

Scientific Evidence and the Limits of Factual Reassessment in Judicial Review: A Study of Supreme Court Decision No. 78 PK/PID/2025

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Abstract

Judicial review in criminal proceedings presents a difficult balance between correcting miscarriages of justice and preserving the finality of judgments. This tension becomes particularly complex when a petition for judicial review relies on scientific evidence or challenges the interpretation of expert testimony that has previously been considered by the courts. This study examines Supreme Court Decision No. 78 PK/PID/2025 concerning Jessica Kumala Wongso to analyse the extent to which scientific evidence may justify factual reassessment at the judicial review stage. The decision was rendered on 14 August 2025 in a murder case and is recorded in the Supreme Court's official case directory. The study aims to determine the doctrinal limits of judicial review when the applicant seeks to challenge evidentiary conclusions established in previous proceedings. Employing a normative juridical method, the research uses statutory, conceptual, and case approaches. Particular attention is given to the legal framework of judicial review, the evidentiary status of scientific and expert evidence, and the distinction between newly discovered evidence and a disagreement with previous factual assessment. The study argues that scientific evidence should not automatically transform judicial review into a fourth level of factual adjudication. Instead, its relevance must be assessed according to its novelty, reliability, probative value, and capacity to affect the legal conclusion. The case highlights the need for clear judicial standards concerning scientific evidence while maintaining the exceptional character of judicial review.

[Peninjauan yudisial dalam proses pidana menghadirkan keseimbangan yang sulit antara mengoreksi kesalahan peradilan dan menjaga finalitas putusan. Ketegangan ini menjadi sangat kompleks ketika permohonan peninjauan yudisial bergantung pada bukti ilmiah atau menantang interpretasi kesaksian ahli yang sebelumnya telah dipertimbangkan oleh pengadilan. Studi ini meneliti Putusan Mahkamah Agung No. 78 PK/PID/2025 tentang Jessica Kumala Wongso untuk menganalisis sejauh mana bukti ilmiah dapat membenarkan penilaian ulang fakta pada tahap peninjauan yudisial. Putusan

tersebut dikeluarkan pada tanggal 14 Agustus 2025 dalam kasus pembunuhan dan tercatat dalam direktori kasus resmi Mahkamah Agung. Studi ini bertujuan untuk menentukan batasan doktrinal peninjauan yudisial ketika pemohon berupaya menantang kesimpulan pembuktian yang ditetapkan dalam proses sebelumnya. Dengan menggunakan metode yuridis normatif, penelitian ini menggunakan pendekatan hukum, konseptual, dan kasus. Perhatian khusus diberikan pada kerangka hukum peninjauan yudisial, status pembuktian bukti ilmiah dan ahli, dan perbedaan antara bukti yang baru ditemukan dan ketidaksepakatan dengan penilaian fakta sebelumnya. Studi ini berpendapat bahwa bukti ilmiah tidak seharusnya secara otomatis mengubah peninjauan yudisial menjadi tingkat keempat dari pengambilan keputusan faktual. Sebaliknya, relevansinya harus dinilai berdasarkan kebaruannya, keandalannya, nilai pembuktiannya, dan kemampuannya untuk memengaruhi kesimpulan hukum. Kasus ini menyoroti perlunya standar peradilan yang jelas mengenai bukti ilmiah sambil tetap mempertahankan karakter luar biasa dari peninjauan yudisial.]

Keywords: judicial review, scientific evidence, circumstantial evidence, criminal procedure, factual reassessment, Supreme Court

Introduction

Judicial review (*peninjauan kembali* or PK) occupies an exceptional position within the Indonesian criminal justice system because it constitutes an extraordinary legal remedy directed toward correcting potentially erroneous final judgments. Unlike ordinary appeals, judicial review operates after a judgment has acquired permanent legal force and therefore creates an inherent tension between two competing values: the need for finality and legal certainty, on the one hand, and the need to prevent miscarriages of justice, on the other. The exceptional nature of judicial review is particularly significant in criminal proceedings because an erroneous conviction may result in the deprivation of liberty for an extended period and may permanently affect the dignity and social standing of the convicted person. At the same time, an unrestricted judicial review mechanism could undermine the principle of finality by allowing factual disputes that have already been conclusively adjudicated to be repeatedly reopened. Indonesian criminal procedure consequently establishes specific grounds for judicial review rather than permitting a general reconsideration of the entire case.

The legal framework for judicial review is primarily contained in Article 263 of Law No. 8 of 1981 concerning the Criminal Procedure Code (*Kitab Undang-Undang Hukum Acara Pidana* or KUHP). Article 263 paragraph (2) identifies three principal grounds for judicial review by a convicted person: the existence of a new circumstance (*novum*), conflicting judgments concerning substantially the same

matter, and a judicial mistake or obvious error in the judgment. Article 266 subsequently regulates the consequences of a successful petition. This framework indicates that judicial review is not designed as another ordinary stage of evidentiary adjudication. Rather, it is an exceptional corrective mechanism activated by circumstances that demonstrate a substantial reason to reconsider a final judgment. Indonesian scholarship similarly emphasizes that *novum* and manifest judicial error constitute specific statutory grounds rather than a general invitation to reopen the evidentiary process. (Gusti 2019; Hidayat and Rustamaji 2020).

The problem becomes substantially more difficult when the alleged *novum* involves scientific evidence, digital forensic evidence, or new interpretations of expert testimony. Scientific evidence has an unusual position in criminal adjudication because judges are generally not specialists in the scientific disciplines from which such evidence originates. In Indonesia, scientific evidence does not constitute an autonomous category of evidence under Article 184 of the KUHP. Rather, forensic and scientific findings may enter the evidentiary system through expert testimony, documents, or indications. Sulistyani observes that Indonesian criminal procedure does not establish a detailed reliability test comparable to the gatekeeping mechanisms developed in other jurisdictions, creating potential uncertainty concerning the admissibility and assessment of scientific expert evidence (Sulistyani 2019). This institutional characteristic becomes particularly important when scientific evidence is invoked after a conviction has become final.

Supreme Court Decision No. 78 PK/Pid/2025 provides a particularly significant case for examining this issue. The decision concerned Jessica Kumala Wongso's second judicial review petition in relation to the murder of Wayan Mirna Salihin. The Supreme Court decided the case on 14 August 2025 and rejected the petition. The official Supreme Court directory records the case as a criminal murder matter and identifies Jessica Kumala Wongso as the convicted person seeking judicial review. The decision is particularly important because the second judicial review petition relied, among other grounds, on alleged new circumstances concerning CCTV footage and expert analysis, while also alleging that previous courts had made mistakes in evaluating the evidence and determining the cause of the victim's death.

The petition's evidentiary dimension deserves particular attention. According to the Supreme Court's decision, the applicant relied on a compact disc containing a recording of a TV One interview with witness Dermawan Salihin broadcast on October 7, 2023. The applicant argued that the interview revealed information concerning the alleged withholding of CCTV footage and therefore demonstrated that the CCTV relied upon in the original proceedings had potentially been manipulated. The petition also referred to new digital-forensic analyses and expert opinions, including analyses concerning the authenticity or integrity of the relevant recordings. In addition, the applicant alleged judicial error in the assessment of the CCTV and the determination of the cause of Mirna's death. The case therefore

illustrates an important distinction between new scientific evidence and a new interpretation of evidence that was already available and considered during the original proceedings.

The evidentiary complexity of the case is reinforced by the nature of the original conviction. The case did not depend exclusively on a single direct eyewitness account of the alleged poisoning. Rather, the prosecution and courts relied upon a combination of circumstantial evidence, CCTV recordings, expert testimony, toxicological evidence, and other evidentiary circumstances. Recent scholarship specifically examining the evidentiary dimension of the Mirna Salihin case identifies cyanide-related toxicological evidence, CCTV footage, expert testimony, and circumstantial evidence as important components of the judicial reasoning surrounding the conviction (Diu 2025). Consequently, a later challenge to the scientific or digital integrity of one category of evidence raises a broader question concerning whether the entire evidentiary structure should be reopened at the judicial review stage.

The significance of scientific evidence in contemporary criminal justice extends beyond this particular case. Forensic science can substantially improve the accuracy of criminal adjudication, but it can also generate serious risks when scientific findings are misunderstood, overstated, or presented without adequate methodological transparency. A major study of 732 wrongful convictions associated with allegedly false or misleading forensic evidence found that forensic problems frequently involved miscommunication of results, inappropriate interpretation, inadequate standards, and limitations in the underlying scientific disciplines rather than simple laboratory mistakes (Morgan et al. 2023). This finding is particularly relevant to judicial review because the existence of a scientific disagreement does not automatically demonstrate that an earlier conviction was legally erroneous. The court must determine whether the new material genuinely changes the evidentiary picture or merely provides another interpretation of evidence previously evaluated.

The reliability problem is also recognized in comparative scholarship. Ward argues that expert evidence should possess a sufficiently reliable scientific basis and that its reliability must be assessed in relation to the evidentiary context as a whole rather than through the expert's authority alone (Ward 2020). Similarly, Lidĭn and Dror demonstrate that different experts examining identical evidence may reach different conclusions, particularly in fields where methodological disagreement remains significant (Lidĭn and Dror 2021). These findings suggest that a disagreement between experts should not automatically be equated with the existence of a scientifically established error. Courts must distinguish between scientific novelty, scientific disagreement, and scientific falsification of an earlier evidentiary conclusion.

Previous Indonesian studies have examined judicial review primarily from the perspective of *novum* and judicial error. Gusti (2019), for example, examines Article 263 paragraph (2) and emphasizes the statutory significance of new

circumstances and conflicting judgments as grounds for judicial review. Pambudi and Kurniawan similarly demonstrate that *novum* may justify judicial review where genuinely new factual circumstances arise that were not available during the original proceedings. Hidayat and Rustamaji (2020) examine the relationship between *novum*, judicial error, and judicial review and show that these grounds may operate together when the new material demonstrates a substantive deficiency in the previous adjudication. However, these studies generally do not develop a detailed framework for distinguishing new scientific evidence from a renewed disagreement with the factual assessment previously undertaken by the courts.

A further gap exists in relation to the increasing importance of digital and forensic evidence. Scientific and forensic evidence is increasingly integrated into criminal investigations, yet Indonesian procedural law does not expressly establish forensic science as a distinct evidentiary category. Recent research finds that forensic evidence is frequently subsumed within expert testimony, documentary evidence, or indications under Article 184 of the KUHAP, potentially producing uncertainty regarding its evidentiary status and probative value. This regulatory ambiguity becomes especially consequential in judicial review because the Supreme Court must determine whether a newly produced scientific analysis constitutes an objectively new evidentiary circumstance or merely a different interpretation of evidence that was already part of the judicial record.

The urgency of this research therefore lies in developing a principled boundary between correction of wrongful convictions and unrestricted factual reconsideration. Judicial review must remain sufficiently flexible to accommodate genuine scientific developments, particularly where new technology can expose an earlier evidentiary error. At the same time, permitting every subsequent expert opinion or technological interpretation to reopen a final judgment would effectively transform judicial review into a fourth level of factual adjudication. Such a development would undermine finality, burden the judicial system, and potentially create inconsistent treatment of similarly situated cases.

This study employs a normative juridical methodology using statutory, conceptual, and case approaches. The statutory approach examines Articles 263–266 of the KUHAP, Law No. 48 of 2009 concerning Judicial Power, and the evidentiary framework contained in the KUHAP. The conceptual approach examines *novum*, judicial error, scientific evidence, expert evidence, circumstantial evidence, evidentiary reliability, and the principle of finality. The case approach focuses on Supreme Court Decision No. 78 PK/Pid/2025 and considers its reasoning in relation to the original evidentiary structure of the Jessica Kumala Wongso case. Secondary legal materials consist primarily of scholarly journal articles concerning judicial review, scientific evidence, forensic evidence, and expert reliability.

The contribution of this study is to propose that scientific evidence at the judicial review stage should be evaluated according to four cumulative dimensions: novelty, methodological reliability, probative significance, and capacity to alter the

legal conclusion. A new scientific opinion should not qualify as a decisive *novum* merely because it disagrees with an earlier expert opinion. Rather, it should demonstrate that the previous evidentiary conclusion was materially undermined by information, methodology, technology, or scientific knowledge that was genuinely unavailable or incapable of being properly presented during the original proceedings. On this basis, Decision No. 78 PK/Pid/2025 provides an important case study for determining the limits of factual reassessment in extraordinary criminal remedies.

Judicial Review as an Extraordinary Remedy and the Principle of Finality

The institutional purpose of judicial review must first be distinguished from that of ordinary appellate review. Ordinary appeals and cassation are mechanisms through which a judgment is reviewed within the ordinary hierarchy of adjudication. Judicial review, by contrast, operates after a judgment has acquired permanent legal force. Its exceptional character is therefore inseparable from the principle of *res judicata* and legal certainty. Once ordinary remedies have been exhausted, society has an institutional interest in treating the judgment as final unless a legally recognized circumstance provides sufficient justification for reopening the case.

This does not mean that finality is absolute. Criminal justice systems recognize that the legitimacy of a final judgment depends upon its substantive correctness as well as its procedural finality. A conviction based upon demonstrably false evidence, a genuinely new fact, or an obvious judicial error cannot be justified merely by invoking finality. The extraordinary remedy exists precisely because the legal system recognizes that final judgments may, in exceptional circumstances, be wrong.

Indonesian law attempts to reconcile these interests by specifying the grounds for judicial review in Article 263 paragraph (2) of the KUHP. The convicted person may seek review where there is a new circumstance, where conflicting judgments exist, or where the judgment contains a judicial mistake or obvious error. This statutory enumeration indicates that judicial review is ground-specific, rather than a general continuation of the original trial. Gusti's analysis of Article 263 emphasizes that *novum* must be understood as a statutory basis for extraordinary review rather than as an unrestricted invitation to re-evaluate the case.

The distinction is essential in cases involving scientific evidence. Scientific knowledge is inherently capable of development. New technologies may make it possible to test evidence more accurately, reinterpret digital records, or identify limitations in forensic methods that were not understood at the time of trial. If judicial review were incapable of responding to such developments, the finality of criminal judgments could become more important than factual accuracy. Conversely, if every methodological disagreement were treated as a new circumstance, final judgments would never achieve meaningful stability.

The Supreme Court's decision in Jessica Wongso's second judicial review must therefore be understood within this tension. The Court's official record identifies the petition as a second judicial review and ultimately rejects it. The fact that the petition was the second PK is not, by itself, sufficient to determine the merits. Rather, it underscores the exceptional character of the proceedings and the importance of distinguishing legitimate grounds for review from attempts to relitigate issues already conclusively determined.

The principle of finality also serves institutional efficiency. Courts cannot continuously reconsider the same evidentiary dispute without diminishing their ability to resolve new cases. Finality provides an endpoint to litigation and enables judicial institutions to allocate resources rationally. More importantly, it provides legal certainty concerning the status of criminal convictions. Nevertheless, finality should not be understood as a justification for ignoring scientifically credible evidence of a potentially fundamental error. The appropriate approach is therefore qualified finality: final judgments should be treated as binding unless the applicant establishes one of the exceptional circumstances prescribed by law and demonstrates that the circumstance is sufficiently material to justify reopening the case.

This interpretation also prevents judicial review from becoming a “fourth instance.” The Supreme Court should not use PK merely because an applicant disagrees with the way evidence was evaluated by the trial court, appellate court, or cassation panel. A disagreement concerning the weight of evidence belongs primarily to the original fact-finding process. Judicial review becomes justified only where the applicant identifies a circumstance that materially undermines the reliability or legal validity of the previous adjudication.

Scientific Evidence, Expert Evidence, and Its Position within Indonesian Criminal Procedure

Scientific evidence presents a special challenge because the legal system must translate technical knowledge into a form capable of judicial evaluation. Under Article 184 of the KUHAP, recognized forms of evidence include witness testimony, expert testimony, documents, indications, and statements of the accused. Scientific evidence is not expressly listed as a separate category. Consequently, scientific findings generally enter criminal proceedings through expert testimony, documentary reports, or indications.

Sulistiyani identifies this regulatory issue as one of the principal weaknesses in Indonesian regulation of scientific expert evidence. Unlike some foreign jurisdictions that have developed explicit admissibility criteria for scientific evidence, the Indonesian KUHAP does not establish a detailed methodological reliability test for scientific experts (Sulistiyani 2019). The consequence is that judges retain substantial discretion in evaluating expert evidence.

This does not mean that scientific evidence should be treated as inherently superior to other evidence. Scientific evidence can be highly probative, but its reliability depends upon the underlying methodology, data quality, analytical procedure, chain of custody, expertise of the examiner, and appropriate interpretation of the resulting findings. A scientific label alone cannot transform an uncertain inference into an established fact.

Comparative research reinforces this point. Ward argues that expert evidence should be sufficiently reliable within the context in which it is presented and that the reliability of the evidence must be evaluated alongside the remaining evidentiary record (Ward 2020). Lidġn and Dror similarly show that experts examining identical evidence may disagree, particularly in fields where methodological standards or interpretive frameworks remain contested (Lidġn and Dror 2021).

This insight is especially relevant to the Jessica Wongso case because the applicant's second judicial review relied partly on new digital-forensic and expert analyses concerning CCTV evidence. According to the Supreme Court decision, the applicant argued that the CCTV relied upon in the earlier proceedings was potentially manipulated and that newly presented information supported this proposition. The petition also raised alleged errors concerning the assessment of the CCTV evidence and the cause of death.

The legal question, however, is not simply whether a new expert can identify a different interpretation of the CCTV. The critical question is whether the new analysis demonstrates an objectively identifiable defect in the earlier evidence. A genuinely new forensic discovery—for example, a previously unavailable technical method establishing that a digital recording was altered—would have a materially different status from an expert opinion merely asserting that an existing recording could theoretically have been manipulated.

This distinction can be conceptualized through three categories. The first is new evidence: material that did not previously exist or was genuinely unavailable and that independently bears upon the facts of the case. The second is new scientific analysis: a new examination of previously existing evidence using a substantially improved or previously unavailable methodology. The third is new expert disagreement: an alternative interpretation of evidence that was already available and could have been contested during the original proceedings. The first two categories may potentially satisfy the logic of *novum*; the third ordinarily should not.

The distinction is supported by the broader forensic literature. Morgan et al. found that wrongful convictions associated with forensic evidence frequently arose not because the underlying scientific material was entirely false, but because reliable findings were miscommunicated, overstated, or interpreted beyond what the science could support (Morgan et al. 2023). Therefore, judicial review should examine not merely whether new experts disagree but whether the new evidence

demonstrates a scientifically supportable error in the original evidentiary interpretation.

Scientific evidence must also be evaluated in conjunction with the totality of evidence. A new expert finding that weakens one item of evidence does not necessarily establish innocence if independent evidence remains capable of supporting the conviction. Conversely, if the challenged scientific evidence was indispensable to the conviction, evidence demonstrating that it was fundamentally unreliable may have a much greater capacity to alter the legal conclusion. This is why probative significance should form part of the judicial review test. Scientific evidence should be considered a potentially decisive *novum* where it does not merely add information but materially changes the evidentiary balance. If removal of the challenged evidence would leave the conviction adequately supported by independent evidence, reopening the case may be less justified. If the challenged evidence constituted a central pillar of the conviction and is demonstrably invalidated, judicial review becomes substantially more compelling.

The Ratio Decidendi of Decision No. 78 PK/Pid/2025: Novum, CCTV, and Judicial Error

The Supreme Court's reasoning in Decision No. 78 PK/Pid/2025 is particularly important because it directly addresses the difference between a new circumstance and a renewed challenge to previous factual assessment. The Court recorded that the principal *novum* relied upon by the applicant consisted of a CD containing a TV One interview with Dermawan Salihin from October 7, 2023. According to the applicant, the interview revealed that CCTV footage had allegedly been withheld and that the CCTV used in the original proceedings might have been manipulated.

The applicant also invoked alleged judicial error under Article 263 paragraph (2) letter c of the KUHAP. The argument concerned, among other things, the manner in which the courts had assessed CCTV and the possibility of manipulation. The petition further challenged the judicial reasoning concerning the cause of Mirna Salihin's death. The Supreme Court's reasoning is significant because it refused to treat these arguments as sufficient grounds for reopening the factual assessment. The decision indicates that the *novum* and alleged judicial error were closely connected to an attempt to reopen the evidentiary evaluation undertaken by the previous courts. The Court therefore treated the application as insufficiently grounded under Article 263.

This reasoning reflects an important doctrinal proposition: judicial review cannot be used merely to obtain another evaluation of evidence that has already been examined. If an applicant argues that an existing CCTV recording should have been interpreted differently, the argument ordinarily concerns the weight or meaning assigned to evidence rather than the discovery of a new circumstance. The distinction is fundamental because otherwise any subsequent expert opinion could be characterized as *novum*.

The Supreme Court's treatment of the alleged CCTV manipulation is therefore best understood through the concept of evidentiary novelty. A statement made years after the original trial about the existence or withholding of footage may constitute new information in a chronological sense. But chronological newness does not necessarily equal legal *novum*. For a circumstance to justify reopening a final criminal judgment, it must possess substantive relevance and demonstrate that, had it been known at the time, the court could reasonably have reached a different conclusion.

The requirement of materiality is especially important. Suppose a new item of evidence merely establishes that an additional CCTV angle existed but does not establish what the footage contains or how it changes the evidentiary picture. In that situation, the evidence may be new in a literal sense but insufficiently material to justify judicial review. Conversely, if newly discovered footage conclusively establishes that the accused could not have committed the act in question, its relevance would be qualitatively different.

The same reasoning applies to digital-forensic evidence. A digital-forensic expert may identify technical anomalies in a recording, but an anomaly does not necessarily establish manipulation. Digital files can contain encoding artifacts, compression effects, metadata inconsistencies, or changes produced by ordinary processing. Scientific interpretation must therefore distinguish between anomaly, uncertainty, and demonstrated manipulation.

This is where the methodological reliability of scientific evidence becomes essential. Scientific claims must be assessed according to the method used to produce them, the data examined, the limitations of the method, and the possibility of alternative explanations. Comparative literature emphasizes that courts should not simply defer to the authority of experts but should examine whether the expert evidence has a sufficiently reliable scientific basis (Ward 2020).

The Supreme Court's rejection of the petition can therefore be interpreted as preserving the distinction between evidence that objectively changes the factual record and evidence that merely creates a competing interpretation of an existing record. The latter belongs principally to ordinary fact-finding, whereas the former may justify extraordinary review.

The Court's approach is also consistent with the exceptional character of judicial review. If every disagreement concerning CCTV interpretation were sufficient, final criminal judgments could be repeatedly challenged through newly commissioned expert analyses. Such a system would make finality practically meaningless. The requirement that *novum* possess genuine legal significance is therefore necessary to maintain the integrity of the extraordinary remedy.

At the same time, the decision should not be interpreted as establishing that scientific evidence can never constitute *novum*. Such a conclusion would be overly broad and potentially inconsistent with the corrective purpose of judicial review. Scientific developments can genuinely expose wrongful convictions. DNA technology provides perhaps the clearest example of circumstances in which a new

scientific method may transform an evidentiary conclusion that was previously considered reliable. The proper lesson from Decision No. 78 PK/Pid/2025 is therefore not that scientific evidence is insufficient for judicial review, but that scientific novelty must be demonstrated rather than merely asserted.

Circumstantial Evidence, Scientific Reliability, and the Prohibition of a “Fourth Trial”

The Jessica Wongso case also illustrates the relationship between scientific evidence and circumstantial evidence. Criminal convictions may be based upon a combination of evidentiary circumstances rather than a single direct observation of the criminal act. In such cases, individual pieces of evidence may acquire significance through their relationship with one another. Scientific evidence may therefore function not as an isolated proof of guilt but as one component within a broader evidentiary structure.

This creates a particular difficulty for judicial review. If a new scientific analysis weakens one circumstantial inference, the court must determine whether that weakness undermines the entire chain of reasoning or merely reduces the strength of one component. The question is therefore not simply whether there is a new scientific claim, but whether the claim materially alters the inferential structure upon which the conviction rests.

Recent research on forensic evidence demonstrates why such caution is necessary. Scientific evidence can be highly valuable, but errors may arise through overstatement, inappropriate interpretation, or misunderstanding of the limits of scientific methods (Morgan et al. 2023). A court conducting judicial review should therefore ask whether the new scientific material changes the probability or logical strength of the original inference to such an extent that the conviction can no longer safely stand. The evidentiary role of scientific material must also be distinguished from the role of the expert. The expert provides specialized knowledge; the judge remains responsible for determining the legal significance of that knowledge. This distinction is particularly important because scientific experts do not determine guilt or innocence. Their role is to explain technical facts, methods, probabilities, or interpretations within their expertise.

The absence of an explicit Indonesian admissibility framework for scientific evidence complicates this task. Sulistyani argues that the KUHAP does not provide a detailed test comparable to the scientific-reliability criteria found in some other legal systems (Sulistyani 2019). Consequently, Indonesian judges must develop reliability assessments through the general law of evidence and judicial reasoning.

A useful framework can be constructed from four questions. First, is the evidence genuinely new? Second, is the scientific method sufficiently reliable? Third, does the evidence possess substantial probative value? Fourth, is the evidence capable of changing the legal conclusion? These questions should be cumulative rather than alternative. A new piece of evidence that lacks scientific

reliability should not reopen a final conviction merely because it is new. Likewise, reliable scientific evidence that merely repeats an earlier expert disagreement should not automatically qualify as *novum*.

The fourth question is particularly important because judicial review should not become a fourth level of fact-finding. The purpose of the extraordinary remedy is to correct exceptional defects, not to provide an additional opportunity for litigants to persuade judges that one interpretation of the evidence is preferable to another. This principle does not prevent courts from examining factual matters altogether. Indeed, determining whether a *novum* is genuine and material may require some factual evaluation. The relevant distinction is between evaluating the significance of new evidence and reconstructing the entire original evidentiary record. The former is inherent in judicial review; the latter risks transforming the proceeding into a retrial.

Decision No. 78 PK/Pid/2025 illustrates this boundary. The Supreme Court considered the applicant's claims concerning CCTV, alleged manipulation, expert analysis, and the cause of death, but concluded that the grounds did not establish the statutory basis for reopening the conviction. The Court's approach consequently preserved the distinction between extraordinary correction and ordinary factual reassessment.

The concept of scientific reliability should nevertheless be developed more explicitly in Indonesian judicial review practice. International scholarship demonstrates that expert disagreement may arise even where experts act competently and honestly. Lidřn and Dror's research on between-expert reliability illustrates that legal actors should not assume that the existence of two conflicting expert opinions necessarily means that one must be scientifically erroneous (Lidřn and Dror 2021). Instead, courts should examine the underlying methodologies, data, assumptions, and degree of uncertainty.

The issue is particularly significant for digital evidence. Digital forensic analysis often involves questions of authenticity, metadata, encoding, compression, synchronization, and reconstruction. A court should therefore avoid treating technical terminology as conclusive proof. What matters is whether the methodology permits a reliable inference and whether the inference is sufficiently strong to undermine the factual basis of the conviction.

This approach also protects against what may be described as technological overreach. New technology can improve forensic accuracy, but technology does not eliminate uncertainty. A judicial system that treats every technologically sophisticated analysis as inherently superior to earlier evidence risks replacing one form of uncritical deference with another. The proper role of judicial review is therefore corrective but restrained. Where new science demonstrates that an earlier evidentiary conclusion was fundamentally wrong, judicial review should be capable of responding. Where new science merely provides an alternative interpretation without materially undermining the original conclusion, the final judgment should remain undisturbed.

Toward a Doctrinal Test for Scientific *Novum*

The analysis of Decision No. 78 PK/Pid/2025 supports the development of a more structured doctrinal test for scientific *novum*. Such a test is necessary because the existing statutory concept of “new circumstances” does not expressly distinguish between different forms of scientific evidence. The absence of such a distinction creates uncertainty for applicants, prosecutors, and courts.

The first requirement should be temporal and epistemic novelty. Evidence should not be regarded as *novum* simply because the applicant obtained it after the original trial. The relevant question is whether the evidence, information, or scientific capability was genuinely unavailable or could not reasonably have been produced during the original proceedings. This prevents parties from manufacturing *novum* through delayed expert consultation concerning evidence that was already fully available.

The second requirement should be methodological reliability. Scientific evidence should be supported by a methodology capable of producing reliable results. The court need not become a scientific laboratory, but it should be able to determine whether the method has a defensible scientific basis, whether appropriate data were used, whether relevant limitations were disclosed, and whether alternative explanations were adequately considered. Comparative scholarship supports the importance of reliability as a prerequisite for meaningful judicial reliance upon expert evidence (Ward 2020).

The third requirement should be material probative value. New evidence must do more than create speculative doubt. It should materially affect one or more factual propositions underlying the conviction. For example, evidence demonstrating that a digital recording was conclusively altered would have substantially greater probative value than evidence merely demonstrating that alteration was theoretically possible.

The fourth requirement should be causal relevance to the judgment. The applicant should explain how the new scientific evidence affects the reasoning of the original court. It is not sufficient to identify an evidentiary weakness in isolation. The applicant should establish a connection between the new evidence and the factual or legal proposition that supported the conviction.

The fifth requirement should be capacity to produce a different legal outcome. This requirement is particularly important because judicial review is not justified by every evidentiary irregularity. The court should ask whether the new evidence, considered together with the remaining evidence, could reasonably produce an acquittal, termination of prosecution, or another materially different legal result.

The sixth requirement should be independence from mere evidentiary disagreement. A newly commissioned expert report that reaches a different conclusion from an earlier expert should not automatically qualify as *novum*. The applicant should identify why the new conclusion is scientifically superior or why

the earlier conclusion has been demonstrated to be unreliable. Otherwise, judicial review becomes a mechanism for repeated expert contestation.

This framework would provide a more balanced interpretation of Article 263 paragraph (2) letter a. It would protect the finality of judgments while preserving the corrective potential of technological and scientific developments. It would also provide greater predictability for judges assessing complex forensic evidence. Decision No. 78 PK/Pid/2025 can therefore be read as supporting a restrained but not inflexible approach. The Supreme Court did not deny that new evidence could theoretically constitute *novum*. Rather, it rejected the particular grounds advanced because they did not establish the statutory requirements for reopening the case. This distinction is important for future jurisprudence.

The framework also has implications for Indonesian criminal procedure reform. Recent research indicates that forensic evidence is widely used in Indonesian criminal cases but remains insufficiently recognized as an autonomous evidentiary category under the KUHAP. Greater procedural clarity concerning forensic evidence could improve both ordinary adjudication and judicial review.

Such reform should not necessarily replicate foreign admissibility rules mechanically. Indonesian criminal procedure has its own evidentiary architecture. Nevertheless, comparative experience demonstrates the value of explicit attention to scientific reliability, methodological transparency, expert qualifications, and the relationship between scientific evidence and other evidence. These principles can be adapted to the Indonesian legal context without abandoning the existing structure of Article 184 KUHAP. Ultimately, the objective should be to ensure that scientific evidence functions as an instrument of epistemic correction, not as a mechanism for perpetual litigation. Genuine scientific discoveries capable of demonstrating wrongful conviction must remain capable of triggering extraordinary review. But scientific disagreement, speculative possibilities, or alternative interpretations should ordinarily remain within the domain of the original evidentiary process.

Conclusion

Supreme Court Decision No. 78 PK/Pid/2025 demonstrates the difficult relationship between scientific evidence, judicial review, and the finality of criminal judgments. The Supreme Court rejected Jessica Kumala Wongso's second judicial review petition after considering claims concerning *novum*, CCTV evidence, digital-forensic analysis, alleged manipulation of recordings, and alleged judicial errors concerning the evidentiary assessment and cause of death. The decision confirms that judicial review under Article 263 of the KUHAP is an exceptional corrective mechanism rather than a general opportunity to repeat the evidentiary examination undertaken by the *judex facti* and *judex juris*. The existence of new expert opinions or alternative interpretations does not, by itself, establish the statutory basis for reopening a final conviction.

The analysis further demonstrates that scientific evidence should occupy an important but carefully controlled position in judicial review. A scientific finding may constitute *novum* where it is genuinely new, methodologically reliable, materially probative, and capable of altering the legal conclusion underlying the conviction. By contrast, an expert opinion that merely disagrees with an earlier assessment should ordinarily not transform judicial review into a fourth level of factual adjudication. This distinction is particularly important in complex cases involving circumstantial and digital evidence because scientific uncertainty, expert disagreement, and demonstrated evidentiary invalidity are conceptually different phenomena. Indonesian procedural law would benefit from clearer standards for evaluating scientific and forensic evidence, particularly because such evidence currently enters the evidentiary system primarily through expert testimony, documents, and indications rather than as an autonomous category.

Accordingly, this study proposes a four-dimensional framework for scientific *novum*: novelty, reliability, probative significance, and capacity to change the legal outcome. These criteria provide a principled means of reconciling two fundamental objectives of criminal justice: preventing wrongful convictions and preserving the finality of judgments. Decision No. 78 PK/Pid/2025 illustrates why this balance is necessary. Scientific evidence should remain capable of reopening a case when new technology or demonstrably reliable scientific knowledge reveals a fundamental error, but judicial review should not become a procedural vehicle for indefinitely revisiting factual disputes. Strengthening judicial reasoning concerning scientific reliability and evidentiary materiality would therefore improve legal certainty, procedural fairness, and public confidence in the administration of criminal justice.

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