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KSR International Co. v. Teleflex Inc.: The Supreme Court Declines the Opportunity to Finally Set the Record Straight and Articulate One Clear Standard for Determining Obviousness in Patent Cases

In KSR International Co. v. Teleflex Inc., the United States Supreme Court considered whether the Federal Circuit's application of the teaching, suggestion, or motivation test ("TSM test") was consistent with section 103 of the Patent Act and Supreme Court precedent. The Court held that the TSM test is consistent with section 103 and precedent when applied as a general principle and not as a rigid rule. In so holding, the Court implemented an unworkable standard which permits the courts to unnecessarily apply two separate yet synonymous tests. A better standard would completely eliminate the TSM test so as to promote consistency and uniformity while avoiding hindsight.

I. THE CASE

In 2000, General Motors selected KSR International Co. ("KSR") to manufacture and supply adjustable pedal assemblies for the Chevrolet and GMC light truck lines, both utilizing electronic throttle controls. To satisfy this request, KSR added pedal position sensors to its previously used and patented adjustable pedal assem-

* J.D. Candidate, University of Maryland School of Law, May 2009; B.A., English, James Madison University, May 2006.
3. KSR, 127 S. Ct. at 1745–46.
4. Id.
5. See infra Part IV.A.
blies. In essence, KSR designed a product combining an adjustable pedal with an electronic pedal position sensor.

On November 18, 2002, Teleflex Inc. ("Teleflex"), a competitor designer and manufacturer of adjustable pedals, filed an action against KSR, alleging that KSR infringed Teleflex's Engelgau patent (the "Patent"), which combined an electronic sensor and a gas pedal. Teleflex argued that KSR infringed the Patent when it added an electronic sensor to its own, previously designed pedal assembly. KSR filed a motion for summary judgment based on invalidity, contending that the Patent was "invalid because it would have been obvious to someone with ordinary skill in the art of designing pedal systems to combine an adjustable pedal system with an electronic pedal position sensor."

In granting KSR's motion and finding the Patent invalid on grounds of obviousness, the United States District Court for the Eastern District of Michigan applied an obviousness inquiry under section 103, known as the Graham Framework,

8. Id. at 585. KSR had used the adjustable pedal assemblies in 1998 when supplying Ford with adjustable pedal assemblies for a number of its cars. Id. Because the engines of those vehicles used cable-actuated throttle controls, KSR added cable-attachment arms to the adjustable pedal assemblies. Id. KSR obtained a patent, '976, for this development of an adjustable mechanical pedal. Id. at 584. For the GMC trucks, KSR added a modular sensor to the '976 patent. Id.

9. Id.

10. Id. The Engelgau patent, also referred to as the '565 patent, involves an adjustable electronic pedal. Id. In the patent specification, the pedal is described as a less expensive, easier-to-package vehicle control pedal assembly that uses fewer parts than the already existing pedal assemblies. KSR Int'l Co. v. Teleflex, Inc., 127 S. Ct. at 1727, 1736 (2007). The US Patent and Trademark Office ("PTO") originally rejected on grounds of obviousness Claim 4 of the patent, which the district court and Supreme Court interpreted as a disclosure of a position adjustable pedal assembly involving an electronic pedal position sensor attached to a fixed pivot point of the pedal assembly. Id. At that point, however, the claim did not specify that the sensor would be placed on a fixed pivot point and as such, the PTO found the claim to be a mere combination of Redding and Smith, two prior art references. Id. Once this distinction became known, the PTO allowed the patent; however, neither the patent itself nor its prosecution of the Patent addressed Asano, a prior patent involving an adjustable pedal with a fixed pivot point. Id. The PTO was not given notice of Asano, but the Supreme Court did have notice of Asano. The teachings of Asano ultimately contributed to the Supreme Court finding the Patent obvious. Id. at 1737.

11. Telex, 298 F. Supp. 2d at 585. Prior to filing the complaint, Teleflex assigned the '239, '695, and '565 patents to Technology Holding Corp. ("THC"), a Delaware subsidiary of Teleflex. Id. Since THC was not a party to the suit at the time the complaint was filed, KSR filed a motion to dismiss for lack of subject matter jurisdiction. Id. The Court denied the motion as to the '565 patent, finding THC had granted an exclusive license that provided Teleflex standing in the action. Id. As for the '239 and '695 patents, the Court found that Teleflex failed to provide sufficient documentation to show that it had been given an exclusive license for those patents. Id. After the Court ordered Teleflex to show cause for the exclusive licenses relating to those patents, the parties "stipulated the dismissal" of both. Id. Shortly thereafter, THC joined Teleflex as Plaintiffs to the '565 patent suit. Id.

12. Id. Claim 4 of the patent "describes [this design as] a position-adjustable pedal assembly with an electronic pedal position sensor attached to the support member of the pedal assembly. Attaching the sensor to the support member allows the sensor to remain in a fixed position while the driver adjusts the pedal." Id. at 586–87.

13. Id. at 587.
which looks to (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the prior art and the claimed invention; and (4) the extent of any objective indicia of non-obviousness. Under this analysis, the court concluded that there was little difference between the Patent and the prior art's teachings. The court then applied the TSM test and found it satisfied. The court concluded that "a hypothetical person with an undergraduate degree in mechanical engineering or an equivalent amount of industry experience who has familiarity with pedal control systems . . . would have found it obvious" to build upon prior art, such as the Asano model, which involved an adjustable pedal assembly mounted to a permanently placed pivot mechanism. As such, the court found Claim 4 of the Patent obvious and granted KSR's motion for summary judgment based on invalidity. Teleflex then appealed to the United States Court of Appeals for the Federal Circuit, which reversed the district court's decision.

The Federal Circuit rejected the district court's application of the TSM test, explaining that a proper analysis under the TSM test requires the court to find a specific motivation or suggestion to combine the prior art in the prior art itself, in the nature of the problem being solved by the patent, or the knowledge of a person having ordinary skill in the art ("phosita"). The Federal Circuit also rejected the lower court's analysis of the nature of the problem to be solved because proper


15. Teleflex, 298 F. Supp. 2d at 587.

16. Id. at 589. The identified prior art is as follows: the Asano patent, "a position adjustable pedal assembly pivotally mounted on a support member" with the pivot position remaining constant and the pedal arm moving along the glide; the '892 and '899 patents, "electronic pedal position sensors" utilizing electronic throttle controls and connections; the '936 patent, "a non-adjustable pedal assembly incorporating a pedal position sensor" inside the passenger side compartment; the Redding patent, "an adjustable accelerator pedal assembly" in which the pivot moves along with the pedal arm; the Smith patent, "an electronic pedal position sensor attached to an accelerator pedal support bracket and engaged with a pivot shaft"; and the 503 Series, "modular pedal position sensors" that demonstrate the transmission of an "electronic signal to an electronic throttle control based on the degree the pivot shaft turns in response to depression of the accelerator pedal." Id. at 589–90.

The court believed that Asano had taught everything noted in the claim with the exception of the sensor being used to detect the pedal's position and to transmit that information to the computer controlling throttle. Id. The court found that the '068 patent as well as Chevrolet's sensors previously utilized this added feature. Id. at 593.

17. Id. at 593–95. The court reasoned that it was inevitable, given the state of the industry and the prior art's teachings, that electronic sensors would be combined with adjustable pedals Id. See infra, Part II.C., for a description of the TSM test.

18. See supra note 16, for a description of the Asano patent.


20. Id. The court explained that the PTO would have found the patent to be an obvious combination of Asano and Smith if Asano had been included on the patent application. KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1738 (2007). The court also noted that the commercial success of the pedals did not undermine the finding of obviousness. Id.


22. Id. at 288.
application of the TSM test demands that the prior art references specifically address the precise problem that the current patent addresses. Because the prior art references did not address the precise problem that KSR intended the Patent to solve, there existed a genuine issue of material fact as to whether there was a teaching, suggestion, or motivation for phosita to build upon the prior art by attaching an electronic control to the support structure of the pedal assembly. KSR appealed, challenging the court's application of the TSM test.

The Supreme Court of the United States granted certiorari to decide whether the Federal Circuit addressed the question of obviousness in a manner inconsistent with section 103 and Supreme Court precedent.

II. LEGAL BACKGROUND

At the origin of the patent system's development is a desire to "foster and reward invention," to "promote[ ] disclosure of inventions, to stimulate further innovation, . . . to permit the public to practice the invention once the patent expires," and to "assure that ideas in the public domain remain there for the free use of the public." In conjunction with these goals, the system limits the issuance of patents to those inventions that are adequately disclosed, new, nonobvious, useful, and of a patentable subject matter. Of these requirements, the nonobviousness requirement for patentability is regarded as the most challenging for the applicant to satisfy. Contributing to the overall challenge is the recurring need for clarity, consistency, and stability that has relentlessly plagued the nonobviousness standard throughout its many transformations. Initially, common law introduced the standard for nonobviousness. Then, the legislature codified that standard in section 103 of the Patent Act. In turn, the Supreme Court modified section 103 into a factor oriented framework. Shortly thereafter, the Federal Circuit presented a new standard for determining obviousness. These varying sources of influence ultimately wed the standard to ambiguity and inconsistency.

23. Id. at 288–89. The Patent sought to provide a simpler, smaller, cheaper adjustable electronic pedal. Id. According to the court, none of the prior art addressed the problems of simplicity, size, or cost of adjustable electronic pedals. Id. Therefore, the court reasoned that the inventor would not have looked to the prior art for a teaching, suggestion, or motivation. Id.
24. Id. Teleflex had one expert who said Claim 4 was a "simple, elegant, and novel combination of features." Id. at 290 (quoting Radcliffe Decl. ¶ 15). Another expert said that Claim 4 was nonobvious because the sensor was mounted on the support bracket rather than the pedal itself. Id.
26. Id.
28. CHISUM ET AL., supra note 14, at 73.
29. Id. at 532.
30. See infra Part II.A.–C.
31. See infra Part II.A.
32. Id.
33. See infra Part II.B.
34. See infra Part II.C.

Recognizing that patentability required more than mere novelty\textsuperscript{35} and utility,\textsuperscript{36} the Supreme Court in \textit{Hotchkiss v. Greenwood}\textsuperscript{37} denied the patentability of a doorknob invention, in which the inventor replaced the metallic knob of the original doorknob design with a clay or porcelain knob.\textsuperscript{38} The Court noted that the “degree of skill and ingenuity” implemented by the inventor must surpass that of “an ordinary mechanic acquainted with the business.”\textsuperscript{39} Although \textit{Hotchkiss} introduced this new requirement for patentability, it did so with little instruction and left lower courts with an ambiguous and vague standard easily manipulated by judges attempting to convey varying preferred meanings.\textsuperscript{40}

Shortly after \textit{Hotchkiss}, the Supreme Court in \textit{Cuno Engineering Corp. v. Automatic Devices Corp.}\textsuperscript{41} amended the “degree of skill and ingenuity” standard into a “flash of creative genius” standard.\textsuperscript{42} Irrespective of this heightened standard, ambiguity continued to tarnish the obviousness analysis.\textsuperscript{43} The Court again expanded the definition of an invention in 1950 when it reasoned in \textit{Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp.}\textsuperscript{44} that the “conjunction or concert of known elements [is patentable] only when the whole in a way exceeds the sum of its parts.”\textsuperscript{45} The Court had set forth yet another judicial standard, but in doing so, warned that legislative action would be necessary to achieve clarity, consistency, and stability.\textsuperscript{46}

Reacting to the need for a uniform standard of patentability, the legislature enacted the Patent Act of 1952,\textsuperscript{47} comprised of three sections, the last of which addresses the requirement of nonobvious subject matter:

\textsuperscript{35} Novelty is a requirement of patentability asking “whether each and every component of a patent claim is shown in a single reference.” Hal Milton & Patrick Anderson, \textit{The KSR Standard for Patentability}, 89 J. Pat. & Trademark Off. Soc’y 615, 617 (2007).

\textsuperscript{36} Utility refers to the usefulness of a claimed invention. Before a claimed invention is considered patentable, it must be seen as useful in that it functions according to its intended purpose. \textit{Chisum et al.}, \textit{supra} note 14, at 735.

\textsuperscript{37} 52 U.S. 248 (1850).

\textsuperscript{38} \textit{Id.} at 271-72.

\textsuperscript{39} \textit{Id.} at 267.

\textsuperscript{40} \textit{Chisum et al., supra} note 14, at 533-34.

\textsuperscript{41} 314 U.S. 84 (1941).

\textsuperscript{42} \textit{Id.} at 91.

\textsuperscript{43} \textit{Chisum et al., supra} note 14, at 534. During this time “the obviousness standard took on many forms including: inventive genius, creative work of the inventive faculty, a flash of creative genius, or” an invention standard. Michael Astorino, \textit{Obviously Troublesome: How High Should the Standard be for Obtaining a Patent}, 89 J. Pat. & Trademark Off. Soc’y 239, 242 (2007). The standard was in such dire need of reform that President Roosevelt appointed a National Patent Planning Commission to decrease the ambiguity accompanying the standard. \textit{Id.}

\textsuperscript{44} 340 U.S. 147 (1950).

\textsuperscript{45} \textit{Id.} at 152.

\textsuperscript{46} \textit{Chisum et al., supra} note 14, at 535.

A patent may not be obtained though the invention is not identically disclosed or described as set forth in § 102 of this title, if the differences between subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.48

Although the statute removed all preexisting tests and codified the standard for obviousness, it was nonetheless ambiguous and required explanation. This needed explanation came fourteen years later in the form of an objective framework proposed by the Supreme Court.

B. The Supreme Court Adopted the Act’s Nonobviousness Standard and Articulated a General Approach to the Issue of Obviousness Under Section 103

Concluding that the purpose of section 103 was to codify “judicial precedents embracing the Hotchkiss condition” and to mandate the obviousness inquiry as a “prerequisite to patentability,”49 the Supreme Court in Graham v. John Deere Co.50 set forth a new, objective framework for determining patentability under the stricture of section 103.51 Under this framework, the court determines the question of obviousness according to underlying issues of fact, namely: (1) the “scope and content of the prior art;” (2) the “differences between the prior art and the claims at issue;” (3) the “level of ordinary skill in the pertinent art;” and (4) the extent of secondary considerations such as “commercial success, long felt but unsolved needs, [and the] failure of other[ ] inventions.”52

The Graham Framework became the backbone of the Supreme Court’s obviousness analysis. For instance, the Supreme Court in United States v. Adams53 followed the Graham Framework when considering the validity of a patent for a non-rechargeable, water-activated, electrical battery “comprising two electrodes — one made of magnesium, the other of cuprous chloride.”54 The Court initially identified the prior art references relevant to the subject matter or the nature of the problem being solved.55 Next, the Court specified the content of each of the prior art references, noting what each patent taught.56 The Court was then able to ascertain the

50. 383 U.S. 1.
51. CHISUM ET AL., supra note 14, at 537.
52. Graham, 383 U.S. at 17–18.
54. Id. at 42.
55. Id. at 45–48.
56. Id.
differences between the prior art and the patent at issue, finding that although prior art addressed each element of the Adams battery individually, the combination of those elements produced effects far surpassing those of the prior art. The Court also considered the knowledge of a phosita and concluded that such a person would believe that “batteries which continued to operate on an open circuit and which heated in normal use were not practical” and that “water-activated batteries were successful only when combined with electrolytes detrimental to the use of magnesium.” These beliefs would “deter [such a person] from any investigation into such a combination as is used by Adams;” therefore, the combination was not obvious to a phosita. Finally, the Court looked to secondary factors, such as expert testimony revealing the experts’ initial disbelief in the invention. Against this totality of information compiled under the Graham Framework, the Court concluded that the Adams patent was nonobvious and therefore valid. Although the Supreme Court has been consistent in applying the above obviousness analysis, the Federal Circuit has not adopted the Graham Framework, thereby diverging from Supreme Court precedent.

C. The Federal Circuit Adopted its Own Test for Establishing Nonobviousness

Feeling as though ambiguity continued to permeate throughout the obviousness analysis, and hoping to do away with such ambiguity, the legislature passed the Federal Courts Improvement Act of 1982, establishing the United States Court of Appeals for the Federal Circuit and granting it nationwide jurisdiction over appeals in patent cases. With this power, the Federal Circuit adopted the TSM test. In the court’s first case dealing with section 103, Chief Judge Markey turned a blind eye to Supreme Court precedent. Instead of applying Graham, Judge Markey followed the newly formulated TSM test, under which the movant, relying on multiple prior art references to establish obviousness, must also establish some teaching,

57. Id. at 48–52.
58. Id. at 52.
59. Id.
60. Id.
61. Id.
64. Milton & Anderson, supra note 35, at 618.
65. O'Brien, supra note 63, at 508.
suggestion, or motivation that would have led a phosita to combine the elements of the relevant prior art in such a way.

Advocating for the TSM test, the Federal Circuit in In re Kahn identified the test's goals of eliminating the use of hindsight and increasing the uniformity and predictability of obviousness determinations. Contrary to these goals, the Federal Circuit complicated the standard in 2002 when it again amended the test and held that the motivation to combine "could not be resolved on subjective belief and unknown authority," but instead must be "based on objective evidence of record." Although the Federal Circuit purports to follow a straightforward approach to the TSM test, under which the teaching, suggestion, or motivation to combine may be found either explicitly or implicitly in the prior art references themselves, in the knowledge of a phosita, or in the nature of the problem to be solved, it has struggled to apply the TSM test consistently with regard to the objective evidence requirement.

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66. An element of the section 103 obviousness determination is "whether a person having ordinary skill in the art, (phosita) to which the claimed invention pertains would have found the claimed invention obvious." Chisum et al., supra note 14, at 620–21. This "person" is a hypothetical person, not the inventor, having ordinary skill in the art. Id. In determining what skill is ordinary, the Federal Circuit considers the types of problems prevalent in the art, the solutions to those problems that prior art has addressed, the speediness of innovations, the technology involved, and the "education level of the workers in the field." Id. at 622 (quoting Envtl. Designs, Ltd. v. Union Oil Co., 713 F.2d 693, 696 (Fed. Cir. 1983)). This hypothetical person is presumed to have full knowledge of all prior art and what it teaches. Id. He is also presumed to have full knowledge of any field of art relating to his field of art. Id.


68. 441 F.3d 977 (Fed. Cir. 2006).

69. Id. at 986.

70. In re Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002).

71. D. Benjamin Borton, KSR v. Teleflex, Inc.: The Supreme Court Reviews Obviousness, 89 J. PAT. & TRADEMARK OFF. SOC'Y 523, 525 (2007); see also In re Kotzbau, 217 F.3d 1365, 1370 (Fed. Cir. 2000) ("The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved . . . Whether the Board relies on an explicit or an implicit showing, it must provide particular findings related thereto.").

72. Some Federal Circuit decisions allow for implicit evidence of a teaching, suggestion, or motivation to combine to be found in the prior art itself, the nature of the problem to be solved, or in the knowledge of the phosita. See Alza Corp. v. Mylan Labs., Inc., 464 F.3d 1286, 1291 (Fed. Cir. 2006) (affirming the PTO's obviousness finding where "[t]he suggestion is not explicit but implicit in the [prior art]"); In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006) (finding that "the overall disclosures, teachings, and suggestions of the prior art, and the level of skill in the art—i.e., the understandings and knowledge of persons having ordinary skill in the art at the time of the invention—support the legal conclusion of obviousness"); Cross Med. Prods. v. Medtronic Sofamor Danek, Inc., 424 F.3d 1293, 1322 (Fed. Cir. 2005) (finding the claimed invention obvious and explaining that "the motivation to combine need not be found in prior art references, but may also be found in the knowledge of the phosita).

Others stress that there must be an explicit finding in the prior art for the invention to be seen as obvious. See In re Huston, 308 F.3d 1267, 1280 (Fed. Cir. 2002) (requiring that the teaching, suggestion, or motivation to combine come explicitly from prior art); In re Zurko, 258 F.3d 1379, 1386 (Fed. Cir. 2001) (noting that the finding of obviousness requires "some concrete evidence in the record" and not "general conclusions about what is 'basic knowledge' or 'common sense' to one of ordinary skill in the art."); In re Rouffet, 149 F.3d 1350,
The Federal Circuit created the TSM test and would therefore presumably be the most qualified to apply the test; however, that presumption fails as the Federal Circuit has been wholly unable to rid the test of ambiguity and to apply it in a uniform fashion. The Supreme Court in KSR evaluated the inconsistencies and declared which application of the TSM test complies with section 103 and Supreme Court precedent.73

III. THE COURT’S REASONING

In KSR International Co. v. Teleflex Inc.,74 the United States Supreme Court reversed the judgment of the Federal Circuit, holding that the question of obviousness had been addressed in a “narrow, rigid manner inconsistent with section 103” and Supreme Court precedent.75 The Court further held that KSR presented convincing evidence that attaching an available sensor to the fixed pivot point of the Asano pedal was an obvious development to a phosita and that the benefit of such a development was also obvious; therefore the Patent was obvious and thus invalid.76 Finally, the Court held that summary judgment is appropriate where the obviousness of the claim is apparent in light of the non-materi ally disputed content of the prior art, scope of the patent, and level of ordinary skill.77 Writing for a unanimous Court, Justice Kennedy immediately rejected the rigid approach of the Federal Circuit and instead emphasized the need to apply the TSM test as a general rule so as to comport with the Graham Framework.78

The court began its analysis by noting four errors, each stemming from the Federal Circuit’s “narrow conception of the obviousness inquiry”79 and causing the court to apply a test inconsistent with section 103 and Supreme Court precedent.80 Correcting those errors, the Court explained that any need or problem, addressed by the patent and known to a phosita during the time of the invention, can “pro-

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1358 (Fed. Cir. 1998) (denying the Board’s finding of obviousness where the Board did not identify a “specific” principle or understanding derived from prior art that would motivate a person having ordinary skill in the art to combine references).

74. 127 S. Ct. 1727.
75. Id. at 1746. The Court opined that “diversity of inventive pursuits and of modern technology counsels against limiting the analysis” to a rigid formula requiring explicit showings of teaching, suggestion, and motivation. Id. at 1741.
76. Id. at 1746.
77. Id. at 1745–46.
78. Id. at 1739.
79. Id. at 1741.
80. Id. at 1743. The first error related to the lower court’s holding that courts and patent examiners should look exclusively to the specific problem the patentee was trying to solve. Id. at 1742. The court next erred in assuming that “a person of ordinary skill attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem.” Id. The third error was the Federal Circuit’s conclusion that a patent claim cannot be found obvious based solely on a showing that it was obvious to try the combination of elements. Id. The fourth error was the court’s flawed reaction to the risk of hindsight bias. Id.
vide a reason for combining the elements in the manner claimed.\(^{81}\) The Court next noted its expectation that one designing an adjustable electronic pedal would, in fact, look to Asano, despite the fact that Asano’s acclaimed primary purpose lacked a direct correlation to the problem the patent was solving.\(^{82}\) The Asano design illustrated an adjustable pedal with a fixed pivot point; therefore a person would look to each of these elements of prior art.\(^{83}\) Additionally, the Court clarified that a patent may be obvious if the combination of elements is obvious.\(^{84}\) Finally, the Court explained that a fact finder’s common sense, as well as her awareness of the possibility of hindsight bias, renders unnecessary a rigid, preventative rule defying precedent.\(^{85}\)

Applying these corrections, the Court found the Patent obvious, and thus invalid, as minor differences existed between prior art references\(^{86}\) and the Patent at issue.\(^{87}\) Given the increasing demand for electronic pedals and the prior art’s teachings of the most effective attachment points for sensors, the Court reasoned that it would be obvious for a pedal designer of ordinary skill to combine Asano with a pivot-mounted pedal position sensor.\(^{88}\) The Court then acknowledged the non-existence of secondary factors disrupting the finding of obviousness.\(^{89}\) Therefore, the subject matter of the Patent was obvious, and the claim did not satisfy section 103.\(^{90}\)

Lastly, the Court held that although a court may consider expert testimony in resolving questions of fact for purposes of summary judgment, “the ultimate judgment of obviousness is a legal determination,”\(^{91}\) and because “the content of the prior art, the scope of the patent claim, and the level of ordinary skill in the art are

\(\text{\textsuperscript{81} Id. at 1742.}\)
\(\text{\textsuperscript{82} Id.}\)
\(\text{\textsuperscript{83} Id.}\)
\(\text{\textsuperscript{84} Id. This could occur if an inventor takes upon himself the testing of predictable solutions to a known problem for which a solution is adamantly sought. Id.}\)
\(\text{\textsuperscript{85} Id. at 1742–43.}\)
\(\text{\textsuperscript{86} See supra note 16, for an explanation of the prior art references.}\)
\(\text{\textsuperscript{87} KSR, 127 S. Ct. at 1745.}\)
\(\text{\textsuperscript{88} Id. at 1744. The prior art included, among others, the '936 patent, which proposed the idea of placing the sensor on the pedal device, Smith, which taught designers to place the sensor on the pedal's support structure, and Rixon, which together with Smith taught that the wires must not chafe against the pedal assemblies. Id. These teachings made it evident that sensors would be most effective if placed on a nonmoving part of the pedal assembly, which would most notably be the pivot point. Id. Since Smith already proposed the idea of mounting the sensor on the pivot point, this development was an obvious combination of the prior teachings. Id. at 1744–45. The Court explained that the same result would be reached if the designer began with an adjustable electronic pedal, one similar to Rixon, and sought to remedy the wire chafing problem. Id. at 1745. It would be obvious for the designer to follow the teaching of Smith that sensor movement should be avoided and thus arrive at an Asano like design of an adjustable pedal with a fixed pivot point. Id.}\)
\(\text{\textsuperscript{89} Id.}\)
\(\text{\textsuperscript{90} Id. at 1746.}\)
\(\text{\textsuperscript{91} Id. at 1745 (quoting Graham v. John Deere Co., 383 U.S. 1, 17 (1966)).}\)
not in material dispute, and the obviousness of the claim is apparent in light of these factors, summary judgment is appropriate. 92

IV. ANALYSIS

Rather than reject the TSM test, the Supreme Court in KSR found it to be consistent with the Graham Framework if applied as a general principle and not a rigid rule requiring an explicit showing of a teaching, suggestion, or motivation to combine the prior art references. 93 In doing so, the Court altered the test in such a way that it became a meaningless standard when applied in conjunction with the Graham Factors. The Court should have eliminated the TSM test in its entirety, thereby encouraging consistency and uniformity while avoiding hindsight.

A. In Its Amended Version, the TSM Test is Meaningless as it Merges into the Graham Factors, Credits Common Sense, and Maintains Its Non-Essential Nature

The Court’s amended version of the TSM test removes the requirement of explicit findings of a teaching, suggestion, or motivation to combine prior art references, thereby creating a test which instructs the courts to consider implicit findings of a teaching, suggestion, or motivation to combine from the prior art references, the nature of the problem to be solved, or the knowledge of the phosita. 94 While articulating this refined TSM test, the Court simultaneously reaffirmed the Graham Factors, 95 which determine obviousness or nonobviousness through an evaluation of the scope and content of the prior art, the differences between that prior art and the current claims, the “level of ordinary skill in the pertinent art,” and secondary factors. 96 Comparing the two, it becomes evident that they are synonymous tests with overlapping factors and a shared commitment to common sense analysis. 97 In addition, regardless of its equivalency to the Graham Factors, the TSM test is not essential to the obviousness inquiry as the courts have repeatedly reached obviousness decisions without a consistent application of this test. 98

1. The TSM Test Merges with the Graham Factors

In essence, the TSM test inquires as to whether the prior art taught, suggested, or motivated the phosita to combine the prior art; whether the nature of the problem to be solved taught, suggested, or motivated the phosita to combine the prior art; or whether the knowledge of the phosita taught, suggested, or motivated the phosita to

92. Id. at 1745–46.
93. Id. at 1741.
94. Id.
96. Graham, 383 U.S. at 17.
97. See infra Part IV.A.1–2.
98. See infra Part IV.A.3.
combine the prior art. Likewise, the Graham Factors look to the scope and content of the prior art, the difference between the prior art and the claims at hand, and the level of ordinary skill in the pertinent art to determine whether any of these factors individually or collectively, make it obvious to the phosita to combine the prior art. Worded another way, the test asks if the scope and content of the prior art implicitly taught, suggested, or motivated a phosita to combine the prior art, if the difference between the prior art and the current claims implicitly taught, suggested, or motivated a phosita to combine the prior art, or if the level of ordinary skill in the art of a phosita implicitly taught, suggested, or motivated the combination. Worded as such, it becomes clear that "the first three prongs of the Graham obviousness factors work hand in hand with the Federal Circuit tying its TSM test to each of them."

In order to sufficiently evaluate whether there is an implicit teaching, suggestion, or motivation to combine in the prior art under the TSM test, the decision maker must be able to recognize the scope, content, teachings, and purpose of the prior art. In this way, the TSM test merges with the first Graham factor: the scope and content of prior art.

Likewise, the TSM test's second source in which a teaching, suggestion, or motivation may be implicitly found—the nature of the problem to be solved—merges into both the first and second Graham factors: the scope and content of the prior art as well as the difference between the prior art and the claims at issue. Determining the scope and content of the prior art, which reveals the problems solved by such prior art, and then noting the differences between those problems and the claims at issue will foster the identification of an implicit teaching, suggestion, or motivation in the nature of the problem being solved.

The third factors under each test are directly synonymous because each requires the determination of the level of knowledge or ordinary skill of a person having ordinary skill in the pertinent art. While Graham emphasizes the question of whether the other factors in their entirety would make it obvious to a person having ordinary skill in the pertinent art to combine the prior art, and the TSM test concentrates more specifically on the question of whether the knowledge of that phosita would in itself teach, suggest, or motivate the phosita to combine the prior art, the underlying focus of each standard is the knowledge of the phosita.

100. See Dystar Textilfarben GmbH v. C.H. Patrick Co., 464 F.3d 1356, 1360–61 (Fed. Cir. 2006) (recognizing TSM as a "subsidiary requirement" of Graham); McGinley v. Franklin Sports, Inc., 262 F.3d. 1339, 1351 (Fed. Cir. 2001) (noting that the suggestion to combine is part of the scope and content of the prior art as well as the level of skill in the art); Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH., 139 F.3d. 877, 881–83 (Fed. Cir. 1998) (recognizing the suggestion to combine prior art as part of Graham's first factor, scope and content of prior art).
101. See supra note 100.
102. See supra note 66 for a discussion on phosita.
As a result, teaching, suggestion, or motivation is nothing more than an explicit or implicit factor that makes it obvious to a phosita to combine the elements of prior art; therefore, the tests are essentially the same.

2. The TSM Test and the Graham Framework Consider Common Sense

An offset of the overlapping factors and the allowance of implicit findings is the role that common sense now plays in each test. Recognizing this change, the Supreme Court in KSR declared that its precedents "make clear . . . [that] the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ."\(^{103}\) The Court was in fact rejecting the requirement of explicit—therefore objective—findings while highlighting the importance of implicit findings relating to the subjective inquiry of common sense. Under the newly flexible TSM test, the "actual knowledge and creativity" of the phosita can be taken into account.\(^{105}\) The implicit TSM test permits an inquiry into what the phosita would know—hence the common knowledge of the phosita—which is the exact inquiry required under Graham.\(^{106}\) As stated by Justice Alito, "[o]nce you define the teaching, suggestion, and motivation test that way so that it can be implicit, it can be based on common sense[;] I don't quite understand the difference between [an implicit TSM test] and simply asking whether [the combination is] obvious."\(^{107}\)

By refusing to reject either test, the Court simply modified the TSM test so that it would be consistent with the Graham Framework, and the courts could apply either test, performing the same analysis for each. Under this construction, the TSM test is practically meaningless.\(^{108}\) The TSM test merely reiterates the Graham Factors, using different but synonymous rhetoric.

3. The TSM Test is Not Essential to the Obviousness Inquiry

Several evidentiary pieces indicate that the TSM test is at best unnecessary. The first piece of evidence alluding to the nonessential quality of the TSM test is the fact that the Supreme Court does not apply this test when performing its obviousness analy-

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105. Clara R. Cottrell, A Place to Call Home? Affordable Housing Issues in America: Note: The Supreme Court Brings A Sea Change With KSR International Co. v. Teleflex, Inc., 42 Wake Forest L. Rev. 595, 613 (2007). Under a rigid TSM analysis, the court considers the phosita's knowledge only as it applies to the prior art references Id. at 612.
106. Id.
The test is a mere creation of the Federal Circuit. Furthermore, even within the courts of its origin, the Federal Circuit utilizes the TSM test in a mere forty-five percent of obviousness cases. Therefore, the TSM test is not a necessary aspect of the obviousness analysis.

Even more evident of the TSM test’s unnecessary presence in the obviousness analysis is the inconsistency with which the Federal Circuit applies the test. The Federal Circuit articulates the TSM test as allowing the teaching, suggestion, or motivation to combine to be found implicitly or explicitly, but in applying the test, the Federal Circuit has repeatedly contradicted itself, requiring explicit findings.

In KSR, for example, the Federal Circuit rhetorically expanded the principle that the teaching, suggestion, or motivation to combine prior art may be implicit, but its analysis directly repudiated that rhetoric by prohibiting such implicitness and instead requiring explicit, objective findings. KSR highlighted this prevalent incongruity between the rhetoric and the actual application of the test. Against the Federal Circuit’s allegation that the teaching, suggestion, or motivation to combine may be found either explicitly or implicitly in the prior art references themselves, in the knowledge of the phosita, or in the nature of the problem to be solved, the Federal Circuit has in fact required “an actual evidentiary showing that points unequivocally to the present invention.”

Moreover, although the Federal Circuit claims that the teaching, suggestion, or motivation to combine “need not be explicit in prior art references, but might instead be found in ‘the knowledge of one of ordinary skill in the art’ or in ‘the nature of the problem to be solved,’” it has simultaneously reversed most obviousness findings that were based upon skill level rather than prior art, claiming that in such decisions, the United States Patent and Trademark Office was “falling into the hindsight trap.”

The lack of consistent interpretation and application of the TSM test has led to numerous variations of the test. A test with so many variations cannot be an essen-

109. See supra Part II.B.
110. See supra Part II.C.
111. See supra note 72 and accompanying text.
113. See supra note 72.
114. Teleflex, 119 F. App’x at 285.
115. Id. at 290 (holding that the district court erred in its lenient application of the TSM test because the correct standard in fact requires a finding as to the specific understanding or principle within the knowledge of the person having ordinary skill in the art that would motivate him to combine the prior art).
116. See In re Lee, 277 F.3d 1338, 1343 (Fed. Cir. 2002); see also In re Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000).
117. Lee & Butler, supra note 107, at 922; see also supra note 71.
118. Eisenberg, supra note 6, at 895 (quoting In re Kotzab, 217 F.3d at 1371); see also In re Dembiczak, 175 F.3d 994, 999 (Fed. Cir. 1999); In re Rouffet, 149 F.3d 1350, 1358 (Fed. Cir. 1998).
tial element of the obviousness inquiry; therefore, Graham is the correct analysis for courts to follow in determining obviousness. The mere fact that the courts have applied the TSM test so inconsistently reveals that the obviousness analysis does not depend upon the test.

B. A Proper Standard for the Supreme Court to Have Proposed Would be One Rejecting the TSM Test in its Entirety so as to Promote Uniformity and Consistency While Avoiding Hindsight

Since the very beginning of patentability cases, the standard for determining the validity of a patent has been regarded as ambiguous and unclear. Section 103, being recognized for "circumscribing the subjectivity with a fence of objective considerations," was an attempt to clarify this standard, but it left the courts uncertain as to how to apply the standard. Hoping to resolve any confusion, the Supreme Court articulated the Graham Framework. The Federal Circuit, however, was not satisfied with the Supreme Court's framework and created its own standard of obviousness, the TSM test.

This standard encountered confusion as well. In KSR, the Supreme Court was finally given the opportunity to confront the ambiguity created through the application of two separate tests in determining one element of patentability. Instead of embracing the opportunity to set forth a clear, straightforward test, the Court simply modified the existing TSM test and concluded that courts could continue to use the TSM test, together with the Graham Framework, as long as the courts applied the test as a flexible principle recognizing implicitness. But, as Chief Justice Roberts stated, the implicit TSM test "complicates the inquiry." Therefore, the proper standard would be one eliminating the TSM test in its entirety so as to promote uniformity and consistency while avoiding hindsight.

1. Following a Single Test Would Promote Consistency and Uniformity

The Federal Circuit employed the TSM test with the goal of reaching more uniformity and consistency among obviousness determinations. Such uniformity is impossible to achieve when the Supreme Court is applying one test and the Federal Circuit is applying another. Maintaining and enforcing a consistent application of a single test is a challenging feat in itself, but the feat becomes all the more challenging when there are two different tests being applied. Although the tests are near

120. See supra Part II.
121. Goetz, supra note 104, at 208.
122. Smith & Van Thommee, supra note 67, at 131.
123. Id. at 131–32.
124. See supra Part II.C.
127. KSR, 127 S. Ct. at 1734.
identical in idea, their non-identical rhetoric fosters the likelihood of varying interpretations. The magnitude of potential interpretations when dealing with two separate tests breeds skilled and purposeful manipulation. As such, the court system as a whole would experience greater uniformity and consistency if the Supreme Court eliminated the TSM test.

Consistency within the Federal Circuit did not exist prior to KSR because the courts sometimes applied the TSM test in a manner requiring explicit findings and other times applied the TSM test as a general principle recognizing both explicit and implicit findings.\textsuperscript{128} Despite the clear cut wording of the original TSM test, the Federal Circuit still applied that single test inconsistently. Now, with the KSR holding, the wording is less clear, and instead of a single test, the courts have two tests to juggle. Decreasing clarity while increasing options will most definitely lead to greater inconsistency and non-uniformity.

Furthermore, under the Court's current holding, the Federal Circuit is left with significant, unregulated liberty that further promotes inconsistency and non-uniformity.\textsuperscript{129} The Supreme Court articulated and thereafter repeatedly followed the Graham Framework, thereby making such holdings binding on the Federal Circuit; however the Federal Circuit deviated from the binding precedent of the Supreme Court by implementing its own standards.\textsuperscript{130} The Supreme Court addressed the Federal Circuit's abandonment of the goal of uniformity in KSR, stating:

\textit{Less than a year into its history, in 1983, the Federal Circuit boldly repudiated the "test of validity of combination patents" that this Court has applied in Sakraida and Anderson's-Black Rock, and numerous prior cases over a 100+ year period, on the basis that there purportedly was "no warrant" for this Court's case law treatment of combination patents and the very concept of a "combination patent" was purportedly "meaningless."}\textsuperscript{131}

This speaks to the Federal Circuit's willingness to deviate from the Supreme Court. Moreover, the Supreme Court neglected to amend the standard for over forty-one years and will not likely review the standard again anytime soon.\textsuperscript{132} The Federal Circuit recognizes this. It also recognizes that it is free to manipulate rulings because as long as it does not blatantly disregard the Supreme Court, the Court will neither notice nor act upon the disregard.\textsuperscript{133} The ambiguity of the KSR

\textsuperscript{128} See supra note 72 and accompanying text for examples of these contradictions.


\textsuperscript{130} Astorino, supra note 43, at 244.

\textsuperscript{131} O'Brien, supra note 63, at 511 (internal citations omitted).


holding is likely to encourage the Federal Circuit's divergence from the Supreme Court once again. As long as the Federal Circuit interprets and applies the KSR holding in a manner that is less than overtly outrageous, the Supreme Court will not likely monitor or correct the Federal Circuit's misapplication of the obviousness analysis. Under such a system, the Federal Circuit will stray once again, all along recognizing the unlikely event of reprimand.

To avoid such an outcome, the Supreme Court should have taken the opportunity to put forth a single test in its most basic form so as to reduce the extreme potential for inconsistency and non-uniformity. The Graham Framework has been the exclusive analysis conducted by the Supreme Court, and the same should hold true for the Federal Circuit.

2. Eliminating the TSM Test Will Avoid Hindsight

One of the factors driving the creation of the TSM test was the Federal Circuit's concern with hindsight and fear that the Graham Framework did not sufficiently address this concern. Contrary to this fear, the Graham Framework, and therefore the proposed standard, focuses on the perspective of the phosita at the time of the invention's creation. Looking to the time of the invention removes the potential for hindsight consideration. Critics fear that without the requirement of objective evidence, as required by the TSM test, the courts will be unable to identify hindsight. Although the Federal Circuit has long underestimated the courts' ability to avoid hindsight, this lack of faith in the courts is unwarranted as "the habit of critical, ongoing, reasoned reflections on the contents of common sense" is the very thing that "animates the law." If properly followed, the Graham Framework, deriving its commands from section 103, will adequately protect against hindsight because it requires the courts to consider the perspective, including the common sense, of the phosita at the time of the invention, which "provides an additional safeguard against hindsight." The courts are more than capable of handling such an inquiry, especially given the court's familiarity with similar inquiries under negligence and scientor.

134. See supra note 6, for an explanation of hindsight.
135. Goetz, supra note 104, at 191.
136. Id. at 190-91.
137. See generally Eisenberg, supra note 6.
140. Id. Furthermore, seeing as those that created prior art are inventors and scientists and the like, they focus their recordings around new, creative concepts that will help science to progress, thereby failing to record common sense. Astorino, supra note 43, at 245. As such, the available records are often insufficient to disprove hindsight. Id. Thus the inquiry into common sense is necessary.
141. Eisenberg, supra note 6, at 888.
In addition, the secondary factors of the Graham Framework will aid in avoiding hindsight. The secondary considerations of the Graham Framework include, among many others, the recognition of the claimed invention's commercial success, the unresolved needs in the industry for the claimed invention, and the failure of the prior art to address those needs. These considerations serve to protect against hindsight considerations. Looking to objective indicia existing at the time of the invention will discourage a retrospective evaluation of the alleged invention. The Graham Framework is certainly capable of safeguarding against hindsight.

V. CONCLUSION

In *KSR International Co. v. Teleflex Inc.*, the Supreme Court held that the TSM test is consistent with section 103 and Supreme Court precedent when applied as a general principle and not as a rigid formula. This holding rendered the TSM test meaningless as the TSM test and the Graham Framework became synonymous, having parallel factors and a mutual appreciation of common sense. Providing the courts with the option of applying two equivalent tests merely complicates the inquiry and provokes confusion. The Court therefore proposed an unworkable standard. Given the Supreme Court's choice to follow the Graham Framework, the Federal Circuit's inconsistent application of the TSM test, and the latitude for divergence when given an option, the Court should have rejected the TSM test and seized the opportunity to finally set forth a single standard for all courts to follow. A proper standard would reject the TSM test entirely so as to encourage consistency and uniformity while avoiding hindsight.

143. CHISUM ET AL., supra note 14, at 565.
144. Id.
146. Eisenberg, supra note 6, at 886–88.
147. See supra Part III.
148. See supra Part IV.A.
149. See supra Part IV.A.1.
150. See supra Part IV.A.2.
151. See supra Part IV.A.3.
152. See supra Part IV.B.