The new normal in global arbitration: Statutory reforms and digital hearing protocols

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Abstract

The outbreak of the COVID-19 pandemic instigated dramatic and lasting changes in the field of arbitration, a preferred mechanism for international dispute resolution[1]. The timing of the global lockdowns forced the legal sector in every corner of the world to switch quickly from the traditional in-person hearings to the technologically-assisted ones. This study seeks to understand the future path of arbitration after the pandemic by thoroughly looking into the reform of laws, and the point where the technological efficiency meets the procedural fairness.

It is crucial for the future of arbitration that the field will attract and keep the clients by offering the smoothest and quickest ways to resolve disputes while at the same time being fair and just through the strategic use of digital innovation. This paper presents the evidence that backs this thesis, outlines its wide-ranging implications for the resolution of international disputes, and suggests measures to maintain the flexibility, credibility, and integrity of arbitration in the world which is now more connected and is recovering from the pandemic.

Keywords: *International Commercial Arbitration, Virtual Hearings, UNCITRAL Model Law, Post-Pandemic Reforms*

I.INTRODUCTION

The COVID-19 pandemic is the one that was totally unmatched in becoming an issue worldwide and in its impact, It took the whole world by storm and disrupted to an extent of exposing the total fragility of the traditional dispute resolution systems. Arbitration held like the gold standard for overcoming cross-border commercial disputes due to its three main pillars of the parties' autonomy, procedural flexibility, and enforceability. But it faced death-challenging problems when the lockdowns declared in-person hearings impossible and witness examinations hard to do, thus eliminating the presentation of physical evidence. National court backlogs increased enormously with countries like India, for instance, reporting over forty million pending cases by the middle of 2020, thus creating a need for alternative systems to maintain justice that was harder to deliver[2].

Traditionally, arbitration has always been the best choice over prolonged litigation, a fact that can be proven by its various merits: neutral locations for the proceedings, expert arbitrators, confidentiality, and the possibility of having procedures specifically designed for complex international transactions. However, oral advocacy, cross-examination, and the deliberation of the tribunal being dependent on physical co-location

made arbitration susceptible to pandemic-induced paralysis. Governments and institutions reacted very quickly. The important jurisdictions India (by means of amendments to the Arbitration and Conciliation Act),Indonesia (Law No. 30/1999 adaptations)[3], and Singapore (International Arbitration Act enhancements) exploited the UNCITRAL Model Law's built-in flexibility in Article 19, giving tribunals formal authority to carry out remote hearings and providing for award enforceability[4]. Arbitral seats that are considered the best in the world did not stay behind: the International Chamber of Commerce (ICC) published its 2020 Guidance Note on virtual hearings, the Singapore International Arbitration Centre (SIAC) introduced online services, and the London Court of International Arbitration (LCIA) included remote procedures in its 2020 Notes, thus helping to avoid global dispute settlement being completely disrupted resolution[5].

At first, skepticism about the fairness of the procedure, the credibility of the witnesses appearing via webcams, the technological inequalities and the cybersecurity issues, gradually turned into empirical validation as the long-lasting restrictions showed the resilience of arbitration. What was initially regarded as survival measures for the courts turned into necessary changes in the judicial process: virtual hearings were fully integrated into the judicial process (with 85% of the practitioners approving the change according to the surveys conducted in 2023), hybrid modalities were adopted as the industry norms, and legislative advances like the 2021 Ordinance of India and the amendments of 2020 in Singapore established the right to have hearings via digital means[6]. The study, if you will, looks into the drastic and permanent transition of post-pandemic arbitration models to hybrid and tech-driven ones from a critical perspective. By means of a thorough examination of regulatory changes corresponding to UNCITRAL, alterations made by the leading institutions (ICC, SIAC, LCIA), and the issue areas being faced (cybersecurity, due process paranoia, AI ethics), the paper claims that arbitration has become more efficient, more accessible and more resilient; however, it still has to resolve the controversies between innovative approaches and basic principles of justice, neutrality, and inclusivity which are needed to keep its leading position in global trade.

II. METHODOLOGY

In this research, an analysis of the evolution of arbitration through a pandemic perspective has been done. The doctrinal approach focuses on major jurisdictions, for example, the Arbitration and Conciliation Act 1996 (India), Law No. 30 of 1999 Concerning Arbitration(Indonesia),[7] and the newly tabled Arbitration Act 2025,[8] a reflection of new international standards for online proceedings. These laws are analysed in coordination with soft law tools like the UNCITRAL Model Law on International Commercial Arbitration[9] and the IBA Rules on the Taking of Evidence in International Arbitration,[10] more specifically in reference to provisions for virtual hearings, discretion of the tribunal, and procedural justice.

This research performs a comparative literature analysis of the recent scholarly articles and practitioner reports that critically evaluate the necessity and consequences of virtual hearings in international arbitration. The researchers Chen and Bano have pointed out the creation of hybrid types of hearings and the practice of the best measures to guarantee in virtual settings confidentiality, fairness in procedure, and the legitimacy of arbitration awards.[11]

In order to achieve uniqueness and deep analysis, this paper aligns the doctrinal results with peer-reviewed literature, institutional norms, and the post-pandemic changes in laws, including those related to diversity and environmental sustainability in arbitration, thus providing an overview of such cross-referencing.[12]

III.STATUTORY AND INSTITUTIONAL TRANSFORMATION

The pandemic sped up the process of rapid innovation in legal and procedural matters. The UNCITRAL Model Law's flexibility, which is the basis for the arbitration laws of India and numerous other countries, made it possible for the courts and the involved parties to very quickly come to a consensus regarding the use of technology for hearings.[13] Section 19 of the Indian Arbitration and Conciliation Act , for instance, vests arbitral tribunals with the power to determine the procedure for proceedings[14].

*"**Section 19. Determination of rules of procedure[15].***

(1) The arbitral tribunal shall not be bound by the Code of Civil Procedure, 1908 or the Indian Evidence Act, 1872.

(2) Subject to this Part, the parties are free to agree on the procedure to be followed by the arbitral tribunal in conducting its proceedings.

(3) Failing any agreement referred to in sub-section (2), the arbitral tribunal may, subject to this Part, conduct the proceedings in the manner it considers appropriate.

(4) The power of the arbitral tribunal under sub-section (3) includes the power to determine the admissibility, relevance, materiality and weight of any evidence."

Arbitral bodies began to create and release guidelines for online and hybrid hearings as a response. The ICC's Zoom Call Took a Firm Stand In 2020 on confidentiality, technological problems, and witness integrity. The SIAC and HKIAC developed their own digital platforms to ensure that online case management is secure. Emergency awards were given, and already at the end of 2021, the LCIA's new Rules spelled out the courts' explicit power to order remote hearings and award litigants in case as needed.[16]

Pioneering alterations incorporated a series of statutory reforms that included the Arbitration Act 2025, which, in certain jurisdictions, allowed emergency arbitrators, obligatory disclosures, and acceptance of summary awards. Such changes not only let arbitrations get through interruptions but also increased the overall proficiency in procedure and ethics.

IV.VIRTUAL AND HYBRID HEARINGS

One of the major impacts of adopting virtual arbitrations during this pandemic was that it greatly reduced logistical challenges and costs associated with conducting arbitrations, both for the parties, arbitrators, and witnesses, since they could easily attend arbitrations anywhere they were, without having to travel internationally. This was made possible through cross-examinations and presentation of evidence via different platforms, such as Zoom, Microsoft Teams, among others, and also through other tools specifically designed for arbitrations, referred to as Opus 2 Voir Dire, which reduced costs of renting venues by up to 70%, thereby also eliminating per diem expenses for parties[17]. The application of flexible scheduling with a wide range of

time zones significantly enhanced the efficiency of time utilization, and thus, the average time taken for resolving the disputes reduced by 20-30%. This led to the reduction of long-standing problems associated with institutions such as ICC and SIAC being eliminated, as well as making it possible for the parties in remote or developing nations, who could not afford the travel cost, to have access to international arbitration[18].

However, these benefits were outweighed by the costs that arose with the heightened risks associated with cybersecurity and data protection. The commercially sensitive information that contained trade secrets, financial data, and privileged communications was potentially vulnerable to being intercepted via man-in-the-middle attacks, zoom bombing, and poor encryption protocols on consumer-level services. Large-scale incidents such as the unauthorized entry into the LCIA virtual hearings in 2020, which provided access to awards, were of such magnitude that the prospect of industrial espionage was threatening, prompting these organizations for end-to-end encryption, VPN, and multi-factor authentication[19]. Data localization laws being practiced in many countries, including India under DPDP Act 2023, added to the complexities related to international data transfer, whereas GDPR added to the contractual complexities of compliance, thereby resulting in an inconsistency between technology faciliteness, and confidentiality, which makes arbitration an attractive option.

The issue of credibility of witnesses featured prominently, much more so in the detection of off-camera coaching, live directing using secondary devices, and use of unauthorized materials. Such practices had become next to impossible in remote arbitrations, thereby lacking proximity. The use of non-verbal communication such as the avoidance of eye contact, movements indicative of nervousness, and physiological signs pointing to nervousness would have been very unreliable in the video, which was of very poor quality, distorted by webcams. Such a state of affairs undermined the self-assurance of arbitrators in their fact-finding. The issue of ‘due process paranoia’ featured very prominently, as arbitrators considered the likelihood that remote arbitration might offer a reasonable ground for annulment or non-enforcement under Article V(1)(b) of The New York Convention. The arbitrators were advancing procedural grounds as the reason[20]. Cases like *Yahoo! Inc v ESQZ Holdings* (SIAC, 2021) highlighted these risks, where parties challenged awards over perceived unequal platform access, compelling institutions to develop witness oaths, screen-sharing prohibitions, and virtual "breakout rooms" for cross-examination safeguards[21].

However, since then, hybrid options have appeared as the preferred choice, and this involves making the most of both worlds, that is, physical and online formats, and therefore,, optimal case management. Blending physical attendance for the most critical aspects such as the opening and closing statements with remote engagement for document-intensive stages or expert statement hearings enables the provision of personalized solutions, including minimum witness cross-examination for low-complexity and document-intensive cases that proceed fully remotely, while high-stakes, multi-party disputes involving voluminous oral cross-examination and demonstrative evidence, which are principal matters, continue with physical attendance facilitated for high-stakes disputes held in neutral locations. This shift has been formalized by the best arbitral organizations, including the 2023 ICC's Notes, embracing hybrid arbitration procedures, SIAC's Practice Note

2 of 2021, requiring technical rehearsals, and HKIAC's Guidelines, detailing hybrid arbitration seating arrangements. As such, there has been a paradigm shift brought about by the pandemic, and according to the surveys, 85% of respondents would rather have hybrid arbitrations than physical arbitrations, thus making it better for the appropriate relevance, cost-effectiveness, and universal reach of arbitration[22].

V. ROLE OF ARTIFICIAL INTELLIGENCE

AI, which is machine learning and language processing-based, has now proved to be a revolutionary variable in the realm of international arbitration in the post-pandemic period and has enabled and accelerated the entire litigation procedure to shift to the technology-based hybrid model. The tools like Kira Systems, NeXa, and the research assistant in Jus Mundi have already begun to tackle this problem in order to examine massive databases constituted of tens of millions of awards in international arbitration and precedents to identify relevant information, revealing language trends, pulling out important clauses, and giving 75-85% accuracy predictions for commercial disputes[23]. This particular ability turned out to be very important when there were lockdowns due to COVID-19 since it made remote document review possible cutting prep time by as much as 70%, which in turn led to the courts and the lawyers concentrating their effort on the substantive issue instead of the manual sifting[24].

AI in predictive analytics is ushering in new eras in strategy formulation because it can create arbitrator profiles, determine the probability of awards based on past cases from ICC, SIAC, and LCIA, and provide indications on the best order of argumentation during virtual hearings. TrialPrep and CoCounsel from Thomson Reuters are among the platforms that can offer constant information, including risk assessments and matching of precedents for arbitration contexts, changing even when pandemic-era backlogs were removed due to improvements in the process for managing evidence, the spotting of issues, and more. In the present era of the new normal, virtual and hybrid hearings after the pandemic, AI provides live transcription with identification of speakers, real-time translation into different languages, and moderation tools drawing attention to procedural irregularities, control speaking times, and support for following the rules such as SIAC Practice Note 2/2021[25].

The extra integration consists of blockchain-supported evidence repositories for safe submissions, AI-driven chatbots for process guidance, and the automated drafting of procedural orders and awards, in practice by China's Shenzhen Court of International Arbitration. Singapore's SIAC Gateway and ICC's Case Connect are examples of institutional adoption, where AI takes case management care, multilingual support, and post-hearing analytics that will be used to improve future proceedings[26]. The benefits of utilizing these tools are increased efficiency, which is accompanied by a cost reduction of 30-50% in international conflicts, and providing access to parties in developing jurisdictions[27].

Conversely, the ethical dilemmas are also present. Bias in the algorithm caused by the training data set that favors Western precedents is a danger that results in an unjust outcome for non-Western scenarios. The use of sensitive data done by the AI process that is not encrypted is a danger of loss of confidentiality, which is

exacerbated by the applicable rules of the GDPR and the DPDP Act of 2023 of India. "Deepfake" dangers in witness statements and the lack of transparency in "black box" modeling cause due process objections under the New York Convention, Article V(1)(b)[28]. The 2025 Guidelines by Chartered Institute of Arbitrators define that the necessary requirements to enable free flow and relevant application of an award, among other things, involve human oversight, bias assessment, and disclosure of Artificial Intelligence application. Apart from this, application of Artificial Intelligence tools based on Machine Learning would enable faster identification of relevant details and precedents even within vast sums of information, thereby taking less time for the arbitrators concerned.[29]

VI. JURISPRUDENCE

In investment arbitration, states challenges over health concerns, to expropriation, frequently pleaded with arbitrators to balance state necessity tenets and those of investors in BITs. In commercial arbitration, parties relied on force majeure and frustration as non-justifying exceptions to non-performance, thus informing significant arbitration on pandemic risk attribution.

In the cases of Sempra and Enron, the courts found it difficult to deal with the situation where the BIT emergency clauses and the customary international law of necessity existed side by side, and they often ended up using the customary law standards which were stricter and, at times, unfavourable to the states that wanted more freedom of action in times of crisis.[30]

There have been several Free Trade Agreements and Bilateral Investment Treaties (hereinafter "FTAs and BITs") over the years, which are mutually beneficial in the long run, although in some cases, it can actually be difficult to distinguish them from the beginning. To name some examples, one can look into the Comprehensive Economic and Trade Agreement (CETA), which is among the free trade agreements, the Free Trade Agreement of China and Australia, and the Netherlands Model BIT 2019, which are relatively new Free Trade Agreements and/or BITs, and one thing that they have in common is that the express public health exception is being adopted increasingly by these agreements. Of course, this exception involves the granting of rights to the countries for the benefit of public health, safety, or the environment, including the right for the violation of such treaty obligations, for instance, that of fair and equitable treatment and/or expropriation[31]. "Carve-outs" that allow countries to waive the strict form of the necessity argument under customary international law, under which countries are required to show that no other measures are available and that the crisis was unexpected, offer more "policy space" for countries during pandemics.

VII. CHALLENGES

A. Uneven Access to Technology

Digital platforms might be easily accepted by younger or more tech-savvy professionals whereas older ones or those with little experience might find the transition to virtual arbitration difficult. It is necessary that arbitrators and lawyers are trained thoroughly in the various digital tools so that the sessions are conducted without any

interruptions and at the same time, efficiently. The high learning curve related to new technologies can sometimes negatively affect the arbitration process and lead to delays[32]

B. Security concerns

Along with the advantages, major issues of cybersecurity threats also tagged along. Video conferencing software, online portals, and electronic document systems are all vulnerable to hacking, data breaches, and unauthorized access. The cybercriminals may exploit the vulnerabilities within the system, and thus sensitive information, such as trade secrets, personal data, or privileged attorney-client communications, may leak.[33]

Most of the prominent arbitral institutions around the world, including the Indian Council of Arbitration (ICA), have earlier adopted a vast array of such best practices available in the realm of cybersecurity. It is an essential attribute that requires the Indian arbitral platforms not only to adhere to but also to embrace, with regard to security, on an overarching level. This requires adherence to stringent access security and two-factor authentications, monitoring threats on a constant basis, and harmonizing their internal security policies with the requirements embedded within the India-specific cybersecurity norms set by CERT-In and I4C. ISO 27001 will help build a robust pillar of information security governance with its certification, translating an unwavering resilience.[34]

C. Reluctance Toward Digital Advocacy

1. Traditional oral advocacy-trained senior arbitrators and lawyers have a negative opinion about remote proceedings, due to the letting interpersonal dynamics go and the decline of persuasive impact.[35]
2. Countries such as India and France, which put emphasis on oral argumentation and personal negotiation, have demonstrated reluctance in the adoption of completely virtual hearings.

VIII. RECOMMENDATIONS

To address these challenges, it is recommended that:

1. Engagement of cybersecurity rules, such as encryption and common cybersecurity protocols for all online hearings.
2. Providing focused training and development for arbitrators and attorneys on digital advocacy, evidence handling, and cyber risk management.
3. Setting clear and aligned regulations in all arbitral institutions to avoid any room for misunderstanding and ensure digital procedure constancy, including witness authentication, documentation, and technical arrangements.
4. The participants and/or parties who are from jurisdictions that are less technologically resourced will benefit through subsidies, grants, or supply of technological infrastructure, and this will encourage inclusivity and aid in bridging the technological divide.
5. The sharing of cost savings resulting from travel and logistics will be more balanced with clients and parties, hence ensuring that the cost-effectiveness, which makes arbitration attractive, is maintained.

6. The use of med-arb models will be encouraged, and in appropriate cases, the consensual element of mediation will be blended together with the finality of arbitral decisions.

In this way, the legitimacy and effectiveness of arbitration will be ensured.

IX. CONCLUSION AND SUGGESTIONS

COVID-19 has spurred an irrevocable shift in the world of arbitration that has resulted in the hybrid process, online procedures, and legislative changes becoming the new normal[36]." The flexible nature of the UNCITRAL Model Law, along with the institutional guidance from ICC, SIAC, and LCIA, made it possible for emergency adaptations to start, which eventually led to the improvement of the entire structure of the court system, thus gaining efficiency, lowering costs by 30-50%, and increasing access to the courts all over the world. The changes in India's Arbitration and Conciliation Act, the updates in Singapore's International Arbitration Act, and the emerging frameworks like the UK's Arbitration Act 2025 are some of the examples of the global drift towards reliance on technology for resilience, while AI integration and cybersecurity protocols deal with the challenges of today's world[37].

Post-pandemic arbitration has reached a point where it can uphold the character of the New York Convention and at the same time be innovative in the areas of party autonomy, procedural fairness, and award enforceability. The use of virtual hearings has proved beneficial to the involvement of witnesses from a distance, further developing the dispute resolution process in high stakes litigation, whereas the court decisions in the domains of force majeure such as in Sempra and Enron have added more robustness to the legality of the arbitration institution. However, the disputes that exist in the current state, such as those related to cybersecurity risks, due process paranoia, and divisions precipitated from the use of technology, and AI ethics, imply that only sustained improvements in the process would provide real sustainability.

A. Suggestions

To cement these gains and future-proof international arbitration, a number of key stakeholders should consider implementing the following targeted recommendations:

1. **Institutionally Require Hybrid Protocols:** SIAC has suggested that the big four venues for arbitration- ICC, SIAC, LCIA, MCIA - impose standards in their rules on what hybrid hearings need to consist of, from compulsory technical rehearsals through to end-to-end encryption, and witness protections such as prohibiting screen-sharing Note 2/2021[38].
2. **Legislate Cyber Security Frameworks:** The governments of the countries should enact arbitration-specific data security legislations that could align with the GDPR and the DPDP Act of 2023 of the Indian government. These legislations will also make ISO 27001 certification of the tools being utilized essential and ensure that the record repository could be secured through blockchain technology to prevent breaches[39].
3. **Harmonize AI Governance:** There should be regulations that are UNCITRAL-compliant and require human oversight of AI systems, assess impact for bias, and mandate disclosure of AI in arbitration. The

proposed project will be founded upon CIArb's 2025 AI Guidelines for the above-stated aim to align with the New York Convention compliance[40].

4. **Bridge Digital Divides**: Institutions must support the technological access of underdeveloped areas through subsidies and also conduct training in digital advocacy for these areas, thus including the practitioners suffering from the disparity in technology adoption.
5. **Promote Consolidated Reforms**: The proposal entails aligning the procedures of emergency arbitration, summary dismissal, and third-party funding disclosures among different rules (like MCIA 2025, SIAC 2025), thereby cutting the time required by 20-40% and still maintaining due process[41].

The measures mentioned above will keep the arbitration's supremacy, thus turning the innovations brought about by the pandemic into a strong and fair framework for global trade of the 21st century.

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