

SMART CONTRACTS IN THE IMMOVABLE PROPERTY LANDSCAPE

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ABSTRACT

The following paper shall analyse the integration of Smart Contracts within the immovable property landscape, with particular emphasis on the leading industry. The first part of the paper shall deal with the benefits of smart contracts over conventional contracts. The second part will discuss the limitations on the enforceability of these contracts. Thereafter, the third part will delve into the jurisprudential position of smart contracts in the current Property Law framework. Thus, this paper aims to analyse the revolutionary impact smart contracts can have on the immovable property landscape.

INTRODUCTION

‘Smart Contracts’ are developed through the application of cryptocurrency to facilitate self-execution and greater efficiency. The Telecom Regulatory Authority of India (TRAI) promulgated a notification briefly elucidating the term. It stipulated that smart contracts operate on a programmable code that implements predetermined tasks or rules to ensure regulatory compliance.ⁱ This paper analyses the integration of smart contracts in the immovable property landscape in consonance with Indian Laws. The present system utilised in transferring land and conveyance transactions is riddled with various impediments, such as time consumption, high costs, manipulations and duplicity of records, corruption, degradation of documents, difficulty tracing records, and fraud practices.ⁱⁱ These challenges obstruct the efficient and effective functioning of the system. The incorporation of self-executing smart contracts has the potential to expedite the development of this sector and mitigate current problems. This can be achieved by eliminating intermediaries and reducing costs. By providing a structured process for

recording property details, smart contracts offer an efficient alternative to the current system, enabling faster transaction processing. While enforcing Smart Contracts will benefit the real-estate sector, the execution of the same, given the current traditional legal framework governing property transactions, may be difficult.

In order to analyse the same, this paper will focus primarily on answering the following questions.

1. How do smart contracts revolutionise the immovable property landscape?
2. Can smart contracts fulfil the requirements explicated under the Transfer of Property Act of 1882?
3. What limitations obstruct the enforceability of these smart contracts?

SMART CONTRACTS AND THEIR REVOLUTIONARY IMPACT ON THE IMMOVABLE PROPERTY SECTOR

Due to the interdependent relationships among landlords, tenants, property managers, and vendors, the real estate industry faces significant challenges in managing ongoing lease agreements, property operations, and cash flows. The execution, tracking, and recording of numerous payment and service transactions and the need for multiple checks on the same data result in rigorous accounting, compliance, cash flow management needs and related costs.ⁱⁱⁱ Smart Contracts regulated through blockchain technology provide an excellent alternative to traditional contracts because they accommodate these hindrances through an automated system of financial transactions.^{iv} The key feature of a smart contract is that it is self-performing in nature, i.e. the terms of the agreement between the parties to the contract are directly incorporated into lines of the code. The code is in a distributed blockchain network comprising all the agreement terms. Apart from the agreements, it consists of information that enables the execution of the transactions and ensures that they are fully tracked, permanent, irreversible and time stamped. Blockchain's transparency is a significant benefit to the property sector. Often, transactions are fraudulent and property is usurped through unfair means. Further, often individual's ostensibly enter transfer agreements without the consent of the real owner.^v Blockchain technology prevents such deceitful transactions. By combining the immutability of data visibility and crowd control (storing the blockchain copy on every relevant network

computer), smart contracts nullifies such risks by ensuring that the entire transaction history is available for all network participants to view. This eliminates the possibility of concealing ownership history or asset modifications. ^{vi}

An additional problem characterising the immovable property landscape is the involvement of numerous individuals in transferring property. These intermediaries are relevant, particularly to the real estate industry, where notarisation of documentation and registration are necessary formalities. The decentralized nature of cryptocurrency eliminates the need for intermediaries. This is due to the self-performing and enforcing mechanism with the contracts practice. As a result, time is saved, avoiding any conflict that may arise owing to a third party. Additionally, since no intermediary is involved, they help do away with transactional and procedural costs associated with negotiations and documentation verification. This is achieved automatically through technological implements. For example,

Furthermore, with respect to leasing agreements, smart contracts could also manage end-of-lease repayments by triggering the security deposit paid back to the tenant after deducting any damage repair charges, with payment going to the landlord. One significant benefit for tenants in relation to Smart Contracts is that when a maintenance request is submitted to the blockchain, the smart contract automatically locks the rent until the issue is resolved. To initiate the smart contract process, the property owner inputs the lease conditions, including rent, management fee, and payment frequency. The tenant reviews and digitally signs the smart contract after agreeing to the lease terms on the online platform. Once the property owner digitally signs the contract, it becomes a digital smart contract.

CAN SMART CONTRACTS FULFIL THE REQUIREMENTS EXPLICATED BY THE CURRENT LEGAL FRAMEWORK GOVERNING IMMOVABLE PROPERTY?

The degree to which smart contracts are legally binding can differ depending on the jurisdiction, and their legal status is still in development. In certain countries, smart contracts may be recognised as enforceable according to contract law, while in other jurisdictions, they may be regarded as an agreement for the sale of property that cannot be enforced. This Part, analyses the legal position of smart contracts through the lens of Indian Law.

(i) ***Validity of Electronic Signatures.***

For a transfer agreement to be valid, it must be signed by the parties involved in the transfer, namely the transferor and the transferee and two attesting witnesses confirming the transaction.^{vii} Section 5 of the Information Technology Act 2002 provides for the authentication of contracts through digital signatures.^{viii} The aforementioned section explicates that a digital signature is legitimate and enforceable under Indian Law. Furthermore, Section 65B of the Indian Evidence Act 1872 stipulates that electronic records are admissible in the Courts of Law.^{ix} In the context of Smart Contracts, however, Section 35 of the IT Act hinders the admissibility of electronic signatures in Court. Section 35 prescribes that an electronic signature certificate can be procured only through a certifying authority authorised by the Government.^x However, while determining the electronic signature's validity in Smart Contracts, blockchain technology generates a hash key as an authenticator, which verifies the validity of the sign. Section 85B of the Indian Evidence Act stipulates that an electronic document will be deemed valid only if it is authenticated with a digital signature which the Government verifies.^{xi} The absence of government certification vitiates the admissibility of the signature in the Court of Law as evidence. Therefore, while digital signatures are acceptable in Indian jurisprudence, they are inadmissible in a Court of Law in the context of smart contracts

47 States in the United States of America have ratified the “Uniform Electronic Transactions Act,” which governs laws relating to e-contracts, electronic signatures and records.^{xii} This legislation adopts the usage of digital contracts as a commercial reality. Moreover, with the advent of smart contracts, individual states in the United States have passed laws granting authorisation to digital signatures in the realm of blockchain technology, thereby recognising the revolutionary impact of smart contracts.^{xiii} . In order to integrate smart contracts into the existing Indian legal framework is essential for existing legislation to allow digital signatures authenticated by blockchain technology to be considered a credible source of verification.

(ii) ***Cryptocurrency as valid consideration***

Section 10 of the Indian Contract Act explicates the essential particulars required for a legally valid contract. The section reads, “all agreements are legally binding contracts, provided they are entered into with free consent of parties to the contract, for a lawfully accepted consideration and in order to achieve a lawful object.”^{xiv}

The fundamental components of a binding agreement comprise, therefore, a veritable proposal or offer, the proper communication of acceptance, a lawful and relevant form of consideration, and the voluntary consent of all parties who possess the required legal capacity, without coercion or undue influence, in relation to all aspects of the contract.

While the elements of offer, acceptance and consent are satisfied through the mechanism of Smart Contracts, the question arises as to the relevance and lawfulness of cryptocurrency in the existing legal regime.

For example, for a lease agreement to be held valid, it requires consideration in exchange for the transfer of property. Consideration, as per the provision, includes “*consideration of a price paid or promised, or of money, a share of crops, service or any other thing of value, to be rendered periodically or on specified occasions to the transferor by the transferee, who accepts the transfer on such terms.*” This essential element of a lease agreement poses a problem for the enforcement of smart contracts.^{xv}

When read in conjunction with Section 23 of the Indian Contract Act, lawfully accepted consideration cannot be

- a) *forbidden by law,*
- b) *would defeat provisions of any law,*
- c) *fraudulent,*
- d) *involves or implies injury or*
- e) *regarded as immoral or against public policy.*^{xvi}

Since cryptocurrencies are not fraudulent, injurious, immoral, or opposed to public policy, understanding why ambiguity exists surrounding their legal position demands analysis under sub-clauses (a) and (b). Currently, Indian Law is silent on the subject of cryptocurrency. The proposed Banning of Cryptocurrency and Regulation of Official Digital Currency Bill 2019 (2019 Bill)^{xvii} and the Cryptocurrency and Regulation of Official Digital Currency Bill 2021

(2021 Bill) ^{xviii} recently discussed by the government have not yet been released for public scrutiny. As noted by the Supreme Court in *In Re: The Special Courts Bill*, a bill is not considered law until the Parliament passes it. ^{xix} The absence of a legislative framework or provision prohibiting cryptocurrency circulation vitiates the application of subclauses (a) and (b) of Section 23 of the Indian Contract Act. Therefore, upholding the lawfulness of cryptocurrency as a means of consideration.

In light of the present circumstances, it can be posited that cryptocurrency is not inherently an unlawful form of consideration and that smart contracts established with its use are legally enforceable. However, this interpretation is only applicable to the current circumstances. There has been a clear preference for rejecting cryptocurrencies like Bitcoin and Ethereum. These concerns may eventually lead to a determination that cryptocurrency constitutes illicit consideration. Therefore, while crypto transactions may continue in the current climate of legal ambiguity, it is advisable to approach them with circumspection from a commercial standpoint.

However, with the introduction of India's digital currency, which will likely operate on blockchain technology, the same can be used to operate future smart contracts. The Central Government has discernibly explicated its vision for making India a forerunner in the development of blockchain technology. ^{xx} In December 2021, the Ministry of Electronics and Information Technology unravelled the National Strategy on Blockchain Technology to stimulate the growth and development of the same. Further, the Central Government aims to create a digital infrastructure for blockchain technology, promote research in the field and add impetus to the growth of businesses relying on blockchain technology.

(iii) Can Smart Contracts provide an efficient alternative for mandatory requirements of Stamp Duty and Registration as required by the Transfer of Property Act 1882?

Integrating smart contracts within the real estate market may be disruptive, and several stakeholders need to be consolidated before these contracts can be successfully implemented. Pertinent questions arise regarding the enforceability of the same, particularly in the real estate

sector. One such discrepancy is regarding the imposition of Stamp Duty. Stamp Duty is a tax levied by the state government on the sale or transfer of property. It is payable under Section 3 of the Indian Stamp Act, 1899.^{xxi} However, the legislation is silent on e-stamping or a process for stamping smart contracts.

A flat-rate transaction tax can serve as a replacement for Stamp Duty on land transactions. This tax can be applied during the application process and included in the cost of the land parcel, with the funds transferred directly to the relevant government department. The issuance of the tax can be embedded within the contract code, and the fund flow can be directed towards government accounts. This approach eliminates the need to pay Stamp Duty to a collector, which can often lead to disagreements and uncertainties due to the ambiguous nature of the Stamp Duty Act. The discrepancy in duty owed and the potential for collectors to misuse their position can lead to litigation. Additionally, the rates of Stamp Duty vary across states, and the legislation itself is a non-comprehensive and tedious piece of legislation. Integrating the tax directly into the transaction amount minimises the possibility of tax evasion.

The Government of India mandates the registration of immovable property instruments under the respective local administration. Section 3 of the Transfer of Property Act 1882 necessitates the registration of a transfer in property under the rules of the Indian Registration Act 1908. A lease deed in India needs to be mandatorily registered and is void if this formality is not met.^{xxii}

Land Record Management is another grievance that arises in traditional contracts. Untimely delays and bureaucratic hindrances characterise this process. In the case of smart contracts, registration is impossible due to the absence of an e-registration mechanism in India. However, states such as Andhra Pradesh have launched pilot projects in the realm of blockchain technology, two of which explicitly engage with land record management.^{xxiii} The implementation of blockchain technology enables the creation of a digital ledger for recording transactions, ensuring a secure and immutable system of data records with an enduring audit trail. This technology facilitates efficient access to the history of land records or property transactions by various stakeholders, including governments, banks, agents, buyers, and sellers. The use of blockchain can effectively reduce fraudulent activities and prevent property transactions from being duplicated to a single entity. Additionally, this technology can eradicate the practice of benami transactions. Therefore, it is possible for the registration of

smart contracts to be carried out through the adoption of blockchain technology. This mechanism can be integrated into existing smart contracts that use the same technology, ensuring compliance with statutory registration requirements for these contracts and accruing the benefits of adopting blockchain technology.^{xxiv}

LIMITATIONS OBSTRUCTING THE ENFORCEABILITY OF SMART CONTRACT

As mentioned above, these contracts, once established, cannot be altered. While this provides more rigidity to the contracts and lesser scope for unethical moderation of terms, there are potential risks associated with the inflexibility and automation of smart contracts.^{xxv} Once the predetermined conditions are met, the money transfer occurs immediately and cannot be changed. In some cases, the legal framework for enforcing the contract may become outdated, making it unappealing for one party to fulfil their agreement. For this reason, using smart contracts for long-term contractual relationships can be particularly risky. This is a complexity, particularly in situations of contract frustration, due to events of force-majeure.^{xxvi} A relevant example to illustrate the same would be the Covid pandemic. People could not move between cities when transportation and travel were prohibited. Therefore, they cannot return to cities where they study, or work were entrapped at home. In these situations, the operation of smart contracts would lead to the continual enforcement of contracts. However, a predicament would arise for people who leased property for a specific period of time. This would result in losses for the lessee, despite circumstances that were out of their control; the irrevocable and non-flexible nature of smart contracts would disallow them to get relief.

Efforts are being made to develop smart contracts that can be terminated at any point and modified more easily. This approach runs counter to the unchangeable and automated nature of smart contracts. It acknowledges that for smart contracts to be widely adopted in business, they must align with how contractual parties actually behave.^{xxvii}

CONCLUSION

This paper has highlighted the immense potential of blockchain technology to revolutionise the immovable property sector. Given the growing significance of digital transactions for enhanced

efficiency and speed, as well as the emphasis placed on technology in other fields, transitioning to smart contracts could prove advantageous for the real estate market. However, to fully reap the benefits of these digitalised agreements, it is crucial to foster a legal environment conducive to smart contracts. The laws pertaining to smart contract registration would benefit from modifications that provide greater clarity on the process. The e-stamping mechanism, which enables online payment of stamp duty and eliminates the need for paper documentation, is a commendable development. While this paper acknowledges that blockchain technology may contain shortcomings that may not be able to accommodate certain traditional contractual requisites, development and investment in the field will strengthen the current mechanism.

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