



# Virtual Arbitration Proceeding: Promising Efficiency, Reaping Risks

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**Abstract.** Electronic administrative process, virtual arbitrations proceedings and document review-based arbitrations have been shown to reduce costs and increase efficiency. However, these conveniences bring significant risks which may harm or degrade the nature and advantages of arbitration. The risks of a virtual trial include the level of security (cybersecurity), privacy, confidentiality, and trust. Singer mentioned two risks related to cybersecurity, namely data theft and cyberattacks. The choice of a virtual arbitration hearing cannot be based solely on effectiveness and efficiency, but must also look at the side of legal certainty, confidentiality of the process, and suitability for the type of case being faced. This study aims to find the ideal form of conducting arbitral proceedings online, by looking at BANI's experience during the pandemic and comparing it with the practice of the world's leading arbitration institutions, namely SIAC and AAA considering that the two arbitral institutions have succeeded in holding arbitration via video conferencing while maintaining confidentiality, security data and legal certainty regarding the validity of the procedure. To enrich the discussion, the Author will also examine the implementation of online arbitration as a benchmark for implementing virtual arbitration.

**Keywords:** Virtual Arbitration, Confidentiality, Efficiency.

## 1 Introduction

The enforcement of social restrictions amid the pandemic has transformed the traditional face-to-face arbitration process into virtual trials. In order to enhance effectiveness and efficiency compared to offline arbitration proceedings, arbitration institutions have introduced more flexible procedures utilizing digital media and various online platforms. Reynolds noted that prominent arbitral institutions such as the London Court of International Arbitration (LCIA), Hong Kong International Arbitration Center (HKIAC), Singapore International Arbitration Center (SIAC), Stockholm Chamber of Commerce (SCC), and International Center for Settlement of Investment Disputes (ICSID) have initiated electronic trials (e-hearings) since the onset of the pandemic in 2020 [15]. Innovation has also been carried out by the Chartered Institute of Arbitrators through the issuance of guidelines on document-only arbitrations, wherein the arbitration process is conducted without any face-to-face interaction.

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Electronic hearings, remote arbitrations, and document-based arbitrations have proven to reduce costs and save time, which are two aspects frequently complained about in arbitration [15]. Nonetheless, these diverse conveniences entail notable hazards that undermine or diminish the essence and benefits of arbitration. The perils associated with virtual trials encompass cybersecurity levels, privacy concerns, confidentiality matters, and issues pertaining to trust. Singer highlighted two cybersecurity risks, specifically data theft and cyberattacks, as potential challenges within the realm of arbitration [16]. According to Reynolds, the utmost significance and inherent risk lie in the confidentiality factor [19]. The trial proceedings can be recorded by the parties and shared with uninvolved parties, presenting a potential risk. Alongside the risks, virtual trials also bring forth challenges. Baker asserts that virtual trials pose procedural challenges in cases where a local inspection of the disputed object, physical examination of documents, or witness examinations are necessary [1]. Conventional arbitration procedural law does not typically regulate the matter at hand. Smith raised concerns regarding the credibility of the virtual arbitration process, highlighting ethical and "forensic" issues as the primary areas of contention. The aspect that particularly drew Smith's attention:

"How does one deal with the potential for coaching or actively prompting witnesses behind the camera? In the US, a party adviser might be sued for negligence for not coaching witnesses, while the same action by a British barrister might cause him or her to be disbarred." [17]

The essence of the aforementioned inquiry revolves around the challenge of ascertaining the jurisdiction for the arbitration examination (place of arbitration) during an online hearing, as the local law impacts the applicable procedure. It follows the principle that *lex arbitri* is *lex loci arbitri* (unless otherwise specified, the procedural law of arbitration is the procedural law of the jurisdiction where the arbitration proceedings are conducted).

Online arbitration has employed digital media, internet, and information technology extensively in arbitral proceedings for a considerable period [12]. Online arbitration encompasses the resolution of disputes arising from online transactions or domain disputes [18]. Online arbitration represents an innovative approach specifically designed for the resolution of straightforward disputes, akin to the jurisdiction of small claims courts in district courts [3]. In the realm of online arbitration, following the onset of a conflict, the involved parties mutually consent to undertake the entirety of the dispute resolution procedure in a virtual environment, irrespective of the existence of a pandemic.

The establishment of online arbitration was intended to address and settle conflicts that arise specifically within the domain of electronic commerce (e-commerce) [8]. During a pandemic-induced virtual arbitration hearing, the parties initially opted for traditional arbitration proceedings involving physical presence and in-person trials. However, as a result of societal limitations and health protocols, the necessity to adhere to virtual face-to-face interactions compelled the substitution of in-person meetings. Similarly, the examination of witnesses, exchange of evidence, and sharing of documents were also facilitated through technological intermediaries.

A pertinent issue arises regarding the validity of online/virtual arbitration proceedings in the absence of prior mutual consent from the involved parties. Additionally, the question arises as to whether the ongoing dispute is suitable for resolution through online methods, given that online trials are primarily conducive to addressing relatively straightforward matters. Bashayreh contends that arbitrators may generally be restricted from altering the stipulations of the arbitration procedure law under normal circumstances. However, in exceptional situations such as a pandemic, the principle of "arbitrator autonomy" becomes applicable, granting arbitrators the discretion to deviate from the provisions of procedural law [2]. Moses further substantiated this notion by asserting that the chairperson of the arbitral tribunal possesses the authority to render decisions in instances where procedural challenges arise [16]. This is also in accordance with the provisions in Article 22 (2) of the ICC Arbitration Rules which states "the arbitral tribunal... may adopt such procedural measures as it considers appropriate, provided that they are not contrary to any agreement of the parties."

The selection of a virtual arbitration hearing should not solely rely on considerations of effectiveness and efficiency, but must also encompass factors such as legal certainty, process confidentiality, and suitability for the nature of the case at hand. Wei Gao posited that the triumph of traditional (offline) arbitration can be attributed to its entrenched position within society, its alignment with the relevant legal framework, and its capacity to address a broad spectrum of disputes. The majority of arbitration institutions, as well as laws and regulations governing arbitration, are primarily designed for offline arbitration arrangements. In contrast, online arbitration has emerged specifically to handle disputes originating from online transactions [5]. E-commerce and non-e-commerce transactions exhibit distinctive attributes in terms of transaction types, value, and complexity levels. It should be acknowledged that not all commercial disputes are appropriate for resolution through online arbitration.

In response to the pandemic, the Indonesian National Arbitration Board (Badan Arbitrase Nasional Indonesia, or also known as BANI), the Singapore International Arbitration Center (SIAC), and the American Arbitration Association (AAA) have implemented electronic arbitration hearings. This has been accomplished by employing a platform agreed upon by the parties involved, following BANI's initial suspension of all trials at the onset of the pandemic. Based on preliminary observations, it can be inferred that the BANI did not witness a surge in the volume of cases during the pandemic. Typically, virtual trials are conducted using commonly available meeting platforms like Zoom, rather than utilizing specialized software specifically designed for the adjudication process such as Live litigation or Case Fleet.

This research endeavor seeks to identify the optimal approach for conducting online arbitral proceedings by examining the experience of BANI during the pandemic and comparing it with the practices employed by renowned international arbitration institutions, namely SIAC and AAA. This comparative analysis takes into account the successful implementation of video conferencing by these two arbitration institutions while upholding confidentiality, data security, and legal certainty regarding the procedural validity [7]. In order to enhance the discourse, the author additionally investigates the utilization of online arbitration as a benchmark for the implementation of virtual arbitration.

In order to ascertain an optimal approach, the author intends to scrutinize the diverse implications arising from the transformations brought about by the digitization of arbitration in the era of the pandemic. The author contends that leveraging information technology in arbitration can expedite the process and reduce costs. However, empirical evidence suggests that the efficiency and effectiveness achieved through information technology not only entail risks in ensuring data confidentiality and parties' privacy but also have the potential to render the arbitration process void, consequently providing grounds for challenges against arbitral awards.

This research holds significance, particularly in light of the heightened prevalence of large-scale commercial disputes in Indonesia and other countries due to the pandemic, primarily associated with defaults. Alongside defaults, the argument frequently employed for non-compliance pertains to force majeure or frustration of contract, as understood within the framework of the Common Law legal system [4]. These cases require certainty to be arbitrated and to guarantee the implementation of the decision.

Considering the parties' response towards virtual arbitration, it is anticipated that the inclination towards online arbitration hearings will continue to grow even after the subsidence of the pandemic and the relaxation of social restrictions. This projection stems from the fact that online arbitration has effectively addressed persistent challenges, namely the comparatively high costs and the issue of limited access to arbitration [6]. In order to enhance the standing of arbitration in Indonesia, particularly within BANI, it is imperative for BANI to undertake improvements by aligning the arbitration process with the established standards set by leading international arbitration institutions. SIAC and AAA can serve as benchmarks in this regard. By adopting the same standards as these renowned arbitration institutions, it is anticipated that BANI will augment its competitiveness, instill confidence among business professionals, and consequently become the preferred venue for resolving business disputes involving Indonesian parties or a combination of Indonesian and foreign parties, replacing the previous preference for SIAC or AAA.

Considering the context and urgency surrounding the regulation and implementation of online arbitration, researchers deem it significant to seek answers to the following issues:

1. In what manner can the smooth conduct of virtual arbitration proceedings be assured while upholding the tenets of confidentiality, data security, and adherence to arbitration procedural law?
2. What insights can be gleaned by Indonesia/BANI from the practices of SIAC and AAA regarding the organization of virtual arbitration hearings?

To address the aforementioned problem statement, the author employ normative and empirical legal approaches. The normative legal approach involves a thorough examination of pertinent legal documents, including laws and regulations, literature on the use of technology in arbitration hearings, and the experiences of renowned arbitral institutions during the pandemic. Furthermore, the study employs a comparative method, comparing the practices of online arbitration trials that emerged approximately two decades ago with the adaptations made for virtual arbitration trials during

the pandemic. A comparative analysis is also conducted by examining the online arbitration practices of BANI, SIAC, and AAA. Observations were conducted from March 2020 to March 2021. The selection of these three institutions is justified by the fact that SIAC and AAA are leading arbitration institutions widely chosen by business professionals from diverse nations. By scrutinizing the arbitration practices of these three institutions in this era of disruption, it is envisaged that BANI can enhance its procedures and systems in accordance with the standards set by arbitral institutions. In addition to extensive library research, the author conducted interviews with arbitrators and the BANI secretariat staff, who play pivotal roles in implementing arbitration procedural law. Moreover, to gather the perspectives of disputing parties, the authors interviewed several advocates with experience in virtual arbitration trials.

## 2 Literature Review

The advancement of information technology and the resulting process of globalization have instigated a paradigm shift in dispute resolution methods, particularly in the realm of arbitration. Online arbitration has become increasingly prevalent for the resolution of trade disputes arising from e-commerce. This form of arbitration utilizes online platforms, eliminating the need for face-to-face meetings between the disputing parties and the arbitrator. Documents are exchanged electronically through platforms such as telex, telegram, facsimile, email, and others.

In Indonesia, there is currently no specific regulation addressing online arbitration. The theoretical implementation of online arbitration is based on the Arbitration and Alternative Dispute Resolution Law and the Information and Electronic Transactions Law. The Information and Electronic Transaction Law is particularly relevant in terms of safeguarding privacy and confidentiality, which are crucial elements in the arbitration process. The arbitration proceedings are conducted via telephone, video calls, or other online communication platforms like Zoom, Google Meet, or Webex. The application of arbitration using online means is legally feasible in Indonesia, as stated in Article 4 (3) of the Arbitration and ADR Law, which states: "If the parties agree to resolve disputes through arbitration using correspondence, the transmission of messages via telex, telegram, facsimile, email, or any other communication method must be accompanied by a confirmation note from the involved parties to indicate acceptance."

Article 4 (3) provides a legal basis for organizing online arbitration for e-commerce disputes and online trials as a result of social restrictions and physical restrictions. Article 1 (4) Law No. 11 of 2008 concerning Information and Electronic Transactions jo. Law No. 19 of 2016 states that electronic documents include but are not limited to writing, sounds, pictures, maps, plans, photographs or similar, letters, signs, numbers, access codes, symbols or perforations that have meaning or can be understood by people who able to understand it. Furthermore, Article 5 (1), (2) and (3) of the Information and Electronic Transactions Law explains that: "Electronic information, electronic documents, and printed copies thereof hold legal validity as admissible evidence, representing an extension of valid evidence in accordance with

the prevailing procedural law in Indonesia. These forms of evidence are deemed legally acceptable when utilized within an electronic system in accordance with the provisions outlined in the relevant legislation.”

Singer asserts the utmost significance of privacy and confidentiality in arbitral proceedings, emphasizing that both online and offline arbitration processes should prioritize these aspects. Specifically focusing on online arbitration, Singer highlights the primary concern of digital security, commonly known as cybersecurity. According to Singer, two key areas of concern are electronic data breaches and cyberattacks, which pose threats to the security and privacy of telecommunications media users [20].

In light of the significance of safeguarding data security, it is imperative for arbitration institutions to establish regulations that ensure the protection of parties' data in arbitration cases. The AAA, a prominent arbitration institution in the US, has taken proactive measures in this regard. AAA has developed a comprehensive guide on cybersecurity best practices, which was distributed to all advocates and arbitrators at the onset of the online arbitration process. In addition, AAA also requires all of its arbitrators to attend cybersecurity training [2].

According to Bashayreh, the autonomy of arbitrators plays a crucial role in the arbitration process. Particularly in exceptional circumstances like a pandemic, which hinder the feasibility of offline arbitration proceedings, the significance of arbitrator autonomy becomes more pronounced. However, it is important to note that arbitration is fundamentally based on mutual agreement, and therefore, the exercise of arbitrator autonomy must be reconciled with the parties' intentions and preferences [2]. Consequently, any measures or mechanisms intended to preserve the confidentiality and security of data and information in virtual arbitration, as suggested by the arbitrator or arbitral institution, necessitate the parties' consent for their implementation.

### 3 Discussion

#### 3.1 Ensuring that the Virtual Arbitration Process takes Place Efficiently without Compromising the Principles of Confidentiality, Data Security and Compliance with Arbitration Procedural Law

Preserving confidentiality in offline arbitration hearings entails the exclusion of media and the public from participation. Moreover, arbitrators are bound by stringent regulations to protect the confidentiality of information and documents pertaining to the cases handled. Their obligations are guided by the provisions of arbitration procedural law, which govern the responsibilities in examining and rendering decisions on cases. Likewise, arbitration institutions are also obligated to maintain the confidentiality of the arbitration process and all associated information.

The issue of confidentiality in arbitration assumes significant importance due to the rise of cybersecurity concerns and the advent of online arbitration. Cybersecurity encompasses potential risks such as electronic data breaches and cyberattacks, which can compromise the security and privacy of the involved parties. For instance,

unauthorized third parties may illicitly access confidential information through hacking or unauthorized storage, distribution, or utilization of such sensitive data.

In the context of online arbitration proceedings, ensuring confidentiality presents a more intricate challenge since arbitrators cannot exercise control over who may be observing or witnessing the arbitration process. Furthermore, there is a heightened risk of unauthorized parties gaining access to and misusing the data exchanged during the proceedings, thereby posing a direct threat to the confidentiality of data and information [2].

Arbitration proceedings, grounded in contractual agreements and emphasizing confidentiality, can be explicitly stipulated by the parties or mandated by the chosen arbitral institution or procedural law. In the context of online arbitration, the parties have the opportunity to establish agreements on various aspects of the trial process, including document transmission, authorized recipients, and more. These agreements can serve as a mechanism to ensure the security of data and information, benefiting both the parties and the arbitral institutions involved.

Popular online meeting platforms like Zoom, Webex, or Google Meet offer recording capabilities, which introduce the risk of information leakage as recorded content can easily be disseminated to uninvolved third parties. To mitigate this risk, strict protocols should be implemented to safeguard the storage and access of these recordings. Parties can undertake commitments to refrain from recording proceedings and grant recording privileges solely to the arbitrator or the arbitral institution.

The arbitrator bears the responsibility of ensuring that only relevant parties are present during the trial. In online proceedings, the arbitrator should verify the participants' presence, with each party disclosing who is physically present in their respective location. Regular monitoring of attendance throughout the trial is crucial to prevent the presence of unauthorized individuals.

Maintaining the confidentiality and security of data and information during the examination of witnesses or experts can be achieved through specific measures. Prior to testifying, each witness must confirm that no other person is present in the room with them. Moreover, to ensure integrity, witnesses are prohibited from using virtual backgrounds that could conceal the presence of others in their surroundings. The arbitrator has the authority to request that witnesses or experts show the entirety of their surroundings using a 360-degree camera view. Additionally, witnesses or experts should deactivate their phones and any communication devices to prevent any external communication during the testimony-taking process [1].

In the context of document usage and exchange, encompassing both hard copies and digital storage devices, it is imperative to submit these documents to the arbitrator and opposing party prior to the trial proceedings. This differs from offline arbitration, where documents are presented directly during the hearing to ensure data security. In online trials, since the data is provided in advance, measures must be taken to ensure the integrity of the data, prevent unauthorized access, and avoid any potential data leakage [1].

## **Legal Protection**

In the context of online arbitration proceedings, the Electronic Information and Transactions Law serves as a legal safeguard by establishing provisions that classify certain actions as criminal offenses during trials. These criminal acts pertain to interference with information or electronic documents, as outlined in Article 32, and interference with electronic systems, as specified in Article 33.

Article 33 encompasses provisions concerning actions that disrupt or impede proceedings through the use of information technology facilities. It states that "Any Person who knowingly and without authority or unlawfully commits any act resulting in faults on Electronic Systems and/or resulting in Electronic Systems working improperly" may be subject to a maximum imprisonment of 10 years and/or a maximum fine of Rp10.000.000.000. The actions described in Article 33 can encompass the introduction of computer viruses and worms that hinder the proper functioning of electronic systems. These legal provisions aim to safeguard the integrity and smooth conduct of virtual arbitration processes facilitated by BANI.

Electronic evidence, as defined by the Electronic Information and Transactions Law, diverges from the evidentiary framework established by Article 164 of the HIR. The latter has traditionally governed the evidentiary process in arbitration and encompasses written evidence, witnesses, presumptions, confessions, and oaths. Electronic evidence serves as an extension of the evidentiary framework prescribed by Article 164 of the HIR. It refers to electronic information and/or electronic documents that fulfill the formal and substantive requirements stipulated by the ITE Law.

Article 5 of Electronic Information and Transactions Law states:

- (1) Electronic information possesses the legal validity to serve as evidentiary material in accordance with the law;
- (2) The recorded or printed manifestation of electronic information holds evidentiary value and carries legal implications that are recognized and upheld;
- (3) Electronic information is deemed valid when processed and stored through an electronic system that can be substantiated and aligned with the advancements in information technology.

According to Article 5 (1), electronic information, electronic documents, and their printouts are recognized as legally valid evidence. Therefore, in the context of online arbitration, electronic information and documents presented as evidence hold legal validity.

The legal validity of electronic documents and information extends beyond evidence to encompass arbitral awards resulting from online arbitration proceedings. While BANI's arbitration rules require that the award be printed and sent to the parties, the specific mode of delivery is not explicitly stipulated. However, based on the Electronic Information and Transactions Law, physical submission of a hard copy is not obligatory, and the award can be transmitted via email or other electronic means. Electronic arbitration awards, classified as electronic documents under Article 1 number 4 of the Electronic Information and Transactions Law, possess legal force and are considered valid as legally recognized documents.



### **3.2 Lessons that Indonesia/BANI can Derive from SIAC and AAA in Organizing Virtual Arbitration Proceedings**

BANI, as a prominent arbitration institution in Indonesia, is expected to take the lead in adapting and innovating the implementation of online arbitration in response to the disruptive challenges. To assess the alignment of BANI's practices with the innovations of other arbitration institutions, a comparison is made between BANI, SIAC, and AAA. BANI can draw valuable lessons from SIAC and AAA, as those institutions have demonstrated readiness and success in addressing the needs and challenges of disputing parties in virtual arbitration.

SIAC and AAA have more explicit rules and procedures for online arbitration compared to BANI. The SIAC Rules and Singapore's Arbitration Act clearly regulate various aspects of online arbitration, including registration, hearings, submission of electronic evidence, and arbitration decisions. BANI can adopt the arrangements for online arbitration from SIAC and AAA, particularly in terms of hearings and the issuance of online arbitral awards, as the existing Arbitration and ADR Law, BANI rules, and procedures do not specifically address these aspects.

To guide the implementation of online arbitration, the BANI Secretariat Board has issued Decree No 20.015/V/SK-BANI/HU, which establishes rules and procedures for conducting electronic arbitration. This Decree primarily governs electronic arbitration procedures in situations where offline arbitration is not possible due to emergency circumstances, including natural or non-natural disasters such as pandemics. In such cases, parties are required to agree to use electronic arbitration procedures, and arbitration requests are submitted electronically in accordance with BANI rules and procedures, utilizing internet-based telecommunication facilities such as teleconferences, video conferences, or virtual conferences on mutually agreed platforms. Parties may submit evidence and documents via email in PDF format or physically. The agreement requirements align with those applied by SIAC and AAA, emphasizing the necessity of mutual consent for online arbitration.

In order to ensure data and information confidentiality as well as the integrity of the arbitration process, the BANI Decree stipulates that only the principals and their representatives may attend the hearing, with recording of the proceedings strictly prohibited. The arbitrator's decision is delivered electronically, and copies are sent to the parties via electronic means. However, the current BANI Decree only provides general guidelines for virtual arbitration, lacking clear and detailed regulations, which can lead to uncertainty and inconsistency in the online trial process. Additionally, the absence of comprehensive settings raises concerns regarding cybersecurity and the lack of security assurances. Therefore, it is crucial to examine how other arbitration institutions handle virtual arbitration.

SIAC, being a leading global arbitration institution, already has established rules for online arbitration. The arbitral tribunal has the discretion to conduct online arbitral proceedings in any suitable manner and at any appropriate location, considering the involvement of witnesses, experts, or arguments based on documents or other materials. This allows the hearing process to be conducted through telecommunica-

tion media, referred to as "remote arbitration hearings," as outlined in the remote arbitration guide published by the SIAC Secretariat in August 2020.

The primary challenge in conducting online arbitration lies in ensuring confidentiality due to the inherent vulnerabilities of internet technology security. The risk of unauthorized access, data manipulation, damage, or theft by third parties or even the disputing parties themselves remains a significant concern in the online environment [13]. The absence of data security assurances in online arbitration undermines the inherent confidentiality aspect of the process, which is essential for safeguarding the interests and reputations of the disputing parties.

In order to tackle this challenge, AAA has encouraged the parties and their legal representatives to engage in consultations focusing on cybersecurity concerns. It is the responsibility of the principals and their advocates to identify the electronic data to be utilized during the trial, specify the information to be disclosed, evaluate the potential consequences of a digital security breach on either party or the organization, and devise a security strategy aimed at safeguarding sensitive data and confidential business information.

Another issue arises concerning the human resources and supporting infrastructure involved in the arbitration process. In this context, human resources refer to personnel from arbitral institutions, as well as the principals and their legal representatives. In order to tackle this concern, AAA has mandated that all arbitrators undertake cybersecurity training. The purpose of this training is to equip arbitrators with essential knowledge in cybersecurity, empowering them to effectively safeguard and uphold the integrity and legitimacy of the arbitration proceedings which are entrusted with.

In all three institutions, namely BANI, SIAC, and AAA, the extent of cybersecurity measures to be implemented in the arbitration process is contingent upon the parties involved in the case. AAA has introduced two options pertaining to the advocate's obligations in the event of an electronic data breach or when securing communications via email, especially in safeguarding client information. Advocates are required to conduct a risk-based analysis in collaboration with the principals, assessing whether highly sensitive data, such as personal information, financial records, or trade secrets, is pertinent to the dispute. Advocates must determine whether a specialized approach is necessary throughout the data collection, storage, and transmission process to other parties, arbitral institutions, or the arbitral tribunal. If the data necessitates stringent protection, principals have the option to request the screening of prospective arbitrators using a cybersecurity checklist, enabling the identification of potential issues that may arise in relation to data security.

The availability of internet access holds significant importance, particularly in the realm of online arbitration. A fast, stable, and reliable internet connection is a crucial determinant for the successful execution of arbitration proceedings. Statistical data released by the Association of Indonesian Internet Service Providers reveals that internet user penetration is predominantly concentrated in major metropolitan areas within Indonesia. As a consequence, the accessibility of dispute resolution through online arbitration is predominantly limited to residents residing in these urban centers. According to a survey conducted by the Internet Service Providers Association (Aso-

siasi Penyelenggara Jasa Internet, or known as APJII), the penetration of internet usage in Indonesia stood at 64.8% in the year 2018. Conversely, the data from March 2021 reveals a surge in internet adoption, reaching a rate of 76.8%, which equivalent to approximately 212.35 million individuals out of the total population of 276.3 million in Indonesia, signifying an upward trend in internet usage [14]. Despite the increase in internet usage, the data indicates that there is still a significant portion of the Indonesian population, exceeding 50 million individuals, who lack access to the internet. This digital divide poses a challenge for online arbitration proceedings, particularly when parties residing in remote areas struggle to maintain stable and reliable internet connectivity. In contrast, countries like Singapore and the United States have overcome internet-related obstacles in virtual arbitration.

Another impediment arises from the limited familiarity with the platforms employed. Utilizing complex software platforms can present difficulties for users who are not accustomed to them. These challenges could be addressed through the availability of better supporting facilities and infrastructure, coupled with advanced technology and proficient operational capabilities among platform users. Currently, Indonesia heavily relies on foreign vendors for more than ten supporting software in the online arbitration process [11]. This indicates a lack of self-sufficiency in Indonesia when it comes to providing supporting programs and software, which is also closely linked to the proficiency of human resources in operating the existing systems. To address this issue, several measures can be taken, such as ensuring that technical teams and arbitrators in Indonesia possess adequate capabilities for conducting online arbitration. This can be achieved through regular training programs or opting for platforms that are relatively user-friendly.

Insufficient understanding of online platform software presents a distinct obstacle to the smooth execution of the arbitration process, potentially leading to reluctance among parties to engage in online arbitration due to limited information and knowledge in regards to the system. In response, it is crucial for online arbitration organizers to carefully select platforms that are both user-friendly and of high quality. Furthermore, there should be efforts to promote and educate the public in regards to the implementation of online arbitration, with the aim of ensuring that all involved parties can proficiently operate the system. Consistent socialization and education initiatives are necessary to familiarize the general public in Indonesia with online arbitration as a viable option for dispute resolution.

AAA has established a comprehensive mechanism to ensure that parties comprehend the procedures and steps involved in handling sensitive and confidential documents. AAA provides specific guidelines for email communication and data storage, suggesting the utilization of tools such as Citrix ShareFile for encrypted data transmission. Additionally, AAA offers platforms like AAA WebFile and Panelist eCenterArbiter, which are expected to facilitate the following processes:

- a. The exchange of various forms of communication among the parties, between arbitrators, and between arbitrators and the secretariat of the arbitral institution.
- b. Retention of information and data pertaining to the case.
- c. The procedure for transmitting data to relevant third parties, such as witnesses or experts.

d. Storage and proper disposal of confidential documents.

AAA stipulates that in case the parties do not consent to the aforementioned mechanism, these parties have the option to raise an objection to the AAA Administrative Review Council. It is the arbitrator's responsibility to inform the parties, their representatives, and any involved third parties about the document security procedure. All parties and third parties involved must sign a declaration expressing the commitment to comply with the established and agreed provisions concerning the mechanism for ensuring the security of data and information. The arbitrator's discretion in establishing and defining the virtual trial process is derived from the autonomy in relation to the involved parties. This autonomy is essential for arbitrators to fulfill their responsibilities in a professional and ethically sound manner. However, this autonomy should be balanced with the parties' willingness to cooperate and their adherence to the principle of good faith [2].

## 4 Conclusions and Recommendations

The conduct of online arbitration hearings in Indonesia is governed by the Arbitration and ADR Law and the Information and Electronic Transactions Law. However, BANI as the arbitration institution in Indonesia, which facilitates virtual hearings, lacks comprehensive procedures to ensure the confidentiality of information and documents. Moreover, there are concerns about software security and the proficiency of human resources in utilizing information technology, making BANI's online arbitration process susceptible to cyberattacks. To address these challenges, BANI can draw lessons from the practices adopted by AAA and SIAC.

In terms of legal certainty and protection of documents, information, and the online arbitration process, the Information and Electronic Transactions Law has established adequate provisions. The Information and Electronic Transactions Law explicitly asserts that electronic data used as evidence in trials are valid and possess legal force. Furthermore, arbitral awards rendered online are also considered legally binding decisions in accordance with the Information and Electronic Transactions Law.

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