
THE IRRATIONAL EXUBERANCE: EXAMINING SMART CONTRACTS AND THEIR CONSIDERATION UNDER THE INDIAN CONTRACTS ACT, 1872

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ABSTRACT

The introduction to the following paper is followed by 2 sections. Section One illustrates a perceptual flaw in the imagination of various models of smart contracts according to the author. The author also conceptualizes an alternative approach to understanding these models. Out of these models conceptualized in Section One, Section Two focuses only on the model of smart contracts that functions entirely within the blockchain architecture, and shows how crypto assets are not adequately studied as consideration in that type of smart contract. Section Two is followed by a conclusion.

Introduction

The 'smart' counterparts of many traditional twentieth century ideas have evolved in the twenty first century. It is inarguable that smart phones are more functional than their traditional counterparts, or that smart cities are more productive in a global economy. I thus extend a similar approach to the realm of smart contracts. I find it imperative to engage in the discourse on the legality of smart contracts; especially now, since smart contracts have already touched the lives of culturally, linguistically and jurisdictionally diverse populations. More importantly, it has done so within a relatively shorter span of time compared to any other principle in the disciplines of contract law or advance data-based technology ever has. I believe the Indian legal discourse has a lot of catching up to do with the progress that technological breakthroughs have already allowed smart contracts to globally embark on.

In my opinion, at this moment, there is no straight answer to the question whether a smart contract is legally enforceable in India. There are numerous models of smart contracts that have a multi-faceted effect on diverse population¹. Because the nature of smart contracts is embedded in such multiplicity, I have assumed that the only fruitful way in which this paper can discuss smart contracts is by engaging only in some specific aspects about it. Therefore, I confine myself to studying the dynamics of smart contracts in the context of Indian Contract Act, 1872² (hereinafter 'the act'), Consideration and Crypto-assets only.

Section 10 of the act puts forth the three elements required for an agreement to be a contract³. These elements are (i) free consent of parties competent to contract, (ii) lawful object and (iii) lawful consideration. Although smart contracts also problematize the understanding of the former two elements, the discourse around legal enforceability of smart contracts primarily seems to focus on the element of consideration⁴. This paper is a response to some elements of this thriving debate in the Indian crypto and legal space. In the following two sections, I opine two of my primary disagreements with the debate respectively.

Section (I): Conceptualizing the Irrational Exuberance

¹ STA Law Firm, *The Enforceability of Smart Contracts in India*, MONDAQ, <https://www.mondaq.com/india/fin-tech/889458/blockchain-and-smart-contracts-indian-legal-status> (last visited Oct 17, 2021).

² Indian Contracts Act, 1872, § 10, No. 9, Acts of Parliament, 1872, (India).

³ *Id.* at Section 10.

⁴ *The Indian Road for Smart Contracts*, LEGAL DESIRE, <https://legaldesire.com/the-indian-road-for-smart-contracts/> (last visited Oct 17, 2021).

My first reason for disagreeing with the debates surrounding the legal enforceability of smart contracts is because these debates assume that there is only one type of smart contract with only type of consideration⁵. However, in practice, there are numerous kinds of smart contracts, implying that there are various kinds of considerations and various ways in which they are operated in a smart contract. The ignorance of the other kinds of smart contracts, in my opinion, stems from the lack of interdisciplinary approach to the study of smart contracts, which makes it harder for nomenclature to flow from the language of code to the legal language.

The primary discrepancy that I have noticed is between how the two disciplines use the terms ‘traditional contract’, ‘smart contract’, ‘dry code’ and ‘wet code’. Because lawyers are interested in the legal element of smart contracts, to draw parallels or distinguish between the normative and the emerging manner of executing contracts, they use the terms ‘traditional contract’ and ‘smart contract’. On the other hand, because the work of programmers is grounded in code, they draw parallels between a ‘dry code’ and a ‘wet code’. Thus, scholars engaging with debates about the legal enforceability often assume that these terms are synonymous in nature.

However, according to me, this practice of equating the binaries is the source of a gross misconception. Scholars should remember that the terms ‘traditional’ and ‘smart’ are the adjectives to the ‘contracts’ in question, and thus indicate the nature of the contract. On the other hand, ‘dry code⁶’ and ‘wet code⁷’ are the languages that the said contract has been written into. Therefore, traditional contract is not synonymous to a wet code, and neither is a smart contract synonymous to a dry code. A simple and accurate conceptualization of these binaries according to me would be:

<u>Traditional Contract</u>	<u>Smart Contract</u>
Is written in a ‘wet code’	Is written in various permutations and combinations of ‘dry codes’ and ‘wet codes’

⁵ Ajay Sabharwal, *Law on the Blockchain: Part I*, THE AGENDA (IYEA) (2020), <https://medium.com/the-agenda-iyea/law-on-the-blockchain-part-i-44d488fc4ac0> (last visited Oct 20, 2021).

⁶ Legalese that “runs” on the brains of lawyers.

⁷ Legalese that “runs” on the computer programme.

This straightforward conceptualization has enabled me to imagine the multiple possibilities of the models of smart contracts more accurately. The models of smart contracts exist on a spectrum, and not in clearly demarcated categories. Some of the obvious models of smart contracts imagined are (i) a contract written entirely in dry code, (ii) a contract written in dry code with a complementary traditional contract written in wet code, and (iii) a traditional contract executed through an encoded payment mechanism that runs on a dry code.

This spectrum of possibilities of smart contracts is illustrated by some scholars⁸, however, they have used terms like “natural language” and “encoded performance” to indicate the nature of the said smart contracts in detail. It is possible to imagine other advanced variations of smart contracts with this terminology. However, I find this terminology unnecessary for a preliminary understanding.

While discussing the legal enforceability of smart contracts, there is one model that is most discussed under the assumption that it is the only model of smart contracts. This is the model that runs entirely on the blockchain and is largely written in wet code. Therefore, I find it important to note that blockchain technology in smart contracts is only one part of smart contract that runs on dry code. Blockchain and smart contracts, both have other functions that do not necessarily intersect. The next section of my paper deals with that model.

Section (II): Rationalizing the Irrational Exuberance

This section of my paper deals with the model of smart contracts that functions entirely within the blockchain architecture. I argue that even within this model that is embedded almost entirely in dry code, possible assets for consideration are not limited to crypto currencies only. Almost every other article that discusses the legal enforceability of smart contracts in India (assuming that there is only one kind of smart contract) discusses whether crypto currency can be accepted as a lawful consideration under the Indian Contracts Act⁹. Although this is a valid point of concern, I think that it ignores the larger picture of crypto assets within which crypto currencies function.

According to me, all crypto assets should be discussed while determining the aspect of consideration because these also are digital assets created, managed, and traded on a

⁸ Smart Contracts Alliance, *Smart Contracts: 12 Use Cases for Business & Beyond*, CHAMBER OF DIGITAL COMMERCE, <http://digitalchamber.org/assets/smart-contracts-12-use-cases-for-business-and-beyond.pdf>.

⁹ *Supra* note 4.

blockchain. I think that the other types of crypto assets like (i) cryptocurrencies, (ii) protocol tokens, (iii) utility tokens, (iv) security tokens, (v) natural asset tokens, (vi) crypto collectibles, and (vii) crypto fiat-currencies will be equally detrimental if smart contracts are to ever become a norm in India, or if they are to be regulated institutionally. I also find it surprising that these crypto assets have been conveniently ignored in the Indian context; even though seminal works around blockchain that discuss crypto assets have been around from last six years.

Cryptocurrencies like bitcoin, according to me, have become the punching bag for every armchair analyst¹⁰. These analysts discuss the legal enforceability of cryptocurrencies being considered as a valid consideration. However, I believe that their debates hastily promote the acceptance of Bitcoin, which is a self-regulating crypto currency, and ignore other kinds of corporate crypto currencies like Facebook's Libra¹¹ which is being marketed as a noble cause since it is governed by Independent Libre Association that is composed of several non-profit organizations working towards banking the unbanked. Other crypto currencies that I think are ignored are the state-based crypto currencies like that of China, Digital Currency Electronic Payment Project (DCEP)¹². Although this currency is reported to be powered by blockchain and implemented through a cryptographically secure set of digital wallets, China's central bank (called The People's Bank of China) will be allowed to track the use of all crypto currency by its users. Even though these crypto currencies have not become the norm yet, they should be considered adequately before proposing to accept them as lawful consideration.

Furthermore, the other kinds of crypto-assets function in a way that, according to me, has not been comprehended by the act at all. For example, protocol tokens like Ether cannot be said as consideration in themselves but rather are the necessary assets for using the decentralized applications that are powered by smart contracts.

Utility tokens like Golem can be considered as lawful consideration because the act allows consideration to be lawful even if it is to be received in future and these tokens give consumers the access to services or scarce resources. However, other utility tokens, like that issued by

¹⁰ *Supra* note 10.

¹¹ Hannah Murphy, *Facebook's Libra currency to launch next year in limited format*, FINANCIAL TIMES, November 27, 2020, <https://www.ft.com/content/cfe4ca11-139a-4d4e-8a65-b3be3a0166be> (last visited Oct 20, 2021).

¹² China's digital currency takes shape, <https://www.lowyinstitute.org/the-interpreter/china-s-digital-currency-takes-shape> (last visited Oct 20, 2021).

Augur, have been creatively used as a crowdfunding source¹³ and coincide with the nature in which an IPO functions, thus, raising question about the appropriate regulating body concerning it. Thus, I think that there are a lot many layers of complexities that are added by these crypto-assets but are overlooked in these debates.

Conclusion

Some scholars propose a case for an Interpretative Reform of the Indian Contracts Act, 1872, opining that it can be applied *mutatis mutandis* to smart contracts¹⁴. I agree with their contention that blockchain based smart contracts can become avenues for money-laundering, digital theft and illegal contracts for ‘physical crimes’ such as hit contracts, and that jurisdictional regulation over them is required. However, I do not believe that there is no need to affirm smart contracts as valid contracts through a dedicated legislation. I also do not agree with their assertion that the substantive law validates smart contracts as valid contracts, so only the procedural laws need a legislative reform.

I strongly believe that interdisciplinary approach to the study of legalising smart contracts in India is urgently required to expand the horizons of research, instead of just engaging in debates around the elements of smart contracts that catch up as trends. A bird’s eye view can only be extended if lawyers and programmers work in a synergy, instead of operating in silos. If such research is not done in an official capacity and if it is not specifically tailored to suit the Indian context urgently, the gap between the progress made by code in the realm of smart contracts and the law in India will keep on increasing. This gap would in turn promote misconceptions, like the ones that are discussed in this paper, and make it more difficult to propose a strong case for legalising smart contracts in India, be it through a separate legislation or through an interpretative reform.

Since, smart contracts are tackling value-based industries like finance, real estate and supply chain by providing huge rewards for early creators and early adopters who participate, I do not think that Indian law has the liberty to be a silent spectator for a decade before acknowledging its presence, like it did with Internet. Internet was a free utility, so early pioneers got little to

¹³ Augur, *Decentralized Prediction Market Augur Raises More Than Oculus Rift in 3 Days of Crowdfunding Campaign*, <https://www.prnewswire.com/news-releases/decentralized-prediction-market-augur-raises-more-than-oculus-rift-in-3-days-of-crowdfunding-campaign-300143633.html> (last visited Oct 20, 2021).

¹⁴ Deepti Pandey & Harishankar Raghunath, *Stationing Smart Contract as a ‘Contract’: A Case for Interpretative Reform of the Indian Contract Act, 1872*, NUJS LAW REVIEW, 13 NUJS L. Rev. 4 (2020).

no incentive for participating, and it initially only tackled information industries like media and publishing. Smart contracts do not have a rigid structure yet and there are frequent new additions to this already dynamic structure. Even though some of these additions are likely to fail or go through frequent aggressive updates, I opine that Indian law should parallelly adapt the same approach and evolve as the code does. Afterall, a little irrational exuberance is needed to build the future!