

Bridging Digital Justice: A Comparative Study of E-Commerce Arbitration in Indonesia and Taiwan

Istianah Zainal Asyiqin^{a✉}, Fadia Fitriyanti^b, Ani Yunita^c, M. Fabian Akbar^d, Tsai Pei-Fen^e

^a Faculty of Law, Universitas Muhammadiyah Yogyakarta, Indonesia

^b Faculty of Law, Universitas Muhammadiyah Yogyakarta, Indonesia

^c Faculty of Law, Universitas Muhammadiyah Yogyakarta, Indonesia

^d Faculty of Law, Universitas Gadjah Mada, Indonesia

^e Department of Financial and Economic Law, Asia University,
Taiwan

✉ Corresponding email: istianah@umy.ac.id

Abstract

The rapid expansion of e-commerce has significantly altered the global trade landscape, presenting legal challenges and opportunities, particularly in cross-border transactions. Arbitration has emerged as an effective mechanism for resolving e-commerce disputes, due to its enforceability and flexibility. The intersection between arbitration and e-commerce necessitates immediate attention as electronic signatures, digital contracts, and remote proceedings become more common. This study employed a normative legal approach to evaluate the arbitration frameworks of

Indonesia and Taiwan in the context of e-commerce disputes. While Law No. 19 of 2016 on Electronic Information and Transactions (ITE Law) supports Indonesia's legal system, it lacks specific provisions on arbitration for digital commerce, particularly in international contexts. In contrast, Taiwan exhibits a more comprehensive system integrating its Electronic Signatures Act with arbitration practices, enabling a more significant adaptation to technological advancements. While Taiwan's Arbitration Act does not explicitly regulate remote hearings, the Code of Civil Procedure and Judicial Yuan's pertinent regulations permit remote hearings, video conferencing, and electronic evidence submission, thereby guaranteeing continuity and efficiency, particularly during the COVID-19 pandemic. According to this investigation, Taiwan's institutional and procedural preparedness for digital dispute resolution is more advanced. To augment its e-commerce arbitration skills, Indonesia must integrate digital technologies and address regulatory gaps within its arbitration system. The comparative research provides a distinct viewpoint on how both nations might mutually benefit from enhancing legal clarity, effectiveness, and cross-border enforceability within the digital economy.

KEYWORDS *E-Commerce Arbitration, Legal Framework, Indonesia, Taiwan, Dispute Resolution*

Introduction

The rapid development of e-commerce in recent decades has fundamentally changed how trade is conducted worldwide. By offering convenience, accessibility, and various transaction innovations, e-commerce has become an integral part of the global economy that connects countries and expands markets. Its enormous potential allows transactions between individuals, companies, and institutions from different countries without physical barriers or geographical boundaries.¹ However, despite providing significant benefits, the rapid growth of e-commerce also brings numerous challenges, especially in resolving disputes arising from cross-border transactions.²

¹ Dilshad Sadiq Marouf, Kameran Hussein, and Al Salihi, "Electronic Arbitration and E-Commerce," *International Journal on Humanities and Social Sciences* 33 (2022): 127–51, <https://doi.org/10.33193/ijohss.33.2022.412>.

² Mohammad Ghozali and Budi Ispriyarso, "Online Arbitration in E-Commerce Dispute

One of the main issues that has emerged is the need for more clarity in the legal jurisdiction that applies to disputes arising from international digital transactions. Unlike conventional trade with clear geographical boundaries, e-commerce blurs these boundaries and creates new legal challenges in determining which country's law should be applied. This could cause legal conflicts between countries, which, if not handled properly, can undermine the stability and trust in the global digital economic system. Therefore, developing effective and efficient dispute-resolution mechanisms is crucial in facing these challenges.³

Arbitration, a more flexible dispute resolution method than traditional litigation, has become an increasingly popular option in e-commerce. Arbitration offers the advantages of confidentiality, procedural flexibility, and the ability to enforce awards internationally, especially with the support of international conventions such as the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards.⁴ The arbitration procedure, independent of local authority, is appropriate for settling conflicts between parties from several Countries. However, although arbitration offers a promising solution, its implementation in e-commerce disputes requires an adequate legal framework and regulations based on electronic transactions' unique characteristics.⁵

One of the biggest challenges in implementing arbitration in e-commerce disputes is the need for clear regulations regarding electronic transactions, digital signatures, and arbitration procedures relevant to the dynamic nature of e-commerce. As a developing country with great potential for a digital economy, Indonesia faces challenges in implementing arbitration mechanisms in e-commerce disputes.⁶ Although Indonesia has Law Number 19

Resolution During the Pandemic Covid-19," *Jurnal Daulat Hukum* 4, no. 3 (2021): 157, <https://doi.org/10.30659/jdh.v4i3.16266>.

³ Richart Sahatatus et al., "Comparative Analysis of E-Commerce Arbitration in Business Dispute Resolution in Indonesia And China," *Journal of Multidisciplinary Academic and Practice Studies* 2, no. 3 (2024): 267–70, <https://doi.org/10.35912/jomaps.v2i3.2220>.

⁴ Bagus Prayogi and Daffa Aulia Ramadhan, "Sharia Banking Contract Model: Alternative Financing For the Agricultural Sector in Indonesia," *International Journal of Islamic Economics* 6, no. 01 (2024): 67–78, <https://doi.org/10.32332/ijie.v6i01.8829>.

⁵ Fahimeh Abedi, John Zeleznikow, and Emilia Bellucci, "Universal Standards for the Concept of Trust in Online Dispute Resolution Systems in E-Commerce Disputes," *International Journal of Law and Information Technology* 27, no. 3 (September 2019): 209–37, <https://doi.org/10.1093/ijlit/eaz005>.

⁶ Irene Fransisca Liemanto, Siti Hamidah, and Reka Dewantara, "The Urgency of Regulating Online Arbitration in Dispute Settlement of E-Commerce Transactions in

of 2016 on Electronic Information and Transactions (UU ITE), which provides a legal basis for electronic transactions, recognition of electronic evidence, and digital signatures, this regulation does not explicitly regulate the arbitration mechanism for e-commerce disputes. This may create a legal vacuum that can complicate the implementation of arbitration in resolving digital disputes. In addition, Indonesia also faces obstacles in terms of digital infrastructure that still needs to be fully developed, and the capacity of local arbitration institutions that still needs to be improved in handling e-commerce disputes.⁷ Despite the presence of arbitration organizations like the Indonesian National Arbitration Board (BANI), their existence alone is insufficient to address the growing volume of e-commerce conflicts. This limitation is one of Indonesia's main obstacles to arbitration as a dispute resolution mechanism.⁸

Conversely, Taiwan has established a more sophisticated and cohesive legal framework to facilitate electronic transactions and arbitration in e-commerce. Taiwan's Electronic Signatures Act meticulously governs the legitimacy of digital signatures and electronic documents. It establishes a definitive legal foundation for using technology in the arbitration procedure. This enhanced legal framework enables Taiwan to manage e-commerce disputes more efficiently. It creates an atmosphere conducive to expedited dispute resolution pertinent to the requirements of digital transactions. This strategy allows Taiwan to adapt more adeptly to legal exigencies stemming from the rapid e-commerce revolution.⁹

The comparison between Indonesia and Taiwan regarding arbitration arrangements for e-commerce disputes offers essential insights into how both legal systems respond to the rising complexities of cross-border digital transactions. With the rapid expansion of e-commerce in Southeast and East Asia, legal certainty and efficiency in resolving online commercial disputes have become

Indonesia," *International Journal of Multicultural and Multireligious Understanding* 8, no. 7 (2021): 278, <https://doi.org/10.18415/ijmmu.v8i7.2847>.

⁷ Rina Elsa Rizkiana, "The Future Of Online Dispute Resolution: Building A Framework For E-Commerce Dispute Resolution In Indonesia," *The Lawpreneurship Journal* 1, no. 2 (October 2021), <https://doi.org/10.21632/tlj.1.2.114-138>.

⁸ Wardaniman Larosa, Eriyantouw Wahid, and Gunawan Djajaputra, "Application of Online Arbitration to Dispute Resolution E-Commerce Business in Indonesia (in Academic Discourse and Practice)," *Asian Journal of Engineering, Social and Health* 2, no. 3 (2023): 228–46, <https://doi.org/10.46799/ajesh.v2i3.56>.

⁹ Chi-Chung Kao, "Alternative Access to Investor-State Arbitration for Taiwanese Corporate Investors against China via Treaty Shopping," *Asia Pacific Law Review* 23, no. 2 (January 2015): 121–52, <https://doi.org/10.1080/10192557.2015.11745938>.

increasingly critical. Taiwan, as one of the technologically advanced jurisdictions in the region, has made significant progress in integrating digital technologies into its arbitration framework, including remote hearings, digital evidence submission, and electronic signatures.

In contrast, Indonesia is still developing its regulatory and institutional infrastructure to fully accommodate such innovations. Therefore, examining Taiwan's experience provides a relevant and practical benchmark for Indonesia to enhance its system. This comparative analysis is urgent due to the rising volume of cross-border e-commerce, and arbitration can serve as a key mechanism to ensure trust, fairness, and enforceability in the digital economy. Learning from Taiwan's legal adaptability, Indonesia may craft a more responsive arbitration framework supporting domestic and international e-commerce actors.¹⁰

This research examined the comparative use of arbitration in e-commerce disputes between Indonesia and Taiwan, emphasizing the significance of current rules. This research will examine the strengths and shortcomings of each legal system and provide suggestions for Indonesia to enhance its arbitration process for e-commerce dispute resolution. By analyzing Taiwan's experience, Indonesia may discern strategic measures necessary to improve rules, augment digital infrastructure, and bolster the capabilities of arbitration institutions to tackle the issues of e-commerce dispute resolution in the future.

This research utilized a normative legal methodology, examining legal regulations, official documents, and pertinent literature to assess the legal frameworks for adjudicating e-commerce disputes in Indonesia and Taiwan. This methodology was applied as it corresponds with the needs of analyzing and contrasting the regulatory frameworks of both nations in facilitating the expansion of e-commerce. The study scrutinized the main laws, legal documents, and relevant scholarly research. This study employed secondary data, including Indonesia's Law No. 19 of 2016 on Information and Electronic Transactions (ITE) and Taiwan's Electronic Signatures Act. Supplementary data encompassed various legal documents, including judicial rulings and governmental regulations pertaining to e-commerce conflicts, as well as scholarly literature such as journal articles and books addressing legal matters in the digital realm. The research applied a comparative

¹⁰ Kao.

analysis methodology consisting of the following stages: identifying legal frameworks, doing descriptive analysis, comparing essential aspects, and assessing the strengths and weaknesses of each legal system. The first phase involves gathering pertinent data to ascertain the key attributes of the legal frameworks in Indonesia and Taiwan, including legislation on digital evidence, electronic signatures, dispute resolution methods, and the efficacy of legal proceedings. Subsequently, a descriptive study was performed to comprehensively grasp each legal framework before comparing the differences, similarities, and current gaps.

Result & Discussion

A. The Third Path: Arbitration as Dispute Resolution

Arbitration is a structured conflict settlement procedure by definition. Since technology is only used as a tool in arbitration and does not alter its fundamental principles, the intellectual underpinnings of arbitration are comparable to those of traditional arbitration.¹¹ Conventional or offline arbitration is based on principles such as contract freedom, confidentiality, cost-effectiveness, due process, binding verdicts, and little court intervention. Arbitration adheres to the same fundamental notions as conventional arbitration and employs the same rights-based methodology. In this manner, arbitration is quite similar to offline arbitration.¹²

Nonetheless, arbitration is more economical and efficient than traditional litigation. It obviates the need to submit several papers and to go to a physical venue for an arbitration session. Nonetheless, arbitration is not just the fusion of conventional arbitration with a technological apparatus. Numerous essential elements of arbitration differ from those of traditional arbitration.¹³ For instance,

¹¹ Daniel Behn, Malcolm Langford, and Laura Létourneau-Tremblay, "Empirical Perspectives on Investment Arbitration: What Do We Know? Does It Matter?," *The Journal of World Investment & Trade* 21, no. 2–3 (2020): 188–250, <https://doi.org/10.1163/22119000-12340172>.

¹² Gonzalo Ruiz Diaz, "What Determines The Outcomes Of Public Procurement Arbitration?," *International Journal of Public Administration* 47, no. 7 (May 2024): 464–78, <https://doi.org/10.1080/01900692.2022.2145484>.

¹³ Abwunza Allan A., Peter Titus K., and Muigua Kariuki, "Explaining Delays in Construction Arbitration: A Process-Control Model Approach," *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction* 12, no. 2 (May 2020): 4520003, [https://doi.org/10.1061/\(ASCE\)LA.1943-4170.0000371](https://doi.org/10.1061/(ASCE)LA.1943-4170.0000371).

arbitration agreements, such as business-to-consumer agreements, are not always consensual. Additionally, decisions in arbitrations are not always binding in certain judicial systems. Due process is flexible due to the emphasis on its cost-effectiveness and rapidity. We endorse the latter perspective, which posits that arbitration is not a subset of conventional arbitration for various reasons.¹⁴

This theory asserts that the amalgamation of technology and dispute resolution occurs in a three-phase process: technology-assisted, technology-based, and technology-facilitated Online Dispute Resolution (ODR). In the technology-assisted phase, information dissemination and sharing technologies are used to accelerate the settlement of conflicts between parties. For example, technology is used to disseminate notifications as a service of process. "Technology-based ODR" refers to the automatic settlement of disputes via technology. The last phase, "technology-facilitated ODR," encompasses the automatic settlement of disputes and the preemption of conflicts and other possible complications using technological means. Now, there is no commonly recognized definition of "arbitration."

Nevertheless, a review of the literature suggests that the term was initially defined in accordance with the technological development stage of the era. Consequently, the term "arbitration" was initially defined in the context of technology-assisted ODR, a definition that has persisted to the present day. Nevertheless, the technologies currently employed in ODR not only function as the mechanism but can also influence the value judgment in dispute resolution, as evidenced by intelligent arbitration applications.¹⁵

Therefore, arbitration is more likely to be executed in the subsequent phase. This research defines "arbitration" as a procedure whereby parties may voluntarily present a disagreement to a designated governmental authority, chosen by or on behalf of the parties, to issue a binding resolution. The decision is rendered by an impartial process that encompasses due process and the consensus of the parties or the ruling of an arbitration panel,

¹⁴ Nita Triana, "Reconstructing Sharia Economic Dispute Resolution Based on Indonesian Muslim Society Culture," *Ijtima' Iyya Journal of Muslim Society Research* 2, no. 1 SE-Articles (March 31, 2017): 107–28, <https://doi.org/10.24090/ijtimaiyya.v2i1.1099>.

¹⁵ Magdalena Łągiewska, "New Technologies in International Arbitration: A Game-Changer in Dispute Resolution?," *International Journal for the Semiotics of Law - Revue Internationale de Sémiotique Juridique* 37, no. 3 (2024): 851–64, <https://doi.org/10.1007/s11196-023-10070-7>.

acknowledging that technology may influence value judgments under certain conditions. Additionally, we like to underscore that the arbitration process may include the gathering of information and a degree of automated processing.

B. Conceptual Framework of Arbitration

Arbitration is a widely utilized alternative dispute resolution mechanism, particularly in business and international trade disputes. Unlike litigation, which takes place in court, arbitration offers a more flexible, efficient, and often more advantageous approach for disputing parties. This article discusses the key characteristics of arbitration and the advantages that make it a preferred choice for dispute resolution.

1. Agreement-Based Process

A fundamental aspect of arbitration is that it is predicated on mutual consent. Parties to a dispute must consent to the resolution of their disputes through arbitration in advance. This can be achieved by either incorporating an arbitration clause into their contract or entering into an arbitration agreement after the dispute has arisen. This distinguishes arbitration from litigation, which is mandatory and does not necessitate the parties' assent. The arbitration agreement is the legal foundation of the arbitration process, establishing the seat of arbitration, the applicable language, the regulating law, and the selection of arbitrators.

2. Neutrality and Impartiality

Arbitration provides a higher degree of neutrality than litigation, especially in international disputes. The parties can select arbitrators who are considered impartial and possess expertise in the relevant legal and business domains. Additionally, the seat of arbitration can be chosen in a neutral jurisdiction, minimizing concerns about bias or legal disadvantages that may arise in national courts.

3. Confidentiality

One of the primary reasons arbitrations are preferred is their high level of confidentiality. Unlike court proceedings, which are typically open to the public, arbitration is usually private, and its outcomes are not publicly disclosed unless otherwise agreed upon by the parties. This confidentiality is crucial in cases involving sensitive business information, intellectual property, or commercial strategies that could affect a company's reputation.

and operations.

4. Procedural Flexibility

Arbitration allows the parties to tailor the procedural rules to fit the nature and complexity of their dispute. This includes selecting the applicable arbitration rules, setting submission deadlines, and determining the number and format of evidentiary presentations. This flexibility provides a significant advantage over litigation, which is typically constrained by rigid procedural rules dictated by national laws.

5. Finality and Binding Nature

Arbitration awards are generally final and binding, meaning that there is no appeal mechanism akin to that in traditional court systems. This feature ensures that disputes are resolved efficiently without prolonged legal battles. Although some jurisdictions permit limited challenges to arbitration awards, typically on grounds such as fraud, procedural unfairness, or arbitrator misconduct, the scope for such challenges is significantly narrower than in litigation.

6. Expertise of Arbitrators

Unlike judges in traditional courts, arbitrators are often chosen based on their expertise in the subject matter of the dispute. This is particularly advantageous in complex cases involving specialized fields such as construction, finance, intellectual property, and Islamic banking. The ability to appoint experts as arbitrators enhances the quality of decision-making in arbitration.

7. Cost and Time Efficiency

Arbitration is frequently perceived as a more cost-effective and time-efficient alternative to litigation. Arbitration procedures can be expedited per the parties' preferences, thereby avoiding procedural delays prevalent in court systems, whereas litigation may require years to be resolved. Nevertheless, arbitration costs may be higher than litigation in certain circumstances, particularly when specialized procedures are necessary or when arbitrators with extensive experience are appointed. However, the advantages of a quicker resolution frequently surpass the associated expenses.

8. International Enforceability

The simplicity of enforcing arbitration judgments internationally is one of the primary advantages of arbitration over litigation. The 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards guarantees that

arbitration awards are recognized and enforceable in more than 160 countries. This ensures legal certainty for parties involved in cross-border transactions, as arbitration decisions can be enforced globally with minimal additional legal proceedings.

9. Flexibility in Decision-Making

National legal procedures do not strictly bind arbitrators and may consider principles of fairness, industry practices, and business customs when rendering decisions. This flexibility allows for more innovative and commercially viable resolutions than litigation, often constrained by rigid legal rules.

10. Types of Arbitration

Arbitration can take various forms, including:

- a. **Ad Hoc Arbitration:** A process conducted without the involvement of an arbitration institution, thereby granting the parties greater autonomy in structuring the process.
- b. **Institutional Arbitration:** Managed by arbitration institutions such as the International Chamber of Commerce (ICC), the Singapore International Arbitration Centre (SIAC), or the Indonesian National Arbitration Board (BANI).
- c. **Domestic Arbitration:** Is restricted to disputes resolved within a single jurisdiction and governed by national laws.
- d. **International Arbitration:** This process frequently involves parties from various jurisdictions and is governed by international arbitration rules and legal frameworks.

Arbitration has emerged as a preferred dispute resolution mechanism in various fields, particularly business and international trade. Its key characteristics, procedural flexibility, confidentiality, neutrality, and the ease of international enforcement, make it a more attractive option than litigation. Despite specific challenges, such as potentially high costs in some cases and limited appeal mechanisms, the advantages of arbitration often outweigh its limitations. Consequently, arbitration remains an effective solution for resolving disputes efficiently, expediently, and fairly for businesses and entities engaged in international transactions.

C. The Interaction Between the UNCITRAL Model Law on E-Commerce and the 1958 New York Convention

The rapid expansion of e-commerce transactions in the current digital era has introduced new legal challenges, particularly in

dispute resolution. Arbitration has emerged as an effective dispute resolution mechanism in e-commerce due to its adaptability and efficacy. Two international legal instruments are crucial in this context: the 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards and the UNCITRAL Model Law on Electronic Commerce (MLEC). These two instruments facilitate the effective arbitration operation in e-commerce disputes across national borders.¹⁶

1. UNCITRAL Model Law on Electronic Commerce (MLEC)

UNCITRAL (United Nations Commission on International Trade Law) introduced the Model Law on Electronic Commerce (MLEC) in 1996 as a guide for countries to develop electronic transaction regulations. The main objective of MLEC is to provide a harmonized legal framework to support the growth of e-commerce and ensure the legal validity of digital transactions.¹⁷

MLEC is based on several fundamental principles, namely:

- a. Non-Discrimination: Electronic documents must be given equal legal recognition to paper documents.
- b. Technology Neutrality: Regulations must apply to various technologies without limiting certain innovations.
- c. Functional Equivalence: Electronic documents have the same legal validity as physical documents if they fulfill the same legal function.
- d. International Compatibility: Regulations must comply with international standards to ensure cross-country interoperability.

The principles of MLEC have been incorporated into the national laws of numerous countries. For instance, Indonesia has implemented numerous principles in Law Number 11 of 2008 on Electronic Information and Transactions (UU ITE). In the same vein, Taiwan has specific regulations that acknowledge the legitimacy of electronic transactions in its domestic law. MLEC establishes a legal foundation for online arbitration and digital transactions by ensuring the validity of

¹⁶ Dona Regina Napitupulu, "Crossing Border Transactions: Unraveling the Influence of E-Commerce on the Advancement of Transnational Business Law," *Transnational Business Law Journal* 4, no. 1 (2023): 49–65, <https://doi.org/10.23920/transbuslj.v4i2.1449>.

¹⁷ Henry D. Gabriel, "The United Nations Convention on the Use of Electronic Communications in International Contracts: An Overview and Analysis," *Uniform Law Review* 11, no. 2 (2006): 285–304, <https://doi.org/10.1093/ulr/11.2.285>.

electronic agreements and digital signatures. This is especially pertinent in e-commerce arbitration, where contracts and evidence are frequently electronic.

Although MLEC provides a strong legal framework, several challenges remain, such as:

- a. Differences in the level of adoption and interpretation across countries.
 - b. Legal uncertainty regarding electronic evidence in some jurisdictions.
 - c. Data protection and cybersecurity are needed in digital transactions.
2. New York Convention 1958 on the Recognition and Enforcement of Foreign Arbitral Awards

The New York Convention of 1958 is the principal international instrument governing the recognition and enforcement of foreign arbitral awards. The primary purpose of the convention is to ensure that arbitral awards made in one country can be recognized and enforced in another country using efficient and straightforward procedures.¹⁸

- a. Universal Recognition: Foreign arbitral awards must be recognized and enforced by member states without requiring a review of the substance of the dispute.
- b. Limitations on Rejection: Only under certain circumstances can a national court refuse recognition or enforcement of an arbitral award, such as:
 - 1) Inconsistency with national law or public policy.
 - 2) Invalidity of the arbitration agreement.
 - 3) The arbitration process is unfair or violates fundamental legal principles.
- c. Flexibility and Efficiency: The Convention allows for a more expeditious enforcement procedure than conventional litigation.

More than 170 countries, including Indonesia and Taiwan, have ratified the convention, meaning that international arbitration awards are enforceable in both jurisdictions. Indonesia implements the convention in Law Number 30 of 1999 concerning Arbitration and Alternative Dispute Resolution, while

¹⁸ Mohamad Fateh Labanieh, Mohammad Azam Hussain, and Nazli Mahdzir, "The Legal Capacity of International Conventions and Laws To Legalise E-Arbitration," *Journal of International Studies(Malaysia)* 17, no. 1 (2021): 211–37, <https://doi.org/10.32890/jis2021.17.9>.

Taiwan regulates international arbitration through the Arbitration Act. In the context of e-commerce, the 1958 New York Convention ensures that arbitration awards in digital disputes are enforceable in various countries without significant legal barriers.

Although the convention is very effective, several challenges still arise in its implementation, including:

- a. Differences in the interpretation of public policy between countries can hinder the implementation of arbitral awards.
- b. Lack of harmonization in national court procedures in enforcing arbitral awards.
- c. Challenges in proving the validity of electronic arbitration agreements in some jurisdictions.

3. Implications for Arbitration in E-Commerce

Both the MLEC and the 1958 New York Convention provide a strong legal foundation for arbitration in e-commerce:

- a. The MLEC ensures that electronic contracts and evidence have legal validity in e-commerce arbitration.
- b. The 1958 New York Convention ensures that arbitral awards are enforceable internationally, providing legal certainty for e-commerce players.

As technology advances, opportunities to improve digital arbitration expand:

- a. Using blockchain and smart contracts in digital arbitration can increase transparency and efficiency.
- b. The adoption of AI technology in dispute analysis can speed up the online arbitration process.
- c. International cooperation in harmonizing e-commerce regulations can reduce barriers to implementing cross-border arbitration.

The UNCITRAL Model Law on Electronic Commerce and the 1958 New York Convention are crucial in supporting the development of arbitration in e-commerce. The MLEC provides a legal basis for electronic transactions and online arbitration, while the 1958 New York Convention ensures that arbitral awards are enforceable globally. Despite the challenges in their implementation, technological advances and international regulatory harmonization can improve arbitration's effectiveness in resolving future e-commerce disputes. Therefore, collaboration between countries in adopting the principles of these two instruments is essential to create a legal environment

conducive to global digital trade.

D. E-Commerce Dispute Complexity Analysis

The accelerated evolution of the digital world results in the escalating complexity of e-commerce disputes. E-commerce provides various benefits for consumers and businesses; however, it also presents opportunities for disputes. The most frequent e-commerce disputes are those between consumers and vendors, which are typically associated with dissatisfaction with the quality of the products or services received, such as damaged goods or delayed delivery.^{19 20} It is also not uncommon for disputes between sellers in business transactions between companies, with the primary issues being the quality of products that fail to meet specifications, payment issues, or delivery issues. Furthermore, intellectual property rights (IPR) disputes, including copyright, trademark, and patent infringement, are prevalent in e-commerce, particularly when counterfeit products are advertised online. Personal data protection concerns are also becoming more commonplace due to the growing volume of consumer data collected in e-commerce transactions and the potential for its misuse.

The complexity of e-commerce disputes is influenced by several factors involved in digital transactions. One is the diversity of legal systems in force in various countries, which can add to the confusion regarding the jurisdiction and laws applied. In an international transaction, for example, a consumer in Indonesia buys goods from a seller in the United States. If a dispute arises, the applicable legal arrangements will differ between the two countries, requiring adjustments in the dispute resolution process.²¹ Another factor that makes e-commerce disputes increasingly complex is evolving technologies, such as artificial intelligence, blockchain, and

¹⁹ Habib Rasyidi Daulay, "Legal Reconstruction Settlement Of Sharia Capital Market Disputes: Strengthening Regulatory Aspects To Provide Legal Certainty," *International Journal Reglement & Society (IJRS)* 2, no. 3 (2021): 161–69, <https://doi.org/10.55357/ijrs.v2i3.145>.

²⁰ Abedi, Zeleznikow, and Bellucci, "Universal Standards for the Concept of Trust in Online Dispute Resolution Systems in E-Commerce Disputes."

²¹ Yun Zhao and Hui Chen, "Enhancing Access to Digital Justice: Digital Governance of Dispute Resolution and Dispute Prevention in Online Commercial Activities," *Journal of International Dispute Settlement* 15, no. 2 (June 2024): 273–304, <https://doi.org/10.1093/jnlids/idae001>.

digital payments. These new technologies create additional layers in transactions that are not necessarily regulated by existing laws, making dispute resolution difficult. In addition, differences in consumer protection standards between countries with strict regulations, such as the European Union with its GDPR, and countries with looser regulations add to the challenges in dispute resolution. The speed and efficiency of the dispute resolution process are also key issues, as the digital world moves very quickly. At the same time, many traditional legal systems cannot handle disputes promptly and efficiently enough.²²

E-commerce dispute resolution requires a mechanism that can address this complexity. One of the most used solutions is arbitration, which offers flexibility and time efficiency advantages and can avoid jurisdictional issues that often arise in international disputes. Arbitration allows the parties to choose the venue and rules that suit their needs, and, thanks to the 1958 New York Convention, arbitral awards can be enforced internationally.²³ In addition to arbitration, mediation is often used as a method of dispute resolution, especially in disputes involving consumers.²⁴ Mediation allows both parties to reach an agreement with the help of a neutral third party, which can speed up the settlement process without going through a lengthy court process. In addition, several countries have introduced electronic court systems allowing parties to resolve disputes online, making it easier to resolve disputes without appearing in a physical court.²⁵

Overall, e-commerce disputes are increasingly complex issues with the development of the digital world. The diversity of types of disputes, differences in regulations between countries, and new technological challenges create complexities in dispute resolution. Therefore, a flexible, efficient dispute resolution mechanism that

²² Ethan Katsh and Orna Rabinovich-Einy, "Online Dispute Resolution and Prevention: A Historical Overview," ed. Ethan Katsh and Orna Rabinovich-Einy, *Digital Justice: Technology and the Internet of Disputes* (Oxford University Press, May 2017), <https://doi.org/10.1093/acprof:oso/9780190464585.003.0002>.

²³ Jana Koehler, "Business Process Innovation with Artificial Intelligence: Levering Benefits and Controlling Operational Risks," *European Business & Management* 4, no. 2 (2018): 55, <https://doi.org/10.11648/j.ebm.20180402.12>.

²⁴ Neelam Chawla and Basanta Kumar, "E-Commerce and Consumer Protection in India: The Emerging Trend," *Journal of Business Ethics* 180, no. 2 (2022): 581–604, <https://doi.org/10.1007/s10551-021-04884-3>.

²⁵ Mosgan Situmorang, "Measuring The Effectiveness of Consumer Dispute Resolution on Small Value E-Commerce Transaction," *Jurnal Penelitian Hukum De Jure* 22, no. 4 (2022): 537, <https://doi.org/10.30641/dejure.2022.v22.537-550>.

can accommodate these challenges is urgently needed. Arbitration and mediation have emerged as practical solutions, as they offer a faster and cheaper way than traditional litigation and are more in line with the dynamics and speed of the increasingly evolving e-commerce world.²⁶

E. Institutional and Procedural Mechanisms in E-Commerce Arbitration

The rapid expansion of e-commerce has necessitated efficient dispute-resolution mechanisms that can address the unique challenges of online transactions. Arbitration, as an alternative dispute resolution (ADR) method, offers a streamlined and cost-effective approach to resolving commercial conflicts. However, the extent to which arbitration has adapted to e-commerce varies across jurisdictions. This paper explores the institutional and procedural mechanisms of e-commerce arbitration in Indonesia and Taiwan, highlighting the challenges and advancements in each country.²⁷

Indonesia's arbitration framework is primarily governed by Law No. 30 of 1999 on Arbitration and Alternative Dispute Resolution. The country's key arbitration institutions include the Indonesian National Board of Arbitration (BANI) and the Indonesian Sharia Arbitration Board (BASYARNAS), which handle conventional and Islamic commercial disputes. Despite these institutions' existence, Indonesia's arbitration framework faces several challenges adapting to the digital economy.²⁸

1. Limited Use of Technology: The arbitration proceedings in Indonesia remain primarily dependent on physical documentation and in-person hearings. While some progress has been made in allowing electronic submissions, there is no comprehensive online dispute resolution (ODR) system to facilitate fully virtual arbitration processes.
2. Legal and Regulatory Gaps: Indonesia lacks specific e-commerce

²⁶ E. P. Ermakova, "Features of Online Settlement of Consumer Disputes by E-Commerce Platforms in the People's Republic of China," *Journal of Digital Technologies and Law* 1, no. 3 (2023): 691–711, <https://doi.org/10.21202/jdtl.2023.30>.

²⁷ Ghazali and Ispriyarso, "Online Arbitration in E-Commerce Dispute Resolution During the Pandemic Covid-19."

²⁸ Vira Aprillia Santoso, "Legal Protection on E-Commerce Transactions: Problems and Challenges in Global Business," *Semarang State University Undergraduate Law and Society Review* 1, no. 2 (2021): 101–12, <https://doi.org/10.15294/lshr.v1i2.50552>.

arbitration regulations. The current arbitration law does not explicitly address digital transactions or provide guidelines for online arbitration proceedings. As a result, businesses and consumers involved in e-commerce disputes often resort to conventional litigation or negotiation methods.

3. **Enforcement Issues:** Enforcing arbitral awards in Indonesia can be challenging, particularly when dealing with cross-border e-commerce disputes. Indonesian courts have discretionary power in recognizing and enforcing foreign arbitral awards, which may create uncertainty for international businesses.

Taiwan, in contrast, has embraced technology to enhance arbitration efficiency, particularly in the e-commerce sector. The country's primary arbitration institution, the Chinese Arbitration Association (CAA), has developed a robust framework for handling digital disputes.²⁹

1. **Online Arbitration Platforms:** The CAA has integrated technology into arbitration proceedings by allowing electronic submissions, virtual hearings, and automated case management. These innovations make arbitration more accessible and cost-effective for e-commerce stakeholders, reducing the time and expenses associated with traditional arbitration.
2. **Legislative Support for E-Commerce Arbitration:** Taiwan's arbitration laws are more adaptive to the needs of the digital economy. The government has implemented regulations recognizing electronic contracts, digital signatures, and online dispute resolution mechanisms, ensuring that e-commerce arbitration operates within a clear legal framework.
3. **Recognition and Enforcement of Arbitral Awards:** Taiwan has a favorable legal environment for enforcing arbitral awards, including those from online arbitration. The country's courts generally uphold international arbitration agreements and awards, strengthening confidence in its e-commerce arbitration framework.

The comparative analysis between Indonesia and Taiwan reveals significant differences in their approaches to e-commerce arbitration. Taiwan has demonstrated a proactive stance by integrating technology into its arbitration system and establishing a

²⁹ Juan Matheus, "E-Arbitration: Digitization Of Business Dispute Resolution Pada Sektor E-Commerce Dalam Menyongsong Era Industri 4.0 Di Tengah Pandemi Covid-19," *Jurnal Lex Renaissance* 6, no. 4 (2021): 692–704, <https://doi.org/10.20885/jlr.vol6.iss4.art4>.

strong legal framework to support digital dispute resolution. This serves as a model for Indonesia, which can enhance its arbitration system by adopting similar strategies.³⁰

To improve e-commerce arbitration in Indonesia, several policy recommendations are proposed. First, Indonesia should develop an Online Dispute Resolution (ODR) system that facilitates digital arbitration through electronic submissions, virtual hearings, and automated case tracking. Second, legal reforms are necessary to explicitly address e-commerce disputes by recognizing electronic contracts and digital evidence as legally binding. Third, capacity-building initiatives should be introduced to train arbitrators with the skills to handle online arbitration cases effectively. Lastly, Indonesia should engage in international collaboration, particularly with Taiwan, to exchange best practices and strengthen its e-commerce arbitration framework. These measures would help Indonesia establish a more efficient and technologically advanced dispute resolution system.³¹

Therefore, E-commerce arbitration is essential for fostering trust and efficiency in online commercial transactions. While Indonesia has established arbitration institutions, its framework remains underdeveloped in the digital context. Conversely, Taiwan has successfully integrated technology into arbitration, setting a benchmark for other jurisdictions. By adopting technology-driven reforms, Indonesia can enhance its e-commerce arbitration system, ensuring a more effective dispute resolution mechanism for the digital economy.³²

F. E-Commerce Dispute Resolution in Indonesia and Taiwan

Dispute resolution in e-commerce is an increasingly crucial issue along with the rapid development of digital transactions, which

³⁰ Azab Alaziz Alhashemi, "An Analytical Look at the Importance of a Legal Organization for the International Electronic Commerce Arbitration Body: Comparative Study between a Draft Law on Arbitration in the UAE and the French and English Laws," *Journal of Law and Legal Reform* 3, no. 4 (2022): 481–520, <https://doi.org/10.15294/jllr.v3i4.60848>.

³¹ Xueer Chen and Chao Wang, "Online Arbitration of E-Commerce Disputes in the People's Republic of China: Due Process Concerns," *China and WTO Review* 8, no. 2 (2022): 227–54, <https://doi.org/10.14330/cwr.2022.8.2.01>.

³² Gunawan Widjaja, "Dispute Resolution in Islamic Economic Transactions: The Role and Function of Sharia Arbitration," *Journal of Islamic Economic Laws* 8, no. 1 (2025): 60–78, <https://doi.org/10.23917/jisel.v8i01.6340>.

not only involve consumers and business actors from one country but often involve international parties. Various countries have formulated regulations to address this issue, with Indonesia and Taiwan being two interesting examples to analyze. Both have different legal approaches regarding the substance of the regulations and their application in resolving e-commerce disputes. This discussion will review the two distinct legal systems, focusing on their advantages and disadvantages, and how each country responds to the challenges in the digital world.³³

Indonesia's Law No. 19 of 2016 on Electronic Information and Transactions (ITE) provides a relatively comprehensive legal framework for regulating electronic transactions.³⁴ This law was enacted to provide a clear legal basis for electronic transactions that are growing rapidly, including e-commerce. One of the main features of the ITE Law is its regulation of various aspects related to digital transactions, from buying and selling transactions to managing and protecting personal data. It also contains provisions regarding cybercrime, which is relevant considering the many perpetrators who use digital platforms to commit fraud, data theft, or other illegal activities.³⁵

The ITE Law also regulates the dispute resolution mechanism related to electronic information, which covers various disputes between users, service providers, and third parties. The main advantage of this regulation is that it provides legal certainty for all parties involved in electronic transactions. For example, this law stipulates that electronic transactions that meet specific requirements, such as authentication and valid electronic signatures, will be legally recognized. This assures consumers and business actors that digital transactions are legal and accountable.³⁶

³³ Winner Sitorus, "Hasanuddin Civil and Business Law Review Online Dispute Resolution: The Conceptualization of Business Dispute Resolution Model in Indonesia," *Hasanuddin Civil and Business Law Review* 1, no. 1 (2024): 2024.

³⁴ Alcapon Sidabutar, Risdalina Risdalina, and Indra Kumalasari M, "Proof Of Criminal Acts In The Field Of Information And Electronic Transactions Judging From Law Number. 19 Of 2016 Concerning Information And Electronic Transactions," *International Journal of Educational Research & Social Sciences* 5, no. 1 SE-Articles (February 2024): 12–17, <https://doi.org/10.51601/ijersc.v5i1.770>.

³⁵ A N Rohman, D Fitriana, and W R Aidy, "Economic Security and Sharia Fintech Regulation in Indonesia: A Portrait of Strengthening the Sharia Business Ecosystem," *Fiat Justisia: Jurnal Ilmu ...* 17, no. 3 (2023): 243–64, <https://doi.org/10.25041/fiatjustisia.v17no3.2919>.

³⁶ Nurul'Ain Mohd et al., "The Roles of Islamic Financial Technology (FINTECH) in Fostering Financial Inclusion in Malaysia," *Management and Accounting Review* 23, no. 1 (2024): 329–55, <https://doi.org/10.24191/mar.v23i01-11>.

However, despite the general legal certainty offered by the ITE Law, Indonesia lacks specific regulations on arbitration procedures tailored for e-commerce disputes. While general arbitration is governed by Law No. 30 of 1999 on Arbitration and Alternative Dispute Resolution, it does not address how arbitration should be conducted in digital transactions or international e-commerce.³⁷ The absence of procedural detail, such as the admissibility of electronic evidence, digital signatures, or the possibility of remote hearings, creates obstacles for effectively resolving disputes, especially those involving foreign parties. Indonesia's legal system also falls short in regulating cross-border e-commerce transactions and does not provide comprehensive guidance for digital dispute resolution mechanisms like Online Dispute Resolution (ODR).³⁸

In contrast, Taiwan has adopted a more technologically integrated and procedurally flexible approach. The Electronic Signatures Act (1999) provides a solid legal basis for recognizing the validity of digital transactions, enabling seamless e-commerce operations. Taiwan's legal infrastructure recognizes digital authentication, which simplifies verification and strengthens the enforceability of digital contracts.³⁹

Moreover, arbitration in Taiwan has evolved in line with technological progress. Although the Taiwan Arbitration Act does not explicitly regulate remote hearings, its provisions grant arbitral tribunals broad procedural discretion. Article 19 allows tribunals to apply the Civil Procedure Code where necessary or proceed as deemed appropriate. Article 21 authorizes tribunals to determine the place and date of hearings. This procedural flexibility has enabled video conferencing, digital platforms, and electronic document exchange throughout the arbitration process, from the appointment of arbitrators to the issuance of arbitral awards.

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³⁷ Istianah Zainal Asyiqn, "Islamic Economic Law in the Digital Age : Navigating Global Challenges and Legal Adaptations," *Media Juris* 8, no. 1 (2025): 95–112, <https://doi.org/10.20473/mi.v8i1.61800>.

³⁸ Ridho Pakina, "Electronic Information and Transactions Law and Business Development in Indonesia: Confrontational or Accommodative?," *Komitmen: Jurnal Ilmiah Manajemen* 4, no. 1 (2023): 234–42, <https://doi.org/10.15575/jim.v4i1.23996>.

³⁹ Asam Saud S Alsaiaf, "The Legal Frameworks That Govern Electronic Arbitration Processes And Its Role In Resolving International Trading Contracts Disputes," *International Journal of Political Science, Law and International Relations* 8, no. 2 (2018): 1–8, <https://doi.org/10.24247/ijpslirjun20181>.

tribunals broad procedural discretion.⁴⁰ Article 19 allows tribunals to apply the Civil Procedure Code where necessary or proceed as deemed appropriate. Article 21 authorizes tribunals to determine the place and date of hearings. This procedural flexibility has enabled video conferencing, digital platforms, and electronic document exchange throughout the arbitration process, from the appointment of arbitrators to the issuance of arbitral awards.⁴¹

The Judicial Yuan of Taiwan further supports this framework through the Regulations for Remote Hearings and Document Transmission in Civil Proceedings, which legally define and authorize remote hearings using technological equipment. Article 211-1 of the Taiwan Code of Civil Procedure permits audio-visual technology in civil proceedings, and Article 305 allows witness examinations via video. These provisions enable oral arguments, witness testimonies, and evidence presentation to occur in real time, ensuring that remote arbitration proceedings retain the essential elements of fairness, interactivity, and transparency.⁴²

In practice, Taiwan has implemented a technology-friendly arbitration environment. Case management conferences and procedural discussions are regularly conducted through video conferencing. Submissions are exchanged electronically, and final arbitral awards can be digitally signed and distributed. These practices became increasingly vital during the COVID-19 pandemic, when international mobility was restricted. Taiwan's arbitration system demonstrated resilience and adaptability by seamlessly transitioning to remote procedures without compromising legal integrity.⁴³

Despite these advancements, Taiwan also faces limitations mainly in regulating disputes involving parties from outside Taiwan. While domestic arbitration is well-supported, international e-commerce disputes still present challenges due to limited international recognition mechanisms and jurisdictional overlap. Therefore, Taiwan, like Indonesia, must continue evolving its legal

⁴⁰ Baker McKenzie, "Taiwan: Amendment to the Taiwan Electronic Signatures Act – A New Chapter for Digital Economy in Taiwan," 2024.

⁴¹ Maria Bhatti, "Managing Shariah Non-Compliance Risk via Islamic Dispute Resolution," *Journal of Risk and Financial Management* 13, no. 1 (2020), <https://doi.org/10.3390/jrfm13010002>.

⁴² Tsai & Partners Lee, "Post-Epidemic Era – Bottlenecks and Reflections on Taiwan's E-Chop System," 2022.

⁴³ A J Schmitz, "Building on OArb Attributes in Pursuit of Justice," in *Arbitration in the Digital Age: The Brave New World of Arbitration*, 2018, 182–208, <https://doi.org/10.1017/9781108283670.011>.

framework to meet the global nature of digital commerce.⁴⁴

G. Comparison of Arbitration in Indonesia and Taiwan

Arbitration serves as a procedural mechanism for dispute resolution that is increasingly relevant in e-commerce, where digital transactions often create complex legal issues. In e-commerce, substantial matters such as digital contracts and electronic signatures intersect with procedural aspects like arbitration, forming a new legal paradigm that did not previously exist.⁴⁵

In Indonesia, arbitration is governed by Law No. 30 of 1999 concerning Arbitration and Alternative Dispute Resolution. While this law provides a general framework, it lacks specific provisions to address disputes arising from digital transactions.⁴⁶ Critical aspects such as the legal standing of electronic signatures, the validity of electronic contracts, and the procedural use of digital evidence are insufficiently regulated. However, Indonesia has adopted Law No. 11 of 2008 jo. Law No. 19 of 2016 on Electronic Information and Transactions (ITE Law), which recognizes electronic documents and signatures, their integration within the arbitration process remains unclear. Moreover, the application of international arbitration mechanisms under the 1958 New York Convention is still uncertain in cross-border digital disputes.⁴⁷

In contrast, Taiwan has made significant strides in integrating technology into arbitration. The Electronic Signatures Act provides legal recognition to digital documents, enabling the acceptance of electronic contracts in arbitration. Although the Taiwan Arbitration Act does not explicitly regulate remote hearings, provisions in the Code of Civil Procedure and guidelines from the Judicial Yuan support remote proceedings.⁴⁸ These include video conferencing for

⁴⁴ Istianah Zainal Asyiqin, Manuel Beltrán Genovés, and Irvan Mareto, "The Role of Regulation in the Development of Sharia Fintech : A Review of Contemporary Islamic Economic Law," *Oikonomia Law Journal* 2, no. December (2024): 255–70, <https://doi.org/10.70177/solj.v2i4.1241>.

⁴⁵ Vania Shafira Yuniar and Florentiana Yuwono, "The Comparison Of Arbitration Dispute Resolution Process Between Indonesian National Arbitration Board (BANI) And London Court Of International Arbitration (LCIA)," *Journal of Private and Commercial Law* 6, no. 1 (2022): 77–99, <https://doi.org/10.15294/jpcl.v6i1.30265>.

⁴⁶ Soleh Hasan Wahid, "International Journal of Arts and Humanities Studies Formulation of a Risk-Based Online Dispute Resolution Model for E-Commerce in Indonesia: Legal Framework and Its Application," *International Journal of Arts and Humanities Studies* 3, no. 2 (2023), <https://doi.org/10.32996/bjahs>.

⁴⁷ Aceris Law, "Arbitration in Taiwan," 2023.

⁴⁸ Ju-Yeh Wan, "Arbitration Agreement in Taiwan Arbitration Regulations in a

hearings, online submission of documents, and even remote deliberation and signing of awards. Such practices became especially vital during the COVID-19 pandemic and remain widely adopted today.⁴⁹

Institutionally, Taiwan's arbitral bodies have embraced technological tools to facilitate e-commerce dispute resolution. Remote hearings, digital evidence submissions, and video-based arbitrator appointments are standard practice. These allow for real-time oral communication and interaction, fulfilling the essential elements of a fair hearing while reducing cost and time. Indonesia, however, has yet to develop similar institutional readiness and technological integration. Existing arbitral institutions do not offer specialized mechanisms for e-commerce and are limited in their use of digital tools.

The key distinction between Indonesia and Taiwan lies in their regulatory adaptability and technological preparedness. Taiwan demonstrates a forward-looking approach, aligning procedural innovations with the digital economy's needs. Indonesia must bridge regulatory and institutional gaps to improve its arbitration framework, particularly by legalizing and standardizing digital practices such as remote hearings and electronic evidence handling.

Taiwan's model shows that procedural innovation, supported by a robust legal framework, can significantly enhance arbitration's relevance in resolving e-commerce disputes. This provides a valuable reference for Indonesia to modernize its arbitration system, making it more compatible with the global digital trade environment.⁵⁰

TABLE 1. Comparison of Arbitration in E-Commerce Disputes: Indonesia and Taiwan

Aspect	Indonesia	Taiwan
Legal Basis for Arbitration	Law No. 30 of 1999 on Arbitration and Alternative Dispute Resolution	Taiwan Arbitration Act
Recognition of Electronic Contracts	Recognized under ITE Law (Law No. 11/2008 jo. Law No. 19/2016), but not fully	Fully recognized under the Electronic Signatures Act and applied in arbitration

Comparative Perspective," *Indonesian Comparative Law Review* 1, no. 1 (2018), <https://doi.org/10.18196/iclr.1102>.

⁴⁹ Asia Business Law Journal, "A Comparison of Developments in Dispute Resolution in Taiwan," 2020.

⁵⁰ Indah Suwarni and Agus Salim, "E-Commerce: Review of the Implementation of Sharia Business Transactions," *Al-Musyarakah: Jurnal Ekonomi Islam* 3, no. 1 SE-Articles (March 2023).

	integrated into arbitration law	practice
Use of Electronic Signatures	Legally valid under ITE Law, but rarely used in arbitration proceedings	Legally binding and widely used in arbitration, including in the signing of awards
Remote Hearings	Not explicitly regulated; implementation varies across arbitral institutions	Supported by judicial guidelines, widely adopted, especially post-COVID-19
Digital Evidence	Admissible under the ITE Law, but unclear procedural standards in arbitration	Accepted with clear procedural guidance and institutional support
Institutional Support for E-Commerce Arbitration	Limited; no specialized mechanisms for e-commerce disputes	Strong institutions support online submissions, video hearings, and e-commerce-specific procedures
Technological Integration	Minimal; lacks systematized digital arbitration processes	High; uses online platforms, video conferencing, and e-filing systems
Cross-Border Enforcement	Bound by the 1958 New York Convention, but faces procedural uncertainties for digital contracts	Also, a party to the New York Convention, digital contracts and awards are more seamlessly enforced
Policy Approach	Reactive; slow adaptation to digital trends	Proactive; regulatory and institutional framework aligns with digital economy trends

H. The Impact of Legal Differences on Cross-Border E-Commerce Dispute Resolution

Legal differences between countries involved in cross-border e-commerce transactions can significantly impact the efficiency and effectiveness of dispute resolution. In the ever-growing world of e-commerce, various transactions involve parties from multiple countries, each with a different legal system. These differences cover various aspects, from consumer protection and digital transaction regulations to dispute resolution mechanisms.⁵¹ The disharmony of laws in various countries often creates obstacles in recognizing and enforcing arbitration decisions or international court decisions related to e-commerce disputes. As a result, disputes that arise in cross-border transactions can take longer, cost more, and create legal uncertainty for the parties involved.⁵²

⁵¹ Yordan Gunawan and Yovi Cajapa Endyka, "The Protection of Small and Medium Enterprises in Yogyakarta: The Challenges of ASEAN Economic Community," *Pertanika J. Soc. Sci. & Hum* 25, no. 2017 (2017): 199–206.

⁵² Istianah ZA et al., "Freedom of Contract and Judicial Intervention: Does the Court

One major challenge is the difference in the recognition and acceptance of digital evidence. In some countries, digital evidence such as emails, transaction data, or evidence from e-commerce platforms can be accepted as valid evidence in court or arbitration. However, in other countries, the applicable rules may only partially accommodate such digital evidence, which affects the dispute-resolution process.⁵³ In addition, electronic signatures are essential in determining the smoothness of digital transactions and arbitration processes. Countries still needing clear regulations regarding electronic signatures may face difficulties handling disputes involving digital transactions. This makes dispute resolution more complex and confusing, especially for e-commerce players operating in many countries with different regulations.⁵⁴

These differences in law certainly impact uncertainty for e-commerce players involved in cross-border transactions. They must be prepared to face different legal procedures, including the possibility of having to undergo court or arbitration processes in countries with very different regulations from where the transaction originated. This can result in high costs and a long time to resolve disputes. For example, if a dispute arises between parties in Indonesia and Taiwan, differences in arbitration regulations between the two countries, the recognition of digital evidence, and the implementation of international arbitration decisions can complicate dispute resolution efforts. This process will involve many complicated legal procedures, extending the time to resolve the dispute and increasing uncertainty for all parties involved.⁵⁵

Furthermore, countries with higher levels of technology integration, such as Taiwan, have better systems to handle e-commerce disputes. Taiwan, for example, has adopted more digitally friendly regulations, such as using electronic signatures in arbitration procedures. This simplifies and speeds up resolving

Have the Right?," *Revista Opinião Jurídica (Fortaleza)* 21, no. 36 (2023): 205, <https://doi.org/10.12662/2447-6641oj.v21i36.p205-221.2023>.

⁵³ Evi Eka Elvia et al., "Basyarnas As a Place for Dispute Resolution of Musyarakah Financing in Sharia Banking in the Disruption Era," *El-Mashlahah* 13, no. 1 (2023): 39–56, <https://doi.org/10.23971/el-mashlahah.v13i1.5345>.

⁵⁴ Havis Aravik and Ahmad Tohir, "Education on the Risks of Usury, Gharar, and Maysir in E-Commerce Business," *SELAPARANG: Jurnal Pengabdian Masyarakat Berkemajuan* 7, no. 3 (2023): 2219, <https://doi.org/10.31764/jpmb.v7i3.20056>.

⁵⁵ Amirizal Bustamin, Arini Azka Muthia, and Sonia Ivana Barus, "The Protection of Spiritual Rights in the Sharia Banking Dispute Settlement: Overview of the Sharia Banking Law in Indonesia," *PADJADJARAN Journal of Law* 9, no. 3 (2022): 388–407, <https://doi.org/10.22304/pjih.v9n3.a>.

disputes involving digital evidence and electronic transactions. In contrast, countries that are newer to adopting technology, such as Indonesia, still face significant challenges in integrating technology into their legal procedures. Although Indonesia has the ITE Law that provides a legal basis for electronic transactions, the lack of clarity in regulations related to digital arbitration and the recognition of electronic evidence remains a major obstacle in resolving e-commerce disputes.

These findings imply the need for closer regional cooperation to address existing legal differences. Countries involved in cross-border e-commerce transactions need to collaborate to develop more harmonized regulations, considering important aspects in resolving e-commerce disputes, such as recognizing digital evidence and using electronic signatures. One step that can be taken is to adopt globally recognized international standards in e-commerce dispute resolution, which allows for recognizing arbitration awards or court decisions in other countries. In this way, countries involved in cross-border e-commerce can resolve disputes more efficiently, reduce costs associated with legal processes, and provide legal certainty for e-commerce players.

Regional cooperation in regulatory harmonization and adoption of best practices is also vital to create a more favorable legal environment for e-commerce players in the region.⁵⁶ Countries that are more advanced in regulation and use of digital technology, such as Taiwan, can share experiences with newer or still developing countries, such as Indonesia. This can accelerate technology adoption in e-commerce dispute resolution and increase e-commerce players' trust in the existing legal system. For example, Taiwan, which already uses electronic signatures in arbitration processes, can teach other countries to implement similar regulations, reducing obstacles in the dispute resolution process and speeding up case resolution.⁵⁷

In addition, it is also vital to build an online arbitration platform that can handle cross-border e-commerce disputes more efficiently. This platform will facilitate dispute resolution, especially for countries with different legal regulations and procedures. Online

⁵⁶ Sergio Puig, "International Indigenous Economic Law," *UC Davis Law Review* 52, no. 3 (2019): 1243–1316.

⁵⁷ Rahmadi Indra Tektana and Ayudya Rizqi Rachmawati, "The Arrangements of Online Dispute Resolution as an Alternative Resolution of the Electronic Commerce Transactions in Indonesia," *Jurnal Undang-Undang Dan Masyarakat* 2020, no. 27 (2020): 76–82, <https://doi.org/10.17576/juum-2020-27-08>.

arbitration platforms can reduce geographical barriers, speed up the arbitration process, and reduce costs associated with dispute resolution. Cooperation between countries in developing this platform can also increase accessibility for parties involved in e-commerce disputes, considering that not all countries have the same access to adequate legal and arbitration facilities.

I. Redefining Justice: Digital Ethics in the Realm of E-Commerce Arbitration

The impact of digital justice on the fairness and efficiency of e-commerce arbitration is becoming increasingly relevant in the context of global digital trade. As online transactions accelerate across borders, the complexity of resolving disputes within the e-commerce domain requires mechanisms that are not only technologically responsive but also legally sound.⁵⁸ Digital justice, which refers to integrating technology to ensure accessibility, transparency, and procedural fairness in legal processes, plays a pivotal role in transforming arbitration into a more viable option for resolving e-commerce disputes. Arbitration, traditionally seen as a confidential, flexible, and enforceable form of dispute resolution, has undergone a significant evolution as it adapts to the digital economy's demands. It must account for the unique attributes of electronic contracts, digital signatures, and virtual hearings to maintain fairness and efficiency.⁵⁹

The comparative experience of Indonesia and Taiwan offers valuable insight into how different jurisdictions incorporate digital justice into their arbitration frameworks. Taiwan has advanced rapidly, adopting a comprehensive and pragmatic approach to integrating technology into its legal and arbitration procedures. Supported by laws such as the Electronic Signatures Act, Taiwan has provided a solid legal foundation for recognizing electronic transactions and ensuring their enforceability in arbitration. Procedural flexibility embedded in Taiwan's Arbitration Act and the Code of Civil Procedure enables arbitral tribunals to conduct virtual hearings, accept digital evidence, and make procedural adaptations

⁵⁸ B I Bashilov, "Arbitration Proceedings in the Conditions of Development of Digital Technologies," in *Lecture Notes in Networks and Systems*, vol. 372, 2022, 659–66, https://doi.org/10.1007/978-3-030-93155-1_71.

⁵⁹ J Zheng, "The Recent Development of Online Arbitration Rules in China," *Information and Communications Technology Law* 26, no. 2 (2017): 135–45, <https://doi.org/10.1080/13600834.2017.1319113>.

to accommodate online dispute resolution. These regulatory and institutional advancements reflect Taiwan's commitment to fostering fairness by maintaining due process and ensuring access to justice, even within digital environments.⁶⁰

In this regard, efficiency is significantly enhanced through online arbitration platforms, video conferencing tools, and electronic document exchange systems. Arbitrations that might have once required physical appearances and extensive paperwork can now be conducted swiftly and remotely, reducing both time and costs for the disputing parties. Particularly during the COVID-19 pandemic, Taiwan's ability to seamlessly transition to remote arbitration processes without compromising procedural integrity demonstrates the transformative potential of digital justice. It ensures that justice delivery mechanisms remain functional, inclusive, and reliable even in times of crisis.⁶¹

In contrast, Indonesia's arbitration framework remains rooted mainly in traditional procedures. Although Indonesia's Law No. 19 of 2016 on Electronic Information and Transactions (ITE Law) recognizes electronic documents and signatures, its integration into arbitration proceedings is limited. Law No. 30 of 1999 on Arbitration and Alternative Dispute Resolution generally governs arbitration but lacks specific provisions tailored for digital or cross-border e-commerce disputes. The absence of detailed rules governing the admissibility of electronic evidence, conduct of remote hearings, and recognition of online arbitral procedures impedes the country's ability to provide efficient dispute resolution in the e-commerce sector. As a result, businesses operating in Indonesia face uncertainty when engaging in international digital transactions, which often leads to reliance on litigation or alternative methods lacking enforceability across borders.

The principle of fairness, which underpins any effective dispute resolution system, is also challenged when legal frameworks are not adequately equipped to handle digital realities.⁶² In Indonesia, arbitration institutions such as BANI and BASYARNAS have not yet

⁶⁰ E A R Dahiyat, "A Legal Framework for Online Commercial Arbitration in UAE: New Fabric but Old Style!," *Information and Communications Technology Law* 26, no. 3 (2017): 272–92, <https://doi.org/10.1080/13600834.2017.1374055>.

⁶¹ P N Reiss, "Into the Future With Eyes Wide Open: International Arbitration in the Digital Age," *Arbitration* 88, no. 4 (2022): 579–94.

⁶² Hariyanto Hariyanto et al., "Democratization of Village Autonomy in the Construction of Indonesian Administrative Law: Is It Possible?," *Jurnal Media Hukum* 32, no. 2 SE-Articles (July 11, 2025): 190–209, <https://doi.org/10.18196/jmh.v32i2.25216>.

implemented standardized mechanisms for conducting online hearings or managing digital submissions. This leads to inconsistencies in practice and may compromise procedural fairness if parties are not provided equal opportunities to present and defend their claims in a virtual environment. In Taiwan, however, fairness is preserved through institutional mechanisms such as the Judicial Yuan's regulations on remote hearings and digital submissions, ensuring that the core elements of a fair hearing interactivity, impartiality, and transparency are maintained.

From an international law perspective, Indonesia and Taiwan are parties to the 1958 New York Convention, which provides for the recognition and enforcement of foreign arbitral awards. This instrument is crucial in e-commerce, where disputes often involve parties from multiple jurisdictions. In theory, it ensures that arbitral awards issued in one country can be enforced in another, enhancing the utility and reliability of arbitration as a dispute resolution tool. However, practical challenges remain, especially in Indonesia, where courts retain discretionary power in recognizing foreign arbitral awards. Without clear procedural guidelines for digital evidence or e-contracts, arbitral awards arising from online disputes may face obstacles during enforcement.

Moreover, the UNCITRAL Model Law on Electronic Commerce (MLEC), which promotes legal recognition of digital documents and technological neutrality, provides a framework for integrating digital practices into national legal systems. Taiwan's adoption of MLEC principles has helped establish its digital justice infrastructure, enabling smooth recognition of electronic contracts and digital arbitration procedures. Indonesia, although having adopted some MLEC principles through the ITE Law, still lacks consistency in implementing these principles within the arbitration domain. The delay in aligning national regulations with international standards hinders creating a fully functional digital arbitration system in Indonesia.

The increasing complexity of e-commerce disputes also highlights the need for efficient and fair mechanisms. Disputes now range from defective goods and delivery delays to intellectual property violations and data breaches. These involve multiple jurisdictions and require rapid resolution to prevent reputational and financial losses. If digitally enabled and legally recognized, arbitration offers a practical solution to such disputes. It avoids jurisdictional conflicts, preserves confidentiality, and provides

finality through enforceable awards. However, its effectiveness is severely limited without the support of digital justice frameworks.

In conclusion, digital justice significantly impacts the fairness and efficiency of e-commerce arbitration. Taiwan's experience illustrates how legislative foresight, procedural flexibility, and technological integration can create a fair and efficient arbitration system. Using digital tools does not merely accelerate the process but ensures that due process is upheld in a technologically evolving legal environment. Despite having foundational regulations, Indonesia must take proactive steps to modernize its arbitration system. This includes reforming existing laws to explicitly accommodate digital procedures, enhancing institutional capacity, and adopting international best practices to improve cross-border enforceability. Integrating digital justice into arbitration is not simply an innovation it is necessary to maintain legal relevance and competitiveness in the global digital economy.

Conclusion

The comparison between Indonesia and Taiwan demonstrates that arbitration, originally a purely procedural mechanism, and e-commerce, primarily a substantive issue, have developed a point of intersection due to the rise of digital transactions and electronic evidence. Taiwan has responded more swiftly to this convergence by integrating electronic signature laws, permitting digital documents, and adopting remote hearings within its arbitration and civil procedure frameworks. This allows for a seamless resolution of e-commerce disputes involving international parties and complex cross-border transactions. While having a basic legal infrastructure in place through Law No. 30 of 1999 and the ITE Law, Indonesia still lacks specific regulatory provisions addressing digital arbitration's procedural nuances. The current framework does not adequately cover key components such as electronic signatures in arbitration, use of digital evidence, or provisions for remote hearings, resulting in legal uncertainty, especially in international e-commerce contexts. Meanwhile, Taiwan's experience reflects how flexibility in procedure and legal clarity on electronic transactions can enable arbitration to remain fair and technologically responsive. Using video conferencing, remote submission platforms, and the ability to legally recognize digital documentation ensures efficiency without compromising due process or legal integrity. Thus, to strengthen its arbitration system, especially for handling e-commerce disputes,

Indonesia must move beyond general provisions and adopt a more technology-friendly and harmonized legal approach. Taiwan's practice offers a viable model: balancing legal certainty with procedural flexibility and embedding technology into the dispute resolution process. Such harmonization will enhance the effectiveness of arbitration in Indonesia and improve the country's competitiveness in the global digital economy.

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