One Hundred Nos: An Empirical Analysis of the First 100 Denials of Institution for Inter Partes and Covered Business Method Patent Reviews

Jonathan R. K. Stroud
Jarrad Wood, American University
ONE HUNDRED NOS: AN EMPIRICAL ANALYSIS OF THE FIRST 100 DENIALS OF INSTITUTION FOR INTER PARTES AND COVERED BUSINESS METHOD PATENT REVIEWS

JARRAD WOOD AND JONATHAN R.K. STROUD

ABSTRACT:

Tasked in 2011 with creating three powerful new patent review trial regimes, the U.S. Patent and Trademark Office—through the efforts of their freshly empowered quasi-judicial body, the Patent Trial and Appeals Board—set to creating a fast-paced trial with minimal discovery and maximum efficiency. In the first two years of existence, the proceedings have proved potent, holding unpateable many of the claims that reach decisions on the merits. Yet a small subsection of petitions never make it past the starting gate, resulting in wasted time and effort on the parts of petitioners—and likely sighs of relief from the rights-holders. Parties on both sides of a petition can learn volumes by looking to the first 100 denials of institution. In a regime where so many petitions have been granted, knowing the ones that haven’t could be the key to success.

Table of Contents

I. INTRODUCTION ......................................................................................................................... 1
   A. Background .......................................................................................................................... 3
      1. The Historical USPTO ...................................................................................................... 3
      2. The Historical Patent Trial and Appeals Board (PTAB) ................................................. 4
      3. The AIA ............................................................................................................................. 5

II. INTER-PARTES REVIEW (“IPR”) .......................................................................................... 6
   A. Insufficient Evidence ........................................................................................................... 9
   B. Insufficient Reasoning ....................................................................................................... 11
   C. Untimeliness ....................................................................................................................... 15
   D. Summary of Main Factors Contributing to Denial of IPR Petitions ............................. 17

III. COVERED BUSINESS METHOD REVIEW (“CBM REVIEW”) .............................................. 17
   A. Statutory Denials of CBMs under Section 18 of the AIA .................................................. 21
   B. Factors Contributing to the Denial of Petitions to Institute CBM Review .................... 21
      1. Financial Product Prong .................................................................................................. 22
      2. Technological Innovation Prong .................................................................................. 25
      3. Denials on Substantive Grounds ..................................................................................... 28
   C. Empirical Results .............................................................................................................. 29

III. Findings: The Board is Carefully and Judiciously Weighing Each Petition, and
    Embodying the Statutory Goals of the AIA ........................................................................... 30

IV. Conclusion ................................................................................................................................ 32
“The game is rigged, but you cannot lose if you do not play.”

I. INTRODUCTION

The numbers look grim. The America Invents Act of 2011 introduced three new administrative trials meant to quickly, effectively, and extrajudicially challenge existing patent rights. These three trial formats—Inter partes review (IPR), post-grant review (PGR), and covered-business-method patent post-grant review (CBM)—represent a seismic shift in U.S. patent practice. Congress created them with the intent to cancel patents that should never have been granted. To date, they have been wildly successful at doing so—holding almost 70% of all claims that even reach a decision on the merits unpatentable, with many claims abandoned by the wayside. While a petition must first be “instituted,” more than 75% of all challenged patents result in a trial. Practitioners, scholars, and commenters have cited the substantive and procedural advantages afforded the petitioner in these proceedings.

---

1 The Wire: The Detail, Season 1, Episode 2 (HBO television broadcast 2002).
3 See The Surprising Rise of the PTAB, Managing IP, September 2014, at 22 (finding “‘there has been a fundamental change in the US patent landscape since September 16, 2012,’’ ‘‘[p]atent owners have been shocked at how popular IPR proceedings at the PTAB have proven,’’ and ‘‘[n]o one saw this coming.’’
4 See, e.g., 157 Cong. Rec. S1053-S1054 (Tuesday, Mar. 1, 2011) (comments of Senator Schumer) (finding with the AIA post-grant trials, “bad patents can be knocked out in an efficient administrative proceeding, avoiding costly litigation.”).
5 Internal statistics culled from final decisions available on the USPTO’s public website. According to statistics released by the USPTO, the number differs. Those numbers apparently do not account for petitions that are instituted and later settled.
6 Parties may abandon their claims prior to a final written decision pursuant to a Request for Adverse Judgment, 37 C.F.R. § 42.73(b), or by disclaiming certain claims, for instance, in the Preliminary Patent Owner Response. 37 C.F.R. § 1.321(a) (2014).
7 35 USC § 314(a) (2014) (Institution).
Patent owners—All hope is not lost. Not every petition merits institution; not every claim is held unpatentable. To be fair, many claims challenged are not instituted, some reviews settle, and some claims do not survive. But just how does a patentee avoid these “death squads” “killing property rights” (as former Chief Judge Randall Rader so colorfully put it)?

Practitioners, Petitioners, and Patent Owners have scrambled, seeking answers to simple questions—What factors result in a petition’s denial? A grant?

To answer, we look to the past patent owners that have avoided institution. Petitioners should also take note, as the Board has denied a significant sliver of filings. Given the time, money, fees, expense, and lost opportunity that results from a petition’s denials, prudence counsels learning from the mistakes that came before.

This Article answers that need—by reviewing, cataloging, and analyzing the first 100 IPR orders denying petitions to institute, as well as select motions for rehearing, and 17 CBM orders denying petitions to institute. This is similar to the treatment scholars who came before have given inter partes reexaminations, appeals, and the like. This paper addresses the novel topic of which factors, when present in a petition for CBM review or IPR, increase the likelihood that the petition will be denied.

We thus help further key underlying goals of the America Invents Act—lowering patent litigation costs and increasing the chances that undeserving patents are held unpatentable.

---


11 See infra I & II.

12 See, e.g., Eric J. Rogers, Ten Years of Inter Partes Reexamination Appeals: An Empirical View, 29 SANTA CLARA HIGH TECH. L.J. 305 (2012).

13 See supra note 4; infra note 14.
The paper reviews the orders denying review of patent validity under three AIA post-grant review procedures: CBM review, PGR, and IPR. The paper is written with practitioners in mind. Indeed, the paper tracks the spirit of the AIA in that it aspires to “improve patent quality and limit unnecessary and counterproductive litigation costs.”

This Article has four Parts. Part I provides useful background on the USPTO, the Patent Trials and Appeals Board (“PTAB”), and the America Invents Act (“AIA”). Part II analyzes the first 100 denials for CBM and IPR proceedings. Part III suggests the Board has successfully implemented many of the goals of the AIA, and goes on to recommends ways to improve the chances that the Board will institute CBM or IPR review—and highlights pitfalls parties should avoid. Additionally, this paper makes suggestions to researchers interested in answering new questions raised by this paper. Part IV briefly concludes.

A. Background

1. The Historical USPTO

Congress created the USPTO (in various iterations throughout America’s history) to fulfill Article I, Section 8, Clause 8 of the United States Constitution’s mandate: to “promote the progress of science and the useful arts by securing for limited times to inventors the exclusive right to their respective discoveries.” Congress charged the USPTO with reviewing patent applications, judging them, and issuing meritorious patents.

After an inventor submits a patent application to the PTO, the patent examination process in theory has examiners search through all the readily available prior art, applying any references

---

15 See infra III.
16 Id.
17 The USPTO: Who We Are, USPTO.Gov (March 2, 2014, 7:48pm), http://www.uspto.gov/about/index.jsp
against the application via all legal patentability requirements.\textsuperscript{18} The process limits office examination time (often just eighteen hours—and, in many cases, less). It may not always accurately assess patentability,\textsuperscript{19} particularly where the law fluctuates. (It is widely believed that if examiners had limitless knowledge and had less stringent deadlines, at least some issued patents would be rejected.\textsuperscript{20})

2. The Historical Patent Trial and Appeals Board (PTAB)

For most of American history, the patent agency (whether USPTO or otherwise) had no authority to cancel an issued patent.\textsuperscript{21} It took almost two hundred years for Congress to eventually give the PTO the power to reexamine.\textsuperscript{22} The ex parte reexamination was designed in part to permit patentees to lend support to the patent’s validity in case prior art suffered after examination.\textsuperscript{23} As some have urged, “[m]ore narrowly tailored patents will enjoy heightened respect from competitors because such patents are much harder to invalidate.”\textsuperscript{24} In addition to prior art discovery, post-issuance modifications to relevant legal precedent may also impact

\textsuperscript{20} Id.
\textsuperscript{21} McCormick Harvesting Mach. Co. v. C. Aultman & Co., 169 U.S. 606, 608 (1898) (“It has been settled by repeated decisions of this court that when a patent has received the signature of the secretary of the interior, countersigned by the commissioner of patents, and has had affixed to it the seal of the patent office, it has passed beyond the control and jurisdiction of that office . . . .”).
patentability and give cause to reaffirm patent rights, such as in the arena of 35 U.S.C. § 101 patentable subject.\textsuperscript{25}

Prior to the passage and implementing of the America Invents Act (“AIA”) in 2011, the USPTO offered limited methods for third parties to challenge patents the third parties felt to be invalid. Although some changes had been made between 1836 and 2010, such as limited ex parte reexamination proceedings, the pre-AIA patent regime had been characterized as “one of non-transparency, subjectivity, unpredictability, and excessive complexity.”

Congressional members have long recognized imperfections in the preexisting examination system and the need to occasionally reexamine some issued patents that are important to their owners. The reexamination regime originally had two main objectives: to bolster the validity of patents and to provide an alternative to litigation.

3. The AIA

The AIA allows the public to challenge patents after the patents are issued.\textsuperscript{26} These challenges can be on any validity issue that could be raised as a defense to patent infringement in


\textsuperscript{26} Id.
court, but do so at the USPTO. Congress created IPR, CBM, and PGR trials with three major goals in mind: speed, certainty, and efficiency.

**Figure 1. Overall and relevant timeline for Post-Grant Review.**

I. **INTER-PARTES REVIEW ("IPR")**

One of the changes under the AIA was the replacement of inter partes reexamination with inter partes review along with the institution of new post-grant review proceedings. Several key distinctions between the two are that IPR proceedings are more adjudicative, the standard of review is higher, and that parties seeking IPR during civil litigation are provided a one-year time-limit and are barred from seeking IPR if a declaratory judgment has already been filed.

---

27 Id.
28 As compared to the pre-AIA reexamination regime.
29 Trial Practice Guide, 77 Fed. Reg. 48756 (Aug. 14, 2012). The red square delineates the relevant timeline for this paper—from filing the petition to receiving a decision instituting or denying review.
31 Alicia Russo, Patent Litigation Under the America Invents Act, 2014 WL 788284 (ASPATORE) at 1
Sections 42.100-42.123 of the CFR provide for IPR. Claims in an unexpired patent are
given the broadest reasonable construction in light of the specification of the patent in which it
appears. IPRs may take up to one year; however, the time can be extended by six months for
good cause. The petition must contain the following:

[T]he petition must set forth:
(a) *Grounds for standing*. The petitioner must certify that the patent for which review is sought is available for *inter partes* review ***
(b) *Identification of challenge*. Provide a statement of the precise relief requested for each claim challenged. The statement must identify the following:
   (1) The claim;
   (2) The *specific* statutory grounds under 35 U.S.C. 102 or 103 on which the challenge to the claim is based and the patents or printed publications relied upon for each ground;
   ***
   (5) The exhibit number of the supporting evidence relied upon to support the challenge and the relevance of the evidence to the challenge raised, including identifying *specific portions* of the evidence that support the challenge. *The Board may exclude or give no weight to the evidence where a party has failed to state its relevance or to identify specific portions of the evidence that support the challenge.*

***  

From the language above, it should be clear that there are three ways in which a petition
for IPR could be denied. First, under 42.104(a) a petition can be denied due to lack of standing,
for example a failure to timely file the petition. Second, under 42.104(b)(1)-(2) the petition can
be denied due to a failure to specifically state the grounds on which the claims are being
challenged. Third, due to a lack of evidence or evidence excluded because the Petitioner failed
to state the relevance of the evidence.

---

32 37 C.F.R. §42.100 (2012).
33 *Id.*
34 *Id.* at §42.104 (emphasis added).
All three paths to denial are analyzed below. This paper looks at one hundred IPR denial opinions. The opinions were reviewed for a) which of the three rationales above resulted in the denial of the petition and b) specific reasons why the rationale resulted in the denial of the petition. The figure below represents the presence of the factors over the opinions.

Note, however, that frequently opinions were denied based on both insufficient evidence and insufficient reasoning. Indeed, fifty-eight percent of the time, petitions were denied due to insufficient evidence, the opinion also cited insufficient reasoning as contributing to the denial of the petition. Fifty seven percent of the opinions analyzed cited insufficient reasoning as a factor, forty five percent cited insufficient evidence, twenty two percent cited untimely filing and three opinions cited other factors. Meanwhile, no petitions denied due to unseasonable filing cited insufficient evidence or reasoning. These findings, and the discussion below, supports the finding that the primary reason petitions for IPR are denied is insufficient explanation and reasoning. Fortunately, for practitioners, this is the most controllable factor.
Figure 3. Factors cited by the Board as the basis for the denial of petitions to institute IPRs.\textsuperscript{35}

A. Insufficient Evidence

While, more often than not\textsuperscript{36} denials resulting from insufficient evidence were also denied due to insufficient reasoning, some petitions were denied purely due to insufficient evidence. In \textit{Dell Inc. v. Acceleron}, denied purely on evidentiary grounds.\textsuperscript{37} In \textit{Dell}, the patent-in-suit generally related to a computer network appliance including CPU modules, a power module, and an Ethernet switch module having hot-swappable connectors corresponding to

\textsuperscript{35} See Appendix of denied IPRs.
\textsuperscript{36} See supra II.
\textsuperscript{37} \textit{Dell Inc. v. Acceleron, LLC}, IPR2013-00443 (Jan. 16, 2014).
mating hot swap connectors on a backplane board. The Petitioner challenged the patent-in-suit on both §102 and §103 grounds.

On a dispositive issue, the issue of the date of provisional filing applications, Petitioner relies on Fung for prior art. However, the Board notes that “Petitioner does not provide any support from those documents.” Further, the Board continues that “to establish Fung . . . as a ‘prior art patent or printed publication,’ it must specify the disclosure in those references that support the relied upon subject matter from Fung . . . . The Petition fails to specify such disclosure.” Moreover, “neither the Petitioner nor its expert, Dr. Horst, cite either to Fung Provisional 1 or Fung Provisional 2.” Thus, the “Petitioner fails to identify the ‘specific portions of the evidence that support’ its challenges, as required by 37 C.F.R. § 42.104(b)(5).” Substantially for this reason the Board accordingly denied to institute the IPR.

In Gracenote Inc. v. Iceberg Industries, the Board refused to institute the IPR based both on insufficient evidence and insufficient reasoning. In Gracenote, the patent-in-suit related to apparatus for recognizing free-field audio signals. In analyzing claim 113, the Board notes “Petitioner, however, fails to provide the required construction of several of the means-plus-function terms of independent claim 113.” The Board continues, “For at least that reason, we determine that Petitioner fails to demonstrate a reasonable likelihood of prevailing in its challenge to independent claim 113 or to claims 120-122, which depend therefrom, as anticipated by Ikezoye.” However, after analyzing the submissions with regard to Ikezoye the

---

38 Id. at 4.
39 Id. at 2-3.
40 Id. at 10.
41 Id.
42 Id. at 11.
43 See id. at 12.
44 Gracenote Inc. v. Iceberg Industries, LLC, IPR2013-00551, 38 (Feb. 28, 2014)
Board finds “In view of the foregoing discussion of the deficiencies in disclosure, Petitioner has not presented sufficient evidence to support a finding that Ikezoye discloses this limitation of claim 113.” Elsewhere, the Board reject’s Petitioner’s argument regarding a disclosure by another prior art on the basis that the Petitioner does not indicate where the prior art makes the disclosure the Petitioner asserts.\(^45\) Accordingly, the petition is denied because the Petitioner failed to demonstrate a reasonable likelihood of prevailing on its challenge to the patentability of claims due to insufficient evidence and reasoning.\(^46\)

The chart below summarizes the some of the main reasons the Board articulated for finding the evidence insufficient.

**B. Insufficient Reasoning**

The primary reason petitions to institute IPR are denied is due to insufficient reasoning.\(^47\) The following cases illustrate what is meant by “insufficient reasoning.” In essence, petitioners’ insufficient reasoning manifests itself in a failure to explain why the prior art cited supports the argument asserted by the petitioner.

---

\(^{45}\) *Id.* at 42.

\(^{46}\) *See id.* at 45.

\(^{47}\) *See supra* figure 3.
Figure 4. Articulated reasons by the Board as to why evidence presented in petitions was not sufficient.

In Lake Cable v. Windy City Wire Cable and Technology, the Petitioner challenged claims with regard to the ‘795 Patent, a patent titled “Wire and Cable Dispensing Container and Systems.”

Although the Board generally denies most claims at presented in the petition on the basis that the petition does not contain sufficient information, the Board specifically notes with regard to the Petitioner’s argument relating to a rod passing through a spindle that Petitioner’s argument “appears merely to assume, without factual support or technical argument, that there would have been no significant difference between hanging cardboard container 10 by a rod inserted through a passageway located toward the center of the side panels (so as to “pass through the spindle”). Accordingly, the petition to institute IPR was denied.

---

48 Lake Cable, LLC v. Windy City Wire Cable and Technology, LLC, IPR2013-00528 2-3 (Feb. 19, 2014).
49 Id. at 29.
In *Callcopy, Inc. v. Verient Americas, Inc.*, the Petitioner challenged claims in the ‘324 patent, a patent disclosing “signal-monitoring apparatus, including telephone monitoring apparatus which may be arranged for monitoring a plurality of telephone conversations.”\(^{51}\) In discussing the challenges, the Board observes “[t]he claim charts conflate the three grounds without providing a clear distinction how the identified disclosures are applied to the individual grounds, and thus none of the grounds are supported by sufficient reasoning how the identified disclosures relate to the claim limitations.”\(^{52}\) The Board thus continued “[w]e are unwilling to engage in supposition of how to effect analysis.”\(^{53}\) Moreover, the Board notes with regard to the Petitioner’s expert statements that “[s]uch conclusory statements similarly fail to articulate sufficient reasoning with rational underpinnings to support the legal conclusion of obviousness.”\(^{54}\) Accordingly, the Board denied the petition due to insufficient reasoning.\(^{55}\)

The Board’s opinion denying BSP Software LLC *et al.*,’s petition to institute IPR articulated similar reasoning in *BSP Software v. Motio*.\(^{56}\) In *BSP Software*, the Petitioner challenged claims relating to the ‘678 patent, a patent relating to methods of providing automatic version control to a business intelligence system.\(^{57}\) In addressing the Petitioner’s arguments with regard to specific claims the Board finds, citing the Patent Owner’s preliminary response “[Petitioner’s] reason to combine the teachings of [two prior arts] appears to be that both

\(^{50}\) Id. at 31.
\(^{52}\) Id. at 7 (emphasis added).
\(^{53}\) Id. at 7-8.
\(^{54}\) Id. at 9.
\(^{57}\) Id. at 3 (“Business intelligence systems are used to gather, store, analyze and report on business metric data, such as factory production, personnel productivity in a manufacturing facility, or trends in sales in a retail store environment.”).
references are concerned with version control . . . which, without more, is an insufficient rationale to combine.”

The Board continues “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” Thus, this opinion underlines the centrality of clearly reasoning why prior art supports the arguments asserted in the petition. The chart below summarizes some of the most commonly articulated reasons the Board finds petitions to lack specific reasoning.

![Common Comments Re Petitions Denied Due to Insufficient Reasoning](chart)

**Figure 5.** Common explanations by the Board as to why reasoning in petitions is insufficient.

Whether the petitioner proposed claim constructions in the petition does not appear to affect whether a petition will be denied. Some petitioners chose to not propose claim

---

58 Id. at 17.
59 Id. (citing In re Kahn, 441 F.3d 977, 988 (Fed. Cir. 2006)) (emphasis added).
constructions. This left open the question as to whether the majority of denied petitions were lacking proper reasoning, or whether a failure to propose claim constructions gave rise to claim definitions that made it more difficult to adequately demonstrate the arguments asserted in the petition. To look into this, the number of denied petitions in which claim constructions were not proposed by the petitioner were compared with the number of petitions in which claim construction was proposed by the petitioner. As seen from the graph below, only 7% of the denied petitions for IPR did not propose claim construction. Accordingly, this supports the finding that petitions for IPR are primarily denied due to insufficient reasoning. As such, petitions for IPR may be able to be made more likely to succeed by ensuring that the arguments are robustly reasoned and supported by evidence.

![Sample of IPRs Denied Due to Insufficient Reasoning or Explanation where the Petitioner did not Propose a Claim Construction](image)

**Figure 6.** Denied petitions for IPR in which no claim constructions are proposed compared with denied petitions for IPR in which claim constructions are proposed.

**C. Untimeliness**

Lastly, the third main factor for IPR denial turns on whether the petitioner files within the time limit imposed by 35 U.S.C. § 315(b). Although failure to timely file the petition constitutes
a main factor for denial, its prevalence has decreased as petitions for IPR have been denied increasingly due to insufficient reasoning.60

In Samsung v. Fractus, the Board denied the Petitioner’s petition for IPR along with three other petitions relating to three other patents.61 The Petitioner challenged a family of patents relating to antenna structures.62 However, the Board directly denied the petitions stating “[w]e deny the petitions because they were not filed within the one-year period set forth in 35 U.S.C. § 315(b).”63 In doing so, the Board observes that “[t]he legislative history of 35 U.S.C. § 315(b) indicates that Congress intended inter partes reviews to provide cost-effective alternatives to litigation.”64 Notwithstanding the Petitioner’s arguments to the contrary, the Board found that it “consistently has taken the position that § 315(b) bars institution of an inter partes review based on a complaint for infringement served more than one year before filing of the request for inter partes review.”65 Accordingly, the Board denied the petition for failing to timely file.

As Samsung v. Fractus indicates, the time bar is strictly enforced, and is one of the main factors in the denial of petitions for IPR. However, between 2013 and 2014 the proportion of IPRs denied due to a failure to timely file decreased from 22% to 12% of the total petitions denied. Meanwhile, denials citing insufficient reasoning as a basis grew from 36% to 54% of

60 See infra figure 7.
63 Id. at 3.
65 Id. (citing Universal Remote control, Inc. v. Universal Electronics, Inc., IPR No. IPR2013-00168, slip. op. PTAB August 26, 2013; St. Jude Medical, Cardiology Division, Inc. v. Volcano Corporation, IPR No. IPR2013-00258, slip. op. PTAB October 16, 2013.).
total denials. Insufficient evidence dropped slightly between 2013 and 2014 from 36% to 33%.

The chart below illustrates these yearly increases and decreases.

![Chart](image)

**Figure 8. Proportional decrease of the “failure to timely file” factor for IPR denial.**

**D. Summary of Main Factors Contributing to Denial of IPR Petitions**

Three main factors contribute to the denial of petitions for IPR. The primary factor resulting in denial of petitions for IPR is insufficient reasoning. Commonly, this insufficient reasoning arises from conclusory statements explaining the relevance of an exhibit to the argument asserted. The second factor is insufficient evidence. This factor, more often than not, is accompanied by a failure to provide sufficient reasoning. Lastly, the third main factor resulting in the denial of petitions to institute IPRs is a failure to timely file the petition as contemplated in 35 U.S.C. § 315(b).

**II. COVERED BUSINESS METHOD REVIEW (“CBM review”)**

A “Covered Business Method” patent is a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for

In 1998, the Federal Circuit in *State St.* held that the transformation of data representing discrete dollar amounts by a machine constitutes a practical application of a mathematical algorithm because it produces a useful, concrete and tangible result and thus satisfied 35 U.S.C. § 101. The contested patent was generally directed to a data processing system for implementing an investment structure which was developed for use in Signature's business as an administrator and accounting agent for mutual funds. The patented system determined the percentage share that monitored mutual funds maintains in a centralized “Hub,” while taking into consideration daily changes both in the value of, among other things, the Hub's investment securities. The central issue turned on whether the patent claims were statutory in nature. In reversing the district court, the Federal Circuit found the claims at issue to be statutory because they involved the application of an algorithm thereby producing useful, concrete results.

In 2010, the Supreme Court addressed business method patents. Specifically, the Court addressed whether a patent can be issued for a claimed invention designed for the business world where the patent application claims a procedure for instructing buyers and sellers how to protect

---

66 37 C.F.R. § 42.301.
67 America Invents Act § 17:1.
69 *Id.* at 1371.
70 *Id.* at 1370.
71 America Invents Act § 17:1.
against the risk of price fluctuations in a discrete section of the economy.\textsuperscript{73} The Court reviewed three arguments against considering business method patentable: (1) it is not tied to a machine and does not transform an article; (2) it involves a method of conducting business; and (3) it is merely an abstract idea.\textsuperscript{74} The patent-in-suit involved a method of determining how buyers and sellers of commodities in the energy market can protect, or hedge, against the risk of price changes.\textsuperscript{75} The Court ultimately found the patent invalid under the precedents on the unpatentability of abstract ideas.\textsuperscript{76} However, the Court was careful to note throughout that it did not comment on the patentability of business methods. The Court observed:

It is important to emphasize that the Court today is not commenting on the patentability of any particular invention, let alone holding that any of the above-mentioned technologies from the Information Age should or should not receive patent protection. This Age puts the possibility of innovation in the hands of more people and raises new difficulties for the patent law. With ever more people trying to innovate and thus seeking patent protections for their inventions, the patent law faces a great challenge in striking the balance between protecting inventors and not granting monopolies over procedures that others would discover by independent, creative application of general principles. Nothing in this opinion should be read to take a position on where that balance ought to be struck.\textsuperscript{77}

Congress responded to the \textit{Bilski} decision after noting that patents already issued by the USPTO would not survive the heightened \textit{Bilski} standard and that this would burden the financial and banking industry.\textsuperscript{78} In proposing a transitional program for Covered Business Method patents the House Report remarks:

\begin{itemize}
\item \textit{Id.} at 3223.
\item \textit{Id.}
\item \textit{Id.}
\item \textit{Id.} at 3231.
\item \textit{Id.} at 3228.
\item America Invents Act § 17:1.
\end{itemize}
A number of patent observers believe the issuance of poor business-method patents during the late 1990's through the early 2000's led to the patent “troll” lawsuits that compelled the Committee to launch the patent reform project 6 years ago . . . . The Act responds to the problem by creating a transitional program 1 year after enactment of the bill to implement a provisional post-grant proceeding for review of the validity of any business method patent. In contrast to the era of the late 1990's-early 2000's, examiners will review the best prior art available. A petition to initiate a review will not be granted unless the petitioner is first sued for infringement or is accused of infringement . . . . The program sunsets after 10 years, which ensures that patent holders cannot delay filing a lawsuit over a shorter time period to avoid reevaluation under the transitional program.  

Accordingly, Section 18 of the America Invents Act provides:

(a) TRANSITIONAL PROGRAM.—
(1) ESTABLISHMENT.— . . . The transitional proceeding implemented pursuant to this subsection shall be regarded as, and shall employ the standards and procedures of, a post-grant review under chapter 32 of title 35, United States Code, subject to the following:

 . . .

(B) A person may not file a petition for a transitional proceeding with respect to a covered business method patent unless the person or the person's real party in interest or privy has been sued for infringement of the patent or has been charged with infringement under that patent.

(C) A petitioner in a transitional proceeding who challenges the validity of 1 or more claims in a covered business method patent on a ground raised under section 102 or 103 of title 35, United States Code, as in effect on the day before the effective date set forth in section 3(n)(1), may support such ground only on the basis of—

(i) prior art that is described by section 102(a) of such title of such title (as in effect on the day before such effective date); or

(ii) prior art that—

 . . .

(E) The Director may institute a transitional proceeding only for a patent that is a covered business method patent.

. . .

(d) DEFINITION.—

(1) IN GENERAL.—For purposes of this section, the term “covered business method patent” means a patent that claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions.

(2) REGULATIONS.—To assist in implementing the transitional proceeding authorized by this subsection, the Director shall issue regulations for determining whether a patent is for a technological invention. . . .

A. Statutory Denials of CBMs under Section 18 of the AIA

Under Section 18 of the AIA the PTAB can deny petitions for CBM for three statutory reasons:

(1) lack of standing under § 18(a)(1)(B) because the party has not been sued for infringement;
(2) None of the claims challenged under § 18(a)(1) generally or § 18(a)(1)(C) specifically is more likely than not unpatentable; or
(3) the challenged patent does not fit the definition of a “covered business method patent” under § 18(d)(1).

B. Factors Contributing to the Denial of Petitions to Institute CBM Review

From 2013 to January 1, 2014, parties filed forty petitions requesting CBM review. Of those, thirty-four were instituted, while six were denied. All six were denied due to the patentability of all claims challenged under § 18(a)(1) or § 18(a)(1)(C)—not procedural errors. That is, all petitions have had “standing” (i.e., met all statutory requirements) and all petitions have challenged “covered business method patents.”

---

80 America Invents Act § 18

Thus, two questions emerge: First, what are the factors relating to challenges to claims under § 18(a)(1) or § 18(a)(1)(C) that fall short of convincing the PTAB that the challenged patent more likely than not contains at least one unpatentable claim. Second, what factors contribute to the PTAB’s decision that the challenged patents should not be denied either due to not meeting the definition of a “covered business method patent” under § 18(d)(1), or due to lack of standing under § 18(a)(1)(B).

Petitions for CBM review can be denied due to issues of standing or based on the claims. The issues of standing are (1) whether it claims a method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service, except that the term does not include patents for technological inventions,82 (2) whether it is a technological invention,83 and (3) the petitioner or petitioner’s real party in interest or privy must have been sued for infringement of the patent or has been charged with infringement under that patent.84

1. **Financial Product Prong**

In determining whether a patent is a financial product or service for a covered business method patent review, the focus is on the claims.85 The “legislative history explains that the definition of covered business method patent was drafted to encompass patents, claiming

---

82 AIA § 18(d)(1); see 37 C.F.R. § 42.301(a).
83 AIA §§ 18(a)(1)(B), 18(d)(1); see 37 C.F.R. § 42.302.
84 AIA § 18(a)(1)(B).
activities that are financial in nature, incidental to a financial activity or complementary to a financial activity.” 86 Thus, the PTAB interprets “financial product or service” very broadly.87

Only one denial has substantially addressed the “financial product” prong.88 In Apple Inc. v. Sightsound Technologies, the Board found the patent at issue to be a covered business method patent even though the patent did not relate to a financial business.89 The board found the patent to recite a method for perform “data processing or other operations used in the practice, administration, or management of a financial product or service, as required by Section 18(d)(1) of the AIA” because the patent involved an electronic sale and charging of an account.90 In Sightsound, the Petitioner challenged claims 1, 64, and 95 of the ‘440 patent on the grounds that the claims do not recite patent-eligible subject matter under 35 U.S.C. § 101 and that the claims are unpatentable for obviousness-type double patenting.91 Claim 1 of the patent ‘440 patent recited:

selling electronically by the first party to the second party through telecommunication lines, the desired digital video or digital audio signals in the first memory, the second party is at a second party location and the step of selling electronically includes the step of charging a fee via telecommunications lines by the first party to the second party at a first party location remote from the second party location, the second party has an account and the step of charging a fee includes the step of charging the account of the second party.92

---

87 Id. at 11.
88 Id. at 11.
89 Id. at 11-12.
90 Id. at 11.
91 Id. at 7.
92 Id. at 11.
(emphasis in original). The Board found that “the electronic sale of something, including charging a fee to a party’s account, is a financial activity, and allowing such a sale amounts to providing a financial service.” The Board also looked to the specification of the ‘440 patent. The specification stated that the patent is a method for electronic “sale” of digital media involving a “purchase.” These facts, in addition to the details of how the transaction is facilitated, persuaded the board that the ‘440 patent satisfied the AIA’s requirement that CBMs involve a financial product or service.

Sightsound argued that this did not qualify as a CBM because, it argued, only patents with a “clear nexus to the financial business” are eligible for a covered business method review. As such, the Sightsound argued that “a petitioner must show more than just the existence of a payment step or a monetary element in a patent claim to establish the necessary nexus between the patent and a financial product or service.”

The Board, however, rejected these arguments. Citing the statutory language and the legislative history of the AIA, the Board found in favor of a broad interpretation. First, the Board noted that the plain language of the AIA does not require a nexus to a financial business, but a “method or corresponding apparatus for performing data processing or other operations used in the practice, administration, or management of a financial product or service.” Further, the Board highlighted comments from Senator Schumer noting “[n]othing in the [AIA] limits use of section 18 to banks, insurance companies or other members of the financial services industry.

---

94 Id.
95 Id. at 12.
96 Id.
97 Id.
99 Id.
The Board also noted Senator Schumer’s comment that “[a]t its most basic, a financial product is an agreement between two parties stipulating movements of money or other consideration now or in the future.” Accordingly, the Board found that although claim 1 of the ‘440 patent did not relate to a financial services business, it did recite the electronic movement of money between entities, which is an activity that is financial in nature.

The Board’s comfort with using this loose interpretation of “financial product or service” could be explained by the lack of binding precedent. In Sightsound, the Patent Owner’s argued that “a determination that the ‘440 patent is a covered business method patent would be a ‘radical expansion of the scope of patents subject to CBM review’ because ‘the patent itself has nothing to do with finance.’” However, the Board noted that “the Board reviews petitions on their own facts to determine whether the challenged patent is a covered business method patent under the AIA definition,” and finding some facts in the Sightsound case relating to finance.

2. Technological Innovation Prong

Patents for technological innovations are not included in the definition of patents for CBM review. Half of the orders denying CBM review have addressed the “technological

100 Id.
101 Id. at 13 (emphasis in original).
102 Id.
104 Id. at 14.
106 Up to March 16, 2014.
innovation” prong of standing. In each case the Board found technological prong to be satisfied.

Section 42.301(b) of the CFR holds that:

In addition to the definitions in §42.2, the following definitions apply to proceedings under this subpart D:

In determining whether a patent is for a technological invention solely for purposes of the Transitional Program for Covered Business Methods (section 42.301(a)), the following will be considered on a case-by-case basis: whether the claimed subject matter as a whole recites a technological feature that is novel and unobvious over the prior art; and solves a technical problem using a technical solution.

In addition, the following claim drafting techniques do not render a patent a “technological innovation”:

(a) Mere recitation of known technologies, such as computer hardware, communication or computer networks, software, memory, computer-readable storage medium, scanners, display devices or databases, or specialized machines, such as an ATM or point of sale device.
(b) Reciting the use of known prior art technology to accomplish a process or method, even if that process or method is novel and non-obvious.
(c) Combining prior art structures to achieve the normal, expected, or predictable result of that combination.

For example, in Gillman v. Stoneegale Services, Inc. the Board denied the petition for CBM Review; however, the denial was not based on a failure to meet the “technological innovation” standard. In Gillman, the Board wrote “We are persuaded that claim 1 as a whole

---

107 CBMs 0021, 00003, 00001, 00011
108 37 C.F.R. § 42.301(b) (2012)
does not recite a technological feature that is novel and unobvious over the prior art.” The patent in question, ’904 Patent, titled “Medical Benefits Payment System,” related to facilitating payments for medical benefits, and streamlining payment of health care providers by administrators and insurance carriers.

In essence, the patent transferred information including credit and debit card information along with information relating to the insurance benefits purchased. Petitioner challenges the patentability of claims 1-7, 9, 10, 12, 17, and 22 of the ’904 Patent under Sections 102 and 103. In finding that the ‘904 patent meets the technological innovation hurdle the Board noted that the patent “only recites the presence of well-known physical technologies in support of the claimed method. ‘Medical service terminals’ were well-known data-entry-computer systems used in a medical office at the time of invention.” The Board further notes “‘Computer generated image files’ also were known in the art at the time of invention, as was the media used for facilitating the transmission of such files between electronic systems.” Accordingly, claim 1 uses structures and methods that are “known technologies, such as computer hardware, communication or computer networks, software, memory, [or] computer-readable storage

111 Id. at 2-3.
112 Id. at 3.
113 See Andrew Riley et al., The Surprising Breadth of Post-Grant Review for Covered-Business-Method Patents: A New Way to Challenge Patent Claims, 15 Colum. Sci. & Tech. L. Rev. at 275 (describing 1. Whether the patent is covered under CBM review 2. Whether it is a technological innovation and 3. Whether the patent meets the standard of review as the three hurdles of CBM Review). “Any party seeking a CBM review must carefully analyze three major substantive hurdles. First, the petitioner must establish that the challenged patent qualifies as a “covered business method.” Second, the petitioner must show that the claimed invention is not a “technological invention” exempt from CBM review. Third, the petitioner must show that the standard of review is met—namely, that it is more likely than not that at least one challenged claim is unpatentable.”
115 Id.
medi[a],” and therefore the ‘904 patent met the technological innovation test because only one claim need meet the test.\textsuperscript{116}

As can be seen, the technological innovation test, similar to the financial product test, is easily met. Although the authors of the AIA anticipated the exception to be narrow,\textsuperscript{117} no petition has ever been denied for not meeting the technological innovation test.\textsuperscript{118}

3. Denials on Substantive Grounds

All of the denials have been denied on non-standing grounds. In \textit{Gillman}, all claims failed to persuade the Board that at least one claim was not patentable against prior art.\textsuperscript{119} In \textit{Sightsound}, the Petitioner challenges claims on the grounds that the claims do not recite patent-eligible subject matter under 35 U.S.C. § 101 and lack sufficient written description support under 35 U.S.C. § 112.\textsuperscript{120} The Board denied Apple’s petition on the basis that it did not demonstrate that the challenged claims were more likely than not unpatentable based on the asserted grounds.\textsuperscript{121}

In a separate petition by Apple against Sightsound, Apple challenged claims on the grounds that the claims did not recite patent-eligible subject matter under 35 U.S.C. § 101 and that the claims are unpatentable for obviousness-type double patenting.\textsuperscript{122} The Board denied Apple’s petition on the grounds that it did not demonstrate that the challenged claims were more

\textsuperscript{116} Id.
\textsuperscript{118} See Figure 2 \textit{infra}.
\textsuperscript{119} \textit{Gillman v. Stoneegale Services, Inc}, CBM 2013-00047 at 17-22.
\textsuperscript{120} \textit{Apple v. Sightsound Technologies, LLC}, CBM2013-00019 at 6.
\textsuperscript{121} \textit{Id.} at 22.
likely than not unpatentable based on the asserted grounds.\footnote{Id. at 26.} In \textit{Liberty Mutual Insurance Company v. Progressive Casualty Insurance Company}, the Board succinctly summarized its denial in a paragraph at the end of the introduction:

Liberty challenges the patentability of claims 1-78 of the ’598 patent. Taking into account Progressive’s preliminary response, we determine that the information presented in the petition does not demonstrate that it is more likely than not that claims 1-78 are unpatentable. Pursuant to 35 U.S.C. § 324 and section 18(a) of the AIA, we do not authorize a covered business method patent review to be instituted as to claims 1-78 of the ’598 patent for the grounds of unpatentability asserted in Liberty’s petition.

Accordingly, the petition is DENIED.\footnote{Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co., CBM2013-00001 (JL), 2 (Feb. 27, 2013).}

The Board denied a separate petition by Liberty challenging claims of a different patent as being unpatentable under 35 U.S.C. §§ 102 and 103 because the information presented in the petition did not demonstrate that the challenged claims were unpatentable under the preponderance of the evidence standard.\footnote{Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co., CBM2013-00001 (JL), 2 (Feb. 27, 2013).} The Board similarly denied a separate petition by Liberty challenging a separate patent under 35 U.S.C. §§ 102 and 103 because the petition did not demonstrate that it is more likely than not that the claims were unpatentable.\footnote{Liberty Mut. Ins. Co. v. Progressive Cas. Ins. Co., CBM2013-00003 (JL), 2 (March 15, 2013).}

\textbf{C. Empirical Results}

As these decisions illustrate, the Board has primarily denied petitions for CBM Review on the basis that all asserted claims are not more likely than not unpatentable. The claims are rarely denied due to issues of standing, such as the “financial product” and “technical innovation” test. These findings are summarized below in the analysis of 17 CBM opinions.

\begin{footnotesize}
\footnote{Id. at 26.}
\end{footnotesize}
Figure 2. Chart illustrating the statutory basis for CBM Denial.\textsuperscript{127}

### III. Findings: The Board is Carefully and Judiciously Weighing Each Petition, and Embodying the Statutory Goals of the AIA

\textit{“Striving to better, oft we mar what's well.”}\textsuperscript{128}

Given the above, it is clear that for the first two years of \textit{inter partes} reviews, Board panels have carefully weighed all of the relevant statutory factors, applying the new law with rigor and precision, and denying incomplete, barred, and insufficient petitions. Given the monumental task of implementing an entirely new set of rules, procedures, and substance, the

\textsuperscript{127} \textit{See also} Andrew Riley \textit{et al.}, \textit{The Surprising Breadth of Post-Grant Review for Covered-Business-Method Patents: A New Way to Challenge Patent Claims}, 15 Colum. Sci. & Tech. L. Rev. at 278 n.241 (citing the data and chart used in this paper).

Board has performed admirably. While change is never easy, and the quest to further improve efficiency and rigor continues, the PTO should be commended for their application of the *inter partes* review statute. To practitioners and scholars, this paper makes three proposals to practitioners, and three proposals for further research.

To practitioners: First, in drafting petitions for CBM review, focus on illustrating the unpatentability of the claims unless a genuine issue of standing exists. The fact that the Board has rarely denied a petition for not meeting the “financial product” test, the “technical innovation” test, or other standing issues underlies this proposal.\textsuperscript{129} It should be relatively clear what qualifies for a CBM, and what does not.\textsuperscript{130} Second, practitioners writing petitions may increase the likelihood the petition will be accepted by reducing the number of conclusory sentences in the petition and focusing on clear evidentiary support for a limited number of grounds. As one possible solution, this paper proposes a “three-sentence rule” for references to prior art in petitions: draft one sentence referencing the prior art, and at least two sentences explaining the prior art’s relevance. While each case is different, generally following the “three-sentence rule” at a minimum will ensure petitioners are less likely to rely on “conclusory” assertions rejected by the Board. Third, in consideration of the denials criticizing the submissions by experts, this paper proposes that practitioners make efforts to review the logic and completeness of each expert’s teachings. Although the majority of expert submissions will likely pass such review, adding this step in the process of submitting a petition for IPR could increase the likelihood the petition results in an institution.

\textsuperscript{129} See supra Figure 2.  
To future researchers: First, the literature would benefit from an exhaustive comparison between the denied and instituted petitions. As of April 10, 2014, only 21% of IPRs had been denied. Continuing research is needed to review the prevalence of the factors discussed in this paper in the stages of post-grant review following institution. For example, do the same three factors discussed with regard to denial of petitions for IPR play as influential a role in the Patent Owner response? Second, what role do settlements play in the likelihood an instituted review will continue to a final written decision? In an interview for this paper on February 25, 2014, Judge Michael Tierney indicated that “overall the rate of settlements seem to be raising.” Third, this paper would benefit from feedback from practitioners as to whether taking into account the factors discussed in this paper when preparing petitions for CBM review or IPR has a significant effect on the likelihood of institution. These are the three recommendations for further research.

IV. Conclusion

“All the fruit is ripe, plunged in fire, cooked,
And they have passed their test on earth, and one law is this:
... Many things however
Have to stay on the shoulders. Steadiness is essential.
Forewords, however, or backwards we will
Not look. Let us learn to live swaying
As in a rocking boat on the sea.”

As of the two-year anniversary of IPR and CBM proceedings, parties have filed more than 2,000, wildly surpassing expectations for the program—a sea change in patent law. Many have merited institution; many have not. While cases were instituted in over 75% of all proceedings, it is possible that percentage will fall, as certain patents survive review, others are held unpatentable, and the Board is faced with more patents and patent families that have

---

already been challenged under IPR or CBM.\textsuperscript{133} Furthermore, as some practitioners conjecture, perhaps the “low-hanging fruit” of particularly problematic patents may grow scarce in years to come, further depressing these percentages.\textsuperscript{134}

IPR and CBM proceedings, if used effectively, can lead to efficient outcomes, where good patents strengthen and poor patents return from issue. This Article seeks to help, to “improve patent quality and limit unnecessary and counterproductive litigation costs,”\textsuperscript{135} through discussing the main factors contributing to the denial of petitions for CBM review and IPR.

Reviewing all decisions to deny petitions to institute CBM review demonstrated that the standing factors—such as the “financial product” test—have not accounted for the denial of such petitions, but rather that the petitions have been denied on the basis of the challenged claims.

Reviewing the first 100 denials of institution for IPRs illustrates that three primary factors resulting in denial: insufficient evidence, insufficient reasoning, and failure to timely file the petition.

Further analysis demonstrates that the primary factor, with increasing relevance, is the petitioner’s insufficiently articulated arguments. Fortunately, this underlines the control petitioners have in increasing the likelihood petitions for IPR will be instituted. Hoping that practitioners take into account the foregoing, we look forward to a more complete, just, and efficient implementation of Article I, Section 8 of the Constitution.

\textsuperscript{133} See 35 USC §§ 315(d) and 325(d) (granting the director discretion to deny PGR and IPR in light of art or arguments that were “substantially the same” as those previously considered by the office).
\textsuperscript{134} http://www.ipwatchdog.com/2014/03/24/ptab-death-squads-are-all-commercially-viable-patents-invalid/id=48642/