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CRYPTOCURRENCIES AS CHOSES IN ACTION: THE UMBRELLA AGREEMENT MODEL UNDER INDIAN AND COMMON LAW

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I. ABSTRACT

Most of the research done so far has failed to recognize the specific legal nature of the Bitcoin protocol. This paper argues that as per the Indian Contract Act 1872 the Bitcoin's protocol should be seen as an umbrella agreement: that is essentially a framework through which a set of organizational obligations can be generated by conduct. For example, a node operator who installs and runs the software that is in agreement with the consensus, in fact agrees to the protocol's rules just like an individual agrees with the standard terms of a contract at a typical web-site on the Internet. This paper further examines chose in action categorization through three objections: (a) uncertainty of contract terms, (b) absence of intention to create legal relations, and (c) no consideration, and demonstrates that each one does not work when tested against Indian law. The Section 29's determinability standard, the conduct-based acceptance acknowledged by the Information Technology Act, and Chinnaya v. Ramayya's supporting third-party consideration all are indicative of the same line of thought. The upshot is that Bitcoin's legal recognition can be founded on a doctrinally coherent basis which neither calls for legislative intervention nor deviation from established civil law principles and which can be followed by other common law jurisdictions as a model.In legal terms, participation of full nodes in a blockchain network may therefore be conceptualised as an organisational commitment to apply and uphold the system's validation rules. As for the Bitcoin network, it arises from an offer, defined as in the Whitepaper, and full nodes join it through implied conduct by installing the software. Thus, Bitcoin may be generally qualified as an umbrella

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agreement, with protocol rules as essential terms governing future transactions within a technologically enforced coordination mechanism.

II. KEYWORDS

Bitcoin, cryptocurrency, Indian Contract Act 1872, umbrella agreement, chose in action.

III. INTRODUCTION AND RESEARCH PROBLEM

The legal classification of cryptocurrency or digital currency is one of the most complex issues of private law today. The conventional rather traditional categories such as "thing", "money", "information", "security" account only for the fragments of what distributed ledgers actually are. While some scholars try to classify crypto-assets into existing legal categories turning blind eyes on their technological aspects; others offer entirely new legal constructions, consequently jeopardizing the doctrines' uniformity and stability.[4]

Just such an attempt was recently made in the UK. The UK Parliament passed legislation on digital assets[5]. Property (Digital Assets etc) Act 2025), which has been rightly criticised by leading English lawyers for failing to pinpoint the private law status of cryptocurrencies. Moreover, as predicted, this legislative effort has not been of much practical assistance to judges when adjudicating disputes[6] currency theft still cannot pursue claims in conversion.)

In a recent case Yuen v Li dated 10 Mar 2026 [2026] EWHC 532 (KB) (England and Wales), The High Court of England once again recognized Bitcoin as property with a reference to Tulip Trading Ltd v Bitcoin Association for BSV & Ors EWCA Civ 83 [2023] (England and Wales) case. However, the discussion centred on whether there was a procedural basis for a claim that can conveniently be described as a "proprietary restitutionary claim" which is distinct from a claim for restitution on grounds of unjust

[4] Finck, M, 'Blockchains: Regulating the Unknown' (2018) German Law Journal, 19(4), 665. https://doi.org/10.1017/s2071832200022847
[5] UK Parliament, Property (Digital Assets etc) Act 2025 (2025).
[6] Gandhi K, Whitman V and Harrison R, 20 March 2026.

enrichment, whilst constantly referring to a new "third" category of property and once again prescinding from the true nature of digital currencies.

Particular attention should be paid to the superb academic article[7] summarising various approaches to the classification of digital currencies, "Cryptocurrencies Are Objects Of Property Rights". Baoqi Yuan provides an excellent overview of existing approaches within common law. A truly magnificent overview, which also outlines the historic "Armstrong Wellington" case concerning carbon credits and as well as law-enforcement on milk vouchers among other highly relevant points.

The cornerstone of this article refers to professors Low and Hara[8], who suggest that cryptocurrencies might be correctly subsumed under choses in action as rights to the unique data strings on a particular distributed ledger, or put slightly differently, the right to have unspent transaction output (UTXO) locked to one's public address within a particular ledger.

It is also worth noting that professor Low's position on crypto as choses in action is highly widespread and frequently cited, for example, in works by Iyare Otabor-Olubor; Douglas W. Arner, Jannik Woxholth, Dirk Andreas Zetzsche, Ross P. Buckley; as well as in joint articles of Mr. Low with Peter G. Watts or Jura Golub, etc.[9]

Gustav Jooste in his dissertation at the University of Otago with a reference to Singh v Patel & Elite Business Service NZ Ltd [2020] NZHC 2242 (New Zealand, High Court) also explicitly provides support for treating cryptocurrencies as choses in action.

However, the concept of cryptocurrency as a chose in action – and in particular Low's approach – has been criticised by a number of researchers[10]

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[7]Yuan, B, 'Cryptocurrencies Are Objects Of Property Rights' (2023) https://www.paradigmpress.org/le/article/view/524/450

[8] Low, K. F. K., and Hara, T, 'Cryptocurrencies: Property and possession' (2019) Trusts & Trustees, 25(9), 896–903. https://doi.org/10.1093/tandt/ttz126

[9] Otabor-Olubor, 2021; Zetzsche et al., 2020; Low & Watts, 2020; Golub, J, 'Balkan Yearbook of European and International Law 2022, J' (2022) J. Strossmayer University in Osijek. https://psv4.userapi.com/s/v1/d/5t5GkT028cy8BKvUll5NKYg2qBM8w3DVsZ3pLv30GukvdOKyIYOpQYb24GF9J0W9bmSYuQQx0gteirTo3opP7kfyBe5aNLwCIKnNMPiOuwrH_3rGXHT00g/Balkan_Yearbook_of_European_and_International_Law_2022_Ivana_Kunda.pdf

[10] Alcolea, L. C, 'The tiptoe to crypto: An analysis and account of property in cryptocurrency' (2025) Common Law World Review. https://researchmgt.monash.edu/ws/portalfiles/portal/685328500/659065737-oa.pdf

Certainly, the concept of "choses in action" in common law and the concept of property rights in continental law are not identical, but it would be wrong to deny their proximity and similarity. Moreover, in continental law, scholars attach great importance to the study of the legal aspects of UTXOs in the Bitcoin blockchain[11], and also put forward hypotheses regarding the need to recognise all cryptocurrencies as property rights[12]. In particular, in the concept proposed by Mr Uspenskiy[13], cryptocurrency is recognised as property rights, more specifically as contractual rights, and in particular as umbrella/master agreements. In this case, the essence of the obligation lies in the prior fixing of arrangements on the confirmation of entries in the blockchain (i.e. block validation) in accordance with the rules of the protocol (consensus). The debtors are full nodes (and validators in subsequent consensus rounds like proof of stake, PoS) that relay a "closed" block to the chain, whilst the creditors are the remaining nodes and/or the transaction senders, if their transactions have been included in a block relayed to the chain.

The proposed hypothesis also correlates effectively with such technical phenomena as "empty blocks" (where consensus rules are still followed even if there are no user transactions in the block), as well as with "slashing" (in PoS blokchain), i.e. a penalty for breaching validation obligations undertaken (whereas in a civil law system, the existence of a penalty further attests to the existence of an obligation).

In simple terms, such a contract in some way can also be compared to Shareholder Agreement (SHA), in which nodes are analogous to "shareholders'' who undertake to act (vote) in a certain way and to refrain from performing other actions. In other way this umbrella arrangement is similar to tokenized service level agreements (SLA). A tokenised SLA encodes the contract's essential terms, performance metrics, penalty provisions and other relevant terms directly into a digital token. This allows streamline execution, including autonomous application of penalties, without the need for manual intervention by the parties.

[11] Arndt, J, 'Bitcoin-Eigentum: Zivilrechtliche Einordnung und Eigentumserwerb von Bitcoin (1st ed.)' (2022) Baden-Baden: Nomos Verlagsgesellschaft.
[12] Uspenskiy, M.A. (2017, December 13). Legitimnyy bitkoin [Legitimate Bitcoin]. Zakon.ru. Retrieved from https://zakon.ru/blog/2017/12/13/legitimnyj_bitkoin [In Russian]
[13] Uspenskiy, 2023, 2024 2026

In legal terms, participation of full nodes in a blockchain network may therefore be conceptualised as an organisational commitment to apply and uphold the system's validation rules. As for the Bitcoin network, it arises from an offer, defined as in the Whitepaper[14], and full nodes join it through implied conduct by installing the software.

It is, however, essential to distinguish between the organisational obligations within the blockchain system itself and the obligations that may arise in external legal relations involving its participants. A persistent doctrinal error lies in conflating the duties of full nodes with the obligations arising between the parties to a transaction (the sender and the recipient of coins or the owner and a thief of coins, etc.). Such conflation leads to an incorrect identification of the parties to the legal relationship and distorts the legal nature of the relations in question. Furthermore, the pseudonymity inherent in blockchain systems must not be confused with the indeterminacy of a party to an obligation, nor the latter with the determinability of a specific person, namely, the operator of a full node. Numerous cases of disclosure of personalities behind blockchain addresses (for example, the cases of R. Ulbricht, I. Lichtenstein) prove the possibility of identifying specific personalities in the real world, which, however, is a matter of fact rather than legal.

A. The Umbrella Agreement Hypothesis: Judicial Trends and Doctrinal Foundations

The umbrella hypothesis was initially presented for common law during the International Academic Conclave at Mahindra University (Hyderabad, India) and aroused genuine interest among Indian lawyers, particularly in light of the Madras High Court case[15] that had been decided at that time. The court ruled that cryptocurrencies qualify as "property" under Indian law, enabling bitcoin owners to pursue legal recourse over frozen or conflicted cryptocurrency assets.

This court ruling has rapidly become a favorite subject for Indian digital law scholars and commentators. In the article published in the March 2026 issue of the Indian

[14] Nakamoto, S, 'Bitcoin: A peer-to-peer electronic cash system' (2008) https://bitcoin.org/bitcoin.pdf
[15] Rhutikumari v. Zanmai Labs (P) Ltd., 2025 SCC OnLine Mad 9290 (Madras HC, 25 October 2025).

Journal of Law and Legal Research, Pranav M. Khatavkar investigates this court decision from a comparative international and cross broder perspective, placing a special focus on the court's acknowledgment of cryptocurrency as a property that is capable of proprietary protection, the grant of interim relief supporting foreign-seated arbitration, and the interplay between platform custody and restructuring.[16]

Table 1. Legal status of cryptocurrency in selected jurisdictions

Jurisdiction	**Legal status of cryptocurrency**	**Key authority**
India	Property; exchanges as fiduciaries	Rhutikumari v. Zanmai Labs (2025)
United Kingdom	Third category of personal property	Property (Digital Assets etc) Act 2025
New Zealand	Property capable of being held on trust	Ruscoe v. Cryptopia Ltd [2020] NZHC 728
Russia	Digital currency; treated as property for specified statutory purposes, but not recognized as lawful means of payment	Federal Law No. 259-FZ (2020)
United States	Property for federal tax purposes; broader legal	IRS Notice 2014-21

[16] Khatavkar, P. M, 'Digital Assets And Proprietary Rights: A Cross- Border Study Of Cryptocurrency As Property In Comparative Jurisprudence' (2026, March) Indian Journal of Law and Legal Research. https://www.ijllr.com/post/digital-assets-and-proprietary-rights-a-cross-border-study-of-cryptocurrency-as-property-in-compar

	status remains context-dependent	

In the International Journal of Innovative Research in Technology[17], Dhruv B focuses on succession implications of the Madras court judgment and highlights legal challenges in handling private keys and Hindu Undivided Family shares, while calling for better legal frameworks to address family disputes involving crypto assets.

This case was also recently cited by Saakaar Butta in the Indian Journal of Integrated Research in Law[18] as an example of "platform distress". In his paper Mr. Butta has critiqued the applicability of traditional bailment doctrine to digital assets and has made a proposal for a new statutory "digital bailment" provision that would be able to cover the custody, care, and restoration of intangible assets more adequately. Collectively, these works highlight the judgment's role in adapting common law principles to digital realities.

In the present article the authors attempt to argue that Bitcoin's protocol is best characterised under Indian law as an umbrella agreement, a legally cognisable framework that generates organisational obligations through conduct. An umbrella agreement, as understood in commercial law, establishes overarching procedural rules that govern future interactions without requiring the full formation elements of a consequent bilateral contract. The present article applies this framework to Bitcoin protocol in view of Indian legal tradition and recent court practice.

The structure of Bitcoin protocol was intentionally made to bypass third parties and intermediaries by using code, cryptography and consensus instead[19]. This is achieved

[17] Dhruv, B, 'Crypto Inheritance Chaos: Private Keys, Family Disputes, and Hindu Undivided Family Shares Post-Rhutikumari v' (2026) Zanmai Labs. International Journal of Innovative Research in Technology. https://ijirt.org/publishedpaper/IJIRT192174_PAPER.pdf

[18] Butta, S, 'From tangible products to virtual custody: re-imaging bailment for the digital age' (2026) Indian Journal of Integrated Research in Law. https://ijirl.com/wpcontent/uploads/2025/12/FROM-TANGIBLE-PRODUCTS-TO-VIRTUAL-CUSTODY-RE-IMAGINING-BAILMENT-FOR-THE-DIGITAL-AGE.pdf

[19] Sheldon, R, 'A timeline and history of blockchain technology' (2021, August) TechTarget. https://www.techtarget.com/searchcio/feature/A-timeline-and-history-of-blockchain-technology ; Sarwar, M. I., Maghrabi, L. A., Khan, I., Naith, Q. H., and Nisar, K, 'Blockchain: A crypto-intensive technology' (2023) Journal of Information Security. https://doi.org/10.1109/access.2023.3247726

through self-enforcement, akin to arbitration clauses in umbrella agreements (e.g., MRI Trading v Erdenet [2013] EWCA Civ 156 (England and Wales, Court of Appeal), where courts upheld frameworks with implied enforcement. Technical measures like block rejection are sufficient self-enforcement and miners have a clear economic reason to maintain integrity of the blockchain network[20], equivalent to dispute resolution in umbrellas. Since Bitcoin might be seen as an organisational framework (Indian Contract Act, 1872, s. 29), it also may be treated as analogous to self-executing clauses in master agreements like ISDA Master Agreements where general terms frame future deals, creating enforceable obligations under Indian law.

Thus, Bitcoin may be generally qualified as an umbrella agreement, with protocol rules as essential terms governing future transactions within a technologically enforced coordination mechanism.

As a result of exhaustive research the authors addressed a significant portion of the objections raised in worldwide academic literature rejecting classification of cryptocurrencies as obligations under contract law. Such crucial issues as exclusivity, rivalrousness, separability, etc. - and many more discussed in Baoqi Yuan's article[21] described above – none of them prevented cryptocurrency from being classified as a chose in action.

Therefore, under Indian law - and likewise in common law in general - the most complicated remaining doctrinal obstacles for treating Bitcoin as chose in action revolve primarily around 3 key elements: consideration, intention to create legal relations and certainty of terms. It is for this reason that the article addresses each of them in more detail.

B. Research Objectives

The objectives of this paper are:

[20] Davidson, S., and Potts, J, 'Institutional cryptoeconomics' (2024) In The economics of blockchain and cryptocurrency. Edward Elgar.
[21] Yuan, B, 'Cryptocurrencies Are Objects Of Property Rights' (2023) https://www.paradigmpress.org/le/article/view/524/450

1. To establish the doctrinal basis for classifying Bitcoin, under Indian contract law, as an umbrella agreement that generates organisational obligations through participation in the protocol.
2. To examine whether the Bitcoin protocol satisfies the principal requirements of enforceability under the Indian Contract Act, 1872, particularly certainty of terms, intention to create legal relations and consideration.
3. To test the umbrella agreement model against the major common-law objections to treating cryptocurrencies as choses in action.
4. To assess whether the proposed model can offer a coherent and transferable framework for other common-law jurisdictions without requiring a separate or exceptional category of digital property.

C. Research Questions

1. Can the Bitcoin protocol satisfy the certainty requirement under Section 29 of the Indian Contract Act, 1872?
2. Can participation in the Bitcoin network constitute legally cognisable acceptance and an intention to create legal relations?
3. Can the economic structure of the Bitcoin network satisfy the consideration requirement under Indian contract law?

D. Research Methodology

This paper adopts a doctrinal and comparative legal research methodology. The doctrinal component is based primarily on the Indian Contract Act, 1872, with particular attention to Sections 2(d), 2(e), 2(f), 10, 25 and 29, which govern consideration, reciprocal promises, enforceability and certainty of agreements. The paper also relies on Indian case law concerning certainty of terms, acceptance by conduct, electronic contracting and commercial intention.

The comparative component examines selected common-law jurisdictions, particularly England and Wales, New Zealand and the United States. These jurisdictions have been chosen because their courts and legal materials have significantly shaped contemporary debates on crypto-assets as property, choses in action, trusts, consideration and framework agreements.

The Bitcoin Whitepaper is treated as a primary technical source for understanding the protocol's consensus-based structure, while academic literature is used to situate the proposed umbrella agreement model within wider debates on blockchain governance and digital property. The research is therefore doctrinal, analytical and comparative, and does not involve empirical fieldwork.

IV. RESEARCH AND ANALYSIS

A. The Doctrinal Bridge: From Umbrella Agreement to Chose in Action

Before addressing the objections relating to certainty, intention and consideration, it is necessary to clarify why the umbrella-agreement model supports, rather than merely parallels, the classification of Bitcoin as a chose in action. The argument is not that Bitcoin is a physical thing, nor that it is money in the strict legal sense. Rather, the proprietary subject-matter consists of the holder's legally recognised entitlement, within the protocol-governed framework, to have a specific unspent transaction output or equivalent ledger position attributed to a public address and respected by network participants applying the consensus rules.

On this view, the umbrella agreement supplies the juridical source of the entitlement, while the chose in action describes its proprietary form. The relevant right is intangible, non-possessory and enforceable, if disputed, through legal action or analogous proprietary remedies. It is also capable of practical exclusivity because the protocol prevents double spending; capable of assumption by third parties because control may be transferred through valid cryptographic transactions; and sufficiently definite because the relevant ledger entry is objectively identifiable.

Accordingly, the contractual and proprietary analyses are not competing explanations. The protocol-based umbrella agreement explains how obligations arise among participating nodes, while the resulting ledger-linked entitlement explains what the holder owns. This doctrinal bridge permits Bitcoin to be treated as a chose in action without inventing a new category of property and without reducing it to mere information or a purely technological artefact.

B. Argument 1: The alleged lack of certainty in essential terms

1. Certainty as a Legal Standard under Indian Law

Certainty of terms is a foundational requirement for enforceable and binding under Indian contract law. Section 29 of the Indian Contract Act, 1872 states that agreements "the meaning of which is not certain, or capable of being made certain, are void".

The provision is a practical rather than being formalistic one: Indian law does not require that a contract must be drafted in an exhaustive way that it leaves no room for doubt, but on the contrary - requires that essential terms be certain or objectively determinable (The Indian Contract Act, 1872, § 29, Acts of Parliament, 1872 (India).

The statutory illustrations to Section 29 shed light on this standard of determinability. For instance: a contract to sell "a hundred tons of oil" may be invalid if there is no basis to identify the kind of oil, on the other hand it will be valid if the labeling of the product is commercially well known or the surrounding conditions lead to the product being identifiable. In the same way, a contract may be valid where the price is to be determined by a third person (because the term is "capable of being made certain"), but it is void where two alternative prices are mentioned and no criterion is indicated to decide between them.

Indian courts have on many occasions emphasized that Section 29 must not be interpreted as requiring absolute accuracy or an exhaustive specification of future contingencies. For example, in Kollipara Sriramulu v. T. Aswathanarayana[22] (India, Supreme Court)[23], the Supreme Court ruled that simply making a reference to a future formal agreement does not necessarily prevent a binding bargain, and that the decisive question turns on the parties' intention and the circumstances.

This makes the doctrine particularly relevant for framework arrangements: agreements may be binding where essential terms are settled (or determinable) and the parties intend to be bound, even if documentation is contemplated later.

In the case of blockchain protocols, the conditions are not only determinable, but also transparent and verifiable to one the highest levels possible in human civilization.

[22] AIR 1968 SC 1028
[23] Sobhag Narain Mathur v. Pragya Agrawal, 2007

The Supreme Court has also recognised that a binding contract may arise from correspondence and commercial practice where material terms are settled. In Rickmers Verwaltung GmbH v. Indian Oil Corporation Ltd. ((1999) 1 SCC 1) (India, Supreme Court), the Court emphasised that it is the duty of the court to construe correspondence to determine whether there was a meeting of minds capable of creating a binding contract.

In Trimex International FZE Ltd. v. Vedanta Aluminium Ltd. ((2010) 3 SCC 1) (India, Supreme Court), the Court treated acceptance communicated through modern correspondence as capable of completing a contract and stressed that, once a contract is concluded orally or in writing, the contemplated preparation of a more formal document does not necessarily affect the binding nature of the bargain. Trimex case additionally highlights and illustrates the role of reliance and downstream commitments after umbrella: following acceptance, the parties' subsequent commercial steps (including downstream arrangements) should be treated as consistent with an intention to be bound.

The authors have no doubt that full nodes intend to adhere to the consensus, as failure to do so would mean the nodes would see no reward whatsoever (which, given the significant costs of mining, would simply result in huge losses).

Against this doctrinal background, Indian law can treat an agreement as sufficiently certain where essential terms are determinable by objective standards, trade context, surrounding circumstances, or agreed mechanisms (including third-party determination). Therefore, uncertainty invalidates an agreement only where essential terms are genuinely indeterminate or expressly left to future negotiation without any objective standard capable of making them certain.

This framework mirrors umbrella agreements, where overarching rules provide determinability despite future details being agreed later. Protocol's rules provide certainty akin to umbrella agreements' objective criteria (e.g., price fixation by third parties under Section §29, including alteration of pre-set amount of transaction fee by the sender of blockchain transaction in Bitcoin protocol).

2. Bitcoin's Protocol as an Objective Determinative Framework

Eliminating all the other considerations, if one is to view this matter solely in terms of the doctrinal approach, then, amongst others, the operation of the Bitcoin system rests on a set of comprehensive and pre-defined rules which run through all aspects of the system, such as how a person can participate, how transactions are validated, how rewards are emitted, as well as how disputes are solved - solely and exclusively on technological means[24]. Being publicly available, open-source and therefore transparent to everybody, the Bitcoin protocol is a technical standard that is uniformly used by all participants of the system[25]. In fact, the rules strictly follow the mathematical proofs and are verified through the cryptography and the work performed by miners and full nodes on the network.

Under Indian contract law, protocol-based governance finds an analogue in contracts where the determination of essential terms is delegated to mechanical or algorithmic processes. In determining this case, the protocol is fully abided by all the users of the system[26]. Hence, the contract is not so indefinite that it is not a contract anymore; rather, it is quite mathematically and objectively defined (though, of course, in computer science rather than natural language). This framework mirrors umbrella agreements, where overarching rules (e.g., in MRI Trading v Erdenet) provide determinability despite future details being agreed later. Essential parts of the terms and conditions of the Bitcoin network were distilled to the format of Whitepaper by Satoshi Nakamoto.

The concept may be further explained by analogy with tokenized service level agreements (SLA). Under those performance metrics, rewards, penalties, etc. are directly coded into smart-contract on blockchain and quality of service is monitored online. When a condition is met (or violated), the tokenized SLA triggers a penalty deduction, a payment order or even launches self-termination without the need for human interference, manual review, pre-trial negotiations, litigation and actual enforcement.

[24] De Filippi, P., and Loveluck, B, 'The invisible politics of Bitcoin: Governance crisis of a decentralised infrastructure' (2016) Internet Policy Review, 5(3). https://doi.org/10.14763/2016.3.427
[25] Zhu, 2023
[26] Davidson, S., and Potts, J, 'Institutional cryptoeconomics' (2024) In The economics of blockchain and cryptocurrency. Edward Elgar.

3. Distinguishing Bitcoin from Impermissible Agreements to Agree

Bitcoin also should not be equated with the special type of arrangements - "agreements to agree". In contrast, the details of the most indispensable terms for running the Bitcoin network - the proof of work consensus - are not left to later negotiations. The major Bitcoin rules regarding transaction validity, issuance, and especially consensus were already set up in the very beginning[27]. Protocol updates are done publicly and in separate phases, each giving the members a choice to either continue or withdraw, thereby precluding renegotiation as understood in the traditional sense.

4. Common law

- **The basic rule: "Agreements to agree" are not contracts**

In common law, by default, parties are not obligated to negotiate in good faith unless they do that in an express way[28]. The House of Lords firmly endorsed this view in Walford v Miles [1992] AC 128 (England and Wales, House of Lords). What Walford v Miles says:

If parties say: Well agree the remaining terms later, the law considers this as nonbinding. There is no duty to try to reach an agreement. Either party may walk away at any time. Why? Courts can't enforce an obligation to negotiate, so reason would tell that if the parties fail to agree, the court won't be able to decide: what should have been the agreed outcome, when negotiations have been in bad faith, or what the remedy should be. This is the classic "agreement to agree" problem.

- **But this is not the whole story: courts save such agreements**

English courts do not like to allow commercial arrangements to fail when it is quite clear that parties had an intention to be bound. They have been evolving the law for a while to enable them to imply missing terms in particular cases, by reference to basic principles. That is why this legal area is rather complicated.[29]

[27] Cong, L. W., and He, Z, 'Blockchain disruption and smart contracts' (2018) SSRN Electronic Journal. https://doi.org/10.2139/ssrn.2985764
[28] Quagliato, 2008
[29] KSY Juice Blends UK Ltd v. Citrosuco GMBH, 2025

The rules governing agreements to agree provide that a court may, in certain exceptional cases, imply missing terms in order to uphold a commercial agreement, but such cases are confined to situations where the parties had a clear intention. The example of MRI Trading AG v Erdenet Mining Corporation LLC[30]shows that parties may reasonably expect the court to imply a missing term. While strict on "agreements to agree" (Walford v Miles), courts uphold umbrella agreements if they are objective in nature (MRI: implied terms for commercial viability).

If the agreement was regarded as an "agreement to agree", it would not be subject to contract law, as such agreements have traditionally been regarded as insufficiently specific to be recognised as legally binding and enforceable. The court rejected this interpretation solely on the basis of certain unstated terms, given the clear intention to perform the agreement and the clarity of the terms.

MRI presupposes a bilateral bargain in which "to be agreed" terms would otherwise operate as a unilateral escape from legally enforceable obligations – hence the court's insistence on an unconditional, law-backed commitment and on a contractual mechanism to resolve disagreement.

The principle restated in MRI Trading – *certum est quod certum reddi potest* – is of direct relevance here. However, the degree of certainty may vary. The court emphasised that the degree of certainty required is not absolute: where what appears uncertain is, on closer examination, capable of being made certain by objective criteria, the agreement does not fail. Equally significant is the court's observation that, even in the absence of express language, courts will infer an obligation based on what is reasonable in the circumstances.

A further feature of MRI Trading bears mention in this connection. In this case the court specifically notes that the presence of an arbitration clause strengthens the binding nature of this contract, as it provides a specific mechanism that the parties can invoke should any disputes arise. This observation might appear, at first glance, to count against Bitcoin. However, the inference is precisely the reverse.

[30] MRI Trading AG v Erdenet Mining Corporation LLC [2013] EWCA Civ 156.

There is no traditional dispute resolution mechanism in the Bitcoin protocol, because self-execution is guaranteed by the technology. In other words, even in the absence of a formal arbitration clause in the Bitcoin whitepaper, the parties do not merely provide for a clear mechanism for future network running; but also they explicitly and knowingly agree to a mechanism for the guaranteed fulfilment of their obligations in accordance with the consensus mechanism. Arbitration in blockchain umbrella agreements withers away.

In later-generation blockchain consensus arrangements (like Proof of Stake and its variations), the mechanism for resolving disputes, as well as sanctions for breaching pre-defined conditions, is provided for by the protocols, specifically in the form of "slashing" – a protocol-level penalty for breach of the validation obligation – as a built-in sanction, rendering the enforcement mechanism not merely technologically guaranteed but expressly punitive in character.

This analysis finds support in the broader common law principles articulated by Chadwick LJ in BJ Aviation *(England and Wales, Court of Appeal)*. At paragraph 24 of the judgment the court stressed out: "if the court concludes that the true intention of the parties was that the matter to be agreed in the future is capable of being determined, in the absence of future agreement, by some objective criteria of fairness or reasonableness, then the bargain does not fail because the parties have provided no machinery for such determination, or because the machinery which they have provided breaks down (Sudbrook Trading Estate Ltd v. Eggleton [1983] A.C. 444 (England and Wales, House of Lords))."

In this case and the earlier judicial practice discussed, considerable attention is paid to the issue of determining and agreeing upon specific remuneration or payment. In particular, the courts frequently examine payment for goods or rental charges. By contrast, under the Bitcoin protocol, the question of transaction fees remains entirely with the user and does not form part of any mutual obligations between nodes to maintain network consensus.

Nevertheless, even for the sender, the mechanism for determining the transaction fee is governed by predefined rules embedded in the protocol, which clearly provide a method for alteration of pre-set transaction fee. The consequence of choosing a lower

fee is simply that the transaction becomes commercially less attractive for processing by nodes/miners, rather than resulting from any absence of a mechanism or uncertainty about how the fee should be set and what legal consequences follow from increasing or decreasing it. In simpler terms, the protocol itself already provides the user with a structured mechanism for determining and agreeing upon the terms of the future transaction. Frankly speaking, - and especially in later-generation blockchains - the higher the fee, the faster it goes.

Further on in the MRI Trading the judge writes: "a term is to be implied that the TC/RC and shipping schedule shall be reasonable, and in the event of any dispute as to the appropriate charges and schedule the dispute is to be determined by arbitration". The court specifically notes that both cases (Foley v Classique Coaches and Wessex v Fine Fare [1967] (England and Wales)) concern graphs and the price of execution. At the same time, such issues are typically well-regulated in advance and with maximum transparency by the Bitcoin and other blockchain protocols.

It bears emphasis that MRI Trading is invoked here also to establish the outer boundary of what courts will tolerate. In MRI, the arrangement was vulnerable precisely because it appeared like an "agreement to agree" and the court's task was to save it despite that resemblance, by implying missing terms. Bitcoin's protocol faces no such vulnerability. It is a framework from the outset (and updated by voluntary voting by nodes), with all essential terms pre-defined and algorithmically enforced. MRI Trading is therefore relevant a fortiori: if courts are willing to rescue a genuinely borderline arrangement by implying terms, they should have no difficulty recognising an arrangement that requires no such rescue because its terms are already certain, public and self-executing in transparent, trustless and irreversible environment thanks to breakthrough blockchain technology.

Accordingly, MRI is best used as a boundary case showing when courts prevent "agreement to agree" language from defeating a bilateral bargain – not as a template for characterising every programming code out there in the Internet as an enforceable blockchain umbrella agreement. Instead, the better umbrella analogies for Bitcoin are "true framework/master" structures (e.g., Mamidoil framework contracts, master-agreement models, tokenized service level agreements, etc.), where an overarching

rule-set streamlines future transactions and residual variables are handled within the framework rather than by re-negotiating each time.

In Mamidoil-Jetoil v Okta (England and Wales, Court of Appeal) and BJ Aviation v Pool Aviation, the Court of Appeal articulated a framework for distinguishing unenforceable "agreements to agree" from workable framework (umbrella) arrangements: where no contract exists, leaving an essential term "to be agreed" typically defeats formation, but once a contract is found to exist, open-textured clauses about future performance are not necessarily fatal, because courts will, where possible, imply workable terms by objective standards (reasonableness/fairness) and treat what can be made certain as sufficiently certain.

This is precisely why the umbrella analogy is a perfect structural fit for Bitcoin: the protocol acts like a master setup that's pre-agreed and objectively verifiable, which governs a continuous chain of future transactions (without the need for bilateral renegotiation between the parties), and this is the central notion that Mamidoil considers as legally effective in commercial practice. Bitcoin seamlessly blends into this narrative: protocol = set of objective rules. That's why, the common law is in favour of conceptualizing Bitcoin as an umbrella agreement, a notion that is reflected in Indian jurisprudence.

Comparatively, under common law there are precedents like Mamidoil-Jetoil v Okta [2001] EWCA Civ 406 (upheld framework with gaps filled) and RTS Flexible v Müller [2010] UKSC 14 (England and Wales, Court of Appeal) (binding despite "subject to contract" via conduct), the Bitcoin protocol qualifies as an enforceable umbrella agreement.

When certainty is interpreted from the perspective of Indian contract law, which is essentially objective determinability rather than the parties having anticipated and specified every eventuality in detail, Bitcoin thus does not fall under the prohibited category of agreements under Section 29 of the Indian Contract Act. Essentially, the parties are not at all vague or indefinite about the terms of participation / protocol rules; on the contrary, such terms are contained and thoroughly defined in the publicly accessible source (code/whitepaper) that uniformly and predictably dictates behaviours. Acceptance is evident from behavior, protocol-level obligations are

specified, dispute resolution is well-though through technological design rather than judicial intervention and legal recognition arises from the framework level.

On the basis of the principles governing the enforceability of contracts under Indian law, it is not only reasonable but also logical to say that Bitcoin cannot be said to lack certainty in terms of the law as it is currently being interpreted.

In fact, Bitcoin could be seen as an example of a new type of legal structure where legal certainty is achieved through technological determinism, which is in line with the underlying rationale of the Indian contract law and not a contradiction to it.

Besides just passing the certainty test, the structure of Bitcoin's protocol is a good illustration of the Section 29 requirements: terms that are publicly accessible, uniformly applied and objectively determinable. Bitcoin's consensus acts as the objective determinative setup that umbrella agreements under Indian law require: that is a set of pre-agreed conditions that govern all future transactions without the need for bilateral renegotiation of each one.

For umbrella agreement to be valid it does not have to foresee every contingency, it has to provide the procedural infrastructure through which such contingencies are resolved. Bitcoin's protocol is doing exactly this.

Sno	Name of the case	Key words	Major findings
1	Kollipara Sriramulu v. T. Aswathanarayana, AIR 1968 SC 1028	Certainty; future formal contract; intention to be bound	A mere reference to a future formal contract does not prevent a binding bargain. The decisive question is whether the parties intended to be bound immediately, assessed in light of the circumstances.

2	Rickmers Verwaltung GmbH v. Indian Oil Corp., (1999) 1 SCC 1	Correspondence; consensus ad idem; negotiations	A contract may be inferred from correspondence where it clearly shows that there was consensus ad idem on all the material terms. On the facts: no concluded contract existed because essential terms remained unsettled.
3	Trimex International FZE Ltd. v. Vedanta Aluminium Ltd., (2010) 3 SCC 1	Email acceptance; essential terms; later formalisation	A binding contract may arise through modern correspondence, including email, where the offer is accepted unconditionally and essential terms are settled. A later formal document does not defeat the contract unless execution of that document was intended as a condition precedent.

4	MRI Trading AG v. Erdenet Mining Corp. LLC, [2013] EWCA Civ 156	Agreements to agree; implied terms; commercial context	Terms left "to be agreed" are not automatically fatal where the wider commercial context shows an intention to be bound and the missing matters can be made workable by implied reasonable terms or dispute-resolution machinery.
5	Mamidoil-Jetoil Greek Petroleum Co. SA v. Okta Crude Oil Refinery AD, [2001] EWCA Civ 406	Long-term commercial contract; open terms; reasonable price	In long-term commercial arrangements, open-textured clauses are not fatal where the parties acted on the basis of a binding contract and the court can imply reasonable terms to make the bargain workable.

6	RTS Flexible Systems Ltd. v. Molkerei Alois Müller GmbH & Co KG, [2010] UKSC 14	Conduct; subject to contract; waiver	A binding agreement may arise from the parties' conduct even where formal execution was contemplated, if their objective conduct shows that they intended to be bound and waived the "subject to contract" requirement.

Indian courts draw a clear line where a framework leaves essential terms open without objective standards, effectively becoming an "agreement to agree." In Parsvnath Developers Ltd. v. Asset Reconstruction Company (India) Ltd[31], the Court characterised the draft restructuring agreement as "inchoate," noting that essential terms (including settlement amount, repayment schedule, interest, and securities) were left blank, thereby negating consensus ad idem.

This case usefully restates the classical boundary: a framework is binding only if it imposes definite obligations (or contains objective mechanisms to make essentials certain). Where performance remains contingent on future negotiation without objective criteria, both certainty (Section 29) and lawful consideration (Section 10) may fail in substance.

Moreover, Delhi High Court practice illustrates how master terms can govern later purchase/work orders. In Sanghvi Movers Limited v. Vivid Solaire Energy Private Limited[32], the Court held that the contract and purchase orders were "intrinsically

[31] Parsvnath Developers Ltd v Asset Reconstruction Company (India) Ltd, Delhi HC, 19 February 2026.

[32] Sanghvi Movers Limited v Vivid Solaire Energy Private Limited, 2022 SCC OnLine Del 4423 (Delhi HC, 15 December 2022).; Sanghvi Movers Limited v Vivid Solaire Energy Private Limited, 2022 SCC OnLine Del 4423 (Delhi HC, 15 December 2022).

intertwined." Doctrinally, this supports the proposition that where work orders are issued pursuant to a framework, the umbrella's consideration and assent can "flow down" to subsequent instruments, and conduct can evidence acceptance of the umbrella terms.

Therefore, the case law on agreements to agree, properly read, supports the position that Bitcoin can function as a framework agreement: its protocol rules provide objective certainty of terms, participants' conduct manifests acceptance, and economic incentives constitute consideration.

The conditions that justified implication in MRI Trading – parties acting on the arrangement and deriving benefit – are present at the protocol level in Bitcoin. Moreover, as will be demonstrated below, the same conduct that manifests acceptance also generates consideration, and the protocol's rules satisfy the certainty standard to creating binding relations – a conclusion already anticipated by the reasoning in Parsvnath and Sanghvi.

C. Argument 2: The alleged absence of intention to create legal relations.

Traditionally, intention to create legal relations is presumed in commercial arrangements but rebutted in purely social or voluntary settings. Bitcoin presents a difficult case because its architecture proclaims "trustlessness" and minimizes reliance on third parties, including courts. However, the Madras High Court's reasoning reframes this issue. By holding that cryptoexchanges act as custodians holding assets in trust, the Court implicitly recognises that participation in crypto markets generates legally cognisable relationships, even if parties do not expressly invoke contract law.

It is recognised under Indian law that parties may consent to the terms of a contract by person's acts even if there was no formal writing or signature. Here acceptance may be inferred from the parties behaviour or conduct, especially when the bargaining stage leads to commercial or electronic transactions and/or where parties enter into a system which is governed by fixed rules. Moreover, according to the Indian Contract act and Information Technology Act enacted in 2000, electronic contracts are recognized as valid if they involve a lawful offer and acceptance, consideration and legal object. This approach aligns with Indian judicial practice

which emphasizes substance over form and recognizes standard online terms as binding when acceptance and consideration can be clearly inferred from conduct[33].

Using the Bitcoin network as a full node and miner involves the participant engaging in a series of vivacious, deliberate and voluntary acts: obtaining high-cost equipment, buying electricity, installing software that adheres to the protocol and running it, verifying and broadcasting blocks as well as associated activities like management, paying taxes and even state registration of miners (like in Russia).

Such activities would be interpreted as a sign of the participant accepting the rules and limitations of the network operation. When such an individual or legal entity has made an election to join the network as validator, they are then bound to the protocol and cannot just disregard the network settings. It should also be noted that all of the actions listed above are deliberate acts carried out by individuals and/or entities, rather than mere coincidence or a confluence of circumstances.

Blockchains remove the need for third parties and intermediaries, relying instead on code, cryptography, and consensus mechanisms. It might be objected that participants do not appear to intend recourse to courts, but it doesn't mean they are not intended to be bound, thus creating a strong legal obligation. In practice, protocol-level responses such as rejecting blocks are treated as sufficient to address conflicts and maintain coordination. In further protocols, such as PoS, the conflict resolution mechanism is also embedded in the slashing.

This objection conflates the enforcement mechanism with the normative intent. As Bushansky (2026) observes, contract law operates as mimicking law. It is designed to reflect the presumed expectations of contracting parties, not to require that those parties contemplate judicial enforcement. The expectations of node operators in the Bitcoin network are systemic: they commit to operating within the consensus framework for as long as they participate.

The commercial character of Bitcoin's network is, in this regard, decisive. Where an arrangement involves earnings, financial gain or other types of identifiable economic

[33] Aeron, K, 'Validity of Electronic Contracts in India' (2022) SSRN Electronic Journal. https://doi.org/10.2139/ssrn.4278497

interests, common law raises a strong presumption of an intention to create legal relations.

In Edwards v Skyways Ltd [1964] 1 WLR 349 (England and Wales), the court held that in a commercial context involving a specific monetary sum and genuine economic interest, there arises a strong presumption of an intention to create legal relations, even where the language used appears non-binding. This intention is fully applied in Edwards v Skyways irrespective of whether litigation was ever contemplated. Verifying blocks and effecting cryptocurrency transactions, being inherently commercial and involving clear economic stakes within a protocol that transparently defines rights and obligations, fall squarely within the same category and therefore carry the same powerful presumption of legal intent.

The fact that participants do not ordinarily contemplate recourse to courts does not rebut the presumption. It reflects rather the effectiveness of the technological enforcement mechanism, not the absence of intent to be bound (and - in turn - to be fairly remunerated when protocol conditions are met). Parties to an ISDA Master Agreement similarly expect their obligations to be discharged without litigation and upfront design of the settlement mechanism does not render their commitments non-binding.

Also an additional confirmation of the correctness of the chosen research direction is the phenomenon of slashing – that is, the penalty imposed for breaching the organisational obligation to validate blocks according to consensus in later-generation blockchain systems (PoS, dPoS, nPoS, Ouroboros, Tendermint, etc.). Sanctions for violating consensus do not merely ensure compliance with the rules; they lend the obligation even greater legal weight, transforming the interaction between validators into a more robust legal relationship with clear proprietary liability.

Within the continental legal tradition, early soviet legal scholar M.M. Agarkov argued that a sanction is a necessary element of the very concept of an obligation following well-established German civil law doctrine in this respect.

Thus, the introduction of slashing has not only strengthened technical trust in the protocol, reduced the risk of manipulation, and ensured decentralised nature of the

network while minimising failures, but has also significantly enhanced the obligatory character and legal force of the relationships between the parties.

Indian courts accept intention to create legal relations in commercial deals, and this presumption applies strongly in commercial contexts like Bitcoin, where economic value indicates intent to enter into strong legal relations under an overarching framework (and to be remunerated when consensus rules are perfectly met, thanks to trustless technology).

D. Argument 3: The alleged lack of consideration

In terms of consideration, there is no doubt that Bitcoin involves economic value. Nodes with miners spend a huge amount of money on electricity and infrastructure, and users pay transaction fees to get secure and irreversible settlement, and Satoshi Nakamoto offers to nodes/miners issuance of additional coins up to 21M. Notably, the Bitcoin network currently consumes as much electricity as New Zealand[34]. Bitcoin alone passed the 1 trillion US dollars capitalization mark.

In turn, Indian law has a broad interpretation of consideration and thus it can accept both the economic detriment and benefit even when consideration is given by a third party, or is understood by the parties' conduct, etc. Accordingly, it may be said that the incentive mechanism of Bitcoin as an umbrella agreement is a kind of consideration embedded in the protocol rules and its economic value is represented by a well-considered set of rules for future business. This proposal aligns with Indian Contract Act's, 1872 (ICA's) broad definition, as in Chinnaya v. Ramayya (1882) (India, Madras High Court), where third-party consideration is valid. The protocol's incentives serve as mutual promises under umbrella terms.

The wording of Section 2(d) of the 1872 Act is of key importance here: consideration may proceed not only from the promisee but also from any other person ("the promisee or any other person"). This principle underlies the landmark case *Chinnaya v. Ramayya*: (1882) 4 Mad 137, in which consideration provided by a person who was not a party to the disputed promise was held sufficient. Thus, Indian law expressly

[34] Cambridge Centre for Alternative Finance, 2023

departs from the English rule that "consideration must move from the promisee." It would, however, be mistaken to regard this Indian relaxation as an arbitrary local deviation from the "true" development of the common law.

The rule that consideration must come directly from the party to whom the promise was made (the promisee) is itself no longer an absolute axiom of global legal doctrine, from which the common law has increasingly sought to depart, particularly where negotiable instruments or the protection of a third party's interest are concerned. In the United States, this departure is expressly recognized normatively: Restatement (Second) of Contracts § 71(4) expressly permits consideration to be furnished either by the promisee or by another person, while the groundwork for this was laid by *Lawrence v. Fox*: (1859) 20 N.Y. 268. Moreover, English law itself is sometimes prepared to depart from this requirement in relation to negotiable obligations, particularly debts. Thus, under s. 27(2) of the English Bills of Exchange Act 1882, the drawer remains liable to the current holder even though the holder may not have personally provided consideration and nevertheless remains entitled to exercise the rights under the instrument. The Indian counterparts are Sections 43 and the presumption under Section 118(b) of the Negotiable Instruments Act 1881. Accordingly, English law has abandoned rigid rules concerning the source of consideration specifically within the regulation of negotiable instruments. This sphere is closely connected with the circulation of digital coins on the blockchain.

On the other hand, traditionally, consideration must be given "at the desire of the promisor". But in the case of Bitcoin, collective network participants (full nodes) act as promisors via joining the PoW-consensus, similar to multi-party umbrellas like syndicate agreements. The protocol encourages behaviour through its embedded promises in the form of consideration in umbrella setups, where the rewards are determined objectively (e.g. via consensus rules). At a pinch, remuneration in the form of issuing new coins is offered to nodes/miners by Satoshi Nakomoto as the founder of the Bitcoin network.

E. Traditional Concept of Consideration under Indian Contract Law

Consideration is a fundamental constituent of any valid contract under every common law system, including the Indian law. A clear definition of consideration is given in Section 2(d) of the Indian Contract Act, 1872:

"*When, at the desire of the promisor, the promisee or any other person has done or abstained from doing, or does or abstains from doing, or promises to do or to abstain from doing something, such act or abstinence or promise is called a consideration for the promis*e."

Section 2(e) defines an "agreement" as "every promise and every set of promises, forming the consideration for each other," while Section 2(f) defines "reciprocal promises" as promises which form the consideration (or part of it) for each other. Section 10 then provides that "all agreements are contracts" if made by free consent between competent parties, for a lawful consideration and lawful object, and not expressly declared void.

When considered together, these provisions give rise to substantial grounds for acknowledging executory, reciprocal commitments (not just payment made at the same time) as legally recognized consideration in commercial transactions. This doctrinal statement explains how the classical quid pro quo model of consideration works: an act or abstaining to do an action is valid consideration when it is done at the request of the promisor. This concept can be easily illustrated with a reference to shareholders' agreements binding business owners to vote or to restrain from voting on pre-agreed terms and conditions.

Indian courts have consistently held that an agreement without consideration is, as a rule, void, unless it falls under one of the exceptions contained in Section 25 of the Act (e.g., agreements made out of natural love and affection or agreements for compensation of past voluntary services).

The Allahabad High Court in the case of Durga Prasad v. Baldeo (India, Allahabad High Court) (Durga Prasad v. Baldeo, 1881) ruled that the expenditure made by the plaintiff in constructing the shops could not be the consideration for a promise of commission, where such expenditure was not at the promisor's desire. The case serves

as an example of the very basic requirement that the consideration must be the promisor's request.

Yet, Indian jurisprudence supports a highly broad and flexible definition of consideration. The consideration does not have to be equivalent; it simply has to have some lawful value and must be done at the desire of the promisor. It can refer to the acts done, the forbearance of a person, or a promise to act or refrain from acting in the future. Such a broad interpretation is to be understood in light of the judicial principle that a consideration is either a benefit to the promisor or a detriment to the promisee.

In a typical umbrella agreement, the parties exchange commitments that structure future transactions such as the commitments to follow standardised terms, pricing mechanisms, supply priority, etc. Now these mutual promises constitute the consideration under Sections 2(d), 2(e), and 2(f), because Indian contract law law treats reciprocal executory promises as being capable of forming the consideration for each other (Indian Contract Act, 1872, s. 2(f)).

Accordingly, in umbrella agreements, the consideration lies in mutual commitments governing future performance and risk allocation, rather than in immediate payment at the moment of contracting.

Even if there is no express promise to enter into future contracts (for procuring future BTC transactions to the network and/or to validate blocks), consideration under Indian law can still arise from the structure of a unilateral standard-form contract (offered in the form of an electronic whitepaper). Although network participants are not obliged to pick up transactions from mempoll and to process thereof, once they choose to do so, they are bound to strictly adhere to the consensus rules published in publicly accessible manner. Where a typical payment service provider publishes detailed payment system terms on its website as a clear offer, consideration is typically supplied by the user's act of acceptance – such as registering with the payment system, initiating a transaction, paying the applicable fees.

Under the Indian Contract Act, 1872, consideration may consist of an act or forbearance, and it need not be a mutual exchange of promises at the same moment. In this setting, the user's performance (creation of a crypto-wallet, use of the network

and payment of transaction fee) constitutes valid consideration for the provider's promise to validate the network under pre-agreed consensus mechanism.

F. Consideration by Conduct and Third-Party Performance

The acceptance of third-party consideration is an example of the Indian legal system recognizing the concept of a third-party intermediary presuming his/her status is made the basis of an individual contractual relationship viz-a-viz with other parties (Indian Contract Act, 1872, s. 2(d)). Such an approach is evident in the case of Chinnaya v. Ramayya in which the court held that a third party stranger to a contract can move consideration and the notion of a two-party bilateral contract is not the only way to establish a contract when the value flow and reliance elements are present.

The most significant feature of this broad interpretation is the rule that consideration can be given by any person not necessarily the promisor or the promisee. In the case of Chinnaya v. Ramayya, the Madras High Court held that consideration by a third party can support a contract[35]. The case is about the defendant, upon the direction of a third party, promised to pay the plaintiff an annuity; the court held the agreement as enforceable, thus endorsing the position which is contained in Section 2(d) where consideration can come from a third party. In this view Satoshi's promise for nodes/miners to issue extra coins subject to fulfillment of umbrella arrangements upon validating the network under PoW-consensus may also be recognized as third party consideration.

Such deviation from the English doctrine of privity of consideration allows a much more practical and sharper tool for analysis: the flow of value within a contractual framework even indirectly. Given such flexibility in Indian law, it is possible to assume that consideration may be interpreted much more broadly: as any type of reasonable benefit for both promisor and promisee.

Courts, following the principles of the Indian Contract Act, 1872, recognise that consideration need not be monetary or contemporaneous in every case and may consist of an act, abstinence, or promise done at the desire of the promisor. Indian law

[35] Sarwar, M. I., Maghrabi, L. A., Khan, I., Naith, Q. H., and Nisar, K, 'Blockchain: A crypto-intensive technology' (2023) Journal of Information Security. https://doi.org/10.1109/access.2023.3247726

also permits consideration to move from "the promisee or any other person," as reflected in Section 2(d) and affirmed in Chinnaya v. Ramayya. At the same time, Durga Prasad v. Baldeo confirms that the act relied upon as consideration must be referable to the promisor's desire and cannot merely be a voluntary act or an act done at the instance of a third party.

Explanation 2 to Section 25 provides that an agreement is not void merely because the consideration is inadequate, although inadequacy may be relevant to whether consent was freely given. This backs a market-oriented strategy where courts usually do not deem a contract as non-binding and unenforceable just because the exchange appears commercially "unequal", as long as the consideration is legal and the consent is voluntary and free. In the same vein, the Supreme Court in Aloka Bose v. Parmatma Devi (India, Supreme Court) points out that enforceability turns on consensus on consideration and terms rather than judicial re-pricing of the bargain. The evaluation implies that uncertainty is not the decisive obstacle: Bitcoin's protocol is open to everyone and the undisputable benefits of using it by all parties involved can be objectively determined, which generally corresponds to the Section 29 emphasis on the determinability rather than exhaustive textual completeness.

At the same time, the framework-agreement lens becomes even more productive around Bitcoin. Here, Indian law's broad conception of consideration (including reciprocal executory promises), acceptance by conduct, and the enforceability of structured framework arrangements provide a coherent doctrinal basis for treating validators' responsibilities as strong legal obligations.

Accordingly, the most defensible legal characterisation of Bitcoin under Indian law is as an umbrella agreement: a normative framework that generates organisational obligations through conduct, sustained by mutual economic benefits that satisfy the broad Indian conception of consideration. This characterisation is distinct from – and more accurate than – either "Bitcoin-as-provision-of-service-contract" or "Bitcoin-as-mere-technical-mechanism".

Determinable protocol rules make acceptance by conduct meaningful, since it is the same conduct carrying the reciprocal benefit that Indian law recognises as consideration. Therefore, relationships formed around Bitcoin's umbrella

arrangement satisfy the full requirements of consideration under the Indian Contract Act, 1872.

V. SUGGESTIONS AND RECOMMENDATIONS

1. First, Indian courts should, in a suitable future dispute, expressly consider the umbrella-agreement characterisation of Bitcoin where the facts show voluntary participation in a public, consensus-based protocol. Such recognition would allow courts to analyse cryptocurrencies through existing principles of contract, property and obligations, rather than treating them as doctrinally exceptional assets.
2. Second, regulators should distinguish between two different levels of legal relationship: the internal organisational obligations of network participants and the external custodial obligations of exchanges or wallet platforms. This distinction is particularly important after Indian judicial recognition that cryptocurrency may be treated as property capable of being held in trust by a platform or custodian.
3. Third, any future Indian regulatory framework for virtual digital assets should remain technologically neutral. It should not depend on whether a system uses proof of work, proof of stake or another consensus mechanism, but should instead focus on whether the relevant protocol rules are public, objective, ascertainable and capable of generating legally meaningful obligations.
4. Fourth, legislative clarification may be useful, but it is not doctrinally indispensable. The existing provisions of the Indian Contract Act, 1872, particularly those governing certainty, consideration, reciprocal promises and enforceability, already provide a workable basis for recognising protocol-based legal relations. If Parliament chooses to legislate, the clarification should confirm rather than replace the operation of established private law principles.
5. Finally, comparative developments, including the United Kingdom's statutory recognition of digital assets as capable of attracting personal property rights, should be used cautiously. They support the need for legal certainty, but they do not require Indian law to create a wholly new category of property where

existing doctrines can adequately explain the legal consequences of blockchain participation.

VI. CONCLUSION

Under Indian law, Bitcoin is best characterised as an umbrella agreement – a legally cognisable normative framework that is neither a classical bilateral contract nor a technically inert coordination mechanism. This characterisation rests on three doctrinal foundations established in the preceding analysis.

First, Bitcoin's protocol satisfies the determinability standard of Section 29 of the Indian Contract Act: its rules are publicly accessible, uniformly applied, and objectively determinable without bilateral negotiation. This is not merely a negative finding – it is the positive foundation of the umbrella-agreement characterisation.

Second, full-node operators' conclusive conduct – installing and running consensus-compliant software – constitutes legally cognisable acceptance of the framework's organisational obligations under Indian law's broad conduct-based approach. The 'trustless' architecture describes the enforcement mechanism, not the absence of normative and binding intent.

Third, the mutual economic benefits flowing through the protocol – first and foremost the pre-determined clear rules for future transactions, and furthermore transaction fees, block rewards, settlement finality, double-spending protection, etc. as well as huge market turnover and worldwide infrastructure – constitute consideration in the broad sense recognised by Sections 2(d) and 2(f), including third-party consideration by Satoshi legally of which is confirmed in Chinnaya v. Ramayya.

The practical consequences cannot be overstated. This characterisation provides a principled basis for protecting bona fide acquirers of digital currency, for allocating liability in disputes involving unauthorised transfers, for freezing assets at custodian platforms and for applying effectively other judicial measures as well as for technologically neutral legislative design.

Moreover, this research under Indian law may stimulate other common law scholars, courts and governments to recognize cryptocurrencies as choses in action in form self-executable umbrella agreements.

In sum, read through the lens of the umbrella agreement, Bitcoin ceases to be an anomaly demanding a category of its own and becomes an instance of something the common law has long understood: a framework that parties enter by acting within it, and are bound by because they do.

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