

The Role of UNCITRAL in Standardizing International Project Contracts and Its Implementation in Indonesia

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ABSTRACT

The globalization of cross-border construction projects has intensified demands for legal certainty and uniformity in regulating international construction contracts. Divergent national legal systems, the long-term complexity of projects, and dynamic technical, financial, and economic risks often create contractual imbalances and heighten dispute potential. Here, the United Nations Commission on International Trade Law (UNCITRAL) plays a strategic role via soft law instruments, notably the UNCITRAL Legal Guide on Drawing Up International Contracts for the Construction of Industrial Works, providing a principled, flexible framework for such contracts. This study analyzes UNCITRAL's role in standardizing international construction contracts and examines their reflection in Indonesian practices. It reviews national standards under Regulation of the Government Goods/Services Procurement Policy Institute Number 4 of 2024 and Regulation of the Minister of Public Works and Public Housing Number 25 of 2020. Using normative legal research with legislative, conceptual, and analytical approaches, findings show UNCITRAL as a guide for procedural clarity, proportional risk allocation, contractual adaptability, and tiered dispute resolution. Though Indonesian standards implicitly adopt several UNCITRAL principles, their administrative focus limits flexibility. Gradual, contextual harmonization is thus essential to boost legal certainty, risk management, and Indonesia's construction industry competitiveness.

Keywords: UNCITRAL; International Construction Contracts; National Contract Standards; Perlem LKPP 4/2024; PUPR Ministerial Regulation 25/2020.

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INTRODUCTION

Economic globalization has brought fundamental changes to the implementation patterns of construction projects worldwide. Construction projects are no longer purely local or national but are increasingly executed through cross-border cooperation involving business actors from various jurisdictions. This shift is driven by growing infrastructure needs, limited domestic technical and financial capacities, and inflows of foreign capital via direct investment and public-private partnerships. In this context, international construction contracts serve as the primary legal instruments governing party relationships and forming the foundation for project success (Harun, 2021).

International construction contracts possess unique characteristics that distinguish them from ordinary commercial contracts. They typically span extended periods, involve substantial economic value, multiple parties, and significant technical, economic, and legal uncertainties. Moreover, construction projects are highly vulnerable to external changes, such as material price fluctuations, shifts in government policies, natural conditions, and global geopolitical events. Thus, these contracts must provide not only legal certainty but also sufficient flexibility to adapt to project dynamics (Schwenzer & Muñoz, 2019).

Differences in national legal systems further complicate the management of international construction contracts. Civil law and common law traditions adopt divergent approaches to contract formation, clause interpretation, and dispute resolution. In common law systems, contracts are interpreted textually, relying heavily on written clauses, whereas civil law systems emphasize principles of good faith and contractual balance. These differences often create uncertainty in interpreting and implementing cross-border contracts.

The high complexity of international construction contracts corresponds directly to their elevated dispute potential. Such disputes typically involve delays, scope changes, additional cost claims, quality standard failures, and extraordinary events impairing contractual performance. Empirical studies indicate that most arise from ambiguous clauses and divergent interpretations of risk allocation.

In the international arena, construction disputes grow even more complex due to issues of choice of law, choice of forum, and recognition and enforcement of arbitral awards or foreign judgments. Disharmonies between national laws and international contract principles often prolong resolution processes and inflate legal costs. Therefore, contracts designed on international standards play a crucial role in preventing disputes or mitigating their impacts (Schwenzer & Muñoz, 2019).

International construction law literature underscores that dispute avoidance is as vital as resolution mechanisms (Singh & Shah, 2024; Tyler, 2015). Prevention requires contracts with clear structures, balanced risk allocation, and rational adaptation to changing circumstances. Here, instruments of international legal harmonization play a strategic role (Nwogu & Emedosi, 2024; Seppälä, 2023; Seppälä, 2024).

Standardizing international construction contracts does not aim to eliminate national legal diversity but to establish a normative common ground acceptable across jurisdictions. Legal harmonization reduces fragmentation by aligning core principles while respecting national sovereignty (Garg, 2023; Kirtley & Jankovic, 2026; Kromann Reumert, 2024).

This harmonized approach differs from unification, which imposes directly binding uniform rules. For construction contracts, harmonization is more realistic, allowing adaptation by states and parties. Soft law instruments serve as primary harmonization tools due to their flexibility and persuasiveness rather than coerciveness (Asian Development Bank, 2020; Brand, 2025; Gad & Shane, 2017).

Various international organizations contribute to standardizing construction contracts through model forms and guidelines. However, the United Nations Commission on International Trade Law (UNCITRAL) holds a strategic position owing to its global mandate in harmonizing international trade law and its legitimacy as a United Nations agency.

UNCITRAL was established to remove legal obstacles in international trade by developing modern, fair, and adaptable cross-border instruments. For construction contracts, its key contribution is the UNCITRAL Legal Guide on Drawing Up International Contracts for the Construction of Industrial Works (1987)—the "Legal Guide." This Legal Guide provides practical guidance for crafting comprehensive, balanced international construction contracts.

The UNCITRAL Legal Guide systematically addresses key clauses, from formation and risk sharing to changes, payments, guarantees, and dispute resolution. Though non-binding, it is widely referenced in practice and academia as best practice for cross-jurisdictional contracts.

Beyond the Legal Guide, UNCITRAL contributes via the Model Law on Procurement of Goods, Construction and Services and the Legislative Guide on Privately Financed Infrastructure Projects. These are pertinent to public-sector-involved projects with private funding, common in developing countries. Thus, UNCITRAL's role extends beyond contracts to supportive institutional and regulatory frameworks.

A core principle in UNCITRAL instruments is contractual balance, allocating risks fairly to those best equipped to manage them. This aligns with modern contract theory, viewing agreements as dynamic rather than static and requiring adaptation mechanisms (Schwenzer & Muñoz, 2019).

Regarding force majeure and hardship, the UNCITRAL Legal Guide promotes renegotiation and good-faith adjustments over mere termination. This suits long-term, complex construction projects. Literature shows such mechanisms curb dispute escalation and sustain projects.

Indonesia actively pursues infrastructure development and integrates with the global construction market. Contracts with foreign parties often adopt international standards and arbitration clauses. Yet, implementing UNCITRAL principles remains suboptimal and fragmentary (Harun, 2021).

Indonesia's civil law system struggles to accommodate common law-based international clauses. Sectoral regulations on construction and procurement also misalign with international harmonization principles. This discord risks conflicts between contracts and national law, particularly in performance and enforcement.

Based on the foregoing, this study analyzes UNCITRAL's role in standardizing international construction contracts and their implementation in Indonesia. It identifies UNCITRAL's normative contributions, evaluates relevance to practice, and recommends strengthening harmonization in Indonesian construction contract law. This research offers theoretical advancements in international construction law and practical guidance for policymakers, practitioners, and businesses in designing adaptive, balanced, sustainable contracts.

METHOD

This research employed a normative legal approach (doctrinal legal research), focusing on legal norms, principles, and doctrines related to the standardization of international construction contracts and the role of international instruments in legal harmonization. Normative legal research was selected because the primary aim was not to examine empirical behaviors of construction actors but to analyze the normative framework of UNCITRAL instruments and their alignment with the Indonesian national legal system.

The research adopted a prescriptive-analytical character, describing applicable norms while offering critical analysis and recommendations for applying UNCITRAL principles to international construction contracts in Indonesia. This approach enabled theoretical and practical contributions to construction contract law development.

A legislative approach examined Indonesian laws on construction contracts, procurement, and dispute resolution, assessing their conformity with UNCITRAL principles and identifying normative gaps. A conceptual approach analyzed key doctrines underpinning UNCITRAL instruments, drawing on international legal scholarship to build a systematic framework. A

limited comparative approach contrasted UNCITRAL principles with Indonesian contract law, evaluating integration potential.

Primary materials included UNCITRAL documents such as the Legal Guide on Drawing Up International Contracts for the Construction of Industrial Works and relevant Indonesian laws. Secondary materials comprised textbooks, journal articles, and prior studies on contract harmonization.

Legal materials were gathered via library research from databases, repositories, and official sites. Normative qualitative analysis identified norms, grouped issues, and evaluated conformity between UNCITRAL instruments and national law, yielding recommendations. The study was confined to normative analysis of relevant UNCITRAL instruments and their Indonesian implementation, excluding empirical or statistical elements.

RESULTS AND DISCUSSION

1. UNCITRAL Instrument as a Normative Framework for Standardization of International Construction Contracts

The standardization of international construction contracts is an urgent need in the era of cross-border projects. Modern construction projects involve actors from different countries, different procurement rules, and long-term technical and economic risks. In the context of the fragmentation of international law, the United Nations Commission on International Trade Law (UNCITRAL) offers normative instruments in the form of soft law and model law, which serve as a reference for drafting, interpretation, and legislative reform (UNCITRAL, 1987). These instruments are not intended to replace domestic law, but rather to provide normative common ground—contractual language and functional principles—that are acceptable across legal systems (UNCITRAL, 1987).

One of UNCITRAL's major contributions is the Legal Guide on Drawing Up International Contracts for the Construction of Industrial Works (1987). This Legal Guide provides practical guidance on the core clauses of construction contracts — from contract formation, notice and evidence, job changes, claim mechanisms, price adjustments, guarantees, to dispute resolution (UNCITRAL, 1987). The essential difference between the Legal Guide and the commercial contract model such as FIDIC lies in its nature: The Legal Guide is prescriptive-practical (providing options and explanations), not the text of mandatory clauses; so its strength is more in persuasiveness and adaptability to various jurisdictions (UNCITRAL, 1987).

The normative value of UNCITRAL also lies in its functional approach, emphasizing the purpose of the clause (e.g., risk allocation, procedural certainty) rather than imposing a single redaction. This approach helps bridge the differences between civil law and common law traditions, which often give rise to interpretive conflicts in international contracts. On the one hand, the common law tradition tends to emphasize the sovereignty of the written text and the precision of drafting; on the other hand, civil law gives weight to general principles and norms of contractual fairness. UNCITRAL offers a framework that allows the two perspectives to meet in operational drafting practices (Schwenzer & Muñoz, 2019)

In practice, the UNCITRAL instrument functions at three main levels. First, as a drafting guideline: practitioners use Legal Guides to design clauses that address typical construction problems. Second, as an interpretive reference: arbitrators and international

courts often refer to the UNCITRAL principles when faced with ambiguous or incomplete clauses, so that this instrument becomes the persuasive authority in judgments (Schwenzer & Muñoz, 2019). Third, as legislative reference: some countries have adopted some of the provisions of the UNCITRAL model law into procurement regulations or PPP guidelines to improve the governance of infrastructure projects (UNCITRAL, 2014).

However, the character of UNCITRAL's soft law implies limitations: its effectiveness depends on the level of adoption by contractors, employers, legal practitioners, and national legislatures. In countries with resistance to harmonization or with strict sectoral regulations, UNCITRAL principles can be ignored or only partially implemented. This requires the parties to translate the principles of UNCITRAL into clear and enforceable contractual clauses in the context of their respective national laws (Brooker & Lavers, 1997).

Furthermore, UNCITRAL does not function alone; its instruments are often complemented by or compared against other sources such as the UNIDROIT Principles, ICC clauses, and FIDIC model contract practices. This comparison is important because it provides a more technical alternative to drafting for contractors and project owners. The literature shows that effective harmonization is usually achieved through a combination of international guidance (UNCITRAL) with relevant industrial contract models and domestic arrangements.

An important aspect of UNCITRAL value is the focus on contract adaptation mechanisms, especially related to force majeure, hardship, and price adjustment. The Legal Guide encourages clauses that not only define extraordinary events, but also set out procedures for notification, proof, and adjustment measures. This approach emphasizes that a good construction contract must contain practical change management procedures for the project to proceed without costly dispute escalation (Schwenzer & Muñoz, 2019)

In addition, UNCITRAL emphasizes the importance of administrative clauses notification procedures, time-bars, evidentiary documentation, and claims procedures which are often a source of technical disputes. Ambiguity in the administrative aspect often gives rise to formal claims that roll into a war of evidence in dispute forums. Therefore, the Legal Guide advocates detailed procedural redaction as a complement to substantive provisions (UNCITRAL, 1987).

From the point of view of developing countries, including Indonesia, the UNCITRAL instrument has a dual relevance. First, for local contractors, the Legal Guide provides a blueprint that allows them to place contracts at international standards, thus supporting access to multilateral projects and international partnerships. Second, for policymakers, the UNCITRAL Model Law and Legislative Guide can be a reference for infrastructure procurement and regulatory reforms to increase transparency, accountability, and investment attractiveness (UNCITRAL, 2014; Juarti & Noorlaelasari, 2016).

However, the adoption of the UNCITRAL instrument at the national level requires planned work: developing local drafting guidelines, providing training for practitioners, and reviewing potential conflicts with sectoral rules—such as local content obligations or licensing requirements that may constrain certain contractual provisions. Empirical experience shows that partial adoption without regulative synchronization can create more uncertainty than effective harmonization (Brooker & Lavers, 1997; Aaron, 2021).

Finally, it is important to note the temporal dynamics: some of the UNCITRAL documents, including the 1987 Legal Guide, were created in a different economic context and industrial practices than current conditions. Therefore, the relevance of the UNCITRAL Instrument remains optimal when interpreted contextually—combining the basic principles of UNCITRAL with the update of industry practices (e.g. digital contracting, supply chain disruptions, ESG considerations) as well as references to modern contract models (Schwenzer & Muñoz, 2019). Thus, UNCITRAL serves as a normative foundational framework—providing principled direction—that must be enriched by industry actors, academics, and policymakers to produce up-to-date and operational international construction contract standards.

2. UNCITRAL Substantive Principles: Force Majeure, Hardship, Risk Allocation and Contract Adaptation

This section examines the substantive principles that underline the regulation of international construction contracts as recommended in the UNCITRAL Legal Guide on Drawing Up International Contracts for the Construction of Industrial Works. It is important to emphasize from the outset that UNCITRAL does not formulate specific technical clauses, such as price adjustment clauses or specific adjudication mechanisms, but rather develops a framework of principles that emphasizes contractual balance, rational risk allocation, and a tiered mechanism for adaptation and dispute resolution. Thus, UNCITRAL's contribution is at the normative and conceptual level, not on the technical details of the industry.

a. Force Majeure and Hardship as a Contract Adaptation Mechanism

International construction contracts are inherently exposed to extraordinary events that are beyond the control of the parties. Therefore, force majeure and hardship clauses are key elements in maintaining a contractual balance. UNCITRAL, through its Legal Guide, does not establish a standard substantive definition of the two concepts, but emphasizes the importance of the formulation of clauses that are clear, contextual, and equipped with adequate procedural mechanisms (UNCITRAL, 1987).

This approach is in line with the development of international contract law doctrine which shifts the focus from contract termination to contract adaptation as the primary response to fundamental changing circumstances. Kessedjian (2005) shows that the different approaches between the national legal system to force majeure and hardship require flexible contractual solutions so that cross-jurisdictional disputes can be minimized. Schwenzer and Muñoz (2019) further articulate the importance of the duty to renegotiate as a means of restoring the balance of contracts without sacrificing the sustainability of the project.

UNCITRAL adopts an approach that is compatible with the doctrine by emphasizing procedural elements: the obligation to notice, the deadline for claims, and the need to prove the impact of the event on the performance of the contract. By placing a focus on procedures, UNCITRAL seeks to prevent the abuse of force majeure and hardship clauses as opportunistic excuses to avoid contractual obligations.

b. Risk Allocation and Contractual Balance Principles

The principle of risk allocation is at the heart of UNCITRAL's approach to international construction contracts. The Legal Guide emphasizes that risks should be allocated to

those who are most able to control or mitigate these risks, either through operational controls, technical capabilities, or risk transfer instruments such as insurance (UNCITRAL, 1987). This approach reflects the economic view of contracts as a risk management tool, rather than simply a statement of legal obligation.

Empirical research in the construction sector shows that unrealistic risk allocation is a major cause of project disputes and failures (Brooker & Lavers, 1997). The transfer of the risk of economic fluctuations or unilateral regulatory changes to contractors, for example, often results in large claims that lead to arbitration. Therefore, UNCITRAL encourages the formulation of contracts that explicitly identify risks and establish proportionate legal consequences if those risks materialize.

Contractual balance in the perspective of UNCITRAL does not mean an equal sharing of risks, but rather a functional and proportionate sharing. This principle is in line with the doctrine of modern contract law which views construction contracts as a relational contract, which requires flexibility and good faith in dealing with changing circumstances.

c. Contract Economic Adaptation and Price Adjustment Clause Position

It should be emphasized that the UNCITRAL Legal Guide does not explicitly regulate price adjustment clauses, either in the form of escalation formulas or price indexation. Nevertheless, UNCITRAL recognizes in principle that changes in economic conditions—such as inflation, fluctuations in material prices, and changes in fiscal policy—can affect the balance of contracts and therefore need to be anticipated in contract design (UNCITRAL, 1987).

In the practice of international construction contracts, these needs are then realized through price adjustment clauses that develop in certain industry standards and contract models. Engineering literature and construction law show that price adjustment clauses are a practical instrument for implementing the principles of risk allocation and contract adaptation advocated by UNCITRAL, although they do not derive directly from the UNCITRAL instrument itself (Dugan, 2016; Thu, 2024).

Thus, the price adjustment clause should be understood as a derivative instrument, that is, a technical mechanism that develops from industrial practice to operationalize the normative principles of adaptation and contractual balance. This approach is academically important to avoid attribution errors and to maintain clarity on the role of each normative regime.

In the Indonesian context, inaccuracies in the formulation of economic adaptation clauses often lead to disputes, especially when contracts do not explicitly link price fluctuations to the agreed compensation mechanism. This confirms the relevance of UNCITRAL principles on the need for contract designs that can adapt to economic changes, even if the technical mechanisms come from other sources.

d. Tiered Dispute Resolution Mechanism

UNCITRAL consistently encourages the use of tiered or multi-step dispute resolution mechanisms. The Legal Guide emphasizes that construction contracts should regulate the stages of dispute resolution that begin with internal and non-adversarial efforts, before proceeding to formal mechanisms such as arbitration or litigation (UNCITRAL, 1987).

It is important to emphasize that UNCITRAL does not regulate specific institutions such as the Dispute Board or the Dispute Adjudication Board. UNCITRAL's contribution is at the principal level, which is to encourage preventive and proportionate dispute resolution. The literature suggests that a tiered approach can reduce the escalation of disputes and maintain contractual relationships, especially in long-term projects (Brooker & Lavers, 1997).

The development of concrete institutions, such as Dispute Boards, is the result of the evolution of industry practices and the contributions of other organizations. Therefore, in academic analysis, it is important to distinguish between the normative framework of UNCITRAL and the institutional mechanisms developed by practice. This distinction maintains conceptual accuracy and prevents erroneous generalizations.

e. Synthesis of Normative Principles and Implications

The four groups of principles above show that UNCITRAL views international construction contracts as an integrated system that combines substantive, economic, and procedural aspects. UNCITRAL does not offer a ready-made technical solution, but it does provide a normative framework that allows parties to design contracts that are adaptive, balanced, and dispute-prevention-oriented.

In the Indonesian context, a proper understanding of UNCITRAL's position is crucial. Misattribution of UNCITRAL—for example, by considering it as the source of certain technical clauses—can mislead legal drafting and analysis practices. Instead, by placing UNCITRAL in its proper role as a provider of harmonized principles, the parties can carefully combine it with industry standards and national laws to achieve effective and sustainable international construction contracts.

3. Implementation of UNCITRAL Principles in Construction Contract Practice in Indonesia

The implementation of UNCITRAL principles in the practice of construction contracts in Indonesia does not take place through explicit formal adoption mechanisms, but rather through indirect processes that are contractual and practical. In contrast to countries that adopt the UNCITRAL law model legislatively in the field of procurement or arbitration, Indonesia has more penetration of UNCITRAL principles with international construction contracts, foreign law choices, and international dispute resolution mechanisms agreed upon by the parties (Harun, 2021).

a. Indirect Adoption Patterns Through Contractual Practices

In practice, construction contracts involving foreign parties in Indonesia are generally drafted based on international standards or at least adopt a clause structure that is in line with international practice. Clauses regarding notice of claims, job changes, risk management, and dispute resolution through international arbitration are common features of this kind of contract (Juarti & Noorlaelasari, 2016).

This pattern suggests that the principles advocated by UNCITRAL—such as procedural certainty, rational risk allocation, and tiered dispute resolution—have been internalized by practitioners through contractual practice, although they are not always explicitly referred to as "UNCITRAL principles". In this context, UNCITRAL serves as a

background norm that shapes the expectations and practices of contract drafting, not as a source of formal law cited in the contract (Harun, 2021).

However, this indirect adoption has consequences. Because it is not supported by a national regulatory framework that explicitly recognizes or adopts the UNCITRAL principles, the applicability of the principles is entirely dependent on the strength of contractual clauses and the interpretation of dispute resolution forums. When contracts are faced with mandatory national rules, UNCITRAL principles have the potential to be marginalized.

b. Interaction With National Construction and Contract Law

Indonesian contract law, which is rooted in the tradition of civil law, places the principles of freedom of contract and good faith as fundamental principles. These principles are conceptually aligned with the UNCITRAL approach which emphasizes contractual balance, procedural clarity, and contractual adaptation to changing circumstances. However, the interaction between these principles and construction contract practices in Indonesia cannot be separated from the existence of normatively binding national contract standards, especially in government projects.

In current practice, the most dominant construction contract standards used in Indonesia, especially for government projects, are the standards set through the Regulation of the Government Goods/Services Procurement Policy Institution (Perlem LKPP) Number 4 of 2024 and the Regulation of the Minister of Public Works and Public Housing Number 25 of 2020. The two regulations not only regulate administrative and institutional aspects, but also provide a relatively comprehensive structure of contractual clauses, including the regulation of job changes, claims mechanisms, risk sharing, and dispute resolution.

Thus, it is necessary to correct the view that national construction law is completely "limited" in providing contractual guidance. On the contrary, the contract standards regulated in the LKPP Regulation and the PUPR Ministerial Regulation have functioned as the main normative instruments in the practice of national construction contracts, especially for government projects. The standard limits the freedom of contract of the parties through mandatory standard clauses, in order to ensure legal certainty, accountability, and protection of the public interest.

Interestingly, if studied substantially, some of the provisions in the contract standards based on the LKPP Regulation and the PUPR Regulation show conceptual conformity with the principles recommended in the UNCITRAL Legal Guide. This conformity is reflected in, among others: (i) emphasis on procedural clarity through notification obligations and claim deadlines; (ii) the regulation of work changes as a mechanism for contract adaptation; and (iii) the sharing of risks explicitly formulated in the contractual clauses. This similarity suggests that, although not explicitly referenced, the UNCITRAL principles have been implicitly internalized in the development of national contract standards.

However, the fundamental difference remains in the degree of contractual flexibility. The UNCITRAL instrument is soft law and provides a wide range of adaptations for the parties according to the character of the project and the applicable legal system, while national contract standards—especially in the context of government procurement—are

more rigid and oriented towards administrative compliance. As a result, the application of the principles of contract adaptation and risk balancing in national standards is often limited by standard provisions that are not always responsive to complex international project dynamics (Harun, 2021).

Therefore, the interaction between national construction law and UNCITRAL principles cannot be understood as conflicting relationships, but rather as complementary relationships that have not been fully conceptually integrated. National contract standards have adopted some of the UNCITRAL principles at the normative level, but still need to be strengthened in terms of flexibility and contractual adaptation to be in line with international construction contract practices (Simanjuntak, 2021). This integration is important so that national contract standards not only guarantee administrative compliance, but also be able to function effectively as an instrument for risk management and dispute prevention in increasingly complex and globally oriented construction projects.

c. Construction Dispute Resolution and the Role of International Arbitration

The field of dispute resolution is one of the areas where the UNCITRAL principles have the most influence in Indonesian practice. The choice of international arbitration as a forum for the settlement of cross-border construction disputes has become prevalent practice, especially for large-scale and complex projects. The principles of tiered dispute resolution advocated by UNCITRAL are often translated into contractual clauses that govern negotiations or mediation prior to arbitration (Brooker & Lavers, 1997).

However, the implementation of this principle faces challenges when international arbitral awards must be recognized and implemented in Indonesia. Although Indonesia has ratified the New York Convention and has an arbitration law, judicial practice shows that the concept of public policy is still a critical point that can affect the execution of judgments (Simanjuntak, 2021). In this situation, the UNCITRAL principle serves as a normative reference, but it is not always able to overcome structural barriers in the national legal system.

d. Institutional Capacity and Human Resources

The implementation of UNCITRAL principles is not only determined by legal norms, but also by institutional capacity and human resources. Empirical studies show that there is a gap in understanding between local and international practitioners regarding concepts such as contract adaptation, good-faith renegotiation, and procedure-based claims management (Juarti & Noorlaelasari, 2016).

The lack of specific training and national guidelines that refer to international practice has led to the UNCITRAL principles often being applied inconsistently. In some cases, clauses designed to follow international practices are perceived as "foreign" or inconsistent with local practices, resulting in resistance at the project implementation stage.

e. Normative Gaps and the Need for Harmonization

The above conditions show that there is a normative gap between the principles of international construction contracts advocated by UNCITRAL and the Indonesian national legal framework. This gap is not solely due to a mismatch of principles, but rather due to the absence of a systematic harmonization mechanism.

The development law literature emphasizes that the harmonization of international contract law in developing countries is often hampered by regulatory fragmentation and the dominance of sectoral approaches (Harun, 2021). In the Indonesian context, the need for harmonization does not have to be realized through the full adoption of the UNCITRAL instrument, but can begin with the preparation of national international construction contract guidelines that refer to the UNCITRAL principles as best practice.

f. Practical Implications for International Construction Contracts in Indonesia

From a practical perspective, the implementation of UNCITRAL principles in Indonesia requires attention to three main aspects. First, the quality of contract drafting must be improved so that the principles of adaptation, risk allocation, and tiered dispute resolution are formulated clearly and operationally. Second, synchronization between contracts and sectoral regulations needs to be strengthened to reduce the potential for normative conflicts.

Third, increasing the capacity of practitioners and institutions is a prerequisite for the consistent and effective implementation of UNCITRAL principles. Thus, it can be seen that the main challenge in the implementation of the UNCITRAL principle in Indonesia does not lie in the irrelevance of the principle, but in the lack of optimal normative and institutional integration mechanisms.

4. Normative Implications, Policy Recommendations, and Future Harmonization Directions

The discussion in this section synthesizes previous findings to draw normative implications and formulate realistic policy recommendations for strengthening the harmonization of international construction contracts in Indonesia. By placing UNCITRAL appropriately as the provider of the harmonized principle framework—not the source of technical clauses—the discussion in this section emphasizes the importance of normative integration that is contextual, gradual, and compatible with the national legal system.

a. Normative Implications for the Indonesian Legal System

A key normative implication of the application of the UNCITRAL principle is the need for a paradigm shift in understanding international construction contracts: from static contracts based on administrative compliance to relational contracts that emphasize sustainable cooperation, adaptation to change, and dispute prevention (Schwenzer & Muñoz, 2019). This paradigm is in line with the principles of goodwill and propriety in Indonesian contract law, but demands clearer operationalization at the contractual level.

Normatively, the UNCITRAL principle enriches Indonesian contract law with three pillars: (i) procedural clarity (notice, documentation of claims); (ii) functional and proportionate risk allocation; and (iii) the mechanism for contract adaptation to fundamental changes in circumstances. These pillars do not contradict national law, but require implementing guidelines so that they are consistently applied across projects (Harun, 2021).

Another implication is the need to sharpen the understanding of the limits of freedom of contract in international projects. Freedom of contract still applies, but it must be read side by side with mandatory rules and public policy. The UNCITRAL principles help

parties design contracts that remain adaptive without violating national legal corridors, by emphasizing proportionate settlement procedures and mechanisms.

b. Policy Recommendations

Based on the above analysis, harmonization does not need to be pursued through the full adoption of the UNCITRAL instrument into laws and regulations. A phased and contextual approach is more realistic and effective. The following policy recommendations are compiled to bridge the normative gaps that have been identified.

First, the preparation of national guidelines for international construction contracts that refer to UNCITRAL principles as best practices. These guidelines can be issued by the relevant technical ministries and serve as a non-binding reference for SOEs, business entities, and project owners. This kind of guideline has proven effective in various jurisdictions to improve drafting consistency without reducing contract flexibility (Harun, 2021).

Second, the integration of UNCITRAL principles into international project procurement and contract management guidelines, particularly for projects involving foreign funding or partnership schemes. This integration does not have to be a standard clause, but rather a minimum standard of procedural clarity, change arrangements, and tiered dispute resolution.

Third, strengthening the synchronization of sectoral regulations so as not to create conflicts with legitimate international contracts. Horizontal harmonization between regulations (procurement, licensing, construction) will reduce the risk of contracts becoming ineffective at the implementation stage.

c. Institutional Recommendations and Capacity Building

Normative harmonization must be accompanied by institutional strengthening and human resource capacity. The literature shows that the success of the harmonization of international contract law is highly dependent on the interpretive and implementive capacity of actors (Brooker & Lavers, 1997).

First, there is a need for ongoing training programs for practitioners (contract managers, legal consultants, project engineers) on the principles of international contracts, including contract adaptation and tiered dispute resolution. This training can reduce the gap of understanding between local and international practices (Juarti & Noorlaelasari, 2016).

Second, strengthening the capacity of dispute resolution institutions—including judges' and arbitrators' understanding of the principles of harmonization—will increase the predictability of contract enforcement. The UNCITRAL principle can serve as an interpretive reference to achieve a consistent and balanced verdict (Schwenzer & Muñoz, 2019).

Third, the development of a bank clause based on UNCITRAL principles and international practices adapted to Indonesian law. This clause bank is not mandatory, but it provides an adaptable operational example, thereby improving the quality of drafting and reducing conceptual errors.

d. Practical implications for contracting parties

For project owners and contractors, the practical implications of this analysis are the need for a holistic approach in contract drafting: substantive clauses should be complemented by procedural mechanisms; risk allocation should be accompanied by

adaptation mechanisms; and dispute resolution should be designed in stages to prevent premature escalation.

For local contractors, the adoption of UNCITRAL principles through contractual practices increases international competitiveness by aligning contracts with global expectations. For project owners, these principles help manage risk and maintain long-term project sustainability.

e. Future Research and Reform Directions

This section also identifies an important follow-up research agenda. First, an empirical study of arbitral and court awards in Indonesia involving international construction contracts to assess how the principle of harmonization is applied in practice. Second, comparative studies with countries that have successfully integrated the UNCITRAL principles into national guidelines without full legislative adoption.

Third, interdisciplinary research examines the impact of contract harmonization on project performance and investment climate. Future reforms should place UNCITRAL as a strategic frame of reference in the modernization of construction contract law, not as a substitute for national law. With this approach, Indonesia can strengthen legal certainty, increase investment attractiveness, and maintain regulatory sovereignty.

CONCLUSION

This research highlights UNCITRAL's normative role in standardizing international construction contracts through principled frameworks like the UNCITRAL Legal Guide on Drawing Up International Contracts for the Construction of Industrial Works, which reduces legal fragmentation, enhances certainty, and promotes balance without mandating clauses. Key contributions include procedural clarity for dispute prevention, proportional risk allocation, adaptation via force majeure/hardship with renegotiation emphasis, and tiered non-adversarial resolution. In Indonesia, these principles appear indirectly in foreign-involved projects and implicitly in national standards (*Perlem LKPP Number 4 of 2024*; *Permen PUPR Number 25 of 2020*), particularly on claims, variations, risks, and disputes—yet administrative rigidity curtails flexibility, underscoring harmonization challenges over incompatibility. Future research could conduct empirical analyses of *UNCITRAL*-influenced contracts in Indonesian megaprojects to quantify dispute reduction and propose hybrid models blending normative principles with local regulations.

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