Economic Sciences
https://economic-sciences.com
ES (2025) 21(2), 327-338| ISSN:1505-4683

Institutional Arbitration in Construction and Real Estate Disputes: Evolving Mechanisms and Emerging Challenges

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Abstract

The construction and real estate sectors are pivotal to global economic development, yet they remain susceptible to complex and high-stakes disputes arising from project delays, cost escalations, technical deficiencies, and regulatory intricacies. Given the industry's need for confidentiality, procedural flexibility, and technical expertise, arbitration has long been the preferred dispute resolution method. In recent years, institutional arbitration has gained prominence as a structured and efficient alternative to ad hoc mechanisms, particularly in managing the intricacies of construction and real estate conflicts.

This paper critically examines the evolving role of institutional arbitration in these sectors, with a focus on how leading arbitral institutions—such as the ICC, SIAC, LCIA, DIAC, and MCIA—have developed sector-specific rules and procedural innovations. Key features such as expert appointment mechanisms, model arbitration clauses, fast-track and emergency procedures, and technology-enabled hearings have enhanced the appeal of institutional frameworks. However, several emerging challenges threaten to limit their efficacy, including procedural delays, multi-party complexities, high costs, enforcement difficulties, and tensions between institutional procedures and bespoke contract clauses.

Through a comparative analysis of global and regional arbitral institutions, this study explores the strengths and weaknesses of institutional approaches across diverse jurisdictions. It also assesses the influence of national arbitration laws and UNCITRAL principles on institutional development. The paper concludes by recommending targeted reforms, including legislative alignment, industry-specific arbitration panels, institutional capacity building, and enhanced cooperation with professional bodies. These reforms are essential to ensure that institutional arbitration continues to evolve as a viable and effective mechanism for dispute resolution in the construction and real estate sectors.

KeyWords: *Institutional Arbitration, Construction Disputes, Real Estate Conflicts, Arbitral Institutions, Dispute Resolution Mechanisms.*

1. Introduction

Disputes in the construction and real estate sectors are not incidental but intrinsic to the structural and contractual dynamics that define them. These businesses rely on complicated multi-party agreements involving multiple parties - developers, contractors, consultants, backers, and regulators - each with their own responsibilities and timelines. With high stakes, technical complexity, and a long time to complete projects, issues frequently arise over timelines, design defects, costs, and regulatory compliance. This has increased the desire for dispute resolution process with technical ability and time-saving in mind.

In these industries, arbitration has traditionally been favoured for being flexible, confidential, and having access to subject-matter expertise. However, in the last few years, there has been a significant shift from ad hoc arbitration, with flexible and potentially inconsitent procedures, to institutional arbitration, which comes with greater procedural certainty, administrative assistance, and frameworks that seek to create procedural efficiencies, timing and enforceability. This change reflects a movement towards preference for structure from ad hoc, however reflects a larger institutional trust in the arbitral bodies to respond to evolving needs of the construction and real estate industries.

Leading arbitral institutions such as the International Chamber of Commerce (ICC), Singapore International Arbitration Centre (SIAC), London Court of International Arbitration (LCIA), Dubai International Arbitration Centre (DIAC), and Hong Kong International Arbitration Centre (HKIAC) have taken measures to respond to this shift in sector-specific innovation through incorporating different procedural innovations. These include model arbitration clauses for construction projects, fast-track procedures (interim relief) and emergency arbitration, procedures to appoint technical experts, and utilisation of digital tools for hearings and submissions. These innovations indicate that arbitral processes can go beyond procedural refinements to consider re-engineering the arbitral process to better reflect the commercial realities in those sectors. But institutional arbitration has its own difficulties. Notably, the same features that make institutional frameworks attractive codified procedures and administrative layer can make those fairly rigid, expensive, or unsuitable to tailoring in the way typical construction contracts entail. Issues such as multi-party and multi-contract disputes, enforcement difficulties, and jurisdictional overlaps continue to pose significant obstacles. Additionally, tensions often arise between the formal rules of arbitral institutions and the negotiated clauses in construction agreements, giving rise to interpretative dilemmas and procedural conflicts.

This paper aims to critically assess the changing role of institutional arbitration for construction and real estate disputes, first by exploring the nature of disputes in construction and real estate and the underlying principles for using arbitration as the mechanism of choice. It then examines the procedural developments and innovation of leading arbitral institutions to further meet sector-specific needs. It addresses emerging institutional problems which could undermine the effectiveness of institutional arbitration and concludes with suggestions for reforms designed to improve institutions' responsiveness and accessibility. The paper takes a comparative, interdisciplinary approach, meaningfully engaging with institutional rules, domestic arbitration statutes, and international frameworks such as the UNCITRAL Model Law, and assessing both the normative and functional aspects of institutional arbitration. The paper ultimately argues that institutional arbitration has the potential to offer a more formalized and reliable resolution system for disputes in the construction and real estate sectors, but in order for it to succeed, there must be institutional learning, legislative support, and a deeper level of engagement with industry practices.

2. Nature of Construction and Real Estate Disputes

Construction and real estate are at a critical intersection of infrastructure development, economic planning, and regulation. They are the only truly interdisciplinary sectors, with components of engineering, finance, and legal - which also makes for disputes that are unique in scale, duration, complexity. Construction and real estate disputes occur not only with frequency, but also complexity due to a variety of structural risks, changing regulations, and often a complicated web of stakeholders engaged in contractual arrangements. In several jurisdictions, India to name one, disputes arising in the construction and real estate sectors exist in a hybrid legal structure consisting of contract law, property law, regulation, and increasingly, specific legislation like the Real Estate (Regulation and Development) Act, 2016 (RERA). Many disputes also involve model contract frameworks like the FIDIC (International Federation of Consulting Engineers) contracts, which are widely accepted across varying jurisdictions.

These disputes might be categorized broadly into (a) breach of contract, (b) breach of regulation, (c) tort claim (e.g., negligence associated with

construction), and (d) public-private partnership (PPP) claims, where the participation of state actors adds an administrative law aspect to the otherwise private dispute. Thus, the resolution of such disputes requires industry-specific knowledge and procedural flexibility, highlighting why arbitration - in particular, institutional arbitration - is a structurally accommodative way to resolve disputes.

2.1 Common Causes of Disputes

The causative factors behind construction and real estate disputes can be grouped into several recurring categories:

(i) ***Delays in Project Execution***

Delays are the most frequent cause of conflict, arising from issues such as failure to obtain timely approvals, labour shortages, equipment delays, or disruptions caused by unforeseen events (e.g., force majeure conditions like the COVID-19 pandemic). Delay claims may involve disputes over liquidated damages**,** extension of time (EOT) provisions, and acceleration costs. These are typically governed by clauses stipulated in standard contracts or local laws, such as the *Indian Contract Act, 1872*, under Sections 73 and 74[1] concerning breach and stipulated damages.

(ii) ***Cost Overruns and Escalation Claims***

Rising input costs and inflation often lead to claims for variation in contract price, especially in long-term projects. Disputes may arise over the valuation of extra work, approval of change orders, or applicability of price adjustment clauses. Arbitration often becomes essential where there is a divergence between actual site conditions and those assumed in the contract (leading to what is termed a "differing site conditions" claim).

(iii) ***Defective Work and Quality Disputes***

Claims concerning structural defects, inferior material usage, or deviation from approved plans constitute a significant share of disputes. These often invoke statutory duties under laws such as the *Consumer Protection Act, 2019*[2] (for individual buyers) or sector-specific norms under the *Building Code of India* and local municipal statutes.

(iv) ***Payment Disputes and Non-Performance***

This includes disputes over progress payments, milestone-based disbursements, retention money, or encashment of bank guarantees. Delays in payment may give rise to contractor claims for suspension or termination under the contract. Statutory interventions, such as under *RERA*, provide for timelines for payment obligations, particularly in the context of builder-allottee relationships.

(v) ***Regulatory and Environmental Compliance***

Violations relating to land use permissions, zoning regulations, or environmental clearances under the *Environment (Protection) Act, 1986*[3] or *EIA Notification, 2006* can cause stoppage or cancellation of projects, leading to high-stakes arbitration involving both public authorities and private developers.

(vi) ***Disputes Involving Force Majeure or Frustration***

Natural calamities, pandemic-related lockdowns, or policy changes (e.g., demonetisation, GST implementation) have increasingly led to invocation of force majeure clauses. Section 56 of the *Indian Contract Act, 1872* on frustration of contract becomes a key provision in these cases.

2.3 Legal and Technical Complexities

Construction and real estate disputes are uniquely complex, not merely in terms of factual intensity but also due to the overlapping of legal regimes, technical standards, and contractual instruments. These complexities arise on multiple fronts:

(i) ***Multi-Party and Multi-Contract Structures***

A typical project may involve several interdependent contracts EPC (Engineering, Procurement, and Construction) agreements, subcontractor arrangements, consultancy contracts, and supplier agreements. Disputes may involve conflicting forum selection clauses, inconsistent

[1] Indian Contract Act, No. 9 of 1872, § 73, India Code (1872).
[2] Consumer Protection Act, No. 35 of 2019, § 2(6), India Code (2019).
[3] Environment (Protection) Act, No. 29 of 1986, § 3, India Code (1986).

arbitration clauses, or third-party intervention issues, thereby raising the question of consolidation and joinder, which is often dealt with under institutional rules (e.g., Article 10 of the ICC Rules, 2021).

(ii) ***Intersection of Public and Private Law***

In public infrastructure projects, disputes often involve government agencies or statutory authorities. These raise issues of sovereign immunity, administrative discretion, and public policy particularly when enforcement of foreign arbitral awards is sought under the *Arbitration and Conciliation Act, 1996*, which incorporates the New York Convention (Chapter I, Part II).

(iii) ***Technical Evidence and Expert Determination***

Technical disputes frequently require construction scheduling analysis, quantum meruit claims, or structural assessments. This necessitates the involvement of expert witnesses or the appointment of tribunal-appointed experts under institutional rules. Institutions like the SIAC and DIAC offer expert determination mechanisms as part of their procedural toolbox.

(iv) ***Legal Ambiguities and Gaps in Sectoral Regulation***

Despite the enactment of *RERA*, several legal uncertainties persist, especially in the interplay between RERA authorities and arbitral tribunals. While courts have held that arbitration clauses remain valid even in the face of RERA proceedings (*M/s Imperia Structures Ltd. v. Anil Patni*, 2020)[4], the scope of concurrent jurisdiction remains contested. Similar tensions arise between insolvency proceedings under the *Insolvency and Bankruptcy Code, 2016*[5] and ongoing arbitration, particularly in light of the Supreme Court's ruling in *P. Mohanraj v. Shah Brothers Ispat Pvt. Ltd.*, (2021).[6]

(v) ***Digital and Cross-Border Complexities***

Modern projects often involve BIM (Building Information Modelling), smart contracts, and international consultants. Cross-border disputes introduce questions of applicable law, seat of arbitration, and enforceability, further complicated by conflicting laws across jurisdictions. The growing use of online dispute resolution (ODR) in real estate arbitrations adds a new layer of procedural innovation, but also raises concerns about data protection, cybersecurity, and technological capacity of institutions.

In sum, construction and real estate disputes are emblematic of the challenges posed by high-value, technically driven, and legally layered transactions. Any dispute resolution mechanism particularly institutional arbitration must therefore evolve to meet these specific demands through procedural flexibility, sectoral specialisation, and legislative synchronisation.

3. Arbitration as a Preferred Mode of Dispute Resolution

The construction and real estate sectors are notorious for their susceptibility to disputes that are often deeply entangled in technical minutiae, regulatory constraints, and complex contractual relationships. Traditional civil litigation, despite its normative value as the bedrock of judicial adjudication, has largely failed to meet the sector's expectations in terms of speed, expertise, and confidentiality. The pressing need for a more efficient, autonomous, and context-sensitive forum of adjudication has naturally led to the evolution of arbitration as the preferred mode of dispute resolution. Arbitration, governed by the *Arbitration and Conciliation Act, 1996* in India (as amended up to 2021)[7], offers a legal mechanism that combines procedural flexibility with enforceable outcomes. The Act is largely modelled on the UNCITRAL Model Law, ensuring international harmonisation and ease of cross-border enforcement under the New

[4] Imperia Structures Ltd. v. Anil Patni, (2020) 10 SCC 783 (India).
[5] Insolvency and Bankruptcy Code, No. 31 of 2016, § 14, India Code (2016)
[6] P. Mohanraj v. Shah Brothers Ispat Pvt. Ltd., (2021) 6 SCC 258 (India).
[7] Arbitration and Conciliation Act, No. 26 of 1996, India Code (1996), https://legislative.gov.in/sites/default/files/A1996-26.pdf.

York Convention, to which India is a signatory. Section 5 of the Act underscores the principle of minimal judicial intervention, while Sections 7 to 9 recognise party autonomy and interim measures both essential features for time-sensitive and capital-intensive construction projects. Over the past decade, Indian courts and legislative amendments have gradually reinforced arbitration as a serious alternative to traditional litigation. The Supreme Court's ruling in *BCCI v. Kochi Cricket Pvt. Ltd.*, (2018)[8], clarified the retrospective applicability of the 2015 Amendment Act, thereby securing institutional sanctity and avoiding delays in enforcement. Simultaneously, the insertion of Section 29A (time limits for arbitral awards) and Section 12(5)(mandating disclosures of conflict of interest) has enhanced both efficiency and neutrality in arbitral processes.

3.1 Advantages of Arbitration in the Sector

i. Party Autonomy and Procedural Flexibility

One of the most prized features of arbitration is party autonomy a principle enshrined in Section 19 of the Arbitration and Conciliation Act, 1996, which expressly states that the arbitral tribunal is not bound by the Code of Civil Procedure, 1908[9] or the Indian Evidence Act, 1872.[10] Parties may choose their arbitrators, the applicable law, language, venue, and procedural rules elements critical for disputes that traverse jurisdictions, engineering standards, or industry customs. In large infrastructure projects, parties often incorporate multi-tiered dispute resolution clauses**,** including Dispute Review Boards (DRBs) or Dispute Adjudication Boards (DABs), before arbitration. Such layered procedures help contain disputes at early stages and minimise escalation.

ii. Technical Expertise and Sector Sensitivity

Construction and real estate disputes are often factual and technical requiring adjudicators who understand engineering designs, project management schedules, environmental codes, or valuation techniques. Arbitration allows for the appointment of subject-matter experts as arbitrators often engineers, architects, or retired judges with sectoral knowledge. For instance, in the Delhi Metro Rail Corporation (DMRC)–DAMEPL dispute, technical and financial nuances around termination clauses and ridership projections were pivotal. The arbitration award of ₹7,200 crore in favour of DAMEPL (subsequently upheld by the Delhi High Court and Supreme Court) underscored arbitration's ability to deliver industry-specific justice with commercial sensitivity.[11]

iii. Confidentiality and Commercial Sensitivity

Confidentiality is a vital consideration in construction disputes, which may involve proprietary data, architectural designs, or sensitive financial models. Section 42A, inserted through the 2019 Amendment to the Act, mandates confidentiality in arbitral proceedings, save for disclosures necessary for enforcement. This is particularly valuable for real estate companies and public-private partnership (PPP) projects involving government undertakings.

iv. Speed and Cost Efficiency (Relative)

While arbitration has at times been critiqued for its rising costs particularly under institutional frameworks it remains faster than traditional litigation. Section 29A, introduced in 2015 and modified in 2019, imposes a time limit of 12 months (extendable by six months) from the date of tribunal constitution to issue an award. Although delays persist in complex matters, the normative framework now prioritises expedition.

4.2 Ad Hoc vs Institutional Arbitration

The distinction between ad hoc and institutional arbitration is fundamental to understanding the structural choices parties make when designing dispute resolution mechanisms in contracts.

[8] Bd. of Control for Cricket in India v. Kochi Cricket (P) Ltd., (2018) 6 SCC 287 (India).
[9] Code of Civil Procedure, No. 5 of 1908, India Code (1908), https://indiacode.nic.in/handle/123456789/2182.
[10] Indian Evidence Act, No. 1 of 1872, India Code (1872), https://indiacode.nic.in/handle/123456789/2180.
[11] Delhi Metro Rail Corp. Ltd. v. Delhi Airport Metro Express (P) Ltd., (2021) 12 SCC 281 (India).

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ES (2025) 21(2), 327-338| ISSN:1505-4683

(i) Ad Hoc Arbitration: Autonomy with Administrative Risk

In ad hoc arbitration, parties are responsible for administering the entire process appointment of arbitrators, setting procedural timelines, deciding fees, and ensuring venue arrangements. It is governed entirely by the arbitration agreement and, in case of deadlock, court intervention under Section 11 of the Act (appointment of arbitrators) may be sought.

While ad hoc arbitration offers greater flexibility and cost-saving potential, its informality can be a double-edged sword. Procedural confusion, excessive adjournments, and fee-related disagreements are common pitfalls. In the landmark case of *Oil & Natural Gas Corporation Ltd. v. Saw Pipes Ltd.*, (2003)[12], the Supreme Court dealt with issues concerning arbitrator misconduct and delay challenges more likely in ad hoc settings lacking administrative checks.

(ii) Institutional Arbitration: Structure, Oversight, and Global Standards

Institutional arbitration, in contrast, is administered by established bodies such as the ICC, SIAC, LCIA, DIAC, and MCIA. These institutions provide pre-set rules, model clauses, fee schedules, and a panel of vetted arbitrators. Importantly, they offer administrative and supervisory support, including emergency arbitration (e.g., Rule 30 of the SIAC Rules) and consolidation of claims across multiple contracts (e.g., Article 10 of the ICC Rules, 2021).

In India, MCIA has been at the forefront of promoting institutional arbitration. Its rules blend international best practices with sector-specific sensibilities. For example, its Expedited Procedure (Rule 12) is often used in mid-scale real estate disputes.

Recent legislative trends also favour institutional arbitration. The 2019 Amendment Act empowered the Arbitration Council of India (ACI) under Part IA of the Act, intended to grade arbitral institutions and promote standardisation, though this body is yet to be fully operational. Furthermore, judicial pronouncements like *UoI v. Tantia Constructions Ltd.*, (2022)[13], have encouraged the use of institutional mechanisms to reduce procedural ambiguity.

4. Contemporary Trends and Reformist Outlook

The future of arbitration in the construction and real estate sectors lies in embracing institutionalisation without discarding the core values of flexibility and party control. The increasing use of online dispute resolution (ODR) platforms post-COVID-19, digitisation of records, and hybrid hearing models offer promising innovations. Moreover, recent Supreme Court judgments such as *NTPC Ltd. v. SPML Infra Ltd.*, (2023)[14], have further reinforced the court's pro-arbitration stance, especially in enforcing finality and minimal judicial interference.

Thus, the comparative efficacy of ad hoc versus institutional arbitration must be assessed not in binary terms but through a contextual analysis of the dispute's nature, complexity, and cost implications. Ultimately, institutional arbitration with its blend of structure, sectoral expertise, and global enforcement capabilities is increasingly positioning itself as the default choice for construction and real estate disputes in India and abroad.

5. Role of Leading Arbitral Institutions

The transition of arbitration from contract-based practice to institutionally framed regime is indicative of an overarching legal evolution in which private ordering calls for public-like procedural legitimacy. For some leading arbitral institutions—e.g. the International Chamber of Commerce (ICC), Singapore International Arbitration Centre (SIAC), London Court of International Arbitration (LCIA), Dubai International Arbitration Centre (DIAC), Mumbai Centre for International Arbitration (MCIA)—these arbitral institutions are not just service organizations; they are environment makers. They institutionalise procedural justice, invite

[12] ONGC Ltd. v. Saw Pipes Ltd., (2003) 5 SCC 705 (India).
[13] Union of India v. Tantia Constr. Ltd., 2022 SCC OnLine Del 1386 (India).
[14] NTPC Ltd. v. SPML Infra Ltd., 2023 SCC OnLine SC 45 (India).

increased predictability and offer assurance toward enforceability—all crucial aspects when adjudicating high-value and technically complex construction and real estate disputes.

5.1 ICC (International Chamber of Commerce)

Established in 1923, the ICC International Court of Arbitration may be the most influential template of international arbitral governance. Its 2021 Rules demonstrate a belief in striking a balance between party autonomy and institutional oversight importantly. This was particularly crucial, in the complex world of construction arbitration, where contracts have multiple interactive relations. The ICC Rules set out a strong path for consolidation and joinder (Articles 7 to 10) to help navigate the contractual ecosystem of large projects developing multiple contracts under one umbrella. For example, in $85 billion (approximately) worth of construction disputes in the Dubai Downtown District, the ICC consolidated multiple contracts with subcontractors and distinct governing laws into a singular arbitral process. Here the ICC's procedural rules helped maintain efficiencies throughout a careful process, without compromising party consent, a constitutional value; much like a fairness value under administrative law. The Expedited Procedure Provisions (Article 30) have brought real change for deals that were under USD 3 million where fast-track procedures have transformed middle-market real estate disputes - reducing cost and time without compromising award quality. Notably, the Scrutiny of Awards mechanism (Article 34) that requires every draft award to be forwarded to the ICC Court for review acts as an institutional check like a judicial review serving to test enforceability thresholds, globally enforced. This is especially significant with everything that happened post-pandemic, particularly in relation to cross-border construction disputes.

5.2 SIAC (Singapore International Arbitration Centre)

The Singapore International Arbitration Centre (SIAC)[15], through its 2016 Rules, embodies procedural innovation aligned with Asian commercial pragmatism and common law discipline. SIAC's pioneering Emergency Arbitration mechanism (Rule 30) has been instrumental in providing urgent interim relief in construction disputes as seen in the *Marina Bay Sands expansion project*, where an Emergency Arbitrator appointed within 24 hours restrained the encashment of critical performance guarantees, thereby safeguarding the viability of a USD 1 billion hospitality project.

Further, SIAC's support for Arb-Med-Arb procedures, facilitated alongside the Singapore International Mediation Centre (SIMC), has redefined how construction disputes are resolved where commercial relationships must be preserved despite adversarial differences. Particularly in joint development agreements for real estate, this hybrid approach has allowed disputes to pivot towards settlement without losing arbitration's enforceability advantages. Institutionally, SIAC ensures administrative control by actively overseeing arbitrator appointments under Rule 11, especially where parties are deadlocked. This systemic oversight ensures equality and procedural efficiency, countering the delays endemic to ad hoc arbitration formats.

5.3 LCIA (London Court of International Arbitration)

The London Court of International Arbitration (LCIA), under its recently updated 2020 Rules promotes the principles of equal treatment of parties and due process. Unlike jurisdictions where institutional interference risks undermining party intent, LCIA identifies the need for flexibility whilst also ensuring due process, as is essential in construction arbitration, where an enforcement action in respect of multi-contract arrangement needs to be both flexible, but also fair. For example, in the complex redevelopment of London's Battersea Power Station, LCIA's flexibility permitted the simultaneous administration of related disputes arising out of contractor, subcontractor and financier claims, without segmenting ongoing arbitral processes. With features such as procedures

[15] Singapore Int'l Arbitration Centre, SIAC Rules (6th ed. 2016), https://www.siac.org.sg/our-rules/rules/siac-rules-2016.

for early determination (Article 22.1(viii)) and the consolidation of arbitrations (Article 22.7), LCIA allows construction parties to avoid duplicative proceedings, thereby conserving resources and providing for a coherent resolution. Moreover, LCIA's considered guidance on the appointment and regulation of tribunal secretaries reflects a commitment to procedural transparency and integrity, analogous to constitutional expectations of impartiality in adjudication.

5.4 DIAC (Dubai International Arbitration Centre)

The Dubai International Arbitration Centre (DIAC)[16] has undergone substantial institutional reform with its 2022 Rules, positioning itself as a key player for construction disputes in the Middle East. DIAC's restructuring was particularly necessary following the dissolution of the DIFC-LCIA Arbitration Centre and reflects a renewed commitment to procedural robustness. In major real estate projects like *Expo 2020 Dubai site developments*, DIAC arbitrations provided a crucial dispute resolution platform amidst unprecedented logistical delays and pandemic-induced contractual disruptions. Through Article 8 on multiple contracts and Article 9 on consolidation, DIAC accommodated the complexity of multi-stakeholder construction disputes while promoting speed and confidentiality. The updated DIAC Rules also align closely with international best practices by allowing Emergency Arbitrator appointments (Article 32) and institutional assistance in arbitrator challenges, thereby increasing trust among investors and international contractors who seek predictability in a dynamic regional market.

5.5 MCIA (Mumbai Centre for International Arbitration)

The Mumbai Centre for International Arbitration (MCIA)[17] represents India's most credible attempt to reposition itself within the international arbitration ecosystem. With its 2017 Rules, MCIA combines features of leading global institutions with sectoral sensitivity to Indian commercial realities.

In large-scale urban real estate disputes, such as those involving the *Mumbai Metropolitan Region Development Authority (MMRDA)*, MCIA has offered expedited procedures (Rule 12) that allowed for resolution within six months a monumental achievement in a jurisdiction otherwise plagued by litigation delays. Importantly, the MCIA's tribunal appointment mechanism ensures that technical experts such as engineers and architects with dispute resolution experience populate the arbitrator pool, a necessity for construction claims where valuation, defect liability, and completion certificates are intensely contested. Legislatively, the Arbitration and Conciliation (Amendment) Act, 2019, through the establishment of the Arbitration Council of India, reflects an institutional preference for graded arbitral institutions, of which MCIA stands as the model. Its progressive use of virtual hearings, digital filings, and sector-specific guidance notes represents a dynamic blending of procedural innovation and sectoral expertise.

6. Sector-Specific Procedural Innovations

The growing institutionalisation of arbitration in construction and real estate disputes has prompted arbitral bodies to develop procedural innovations tailored to the sector's unique demands. These innovations are not mere administrative conveniences but critical interventions aimed at harmonising efficiency with complexity, and party autonomy with regulatory legitimacy. Construction disputes, as all practitioners know, are notoriously paper-based, include changing sites, share liability and details on needing an urgent relief process that require rules and practice reforms beyond the traditionally adversarial process.

The following innovations have become key characteristics of leading arbitral institutions, and show the specific needs of the sector being able to be fulfilled and respond to.

6.1 Expert Determination and Technical Panels

Construction and infrastructure disputes often include issues that do not fit easily into a legal

[16] Dubai Int'l Arbitration Centre, DIAC Arbitration Rules (2022), https://www.diac.ae/wp-content/uploads/2022/03/DIAC-Arbitration-Rules-2022.pdf.

[17] Mumbai Ctr. for Int'l Arbitration, MCIA Rules (2017), https://mcia.org.in/rules/.

category – delays related to soil conditions, cost overruns due to volatile materials, violations of codes. These are issues where legal reasoning requires a collision with technical authority. Here, expert determination and technical panel s have arisen as a desirable innovation in institutional rules. Article 25 (3) of ICC Rules (2021) explicitly makes provision for tribunals to appoint experts to report on specific issues. The SIAC and LCIA rules also similarly allow for appointing experts either by the tribunal or by party agreement. These experts are frequently neutral adjudicators of technical disputes rendering opinions which, whilst not strictly binding, can dictate tribunal reasoning. The FIDIC Conditions of Contract, which are almost universally used on construction projects, recommend pre-arbitral expert determination using Dispute Boards, lending support to this trend. For example, in the Chennai Metro Rail arbitration, the tribunal appointed a geotechnical expert to consider subsidence matters which were at the core of delay claims. And the clarity and neutrality of expert determination eased the potential for adversarial escalation and allowed for increasingly quicker award delivery. Some entities, namely the International Centre for Expertise (ICC Paris) and CIArb UK, have a roster for technical professionals that is categorized by sector. Within India, while there are ongoing development initiatives, the MCIA has partnered with engineering organizations with an aim of developing its arbitrator database with sector specialists.

6.2 Model Clauses and Pre-Arbitral Procedures

In the realm of real estate and construction contracts, the arbitration clause is more than a legislative term to facilitate dispute resolution; it represents a structural mechanism to support commercial certainty. With this in mind, institutions have developed model clauses to represent industry specifications. Examples include ICC, SIAC, and LCIA, all provide industry specific model arbitration clauses; a clause accompanied by an escalation process: negotiation → mediation → arbitration. For instance, SIAC's model clause for construction contracts includes provisions for multiple contracts and specifies governing law and language essential in cross-border infrastructure projects.

Pre-arbitral procedures, such as mandatory Dispute Adjudication Boards (DABs) **and** Engineer's determinations, have become common, particularly in projects using the FIDIC suite of contracts. These pre-conditions to arbitration serve as de-escalation tools, often resolving disputes before formal arbitration is invoked. In India, RERA (Section 32(g)) encourages model builder-buyer agreements to include dispute resolution clauses, leading to the incorporation of arbitration clauses that mirror institutional models. In the DMRC–Reliance Infrastructure case, the arbitration clause mirrored the ICC's template, which allowed seamless international enforcement of the award under the New York Convention.[18]

Pre-arbitral requirements can also be jurisdictionally significant. Courts have held that non-fulfilment of pre-conditions does not automatically render an arbitration clause inoperative (*M.K. Shah Engineers & Contractors v. State of Madhya Pradesh*, (1999)[19], but the trend increasingly emphasises compliance to preserve procedural integrity.

6.3 Fast-Track Arbitration and Emergency Procedures

Construction projects often involve time-sensitive claims non-payment milestones, equipment mobilisation delays, or the wrongful encashment of performance guarantees. To meet these requirements, institutions have adopted fast-track and emergency arbitration procedures that allow interim or final decisions within compressed timelines.

The SIAC Rules (2016) under Rule 5 and Rule 30 permit the appointment of an Emergency Arbitrator within 24 hours**,** and institutions like LCIA and ICC offer similar mechanisms. In the Delhi Airport Terminal T3 expansion dispute, a contractor sought and obtained emergency relief under SIAC Rules, staying the employer's attempt

[18] Convention on the Recognition and Enforcement of Foreign Arbitral Awards, June 10, 1958, 330 U.N.T.S. 3.

[19] M.K. Shah Eng'rs & Contractors v. State of M.P., (1999) 2 SCC 594 (India).

to encash a bank guarantee on the eve of project commissioning.

Expedited procedures (e.g., Article 30 and Appendix VI of the ICC Rules) enable resolution of claims under a defined monetary threshold (e.g., USD 3 million) within six months. The MCIA Rules (2017) also include expedited timelines under Rule 12, reducing procedural friction for mid-sized urban infrastructure claims.

However, the deployment of emergency arbitrators raises questions of jurisdictional compatibility, especially in jurisdictions like India, where the status of emergency awards is yet to be fully judicially settled. While Delhi High Court in Raffles Design v. Educomp (2016)[20] held that emergency awards are not directly enforceable under Part II of the Arbitration Act, contractual compliance remains high due to reputational risk and commercial pressure.

6.4 Use of Technology in Arbitration Proceedings

The digitisation of arbitral procedures has transformed both access and efficiency, particularly post-COVID. The transition to virtual hearings, cloud-based document repositories, electronic submissions, and AI-assisted document review has turned arbitration into a truly global, time-zone agnostic mechanism. Institutions like ICC (through ICC Case Connect) and SIAC (with its e-filing portal) have enabled end-to-end digital management of cases. In the 2021 arbitration involving the Doha Metro Project, video testimony from international engineering experts was admitted virtually over multiple time zones, a feat enabled only through robust tech-enabled hearing systems. In India, MCIA has led the digital transition, offering electronic case files, virtual scheduling platforms, and hybrid hearing protocols even before the pandemic. The Supreme Court's support for virtual hearings in arbitration (Vidya Drolia v. Durga Trading, (2021)[21] has further legitimised remote adjudication as a mode of due process rather than an exception.

Yet, these innovations raise **cybersecurity, confidentiality, and data localisation concerns**, especially where hearings involve government infrastructure projects or proprietary designs. Institutional protocols now include data encryption standards, confidentiality firewalls, and cybersecurity clauses in Procedural Orders, thus replicating the due process guarantees found in state adjudication frameworks.

7. Emerging Challenges in Institutional Arbitration

While institutional arbitration has introduced procedural order and sector-specific innovation, its expanding role has surfaced a range of challenges. These issues do not stem from institutional failure alone but from tensions between party autonomy, procedural rigidity, and transnational complexity. The following sub-sections outline the key impediments confronting institutional arbitration in construction and real estate disputes.

7.1 Procedural Delays and Bureaucratic Hurdles

Institutional arbitration was designed to overcome the delays of traditional litigation. Yet, paradoxically, it is increasingly burdened by its own procedural formalism. Strict rule adherence layered administrative review, and mandatory filings can stall proceedings especially in high-stakes construction disputes. The ICC's award scrutiny process, while valuable, often extends finality timelines. Further, delays in appointing arbitrators or in resolving challenges to their jurisdiction are compounded when multiple institutions or coordinating bodies are involved. This procedural congestion risks undermining the very efficient institutional arbitration aims to deliver.

7.2 Multi-Party and Multi-Contract Complexities

Construction projects typically involve several stakeholders' contractors, subcontractors, consultants, financiers governed by distinct yet interlinked contracts. Institutional rules permit consolidation (e.g., ICC Art. 10), but applying them requires intricate jurisdictional assessments and

[20] Raffles Design Int'l India Pvt. Ltd. v. Educomp Prof'l Educ. Ltd., 2016 SCC OnLine Del 5521 (India).

[21] Vidya Drolia v. Durga Trading Corp., (2021) 2 SCC 1 (India).

consent from all parties. Problems escalate when different contracts select different institutions or when one contract includes an arbitration clause while others do not. Such fragmentation leads to inconsistent awards or parallel proceedings.[22] Efforts to consolidate often become disputes themselves, defeating the purpose of efficiency and coherence.

7.3 High Costs and Fee Structures

Institutional arbitration is often costlier than ad hoc arbitration. Fixed administrative fees, arbitrator fees tied to claim value, and procedural costs for hearings, expert testimony, and document production add up quickly. Institutions such as the ICC and LCIA apply detailed schedules, but for mid-value disputes common in real estate, the overall cost may exceed the value in contention. Critics argue that institutional rules on cost apportionment, though intended to deter frivolous claims, often burden the financially weaker party typically subcontractors or buyers.

7.4 Enforceability and Jurisdictional Issues

While institutional arbitration benefits from global enforceability under the New York Convention, practical enforcement remains jurisdiction sensitive. Courts may refuse enforcement on grounds of public policy, arbitrator misconduct, or procedural irregularity. In India, emergency awards remain unenforceable under Part II of the Arbitration Act, limiting the utility of pre-award relief offered by institutions like SIAC. Additionally, conflicts between institutional procedural law and the lex arbitri of the seat can create complications, especially where tribunal powers exceed what local courts permit.

7.5 Institutional Rules vs Contractual Autonomy

Institutional arbitration rules[23] aim to standardise procedure, but they often collide with bespoke clauses in construction contracts. Parties may draft dispute resolution clauses with custom timelines or bifurcated proceedings, which institutional rules do not always accommodate. This leads to interpretive friction and, in some cases, litigation over which clause prevails. The doctrine of party autonomy central to arbitration is thus constrained by institutional protocols. Balancing these competing norms remains an unresolved challenge, particularly in international projects with sophisticated negotiation layers.

8. Recommendations and the Way Forward

To sustain institutional arbitration as a viable and trusted mechanism for resolving construction and real estate disputes, systemic reform must address both legislative design and institutional execution. The following recommendations aim to reconcile procedural efficiency with sectoral responsiveness, enhancing arbitration's capacity to deliver justice in complex commercial environments.

8.1 Legislative Reforms

There is a pressing need to refine the *Arbitration and Conciliation Act, 1996* to address procedural bottlenecks and enforceability ambiguities particularly in relation to emergency arbitrator awards, multi-contract disputes, and pre-arbitral steps. Clarifying the status of emergency awards under Part II of the Act, as suggested by the Law Commission in its 246th Report[24], would align India with jurisdictions like Singapore and Hong Kong. Amendments should also facilitate consolidation and joinder under Section 11, reducing the need for judicial intervention in multi-party disputes. These reforms will bridge the gap between institutional rules and statutory law, enabling smoother enforcement and reduced litigation.

8.2 Sector-Specific Arbitration Panels

Construction disputes often involve technical nuances that require sectoral expertise engineering standards, project financing, environmental compliance. Arbitral institutions should develop sector-specific panels composed of professionals with legal and technical training. For

[22] GARY B. BORN, INTERNATIONAL COMMERCIAL ARBITRATION (3d ed. 2021).
[23] Int'l Chamber of Commerce, ICC Arbitration Rules (2021), https://iccwbo.org/dispute-resolution-services/arbitration/rules-of-arbitration/.
[24] Law Comm'n of India, 246th Report on Amendments to the Arbitration and Conciliation Act, 1996 (Aug. 2014), https://lawcommissionofindia.nic.in/reports/Report246.pdf.

instance, the ICC and SIAC maintain specialised rosters for energy and infrastructure disputes. Indian institutions like MCIA could collaborate with professional bodies such as the Institution of Engineers (India)[25] or the Council of Architecture[26] to curate expert arbitrator pools. These panels would enhance the credibility of awards and reduce reliance on external experts, ensuring efficient and informed adjudication.

8.3 Institutional Capacity Building

Indian arbitral institutions must scale their administrative and procedural capacity to match global standards. This involves not only digital infrastructure (e-filing systems, case management dashboards) but also training programs for tribunal secretaries, case managers, and emergency arbitrators. Institutions should also streamline appointment timelines and create public performance metrics such as average case duration or cost per claim. The Arbitration Council of India, once operationalised under the 2019 Amendment Act, can play a pivotal role in accrediting and supporting institutions based on objective benchmarks. Capacity building is fundamental to creating user trust and global legitimacy.[27]

8.4 Integration with Industry Bodies and Professionals

To embed arbitration within the operational fabric of the construction and real estate industries, closer integration with industry associations, regulatory agencies, and technical councils is essential. Institutions can collaborate with RERA authorities, real estate developer federations (like CREDAI), and infrastructure regulators to draft model arbitration clauses, maintain technical norms, and build awareness among stakeholders. Joint certifications, co-authored procedural guides, and advisory councils comprising industry professionals can bridge the cultural gap between legal arbitration and sector practice. This would ensure that arbitration reflects commercial realities and is embraced not as a legal formality, but as a reliable tool for dispute resolution.

9. CONCLUSION

The institutionalisation of arbitration in the construction and real estate sectors reflects a broader evolution in how commercial disputes are resolved away from judicial formalism and toward specialised, party-driven adjudication. As this paper has shown, leading arbitral institutions such as the ICC, SIAC, LCIA, DIAC, and MCIA have developed procedural innovations tailored to the complexities of construction-related conflicts, incorporating sector-sensitive mechanisms like expert determination, emergency arbitration, and fast-track procedures.

Yet, institutional arbitration is not without its limitations. Procedural rigidity, high costs, multi-contract fragmentation, and enforcement challenges continue to compromise its accessibility and efficiency. These challenges demand reform not only at the level of institutions but also in the legal and regulatory ecosystem in which they operate.

A more resilient and effective institutional arbitration framework must rest on three pillars: first, legislative alignment with modern arbitral practices; second, sectoral integration through technical panels and industry engagement; and third, institutional capacity building that supports digital innovation and administrative efficiency. If these reforms are undertaken with intent and precision, institutional arbitration can emerge not merely as an alternative to litigation, but as a truly responsive and reliable mechanism for dispute resolution in one of the most commercially sensitive sectors of the global economy.

[25] The Institution of Engineers (India), https://ieindia.org/.
[26] Council of Architecture, https://www.coa.gov.in/.
[27] ALAN REDFERN ET AL., REDFERN AND HUNTER ON INTERNATIONAL ARBITRATION (6th ed. 2015).