down by the UK court in *Windsurfing case* and the Supreme Court of India in *Bishwnath Prasad Radhey Shyam case* regarding the assessment of inventive step is not appropriate. The paper is limited to critically analyze the inventive step criterion which is one of the important pillars for grant of patent in UK and India. The author has formulated the following questions and has tried to find out the answer: (1) Whether the inventive step criteria for grant of patent in UK is appropriate. (2) Who is ‘the person skilled in the Art’ and what skills and knowledge do they have? (3) Whether India follows the tests laid down by UK court, if yes, what is the effect in India?

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**Key Words:** Inventive Step, Patent, novelty, industrial application, Non-obviousness, Person skilled in the art etc.

1. **Introduction**

The UK Patent Act, 1977 has adopted the criteria for grant of patent given in the European Patent Convention, 1973. Article 52 of the EPC and Section 1(1) of the Patent Act, 1977 (UK) provides that an invention is patentable if it –

1. is having novelty,
2. involves an inventive step,
3. is capable of industrial application and
4. is not specifically excluded by the Act

The Author is dealing with the 2nd criteria for grant of patent in UK i.e. ‘inventive step’. After the novelty test of an invention, inventive step test comes to be determined. What the court must consider is whether the invention involves an inventive step. Article 56 of the EPC and Section 3 of the Patent Act, 1977 make provision about the ‘inventive step’ criteria. They provide that an invention shall be considered to involve an inventive step if, having regard to the state of the art, it is not obvious to a person skilled in the art.

The concept of ‘inventive step’ of UK is known as ‘non-obviousness’ in US. This concept of inventive step has not always been a criterion for grant of patent in UK patent law. During 17th century, only novelty criteria were required for grant of patent and not the inventive step criteria. The concept of obviousness developed when the Judiciary considered that it would be impossible to grant a patent where the difference between the alleged invention and what was already known was insubstantial. The court regarded the patent as lacking novelty when it could only find an insubstantial difference between the alleged invention and what was already known. When the law developed the new phrase ‘inventive step’ was introduced by the courts for granting patent to the proper inventor. The word ‘obvious’ was started to be used by the courts ending the 18th century. In *Vickers Sons & Co. Ltd v. Siddell* the court held that novelty and the concept of obviousness should be considered separately. At this point of time the two concepts i.e. novelty and non- obviousness were required for grant of patent in United Kingdom. In the Patent Act, 1949 the inventive step was as a ground for invalidating of patent but it was not defined in that Act. It is the Patent Act, 1977 which took the inventive step criteria as a condition for grant of patent and also defined it. This is the general definition which does not help in evaluation of obviousness. Further the courts have had to interpret Section 3 of the Patent Act, 1977 and developed the criteria to be used while assessing the obviousness in an invention. It should be noted here that the question whether an invention involve an inventive step is a factual issue. In many cases it was held that obviousness is a jury question to be assessed by the judge in the light of all the facts before him and there should not be any universal principles for this purpose. However the basic test is prevailing in UK for determining the question of obviousness and which was postulated by Oliver LJ in an important *Windsurfing International Ltd. v. Tabur Marine Ltd.* in this case the court laid down four steps test for determining that whether the invention involves inventive step. The purpose of the writer is to review critically the concept of obviousness in the light of the recent case of Windsurfing International Inc. and to see whether it is an appropriate for the purpose.

In India, the law relating to inventive step is substantially same as in the UK. However, the Patent Act, 1970 is applicable in India. The important case in India in which the test to determine inventive step has been laid down is *Bishwanath Prasad Radhey Shyam v. H.M industries.* The test laid down in it is also critical.

1. **Whether The Inventive Step Criteria For Grant Of Patent In Uk Is Appropriate**

* **The Basic Test to Determine the Inventive Step:**

The test to determine the obviousness was laid down by Oliver LJ in an important case of *Windsurfing International Inc. v. Tabur Marine Ltd.* In this case the patent was granted to the plaintiff in 1968 for the invention of windsurfing board. The plaintiff brought an action against the defendants for infringement of the patent. The defendants counterclaimed for its revocation on the grounds that what was claimed was obvious and lacked novelty. It was held that the patent was invalid on the basis of two instances of prior art, namely-

* ***Prior use***-in 1958, a 12 year old boy used the apparatus similar to the Windsurfer i.e. some 10 years before the priority date of the patent,
* ***Prior publication***- an article by Mr. Darby published in UK journal in 1966 describing an apparatus embodying features with the same basic principles as in windsurfer.

The court found that the use of boom was common and the arc shaped design was an obvious improvement of which a person skilled in the art could anticipate on the boys design and the sailboards in the Article of Mr. Darby. In this case the Court (Oliver LJ) laid down the following tests to be taken in assessing the inventiveness in an invention:

1. identifying the inventive concept embodied in the patent;
2. imputing to a normally skilled but unimaginative addressee what was common general knowledge in the art at the priority date;
3. identifying the differences if any between the matter cited as being “known or used” and the alleged invention; and
4. deciding whether those differences, viewed without any knowledge of the alleged invention, constituted steps which would have been obvious to the skilled man or whether they required any degree of invention.

The patent in *Windsurfing case* was sought under the Patent Act, 1949. However the test laid down at that time is still followed in further cases. It has been followed in many cases.

**The Notional Person Skilled in the Art**

The inventive step is determined from the viewpoint of the average person skilled in the art. When we talk about the person skilled in the art, the first question comes in our mind is that ‘who is the person skilled in the art and what skills and knowledge they must have?’

Lord Reid in *Techno graph Printed Circuits Ltd. v. Mills and Rockley ltd* defined the person skilled in the art, as “a skilled technician who is well acquainted with workshop techniques and who has carefully read the relevant documents. This person has an unlimited capacity to soak up the contents in the relevant documents but is at the same time incapable of a scintilla of invention.”

“The expression “technician” used in the above definition probably indicates that person skilled in the art requires neither a highly qualified nor an ordinary workman. This is the person with extensive knowledge who is incapable of developing ideas from all that he knows”. Accordingly, the notional technician will be taken to have in mind, 1st, the common general knowledge of his art at the priority date and, secondly whatever he would learn from the existing literature when seeking an answer to the problem at issue.

Further, “a skilled person is one having all the ‘standard’ knowledge available in the field and having the standard capabilities for routine work and experimentation allowing straightforward progress from what is already known. The hypothetical skilled person should be ordinary lacking imagination. The said skilled person should have the following information-

1. *Common general knowledge-* the normal skill and knowledge that workers in the field of patent ought to know based on their general training and experience, and
2. *Public knowledge-* publically available information that can be found by the public in document”

I think that the skills and qualifications of the person skilled in the art vary according to the invention in question. If the invention is relating to a technology the person skilled in the art must be such a person who is having a special skills, qualification and experience to answer the obviousness. In other words in some cases the person skilled in the art should have a particular qualification and in some cases they may have no such qualification i.e. they may have only ordinary skill. If we follow the Windsurfing test, it would always be a question that in whose eyes the question of inventiveness should be viewed, what would be the level of inventiveness. If the level of skill is too high then every inventive step will be obvious and if the level of skill is too low then patent shall be deemed to have inventive step. Further a problem arise that a person having a capacity of soaking up all important information but unable to develop any idea from the information he has. Furthermore in *Technograph Printed Circuits Ltd. v. Mills and Rockley Ltd.* Lord Reid LJ held in his judgment that expert witnesses are generally valuable and necessary when assessing obviousness. We can say that experts are highly qualified persons having good research in the field and hence they are far from unimaginative thinking. It is not possible to believe that they are able to change themselves into a person not having inventive mind while giving their view as to whether a particular invention is involving an inventive step. Finally we can say that the concept of hypothetical addressee is not workable in the area of intellectual complication like genetic engineering. It is not possible for the court to set the level of person skilled in the art because the inventiveness is judged on the basis of facts of the case and it varies fact to fact.

* **Common General Knowledge Held by the Skilled Addressee**

The expression “common general knowledge” is used to mean that which is known by the person skilled in the art. The skilled person must have it in his mind in the general field. This is also an issue that what type of common general knowledge must be held by the person skilled in the art in the assessment of inventiveness/obviousness. In other words, what will be the extent of the common general knowledge possessed by the skilled person? In assessment of obviousness, to what extent of common general knowledge the skilled addressee shall have is also an issue. If the common general knowledge is more extensive then there is likelihood of patent claim to be obvious.

If we read the combination of sections 3 and 2(2) of the Patent Act, 1977 which defines the ‘state of art’ as follow:

“the state of the art in the case of an invention shall be taken to comprise all matter( whether a product, a process, information about either, or anything else) which had at any time before the priority date of the invention been made available to the public by written or oral description, by use or any other way”. It is the assumption that the skilled addressee have read and understood the entire relevant available prior art from anywhere in the world. But it is very difficult to identify the common general knowledge known to a skilled but unimaginative person in the particular art at the priority date.

* **Part of the State of the Art**

Section 3 of the Patent Act, 1977 provides that an invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter, which forms part of the state of the art. The concept “state of the art” means that the person skilled in the art must have in mind the common general knowledge of his art and whatever he has learnt from the existing literature such as patent specifications, learned articles and specific instances of use. The problem is that the skilled person would have information available in their own. The issue here is whether certain information forms part of the state of the art.

* **Is the Invention Obvious?**

This is the last steps of the Windsurfing test. The difficult issue is to determine whether a particular invention is obvious. It is easy for a person skilled in the art having special knowledge to find whether an invention is obvious and vice- versa.

* **The New Test for Inventive Step**

In *Pozzoli v. BDMO* LJ Jacob has reordered and redefined the Windsurfing test to determine the obviousness. LJ Jacob has put the second step of Windsurfing test to first step i.e. the court has to identify the notional ‘person skilled in the art and his common general knowledge’ at the first instance and then identify the inventive concept of the claim in question. It is because the inventive concept must be identified through the eyes of the person skilled in the art. In this case also the level of skilled person and his knowledge was not discussed.

* **Reasonable Expectation of Success**

The invention is deemed of lacking inventive step if there exist ‘reasonable expectation of success. The important decision on obviousness was the decision of the House of Lords in *Conor Medsystems v. Angiotech.* In this case the patent teaches that by preventing the growth of local blood vessels the restenosis can be prevented. The inventor experimented that the paclitaxel (cancer drug) had remarkable ante-angiogenic properties and it could prevent restenosis when delivered from a stent. The trial court considered that success of taxol coated stents in preventing restinosis was not relevant to the assessment of obviousness and invalidated the patent. Lord Hoffman rejected the test of whether an invention has a reasonable expectation of success to determine obviousness. Lord Hoffmann followed the practice of EPO in assessing the obviousness and questioned that whether it was obvious to use a taxol coated stent for the above purpose and on this basis the invention was non obvious. Further in this case the question of obviousness not to be determined on the basis of whether a skilled person would find it obvious that taxol on a stent would treat restenosis but whether that skilled person would find it obvious to test the combination without any expectation of success. The Lords held that court must assess the inventiveness of the claimed invention in the light of intended purpose and also it must take into account the expectation of success that a skilled addressee would have of achieving that purpose with the invention. It is the test followed by the EPO.

1. **Inventive Step Criteria For Grant Of Patent In India**

In India the history of patent law starts with the first legislation relating to patent in 1856 and then the Patents and Designs Act, 1911 was enacted. The present Act, 1970 amended and consolidated the law relating to patent in India. The Act of 1970 was amended in 1999, 2002 and 2005 in accordance with TRPS.

A patent is granted for an invention. The invention must be new product or process involving an inventive step and capable of industrial application. The invention is considered to involve an inventive step if it is not obvious to a person skilled in the art. It is defined as under:

*“Inventive step means a feature of an invention that involves technical advance as compared to the existing knowledge or having economic significance or both and that makes the invention not obvious to the person skilled in the art.”*

* **The test to assess the inventive step criteria in India**

In India the Supreme Court has laid down the tests to determine the inventive step in the case of *M/s. Bishwanath Prasad Radhey Shyam v. M/s. Hindustan Metel Industries*.This is a very important case on inventive step criteria for grant of patent in India. However, this case was decided in 1978, the tests laid down in it are applied in further cases even today and have been codified in the Indian Patent Law.

In this case the appellant and respondent were both firms carrying on the business of manufacturing utensils at Mirzapur. The respondent firm invented a device and method for the manufacture of utensils and got patent to a means for holding utensils for turning purposes. The validity of patent was challenged on the ground of lack of novelty and inventive step.

The court has laid down the test to determine the inventive step. If we see the judgment of *Bishwanath Prasad* case, we find that the Supreme Court has reiterated the tests laid down in *Windsurfing* case. These conceptions are as follow:

* Whether the alleged invention lies so much out of the track of what was known before as not natural to suggest itself to a person thinking on the subject, it must not be the obvious or natural suggestion of what was previously known.
* Had the document be placed in the hands of a competent draftsman, endowed with the common general knowledge at the ‘priority date’ who was faced with the problem solved by the patentee but without knowledge of the patented invention, would he have said, “this gives me what I want?”
* Was it for practical purposes obvious to a skilled worker in the field concerned, in the state of the knowledge existing at the date of the patent to be found in the literature then available to him, that he would or should make the invention the subject of the claim concerned?”

The above test is substantially same as prevailing in UK Patent law hence the researcher can again criticize the above test of determining the obviousness on the ground of extent of level of person skilled in the art and his common general knowledge in the field.

Further, the Patents (Amendment) Act, 2005 makes a change to the inventive step test adding a requirement that the invention involves a technical advance or have an economic significance. Already it was difficult to determine the obviousness, additional criteria makes it much complex. However, economic significance seems to be of industrial applicability standard. It has nothing to do with inventive step except uncertainty in determining the non-obviousness.

**Conclusion & Suggestions**

By critical analysis of the inventive step criteria prevailing in UK and India the researcher has come to the conclusion that there is no uniform test to determine the inventive step criteria in each case in UK and India. However, the court has laid down certain criteria to determine the inventive step but which cannot be applicable in each case equally because it varies by case to case basis. As regards to the person skilled in the art, it is still a question of fact to be established that what would be the extent of level of the person skilled in the art and what type of common general knowledge he is required to have and what are the information required to have while assessing obviousness. If the common general knowledge is more extensive then there is likelihood of patent claim to be obvious and vice-versa. Keeping in mind the above uncertain circumstances one can say that the inventive step criteria for grant of patent in UK and in India is not appropriate.

On the basis of above analysis the researcher wants to give some suggestions which may be helpful in determining the inventive step criteria for grant of patent in UK and in India. These are as follow:

* The court while assessing the obviousness should, if possible, solve the question of level of skill of a person skilled n the art.
* The court should also solve the question that what type of common general knowledge is required to be kept in mind by the person skilled in the art.

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2. Pozzoli v. BDMO [2006] EWHC 1398 [This case redefined and reordered the Windsurfing test to determine the obviousness. Facts, issues and decision are taken]
3. Techno graph Printed Circuits Ltd. v. Mills and Rockley ltd [In this case the phrase ‘person skilled in the art’ has been defined by the court.]
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