

Smart Contracts and International Arbitration: Friends or Foes?



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In the midst of the 2008 financial crisis, an anonymous person or a group of people called Satoshi Nakamoto published a white paper called "Bitcoin: A Peer-to-Peer Electronic Cash System". This white paper did not create the concept of blockchain, but it can be considered to have been its iconic debut. Bitcoin presented a novel way to transfer money from one part of the world to another in a matter of minutes, without intermediaries -costing next to nothing in fees-, and safer than traditional means -i.e., wire transfers-. The true success behind Bitcoin is the use of blockchain technology, which is now not only being applied to cryptocurrencies but also to virtually every industry in the world.

So, what exactly is a blockchain? A blockchain is understood as a decentralised database or ledger that maintains a public, or private, record of transactions. Blockchains track each transaction in the chain, and record it in a database that is decentralised, meaning that it is not stored in only one place. Transactions are stored together in a data structure called a "block", and each block contains a reference point that connects it to the last block, thus creating a relationship between the blocks called a "blockchain".

Many industries are already taking advantage of blockchain technology to provide customers with transparent information about their products. For example, large supermarket chains are already applying blockchain technology for some of its products. Customers may scan a bar code on certain products, such as chicken, with their smart phone, which will tell them the chicken's background, such as where the chicken is from, what type of food the chicken ate, what treatments were applied to the chicken, any quality labels, etc. Every stage of the chicken's life will be quantified in a data structure which will make up a block in the chain. This will create a record that will provide transparent and reliable information about the chicken's quality.



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The legal community is also being shaken by the potential of these technologies, specifically by smart contracts. Smart contracts are not contracts in the traditional sense of the word, but rather they are self-executing computer codes that do not need third parties to operate or to be enforced. Smart contracts self-execute on a blockchain, which in turn automatically changes the state of every participant in the blockchain. Smart contracts require little to no human intervention –needing only someone to develop the code– which makes them cheaper, faster, and less ambiguous than regular contracts, given that the code must use clear and concise wording. They are programmed to self-execute if certain pre-conditions are met, applying an “if X, then Y” logic.

The first example of how a smart contract would work was presented by Nick Zabo, who used the example of the soda machine. If you put enough money in the machine, it will automatically give you the soda you choose. A soda

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machine doesn't require one party's approval before delivering the soda or an intermediary in the process. In a very simplistic but accurate way, this example shows that smart contracts are designed to execute automatic transactions, such as transferring funds if a pre-established condition has been met, or penalising a party for not performing their duties under the contract.

Although smart contracts may hash out certain stages of potential disputes, they will not replace the need for dispute

resolution lawyers. Certain disputes will still end up in arbitration because they cannot be resolved by self-executing codes. Legal analysis will still be required to understand the intent of the parties, the intent of the drafters, or the very nature of the smart contract. Here are a few examples of why dispute resolution lawyers will still be needed.

A first example can be related to the immutability of the blockchain. One of the most prominent features of blockchain technology is that the data

within the blocks is not subject to alterations from outside sources, making the information completely trustworthy and safe from potential tampering. The only way to alter the data within the blockchain is through oracles, which are third parties entrusted by the parties to the contract and which are authorised to incorporate outside information into the blockchain in certain cases.

However, this becomes a double-edged sword in cases where unforeseen events happen that were not incorporated within



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the code of the smart contract. In such cases, parties will still have to resort to international arbitration to resolve what the intent of the parties was when the smart contract was drafted. The parties could have intended that one party would assume the losses caused by some events, but may have failed to include unforeseen ones within the smart contract. Parties may have also left gaps within the code intending to enable an amicable solution before resorting to arbitration. The bottom line is that it is highly unlikely that the drafters of the code will be able to foresee every single outcome when drafting the contract. Thus, arbitration will always be a tool to interpret the will of the parties or otherwise deal with unforeseen events.

Another example would be if the smart contract does not incorporate every procedural detail required for an arbitration clause to be valid. Pathological clauses are far too common within the international arbitration community. Arbitration clauses are commonly referred to as “midnight clauses”, given that at the time that contracts are drafted parties rarely foresee that a dispute will arise and leave the arbitration clause for the end of the negotiations. This frequently results in incomplete arbitration clauses, which leave out several crucial facts that are later commonly disputed in arbitration, such as where the parties intended the seat of the arbitration to be, the governing law applicable to the merits of the dispute, the governing rules of procedure, the number of arbitrators, the confidentiality of the dispute, etc.

Finally, the issue of enforceability of an award that stems from a smart contract has created heated discussions within the legal community. Article II of the New York Convention requires an agreement to arbitrate to be in writing. Depending on the jurisdiction that applies to the smart contract, it may be considered a written contract. The majority view suggests that parties should enter into a “Ricardian Contract”, according to which there is a written version and a code-based version of the contract. This may avoid the risk of having the contract annulled because it is not in writing. Even so, since this topic is still virtually unexplored, there is no significant case law yet on whether Ricardian Contracts will be validly enforced under the New York Convention.

Conclusion

Smart Contracts are a perfect example of “Amara’s Law”, according to which new technologies are overestimated in the short run and underestimated in the long run. Unrealistic expectations have been made based on the premise that because certain transactions will be automated, there will be no need for dispute resolution lawyers. The legal community seems eager to develop smart contracts as a tool to make the practice of law more efficient, preventing potential disputes by automating some transactions. Yet arbitration, in particular international arbitration, will still be an available recourse in case disputes do arise.

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