

INTERNATIONAL JOURNAL OF LAW
MANAGEMENT & HUMANITIES
[ISSN 2581-5369]

Volume 8 | Issue 4
2025

© 2025 International Journal of Law Management & Humanities

Follow this and additional works at: <https://www.ijlmh.com/>

Under the aegis of VidhiAagaz – Inking Your Brain (<https://www.vidhiaagaz.com/>)

This article is brought to you for free and open access by the International Journal of Law Management & Humanities at VidhiAagaz. It has been accepted for inclusion in the International Journal of Law Management & Humanities after due review.

In case of any suggestions or complaints, kindly contact support@vidhiaagaz.com.

To submit your Manuscript for Publication in the International Journal of Law Management & Humanities, kindly email your Manuscript to submission@ijlmh.com.

Tech Meets Trade: International Arbitration in the Era of Fintech and Cryptocurrencies

SHAILAJA ANIL PANDEY¹ AND BRIDHIMA AJAY SINHA²

ABSTRACT

In a time marked by the rapid advancement of financial technologies and digital assets, international arbitration is becoming an essential tool for addressing complex cross-border disputes. This research paper talks about the intersection of FinTech, cryptocurrencies, and international commercial arbitration, highlighting the challenges and opportunities that arise from decentralized technologies such as smart contracts, blockchain platforms, and digital currencies. It recognizes the diverse legal disputes present in this ecosystem spanning contractual failures, data breaches, investor conflicts, and regulatory ambiguities and evaluates how arbitration provides a flexible, confidential, and enforceable framework that is well-suited to the ever-changing landscape of digital finance.

The study further explores the evolution of traditional arbitration frameworks through institutional reforms, including the implementation of Digital Dispute Resolution Rules (DDRR), JAMS Smart Contract Arbitration Guidelines, and the Blockchain Expedited Arbitration Rules by LCAM. Additionally, the paper addresses significant concerns regarding arbitrability, jurisdiction, and enforceability, particularly in decentralized and pseudonymous transaction contexts. It emphasizes the difficulties associated with cross-border enforcement, the public policy exception, and the technological challenges in tracing and recovering crypto-assets. By drawing on pivotal case laws, model arbitration laws, and comparative jurisdictional perspectives, the paper highlights the strategic importance of well-crafted arbitration clauses, hybrid enforcement models, and arbitrators with technological expertise. Ultimately, it contends that international arbitration, with its intrinsic flexibility and global enforceability, is uniquely positioned to maintain legal certainty and commercial trust in the era of FinTech and cryptocurrency.

Keywords: *Fintech, Cryptocurrency, International Commercial Arbitration, Dispute, blockchain*

I. INTRODUCTION

In today's rapidly evolving digital world, having knowledge of fintech and cryptocurrencies is

¹ Author is a Student at University of Mumbai Law Academy, University of Mumbai, India.

² Author is a Student at University of Mumbai Law Academy, University of Mumbai, India.

no longer optional. It is crucial for the future of finance, law, and trade. These innovations are just not limited to technological trends; instead, they represent a paradigm shift in delivering, accessing and regulating services across the globe.

Fintech, which is nothing but a fusion of finance and technology, encompasses digital tools and applications designed to simplify financial activities such as saving, spending, investing, and borrowing for both individuals and businesses. Despite this growing relevance, there remains a degree of ambiguity among the general public and even among professionals regarding the distinction between **fintech** and **cryptocurrencies**. It is important to clarify that cryptocurrencies are not separate from fintech; rather, they constitute a specialised subset within the broader fintech ecosystem. Take a recent example from 2025: PayPal joined hands with Coinbase to let users buy, sell, and transact using PayPal's own USD-backed stablecoin, PYUSD, directly on the Coinbase platform and without any fees. This isn't just tech hype; it's a powerful sign of how digital currency is no longer on the fringes but at the heart of how financial technology is evolving in real time.³

Fintech typically refers to the use of technology to improve, automate, and innovate financial services and infrastructure. This includes, but is not limited to, digital banking, mobile payments, robo-advisory services, peer-to-peer lending platforms, insurtech (insurance technology), regtech (regulatory technology), and blockchain-based innovations such as cryptocurrencies.

Cryptocurrency is a type of digital currency that functions autonomously from central banks or government regulation, employing blockchain technology to securely record transactions. This digital cash facilitates rapid, global financial exchanges and investments, exemplified by currencies such as Bitcoin and Ethereum. A decentralised network of computers upholds a shared, tamper-proof digital ledger, fostering trust and transparency among users. The use of cryptographic techniques ensures that transactions are secure and irreversible, making cryptocurrencies suitable for trading, investing, and decentralised finance (DeFi) applications.

A notable milestone in the intersection of finance and technology occurred in 2014 when Microsoft began accepting Bitcoin as a mode of payment for its Xbox services. This move, by one of the world's leading technology corporations, significantly boosted the profile and legitimacy of cryptocurrencies, signalling a shift in how mainstream entities perceived digital currencies.⁴ It also served as a catalyst for wider public interest and commercial adoption of

³ Coinbase, PYUSD: Stablecoin from PayPal Now Available on Coinbase, Coinbase Blog (Apr 24, 2025), <https://www.coinbase.com/en-in/blog/coinbase-and-paypal-to-advance-stablecoin-payments>.

⁴ CNN Business, Microsoft Accepts Bitcoin for Xbox Content, CNN (Dec. 11, 2014), [Microsoft begins accepting](#)

blockchain-based payment solutions.

II. UNDERSTANDING THE DISPUTES IN THE LEGAL RESOLUTION OF FINTECH AND CRYPTOCURRENCY DISPUTES

This section provides an overview of the fundamental legal disputes that have emerged in the rapidly evolving fields of fintech and cryptocurrency. This field has transformed globally, like smart contracts, decentralised exchanges, and tokenized assets; they simultaneously reveal significant limitations in legal frameworks. Jurisdictions worldwide are facing problems in defining, regulating, and addressing the changing landscape of decentralised finance and digital currencies as they grapple with fragmented regulations, outdated laws, and the challenges of governing borderless, pseudonymous transactions. The lack of unified standards, the anonymity of the participants, and the transnational aspect of transactions all contribute to legal uncertainty. Individuals and entities often find themselves stuck in a wide range of disputes, each reflecting the unique issues posed by a decentralised system.

One of the most common disputes in the blockchain and cryptocurrency space is a **contractual dispute** which arises when one of the parties fails to meet the requirement of the contract or there is a disagreement regarding the clauses of the contract. In a scenario when two parties enter into a smart contract for a delivery of a blockchain-based application. The contract is self-executing and embedded on a blockchain. However, due to an occurrence of a coding error, the payment is released automatically despite the service being incomplete. This incident illustrated a contractual dispute, not over intention but over the precise language of code. Disputes can also emerge from service contracts between users and cryptocurrency exchanges or wallets, particularly when users incur losses as a result of technical malfunctions, system downtimes, or account suspensions.

The worldwide crypto exchanges are continually confronted with **regulatory and jurisdictional disputes**. Due to the cross-border nature of cryptocurrencies, it is often ambiguous which country's laws are applicable. The core issue here lies in which laws should be applied during dispute resolution – especially when transactions cross multiple borders in just one click. One nation may deem a transaction legal, while another may classify it as an illegal activity. A platform based in one country might be entirely compliant with local legislation yet inadvertently violate foreign laws, especially concerning Know Your Customer (KYC) and Anti-Money Laundering (AML) standards. In these circumstances, regulators may

Bitcoin.

levy penalties.

The cryptocurrency sector has experienced a significant number of **fraud, misrepresentation and scam** disputes due to its structure. Fraudulent activities consist of fake Initial Coin Offerings (ICOs), where companies solicit investments and then vanish, as well as platforms that entice investors with promises of unsustainable returns. Misrepresentation happens when users are misinformed about a token's value or purpose. Scams such as Ponzi schemes, pump-and-dump schemes, or rug pulls (where developers abandon a project after securing funds), which result in significant financial losses. Victims face complications in seeking legal action due to the pseudonymous nature of blockchain, which makes hindrances in the process of tracing or prosecuting the offenders.

Intellectual property disputes are also increasing prominently. This type of dispute emerges when there is a conflict regarding the ownership or utilisation of technology, code, or designs associated with blockchain initiatives since a significant number of blockchain projects are collaborative in nature, depending on open-source code. Ambiguity can occur concerning who genuinely possesses the rights to a specific innovation. Conflict may also arise if one entity employs another's blockchain algorithm or design without authorisation or if there are breaches of software licences.

Data privacy and cybersecurity are significant concerns in the digital landscape, particularly within blockchain and fintech systems. When a cryptocurrency platform experiences a data breach resulting in the leakage or theft of users' information, those affected may pursue legal action against the platform for not adequately safeguarding their data. The complexity of the situation increases when international data protection regulations, such as the European Union's General Data Protection Regulation (GDPR),⁵ come into play. Given that blockchains are fundamentally transparent, it possesses an additional dilemma: how to safeguard personal data when all transactions are publicly recorded on the blockchain.

Payment and transactional disputes occur when cryptocurrency transactions fail to execute, are delayed, or do not reach the intended recipient. These disputes are not easily resolved, especially since blockchains are irreversible. Additionally, disputes can arise when users of cryptocurrency platforms do not receive the goods or services they anticipated or when refund policies are vague or absent.

In the realm of decentralised startups, the concerns regarding **investors and governance disputes** are prominently increasing. Blockchain startups typically secure funding from

⁵ General Data Protection Regulation, art. 5, 2016 O.J. (L 119) 1 (EU).

investors via token sales or alternative methods. Disputes may emerge if investors perceive mismanagement, improper use of funds, or a failure to achieve project milestones. Additionally, conflicts may arise within blockchain companies or Decentralised Autonomous Organisations (DAOs) when disagreements occur regarding protocol modifications, token-holder voting rights, or financial decisions. Given that DAOs are operated by token holders and governed through smart contracts, conflicts can arise concerning voting rights, protocol changes, or financial decisions.

Ownership disputes in the cryptocurrency space are frequent, especially when individuals lose access to their digital assets due to forgotten passwords or misplaced private keys. In the absence of a central authority to assist in recovering such assets, the legitimate owner may be required to demonstrate ownership through alternative methods, which can be quite complex. Additionally, disputes may surface between joint account holders or with custodians concerning access to funds. In cases where assets are stolen during a hack, the victim may attempt to recover them; however, the anonymity and decentralisation inherent in blockchain technology can complicate the recovery process.

As governments globally endeavour to regulate cryptocurrency transactions, **taxation and financial reporting disputes** have emerged as a significant concern. In the absence of clear international standards, individuals and businesses frequently encounter uncertainty regarding the reporting and payment of taxes on crypto-related profits. For instance, one party may believe that their gains are exempt from taxation, while the tax authority contends that they must be reported as income or capital gains. Disputes can arise between taxpayers and authorities, or even among business partners and auditors, regarding the appropriate classification and treatment of digital assets.

III. WHAT MAKES INTERNATIONAL ARBITRATION AN APPROPRIATE MECHANISM FOR RESOLVING FINTECH AND CRYPTOCURRENCY DISPUTES?

As fintech and cryptocurrency systems continue to expand globally, it is difficult to bring the related disputes within national courts' boundaries. It becomes difficult for national courts to resolve the disputes arising out of fintech and cryptocurrencies as they occur between pseudonymous parties, across decentralized platforms, and in jurisdictions that often lack clear regulatory guidance. It is where international arbitration offers its unique solution and adaptive nature. Arbitration, a vital mechanism for resolving disputes, enables parties to settle conflicts privately, bypassing the often cumbersome and public nature of Court litigation. Through a voluntary agreement, disputing parties entrust their case to arbitrators -

neutral professionals who deliver a conclusive ruling, termed an “award,” which holds the same enforceability as a judicial decree⁶. These features are not merely procedural advantages; they truly reflect the essence of what the fintech ecosystem demands: speed, technical acumen, and global enforceability. **When innovation meets adjudication**, arbitration stands out as a legal process capable of evolving alongside the technologies it seeks to govern, making it particularly well-suited for resolving disputes in the digital financial frontier. One of the key benefits of arbitration in this scenario is its neutrality and the autonomy it grants to the parties involved. FinTech firms and blockchain platforms often engage with users, investors, and counterparties from various countries.

Arbitration is especially important in sectors where legal clarity is still evolving and where rapid innovation leads to ongoing legal ambiguities. One of the fundamental reasons for choosing arbitration is its worldwide enforceability. Arbitral awards can be enforced in over **170 nations under the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards (1958)**⁷. Similarly, arbitral awards rendered under the **International Centre for Settlement of Investment Disputes (ICSID) Convention (1965)** can be enforced in over 165 member⁸ countries, where each state is obligated to treat the award as if it were a final judgment of its own courts. This characteristic makes arbitration particularly suitable for disputes involving digital assets, where one party might be located in Europe, another in Asia, and the blockchain system operates through nodes around the globe. In contrast to court judgments, which may not be easily enforceable in other jurisdictions, arbitration guarantees that a ruling made in one country can be executed in another with minimal obstacles.

Confidentiality serves as a vital advantage of arbitration, particularly within the digital finance industry. Companies in FinTech and cryptocurrency frequently handle proprietary technologies, sensitive transaction data, and intellectual property. Public litigation could potentially expose these elements to competitors or the media, resulting in reputational harm or market instability. In contrast, arbitration proceedings are usually held in private. This confidentiality enables parties to resolve their disputes without risking investor trust or token value, crucial in a sector where public perception significantly influences financial outcomes.

Furthermore, arbitration offers a degree of technical expertise and procedural flexibility that

⁶ UNCITRAL Model Law on International Commercial Arbitration, art. 7, U.N. Doc. A/40/17 (June 21, 1985), UNCITRAL Model Law on International Commercial Arbitration 1985, With amendments as adopted in 2006.

⁷ Convention on the Recognition and Enforcement of Foreign Arbitral Awards, June 10, 1958, 330 U.N.T.S. 3.

⁸ Convention on the Settlement of Investment Disputes Between States and Nationals of Other States, Mar. 18, 1965, 575 U.N.T.S. 159.

corresponds with the rapid developments in FinTech. Organizations like the International Chamber of Commerce (ICC)⁹, Singapore International Arbitration Centre (SIAC),¹⁰ Hong Kong International Arbitration Centre (HKIAC)¹¹, and World Intellectual Property Organization (WIPO)¹² have modified their regulations to address disputes related to smart contracts, NFTs, and digital wallets. Participants can accelerate proceedings, seek emergency relief, or hold hearings online. New frameworks such as the **Digital Dispute Resolution Rules (DDRR)** even facilitate arbitration methods that directly engage with blockchain contracts, allowing for execution pauses or **escrow-like enforcement** while awaiting arbitration results. This agility in response to technological advancements distinguishes arbitration from the traditionally inflexible processes of court systems.¹³

International arbitration is particularly well-equipped to handle disputes that arise from **smart contracts** and code-based agreements. Although smart contracts facilitate automatic transaction execution, they are unable to address ambiguities, unforeseen circumstances, or the intentions of the involved parties. Arbitration acts as a legal safeguard in instances where these digital agreements fall short, enabling human arbitrators to interpret the terms, evaluate fairness, and impose remedies that cannot be provided by code alone. More and more, developers are embedding arbitration clauses into the **off-chain elements of smart contracts** or even directly referencing arbitration within the code, thus creating a hybrid model that combines automated execution with legal oversight.

IV. PROCEDURE OF ARBITRATION IN FINTECH AND CRYPTOCURRENCY DISPUTE

National courts frequently face limitations due to jurisdictional challenges and a lack of technical expertise, which leads to difficulties in effectively managing the dynamic and decentralised characteristics of disputes related to fintech and cryptocurrencies. In these situations, parties require control over procedural regulations and the ability to customize proceedings to the specific intricacies of digital assets. This flexibility is provided by arbitration across borders, which also permits parties to select their preferred arbitrator.

A) Pre-arbitral Phase

1. **Arbitration Agreement:** A valid arbitration agreement is a cornerstone for any arbitr-

⁹ Int'l Chamber of Com., *ICC Arbitration Rules* (2021), 2021 Arbitration Rules - ICC - International Chamber of Commerce.

¹⁰ Singapore Int'l Arb. Ctr., *SIAC Rules* (2016), <https://siac.org.sg>.

¹¹ Hong Kong Int'l Arb. Ctr., *HKIAC Administered Arbitration Rules* (2018), <https://hkiac.org>.

¹² WIPO Arb. & Mediation Ctr., *WIPO Arbitration Rules for FinTech Disputes* (2020), <https://www.wipo.int/amc/en/center/specific-sectors/ict/fintech/>.

¹³ U.K. Jurisdiction Taskforce, *Digital Dispute Resolution Rules* (Apr. 2021) Lawtech UK | Digital Transformation of Legal Sector : LawtechUK.

al proceeding; it is required to be either in written form or via electronic means. This agreement outlines the range of disputes, applicable law, whether the arbitration is institutional or ad hoc, the seat of arbitration, the number of arbitrators, and the procedural guidelines.¹⁴ These agreements are frequently incorporated into digital clickwraps, smart contracts, or platform terms of service in FinTech contracts. They can be activated automatically when pre-programmed conditions are violated, especially in decentralised finance (DeFi) environments.¹⁵

2. Invocation of arbitration. The delivery of a Notice of Arbitration signifies the official commencement of arbitration proceedings. This document is sent by the claimant to the respondent and contains a summary of the dispute, pertinent facts, the relief being sought, the legal and factual grounds for the claims, and references to the arbitration agreement that governs the proceedings. In the realm of FinTech and blockchain, this notice can be delivered digitally, frequently via email or secure online platforms provided by arbitral institutions. In environments utilising smart contracts, this process may be automated, where a breach of a coded condition activates a blockchain-based arbitration platform (for instance, Kleros¹⁶ or Aragon Court).

B. Constitution of the tribunal

1. Appointment of Arbitrator(s): Once arbitration is initiated, the subsequent step involves the selection of arbitrator(s). The parties have the option to mutually consent to the appointment of a sole arbitrator, or alternatively, each party may select one arbitrator, with the two appointed individuals subsequently choosing a presiding arbitrator to form a three-member tribunal. In disputes related to digital finance, it is crucial for arbitrators to have pertinent expertise in blockchain, smart contracts, and digital finance. If the parties cannot reach an agreement, the arbitral institution (such as SIAC¹⁷, ICC¹⁸, or LCIA¹⁹) will appoint the arbitrator according to its institutional regulations. In blockchain arbitration platforms, this process may be carried out through algorithmic or token-based systems, where arbitrators (or jurors) can be crowdsourced, utilising token-based reputation systems or staking models.

¹⁴ A. Savelyev, *Contract Law 2.0: Smart Contracts as the Beginning of the End of Classic Contract Law*, 26 Info. & Comm. Tech. L. 116, 118 (2017).

¹⁵ WIPO Arbitration and Mediation Center, *FinTech Disputes* <https://www.wipo.int/amc/en/center/specific-sectors/ict/fintech>.

¹⁶ See Kleros, *The Blockchain Dispute Resolution Layer* (2019), <https://kleros.io>.

¹⁷ SIAC Rules, *supra* note 8.

¹⁸ ICC Rules, *supra* note 7.

¹⁹ London Court of Int'l Arb., *LCIA Arbitration Rules* (Oct. 1, 2020), https://www.lcia.org/Dispute_Resolution_Services/lcia-arbitration-rules-2020.aspx.

2. **Hybrid / Decentralised appointments:** In conventional arbitration, parties typically approach a recognised arbitration centre, with arbitrators being appointed by the institution or mutually agreed upon by the involved parties. However, in the realm of blockchain and cryptocurrency, this approach does not always function effectively, particularly due to the following reasons: Individuals may be unaware of each other's identities (as they utilize wallet addresses). Disputes may be triggered automatically by smart contracts. The parties could be situated in entirely different nations. To address these contemporary disputes, platforms such as Kleros²⁰ implement a decentralised justice model, wherein jurors are randomly chosen from a pool of staked participants. Hybrid models integrate these decentralized processes with conventional enforcement techniques. A digital decision made on-chain can be formalised into a legal arbitral award, rendering it enforceable under agreements such as the New York Convention.²¹

C. Procedure Framework

1. **Agreement on procedure.** If the parties have not reached an agreement on a particular procedure, the arbitral tribunal determines the manner in which the proceedings will be carried out. Typically, it adheres to the procedural guidelines of the arbitration institution selected by the parties, such as the ICC (International Chamber of Commerce),²² SIAC (Singapore International Arbitration Centre),²³ LCIA (London Court of International Arbitration),²⁴ or MCIA (Mumbai Centre for International Arbitration)²⁵. These institutional guidelines offer a pre-established framework for timelines, evidence, hearings, and various other procedural actions.

2. **Submission of Pleadings:** Once the tribunal is established, the involved parties must submit their pleadings. The claimant presents the Statement of Claim, which outlines the facts, legal basis, and accompanying documents, followed by the respondent's Statement of Defence, which may also incorporate counterclaims or objections regarding jurisdiction. In FinTech-related disputes, pleadings can include technical documentation such as smart contract code and logs, blockchain transaction logs, cryptographic keys, or forensic reports, as well as wallet addresses and transaction IDs, and on-chain communication records. The submission process is becoming increasingly digital, typically managed through encrypted portals or case management systems offered by arbitration institutions. These digital solutions

²⁰ Kleros, *supra* note 15.

²¹ New York Convention, *supra* note 5.

²² ICC Rules, *supra* note 7.

²³ SIAC Rules, *supra* note 8.

²⁴ LCIA Rules, *supra* note 15.

²⁵ Mumbai Centre for Int'l Arb., *MCIA Arbitration Rules* (2016), <https://mcia.org.in/rules/>.

improve procedural efficiency, lower costs, and facilitate seamless global participation in the arbitration process.

3. Hearings and Presentation of Evidence: Once the parties have shared their written documents, the tribunal proceeds to conduct hearings and gather evidence. The parties may come to a consensus on whether the hearings will take place in person or rely solely on written submissions. In disputes related to FinTech, evidence frequently consists of digital documentation such as blockchain hash values, records of smart contract executions, and server logs from exchanges or decentralised finance protocols. Specialists such as cryptographers, blockchain developers, or forensic accountants might be summoned to clarify technical aspects. Emerging technologies like virtual reality hearing rooms, live transcription services, and online document storage facilitate the collection and sharing of evidence. These innovations ensure that all participants can easily access the necessary information.

4. Interim Measures: To avoid irreversible damage during the proceedings, parties can request interim measures like injunctions to freeze digital wallets, secure on-chain evidence, or orders to safeguard digital evidence, as well as directives to halt ongoing transactions. This type of relief may be provided by the tribunal (if authorised) or by appropriate courts under interim relief procedures outlined in institutional rules (for instance, ICC Emergency Arbitrator)²⁶. Because cryptocurrencies can be transferred very quickly and are often volatile, quick action is vital to prevent assets from being lost before a final decision is made. However, there are technical issues with enforcement. In crypto cases, decentralised wallets cannot be frozen unless private keys are accessed or smart contracts are changed.

D. Rendering of Award

1. Final Award: Upon the conclusion of the proceedings, the tribunal delivers a reasoned and signed award within the designated time frame (12 months from the pleadings, which can be extended). In arbitrations that utilise blockchain technology, awards can be digitally signed, timestamped, or even recorded on the blockchain. However, to guarantee international enforceability, awards generally adhere to institutional standards and include physical certification or notarial verification. In smart contract arbitration, awards can be stored on a blockchain, with digital copies made accessible to the involved parties. It is essential that awards meet procedural requirements and receive recognition from courts to ensure effective enforcement.

2. Hybrid Awards for Blockchain Arbitration: To address enforceability challenges,

²⁶ ICC Rules, *supra* note 7.

particularly in regions that are not accustomed to decentralised justice systems, parties might choose a hybrid model blockchain platform for their decision-making process. The decision made on the blockchain is then formalised into an award by an arbitration institution. This two-tiered approach guarantees that the decision is not only technologically robust but also legally binding in accordance with international arbitration standards.²⁷

V. ENFORCEABILITY OF AWARDS IN PERSPECTIVE OF FINTECH AND CRYPTOCURRENCIES

The impact of an award is not solely determined by its issuance but by its enforceability across jurisdictions, a fundamental concept in international arbitration. The award needs to be enforceable in the jurisdiction where the respondent or their assets are situated, making jurisdiction a crucial factor.

1. Function of the New York Convention and its legal framework

The 1958 New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards, which has been ratified by more than 170 countries, establishes a unified framework for the recognition and enforcement of arbitral awards issued in one member state within another. Article III of the Convention²⁸ mandates that national courts enforce these awards in accordance with their respective procedural laws, while Article V delineates specific, narrowly defined grounds for which enforcement may be denied, including invalid arbitration agreements, improper constitution of tribunals, or awards that contravene public policy. The public policy exception outlined in Article V(2)(b) is particularly relevant in the realm of fintech and disputes related to cryptocurrency, where regulatory frameworks are still in development and can differ significantly between jurisdictions²⁹.

- **Public Policy Exception and Its Growing Importance:** Article V(2)(b) of the New York Convention permits enforcement courts to refuse recognition of an award if it contradicts the essential public policy of that jurisdiction. Considering the dynamic and frequently inconsistent regulation of cryptocurrencies worldwide, the definition of "public policy" can differ significantly. In certain jurisdictions, transactions involving digital assets may be deemed unlawful or severely limited, resulting in considerable uncertainty regarding the enforcement of arbitral awards based on cryptocurrencies.

²⁷ New York Convention, *supra* note 5, arts. IV–V.

²⁸ New York Convention, *supra* note 5, art. III.

²⁹ New York Convention, *supra* note 5, art. V.

- **Due Process and Due Form Requirements:** Enforcement is contingent upon adherence to minimum due process standards, which encompass adequate notification to involved parties, a fair chance to submit evidence, and the impartiality of the tribunal. According to Article V(1)(b), not fulfilling these fundamental fairness criteria may result in the award being deemed unenforceable. In the context of fintech disputes, the technical intricacies introduce an additional challenge—parties are required to comprehend the process, particularly the standards pertaining to digital evidence.

2. UNCITRAL Model Law & National Arbitration Legislation

Numerous nations synchronise their domestic arbitration legislation (such as SIAC³⁰, the UK Arbitration Act³¹, and the Singapore Arbitration Act)³² with the Model Law³³ and the New York Convention, thereby facilitating the processes of recognition and setting aside, as well as enforcing standards.

Electronic Form & Signature Requirements: For contracts and awards based on blockchain technology, Article II(2) of the Convention requires a written and signed arbitration agreement. Issues related to code-based agreements may be addressed through the "more favourable" rule outlined in Article VII(1), which permits the use of conventions such as the UNCITRAL E-Commerce Convention or the electronic document laws of the enforcement jurisdiction.³⁴

3. Nature of Cryptocurrencies and Fintech

Digital assets, especially cryptocurrencies, exhibit distinct features that hinder the enforcement of arbitral awards. These features encompass:

- **Pseudonymity and Anonymity** Fintech and cryptocurrency transactions frequently involve pseudonymous elements. The absence of identity verification in blockchain technology significantly complicates the process of identifying and locating the counterparty for enforcement purposes. Consequently, even if a tribunal issues a favourable award, enforcing it against an unknown respondent or an unidentified asset location becomes nearly impossible.
- **Decentralisation:** Cryptocurrencies function on decentralised blockchains, indicating that there is no central authority to adhere to enforcement orders. In contrast to conventional

³⁰ SIAC Rules, *supra* note 8.

³¹ Arbitration Act 1996, c. 23, § 33 (UK).

³² Singapore Arbitration Act 2001 (Cap. 10).

³³ UNCITRAL Model Law, *supra* note 4, art. 7.

³⁴ UNCITRAL, Model Law on Electronic Commerce with Guide to Enactment, U.N. Doc. A/RES/51/162 (1996).

bank accounts, digital wallets are frequently self-custodied and cannot be frozen without access to private keys. In the realm of decentralised transactions, jurisdiction is not solely a matter of territorial convenience. It is determined by the arbitration agreement, the legal framework governing the arbitration venue, and any applicable international treaties. The 'seat' of arbitration establishes the procedural law (*lex arbitri*) and the overseeing courts. For awards to be enforceable, they must originate from a recognised legal framework and adhere to minimum due process standards. In the context of cryptocurrency, many smart contracts fail to specify a seat, which poses a risk of unenforceability.

- **Cross-border Nature:** Cryptocurrency transactions typically take place across various jurisdictions without a clearly defined nexus. This situation raises concerns regarding which national laws are applicable and which courts possess jurisdiction over enforcement actions. Compounding these complexities, certain jurisdictions remain hostile or indifferent towards digital assets, with courts in nations such as China, Qatar, or Russia showing reluctance to acknowledge or enforce crypto-related awards due to domestic illegality or public policy considerations. Conversely, jurisdictions like Singapore and the United States, which hold progressive views on both arbitration and cryptocurrency regulation, provide a more favourable environment for the recognition and enforcement of such awards—provided that they do not violate consumer protection laws or mandatory local regulations.

- **Asset Tracing and Recovery:** Cryptoassets can be transferred instantaneously and without a trace through privacy-enhancing mechanisms such as mixers or decentralised exchanges (DEXs). This makes asset recovery via court-ordered seizures or injunctions extremely difficult.

4. Case Analysis: Payward Inc. v. Chechetkin³⁵

A prominent case that highlights the challenges of enforcement is the 2023 English case of *Payward Inc. v. Chechetkin*. In this case, the English High Court declined to enforce an arbitral award issued under California law by the JAMS arbitration institution. Despite the existence of an arbitration agreement, the tribunal neglected to apply essential provisions of English law, such as the Consumer Rights Act 2015³⁶ and the Financial Services and Markets Act 2000.³⁷ The court determined that enforcing the award would contravene English public policy, stressing that international arbitral tribunals must adhere to the mandatory consumer protections of the enforcement jurisdiction. In a similar vein, Chinese courts may reject

³⁵ *Payward Inc. v. Chechetkin*, [2023] EWHC 1780 (Comm) (Eng.).

³⁶ Consumer Rights Act 2015, c. 15, § 62 (UK).

³⁷ Financial Services and Markets Act 2000, c. 8, §§ 19–22 (UK).

awards related to cryptocurrency due to unlawful currency conversions, as demonstrated in *Gao Zheyu v Yunsilu*.³⁸ This ruling holds considerable importance for various reasons:

- It highlights that arbitral tribunals are unable to bypass mandatory consumer protection laws, even when the arbitration seat is located in a different jurisdiction.
- It affirms that courts in the enforcement country are not obligated to follow the arbitrator's interpretation of its own jurisdiction or applicable law.
- It cautions users of arbitration—particularly crypto exchanges and platforms—that consumer rights cannot be contractually relinquished or circumvented through standard arbitration clauses. The enforcement of cryptocurrency awards necessitates asset classification. English courts now acknowledge cryptocurrencies as "property" (for instance, *AA v Persons Unknown, Ion Science Ltd*)³⁹, which facilitates proprietary injunctions and interim relief. In contrast, jurisdictions that do not legally recognise cryptocurrency restrict the types of relief available and may completely deny enforcement.

5. Comparative Jurisdictional Insights

While arbitration offers a flexible and efficient mechanism for resolving disputes among FinTech and crypto stakeholders, the effectiveness of an award ultimately hinges on the intersection of jurisdictional clarity, Standards of international law that are enforceable, along with the legal acknowledgment of digital assets within the jurisdiction of enforcement. As FinTech continues to transform financial transactions, it is crucial for arbitration participants to formulate precise arbitration agreements, choose suitable governing laws and venues, and explore hybrid enforcement strategies that integrate traditional legal frameworks with blockchain technology. This proactive approach not only guarantees procedural integrity but also enhances the enforceability of awards in a fragmented legal environment. In contrast to England's handling of the Chechetkin case, which emphasises consumer rights protection, other jurisdictions have adopted varying positions regarding the enforcement of crypto-related arbitral awards:

- Singapore: Renowned for its crypto-friendly and arbitration-promoting stance, Singaporean courts have acknowledged cryptocurrencies as property and have enforced injunctions and proprietary claims related to digital assets. The enforcement of arbitral awards is typically more favourable in this jurisdiction unless there is a clear violation of public policy.

³⁸ *Gao Zheyu v. Yunsilu*, [2022] (Beijing Internet Ct.) (China), translated summary available at Kluwer Arbitration Blog, <https://arbitrationblog.kluwerarbitration.com/>.

³⁹ *AA v. Persons Unknown*, [2019] EWHC 3556 (Comm) (Eng.).

- **United States:** In the United States, the courts operate under the Federal Arbitration Act and the New York Convention. Although consumer protections are in place, courts generally uphold arbitration agreements unless they are deemed unconscionable or infringe upon explicit statutory protections.

- **Russia, Qatar, China:** These jurisdictions exhibit greater scepticism or outright hostility towards cryptocurrencies. Crypto-related arbitral awards may encounter increased scrutiny or outright rejection due to public policy concerns or the illegality of digital assets under local regulations.

6. Hybrid Enforcement

Hybrid enforcement models—merging traditional legal authority with blockchain-based instruments such as escrow, multi-signature wallets, and oracles—present promising solutions to reconcile legal and technological disparities.

VI. UNDERSTANDING THE JURISDICTION IN INTERNATIONAL ARBITRATION FOR FINTECH AND CRYPTO DISPUTES

1. **Definition of Jurisdiction in Arbitration:** Jurisdiction denotes the legal power of the arbitral tribunal to resolve a dispute, which is derived from the arbitration agreement, the law of the seat, and international instruments such as the New York Convention.⁴⁰

2. **How Jurisdiction Is Determined:** In the context of fintech and crypto disputes, jurisdiction is influenced by the arbitration clause found in the smart contract or a separate agreement. The seat of arbitration (which determines procedural law). The seat of arbitration (which dictates procedural law). The governing law of the contract (which addresses substantive issues). The location of the parties is often irrelevant in decentralised networks. The willingness of national courts to enforce the arbitration agreement or award.

3. **Decentralisation and Stateless Transactions:** A significant jurisdictional challenge arises from the decentralised nature of cryptocurrency. Transactions can involve pseudonymous parties, be executed on a global scale, and lack a central governing authority. This complicates the determination of which court or tribunal holds supervisory authority and whether parties can be compelled to arbitrate.

4. **Multi-jurisdictional Complications:** Cryptocurrency transactions frequently cross multiple national borders—claimants, exchanges, and blockchains may operate in different jurisdictions. This results in conflicting legal interpretations regarding jurisdiction and

⁴⁰ New York Convention, *supra* note 5

enforceability, which can lead to parallel proceedings, forum shopping, and asset losses due to freeze orders in various jurisdictions.⁴¹

5. **Competence-Competence Doctrine:** Tribunals are required to ascertain their own jurisdiction based on doctrines such as *Mitsubishi Motors*. However, enforcement courts are not obligated to adhere to these determinations; they may reassess jurisdiction during the enforcement phase—this issue is particularly pertinent in *Payward*, where the English court disregarded the tribunal’s jurisdictional ruling.

VII. CHALLENGES IN CRYPTO & FINTECH ARBITRATION

1. **Consumer Agreements and Click-Wrap Arbitration Clauses:** Courts may deem such agreements unenforceable if they lack clarity, consent, or fairness. For example, if a user consents to terms with a single click without realising that they are relinquishing consumer rights or consenting to arbitration in a foreign jurisdiction, the enforcement of such clauses and any resulting awards may be invalidated as unconscionable or contrary to public interest.

2. **Practical Draughting and Compliance Considerations:** To improve enforceability, parties must ensure that arbitration agreements are well-drafted. This entails specifying a crypto-friendly arbitration seat, aligning the governing law with regulatory expectations, and providing equitable procedures in consumer agreements. A lack of such foresight may result in unenforceable awards, prolonged litigation, and forum shopping.

3. **Absence or Vagueness of Arbitration Clauses in Smart Contracts:** Smart contracts frequently automate terms without clear language regarding dispute resolution, governing law, or jurisdiction. In the absence of a specific arbitration clause, parties may contest the validity or applicability of arbitration. Courts may decline to recognise an arbitration agreement that is vague, ambiguous, or fails to specify essential elements such as the seat, applicable law, or institution.

4. **DAO and Platform Participation Issues:** Decentralised Autonomous Organisations (DAOs) and blockchain-based platforms often function without legal incorporation or a physical presence. It remains uncertain whether such entities can be subjected to arbitration or held accountable in legal proceedings. The lack of a clearly defined respondent undermines the tribunal’s jurisdiction and threatens the enforceability of any resulting award.

5. **Lack of Asset Traceability:** Although blockchain technology is transparent, mechanisms such as mixers, privacy coins (e.g., Monero), and decentralised exchanges (DEXs) obstruct

⁴¹ *Mitsubishi Motors Corp. v. Soler Chrysler-Plymouth, Inc.*, 473 U.S. 614, 626–28 (1985)

asset tracing. This limitation restricts the tribunal's capacity to enforce monetary compensation through asset seizure or freezing.

6. Rights in Rem and Non-arbitrability: In various jurisdictions, disputes related to cryptocurrency that involve public law, tax evasion, or insolvency are deemed non-arbitrable. As a result, arbitrators lack jurisdiction over these issues.

VIII. EVOLVING ARBITRATION FRAMEWORKS FOR FINTECH AND CRYPTOCURRENCY DISPUTES

As the financial technologies continue to evolve rapidly, traditional mechanisms for dispute resolution are being challenged by the emergence of decentralised systems, smart contracts, and crypto-assets. Arbitration is particularly favourable for disputes in the FinTech sector due to its flexibility, confidentiality, and its cross-border enforceability. As a result of these developments, several prominent arbitration institutions have initiated reforms and established specialised rules designed to cater to the distinct requirements of conflicts related to FinTech and digital assets.

The World Intellectual Property Organisation (WIPO) has positioned itself as a leader in this field by introducing its FinTech-orientated Alternative Dispute Resolution (ADR) procedures in 2020. These procedures are tailored to address disputes related to blockchain technology, decentralised finance (DeFi), and digital innovations. WIPO provides parties with access to a panel of arbitrators, mediators, and experts who possess extensive knowledge in FinTech and legal-tech interfaces, facilitating both efficient and technically informed decision-making.⁴²

The WIPO Centre prioritises expedited resolution, online proceedings, and the maintenance of commercial relationships – elements that are particularly vital in fast-paced, innovation-driven sectors⁴³. Importantly, WIPO's ADR platform has been utilised in more than 77 jurisdictions, and in 2023 alone, it experienced a significant rise in FinTech-related disputes, underscoring its increasing importance.⁴⁴

Another notable development is the establishment of the Digital Dispute Resolution Rules (DDRR) by the UK Jurisdiction Taskforce (UKJT) as part of LawTechUK in 2021. These regulations were made to address conflicts arising from smart contracts, crypto-assets, and automated digital agreements. The DDRR facilitates the integration of arbitration clauses directly within smart contracts, allowing proceedings to be initiated via on-chain dispute

⁴² WIPO Arbitration and Mediation Center, FinTech Disputes (2020), <https://www.wipo.int/amc/en/center/specific-sectors/ict/fintech>.

⁴³ WIPO Arbitration and Mediation Center, Time- and Cost-Efficient Dispute Resolution in FinTech (2020).

⁴⁴ WIPO, WIPO ADR Services: 2023 in Review, WIPO News (Feb. 2024).

triggers.⁴⁵ Additionally, the rules authorise remote digital hearings and require that tribunals include arbitrators possessing relevant technological expertise, thereby ensuring that intricate code-based disputes are accurately interpreted.⁴⁶

Additional reforms have been implemented by JAMS (Judicial Arbitration and Mediation Services) via its Smart Contract Arbitration Rules, which are tailored to address conflicts arising from automated digital agreements. These regulations focus on the "primacy of code", acknowledging that disputes within blockchain environments frequently arise from the interpretation of coded responsibilities instead of conventional legal contracts⁴⁷. JAMS advocates for hearings conducted exclusively in digital formats, accelerated timelines, and the selection of arbitrators who possess expertise in both legal matters and emerging technologies—effectively connecting smart contracts with legal supervision.⁴⁸

The London Chamber of Arbitration and Mediation (LCAM) introduced the Blockchain Expedited Arbitration Rules in December 2024, marking a notable institutional reform. The London Chamber of Arbitration and Mediation (LCAM) launched the Blockchain Expedited Arbitration Rules in December 2024, signifying a significant institutional reform. These rules are tailored for small to medium-sized crypto disputes and incorporate various blockchain-specific elements. Most importantly, they facilitate on-chain enforcement, a feature intended to seamlessly integrate arbitration outcomes into decentralised platforms, which could allow for automated compliance.⁴⁹ The rules endorse sole-arbitrator proceedings carried out in a documents-only format, greatly lowering costs and timelines while ensuring procedural fairness.⁵⁰

These changes signify a growing worldwide agreement that customised, technology-driven dispute resolution methods are crucial for the legitimacy, efficiency, and enforceability of results in decentralised finance. The future of dispute resolution in FinTech is expected to be influenced by ongoing collaboration among legal innovation, technological advancement, and international standardisation.

⁴⁵ UK Jurisdiction Taskforce, Digital Dispute Resolution Rules (Apr. 2021).

⁴⁶ Clifford Chance LLP, *UKJT Launches Digital Dispute Rules* (2021), Clifford Chance Insight.

⁴⁷ JAMS, Smart Contract Arbitration Rules and Clauses, JAMS ADR.

⁴⁸ Mireille Kamminga, *How Arbitration May Need to Adapt to Blockchain Disputes*, Law360 (2021).

⁴⁹ London Chamber of Arbitration and Mediation, *Blockchain Expedited Arbitration Rules* (Dec. 2024).

⁵⁰ Greenberg Traurig LLP, *LCAM and Immunefi's Rules Shortlisted for GAR Innovation Award* (2024).

IX. AUTHOR'S SUGGESTIONS FOR CREATING EFFECTIVE ARBITRATION AGREEMENTS IN FINTECH AND CRYPTOCURRENCY DISPUTES

1. **Arbitration Seat:** Parties should explicitly state the seat of arbitration in a jurisdiction that supports both international arbitration and the recognition of digital assets. Preferred locations such as Singapore, the United Kingdom, and Switzerland are not only signatories to the New York Convention but also exhibit a forward-thinking judicial stance towards FinTech and cryptocurrency. A well-defined seat provides legal certainty, aids in judicial oversight when necessary, and improves the enforceability of arbitral awards.

2. **Applicable Law:** The governing law of the arbitration agreement should correspond with jurisdictions that provide legal clarity regarding cryptocurrency, token classification, and smart contracts. Opting for a supportive legal framework ensures that disputes are resolved in line with established statutory protections and minimises the risk of public policy challenges during enforcement. Laws from jurisdictions like England and Singapore have evolved nuanced interpretations of digital assets and are more equipped to handle the intricacies of blockchain disputes.

3. **Precision and Detail in the Arbitration Clause:** Arbitration clauses should be crafted with accuracy, steering clear of vague or ambiguous language. The clause must detail the seat, institution, applicable law, language, scope of disputes included (such as those related to digital assets), and reference any relevant arbitration rules (like SIAC, ICC, or UKJT Digital Dispute Rules). Eliminating ambiguity helps avoid jurisdictional disputes and ensures procedural efficiency.

4. **Use of Crypto-Forward Rules and Institutions:** Whenever feasible, parties should choose arbitral institutions and rules specifically designed for blockchain or FinTech disputes, such as the UKJT Digital Dispute Resolution Rules, JAMS Smart Contract Arbitration Rules, or LCAM Blockchain Expedited Rules. These frameworks support on-chain triggers, digital hearings, and technical evidence, thus minimising procedural delays and addressing the legal-technical divide.

5. **Inclusion of Interim and Emergency Relief Mechanisms:** Effective arbitration agreements ought to encompass provisions for interim measures, including the appointment of emergency arbitrators, freezing orders, or the preservation of digital assets. Institutions such as ICC, SIAC, and LCIA offer well-defined emergency protocols. Given the rapidity and anonymity of cryptocurrency transactions, these tools are vital to avert asset dissipation during the course of proceedings.

6. **Hybrid On-Chain/Off-Chain Enforcement Structures:** To enhance enforceability, particularly in digital ecosystems, it is advisable to implement hybrid structures that merge smart contract mechanisms with traditional enforcement methods. For example, an on-chain ruling could initiate automatic execution via a blockchain system, while a formally certified award remains enforceable through courts in accordance with the New York Convention.
7. **Asset Classification and Traceability:** Parties should distinctly classify assets within their contracts, whether they are cryptocurrencies, NFTs, or digital securities, and include mechanisms for traceability. Employing escrow arrangements, multisignature wallets, or custodial tracking guarantees that awards can be enforced even against pseudonymous parties. Furthermore, agreements should contemplate the integration of forensic tracing solutions in instances of non-compliance.
8. **Compliance with Writing and Signature Requirements:** To meet the formal writing requirements stipulated in Article II of the New York Convention and relevant provisions of the UNCITRAL Model Law or E-Commerce Conventions, arbitration agreements should utilise verifiable digital signatures, code-based consent mechanisms, and electronic records of acceptance (such as blockchain timestamps or smart contract logs).
9. **Technical and Legal Qualification of Arbitrators:** The selection of arbitrators must strike a balance between legal knowledge and technical proficiency in blockchain technologies, smart contracts, and token economics. Institutions and involved parties should verify that arbitrators or expert witnesses possess the ability to analyse intricate evidence, including cryptographic logs, protocol codes, or forensic transaction maps, ensuring that the resulting awards are valid both legally and factually.
10. **Avoidance of Non-Arbitrable Issues:** Contracts should avoid including non-arbitrable issues such as insolvency, money laundering, or tax evasion in arbitration. Parties need to confirm that the arbitration scope does not contradict public law or compulsory regulatory requirements. Thoughtful draughting of clauses will help avert future disputes regarding the arbitrability or enforcement of awards based on claims of illegality or violations of public policy.

X. CONCLUSION

The convergence of fintech, cryptocurrencies, and international arbitration signifies a notable advancement in global dispute resolution. As financial technologies transform the creation, transfer, and regulation of value, they concurrently pose challenges to established legal and institutional frameworks. The distinct features of digital assets, such as decentralisation,

pseudonymity, and borderless transactions, necessitate a dispute resolution mechanism that is equally flexible, enforceable across different jurisdictions, and technically proficient.

International arbitration presents a practical and progressive solution to these challenges. Its intrinsic flexibility, neutrality, confidentiality, and enforceability render it particularly adept at addressing disputes within the swiftly changing fintech landscape. Institutional reforms and the establishment of specialised rules have further enhanced arbitration's significance in resolving disputes related to smart contracts, platform governance, and digital asset conflicts.

Nevertheless, the efficacy of arbitration in this area relies on meticulous draughting, strategic choice of arbitration venues and rules, and a comprehensive understanding of the relationship between technology and law. As legal systems evolve to meet the demands of digital finance, arbitration must persist in its innovation, ensuring it remains a dependable and effective mechanism for resolving disputes in the digital era.
