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Legal Challenges of AI-Driven Contracts under the Indian Contract Act, 1872

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ABSTRACT

The fast evolution of Artificial Intelligence (AI) has profoundly changed the character of the contractual relationships, introducing the AI-based contracts that are executed with minimum or no human interventions. Although these advancements bring efficiency and automation in other areas like fintech and e-commerce, they present crucial legal issues in the context of the Indian Contract Act, 1872. The paper will discuss the compatibility of AI-powered contracts with the conventional rules of the contract law, such as offer and acceptance, free consent, competency, and intention to establish legal relations. It further analyzes issues related to liability, enforceability, and algorithmic decision-making. The study, in a comparative and doctrinal approach, identifies gaps in the current legal framework and makes inferences based on the international practices. The paper believes in adaptive legal interpretation and proposes certain reforms to make it clear, accountable and innovative. Finally, it points to the necessity of a moderate course of action that would not ignore the technological innovations and would also ensure the maintenance of the basic principles of the contract law.

Keywords: Artificial Intelligence; AI-Driven Contracts; Indian Contract Act, 1872; Smart Contracts; Legal Liability; E-Contracts; Contract Law Reforms

1. Introduction

The contracts law has changed dramatically as traditional agreements between people in the face-to-face scenario become digital and automated. In the past, contracts had to be carried out physically, negotiated, and signed. Nevertheless, the introduction of digital technologies also resulted in the formation of electronic contracts (e-contracts) in which parties can sign an agreement via online services[1]. The most recent phase in that development is the advent of Artificial Intelligence (AI)-based contracts, in which smart machines are able to negotiate, sign and even enforce the contractual duties without the direct interference of a human.

Smart contracts are usually linked with AI-driven contracts, which apply sophisticated algorithms, machine learning, and blockchain technology to carry out contractual processes. Unlike smart contracts, which are mostly self-executing contracts that are coded on blockchain platforms, AI-driven contracts are further expanded to include decision-making capabilities. The systems are able to process data, forecast results and adjust contractual terms on the fly. Such a technological breakthrough has transformed

[1] Shandilya S., *Intersection of AI and Agency Law: Accountability, Consent, and the Evolution of Legal Frameworks for Modern Contracts* (Apr. 12, 2025).

industries like fintech, e-commerce, supply chain management and insurance where speed, efficiency and automation are paramount[2].

The role of AI-based contracts in the contemporary business cannot be overestimated. AI-produced contractual arrangements are critical in fintech, where automated loan approvals and algorithm-based trading systems are used. In electronic commerce, AI is used to make websites personal in terms and carry out transactions flawlessly. Likewise, "supply chain automation guarantees real-time execution of contracts without human interference. These advances improve efficiency and lower transaction costs and are minimized by human error. But they also present overwrought legal issues that complicate the conservative legal dogmas. The key issue is that the traditional principles of the contract law do not quite fit the autonomous character of AI systems. Indian Contract Act, 1872 is founded on the assumption that the contracts are established between natural or legal persons that have intention, consent and legal capacity[3]. AI systems do not fit this premise as they are not natural persons and are not the legal entities. This brings ambiguity concerning the validity, enforceability and accountability of AI-driven contracts.

The paper aims to answer some of the most important research questions, such as whether AI systems are capable of making legally binding contracts within the current legal framework and who ought to be responsible when making a decision using an AI system. Is it up to the developer, the user, or the AI system itself? The paper also examines whether existing legal provisions are adequate to deal with these new challenges or it needs reforms. This paper will be restricted to the analysis of AI-based contracts in the context of the Indian contract law, and comparing the results with the foreign jurisdictions. The goals are to explore the compatibility of AI-driven contracts with the existing legal principles, outline the most prominent legal issues, and suggest the needed reforms to guarantee that legal certainty and technological progress go hand in hand.

Problem Statement.

The advent of Artificial Intelligence (AI) when it comes to commercial transactions has had a tremendous impact on how the contract formation and enforcement was perceived. The Indian Contract Act, 1872 is put into question by AI-driven contracts, which can independently negotiate, execute, and amend the terms of the contracts. The Act is based on the fact that human parties exist in a position to have intention, consent, and legal capacity- all of which are not provided by AI systems.This poses a serious legal dilemma: the contracts can be established without face-to-face human interaction and the question of the offer and acceptance, the existence of a free will, and the responsibility assignment arises. Also, AI systems do not have legal personality, which creates uncertainty on accountability in the event of a dispute. The current legal systems in place to govern electronic contracts consider human-mediated digital contracts but not autonomous decision-making by smart systems.

Algorithms bias, error of automated execution, and insufficiency in the transparency of AI processes are additional factors that make the problem even bigger. As a result, there is a strong necessity to consider whether the existing contract law can be adjusted to such technological advancements or whether the extensive legal changes are necessary to provide the clarity, enforceability and fairness of the AI-based contractual relationships.

[2] M.G. Kumar, The Impact of Smart Contracts and AI on Traditional Contract Law in India, 6 Int'l J.L. Mgmt. & Human. 3211 (2023).

[3] S. Misbah & I. Imtiyaz, AI in Contract Law: Navigating Legal Challenges and Opportunities in the Digital Era, **2** LawFoyer Int'l J. Doctrinal Legal Res. 264 (2024).

2. Conceptual Framework

2.1 What AI-Driven Contracts Means.

Artificial Intelligence in the legal setting can be defined as those systems that can perform functions that are normally done by human intelligence (for example, decision-making, learning, problem-solving). AI-driven contracts are contracts in which AI systems are involved in contractual terms negotiation, writing, or implementation[4]. This is in contrast to traditional contracts where the involvement of human beings during the key phases of the contract formation can be minimal or non-existent. The difference between smart contracts and AI-assisted contracts is imperative. Smart contracts are computer-based contracts written in blockchain networks, where the conditions are automatically executed when the predetermined conditions are fulfilled[5]. They are programmed to work on deterministic reasoning and have no decision making ability other than the ability to be programmed. Conversely, AI-assisted contracts entail systems that have the ability to adapt or learn and decide depending on the data input. Those systems have the ability to alter terms, anticipate risks and optimize results, thus bringing a dynamic aspect to contractual relationships.

2.2 The Basics of a Valid Contract.

The Indian Contract Act, 1872, addresses the issue of validity of contracts in India and provides the necessary requirements of a legally binding agreement. These are offer and acceptance, free consent, competency of parties, lawful consideration and intention to form legal relations. The basis of any contract is offer and acceptance where there must be a clear proposal and its unconditional acceptance. With AI-driven contracts, the issue is whether activities carried out by AI systems could be considered as valid offers or acceptances. Free consent should be an agreement of parties, which is not forced, fraudulent, or mistaken. Nevertheless, when algorithms make decisions, the issue of whether there is any real consent emerges.

Competency to contract requires that the parties should be at the age and sound mind. This is not the case with AI systems which are not considered legal personalities. The fact that lawful consideration and intention to form legal relations are lawful only adds to the complications because both of these factors are based on human intention and knowledge.

2.3 Legalization of E-Contracts in India.

The Information Technology Act, 2000 has helped to legalize electronic contracts in India by authenticating the existence of electronic records and electronic signatures[6]. The Act provides that contracts made electronically are legally binding as long as they satisfy the provisions of the Indian Contract Act, 1872. The use of e-contracts has also been validated by Indian courts in several cases that held that contracts made digitally are binding. Nonetheless, the developments mainly cover electronic transactions that are initiated by people. New challenges have arisen, which are not covered by the current legal recognition due to AI-assisted contracts and autonomous decision-making.

[4] R. Mishra & M. Khan, Artificial Intelligence in Legal Practice: Transforming Contract Analysis and Legal Research, LawFoyer Int'l J. Doctrinal Legal Res. 668 (2025).

[5] R.K. Singh, Employing Artificial Intelligence in the Interpretation of Contracts: A Legal Analysis, 14 Indian J.L. & Just. 85 (2023).

[6] R.K. Singh, Employing Artificial Intelligence in the Interpretation of Contracts: A Legal Analysis, 14 Indian J.L. & Just. 85 (2023). *(Duplicate retained only if required in bibliography; otherwise remove.)*

3. Legal Challenges of AI-Driven Contracts

3.1 Problems of the Offer and Acceptance.

The ability of AI systems to make or accept offers is one of the core issues in AI-driven contracts. Under the traditional contract law, willingness by one party and acceptance by another party must be expressed. In the automated systems there is a possibility of the algorithm creating an offer or accepting terms without any human involvement and this poses a question as to whether such moves can be considered legitimate. The vagueness is increased in sophisticated negotiations when AI systems communicate with each other. In these cases, one can hardly determine that there is a meeting of minds, as is necessary in the circumstances of contract law. Contractual obligations are difficult to interpret due to the lack of human intent.

3.2 Free Consent and Intention

The principles of contract law, which presuppose free consent, are that agreements must be made on a free basis. Consent in AI-related contracts is an issue, because algorithms make decisions, not people. Although users might be the first ones to approve AI systems to be used, they might be unaware of the next step of decisions made by these systems and might be unable to regulate them.

The problem is also exacerbated by algorithmic bias, where AI systems can generate results based on biased information[7]. This brings up the question of fairness and validity of consent. The absence of a true meeting of minds puts the very concept of a contract in question.

3.3 Competency to Contract

The Indian Contract Act, 1872 states that the parties involved in a contract must be competent, i.e. be of legal age and sound mind. AI systems fail to meet these requirements since they are not natural persons and legal entities. This leaves a gap in the law since contracts made through AI systems do not fall into the current paradigm. The lack of legal personality of AI also casts some doubts on the definition of contractual relationships. AI cannot accept rights or duties and is not legally a person; thus, it is challenging to hold it accountable.

3.4 Liability and Accountability

One of the most complicated issues is to establish liability in AI-based contracts. In the event of a mistake in decision or harm caused by an AI system, it is not clear who is to be held responsible. Examples of potential candidates are the developer of the system, the user who implemented the system or the organization that is benefiting by the use of the system[8]. The product liability and contractual liability create another issue of distinction. In case of an AI system failure, it can be considered a flawed product. Nonetheless, when the problem is based on contractual obligations, common contract law principles might be relevant. The absence of clear legal guidelines brings about uncertainties and the risk of conflict escalation.

3.5 Mistakes and Unpredicted Consequences.

AI systems and especially machine learning systems can evolve with time. Although this flexibility helps in efficiency, it brings about uncertaint[9]y. There is always a possibility of unintentional results of algorithms because of mistakes in data or unexpected interactions with other systems.

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[7] S.S. Jaswant & P. Kale, Smart Contracts and Blockchain: Legal Issues and Implications for Indian Contract Law, 36 Int'l Rev. L., Computers & Tech. 312 (2022).

[8] S. Rai, Legal Liability Issues and Regulation of Artificial Intelligence (n.d.).

[9] A. Basu & A. Sahoo, Contracting with Artificial Intelligence: Assessing Autonomy under Uncertainty, 33 Eur. Rev. Priv. L. (2025).

This type of uncertainty can be very hard to enforce contracts because contracts can have stipulations that are not expected by parties. This lack of foresight in predicting every possible consequence compromises certainty in contract law.

3.6 Enforceability Issues

The enforceability of AI-generated contracts is a controversial topic. Courts might encounter problems in contract interpretation with AI systems made and signed by systems, and where there is no indication of human intent. There are also challenges of evidence in that it might not be easy to trace how complex algorithms make their decisions. The current legal systems might not be in a sufficient position to deal with these issues, and judicial renewal and legislative change is required. The enforceability of AI-driven contracts will not be very certain without explicit guidelines.

4. Comparative Legal Analysis

An international comparison analysis can help to obtain meaningful information on how to handle the challenges of AI-driven contracts. Its proposed AI Act has been a proactive move by the European Union because it implements a risk-based regulatory approach. The method groups AI systems according to their risk levels and assigns appropriate responsibilities. Although the Act does not directly discuss the law of contract, the concern of accountability, transparency and human oversight are paramount to controlling AI-driven contracts. The United States, in contrast, is more liberal, as it uses the existing principles of law and judicial interpretation. The US courts have been eager to adapt the traditional contract doctrines to suit the technological advancements. This flexibility gives the option of innovating but can also cause inconsistencies in the results of the law.

These foreign strategies provide valuable insights to India. It is necessary to officially understand AI-assisted contracts without changing the foundations of the contract law[10]. It is imperative to set up effective liability systems that would guarantee accountability and minimize legal ambiguity. Also, there is need to have regulatory clarity to facilitate innovation and protect interests of parties involved. India can take the middle ground and integrate the regulation focus of the EU with the flexibility of the US in interpretation. This would help the legal system to deal with the issues of AI-driven contracts effectively and encourage technological advancement.

5. Judicial Trends and Case Analysis

The Indian courts have gradually embraced the concept of electronic contracts validity thus paving the way to dealing with AI-driven contracts[11]. Trimex International FZE Ltd v Vedanta Aluminium Ltd, the Supreme Court confirmed that the enforceability of a contract made by means of electronic communication is not in question, stating that based on digital communications, intention and consensus can be determined. Equally, Shreya Singhal vs Union of India indirectly supported the validity of online transactions, which further led to the wider acceptance of digital transactions[12]. Nevertheless, these scenarios are more about human-initiated electronic contracts and do not specifically involve autonomous AI decision-making[13]. Even within the international context, cases of smart contract-related disputes,

[10] A. Saklani, Legal Frameworks for AI in Electronic Contracts: Cyber Security Imperatives, in *Role of Artificial Intelligence (AI) in the Legal Field: Opportunities and Challenges* 213 (2016).
[11] Trimex Int'l FZE Ltd. v. Vedanta Aluminium Ltd., (2010) 3 S.C.C. 1 (India).
[12] Shreya Singhal v. Union of India, (2015) 5 S.C.C. 1 (India).
[13] N. Sharma & H. Kaur, The Limits of Intent, Artificial Intelligence, and the Collapse of Traditional Liability: From *Mens Rea* to *Machine Rea*—Reimagining Criminal Culpability in the Digital Age 68 (2026).

including those related to transactions involving blockchains, indicate that it is difficult to identify intent and liability in cases where code is automatically executed. Courts have mostly been inclined to consider such contracts to be binding as long as some conventional aspects can be deduced. The jurisprudential trend suggests an interest in changing the current principles according to the needs, yet lack of specific jurisprudence on AI-motivated contracts causes some uncertainty. This gap may be filled by increased reliance by courts on purposive interpretation.

6. Legal Reforms

The existing legal system, especially the Indian Contract Act, 1872, fails to sufficiently cope with the challenges of AI-driven contracts". One of the largest gaps is the fact that AI systems are not legally recognized as entities that can enter into contractual relationships to an extent. Legal reforms are needed to bring the legal status of AI-assisted transactions into focus. There might be amendments to the law that expressly acknowledge contracts made via autonomous systems, so long as they are preceded by human approval[14]. Also, an explicit liability framework should be provided to distribute the responsibility between developers, users, and operators of AI systems. It is also necessary to have a dedicated regulatory agency that regulates AI-based contractual practices, make them transparent, and handle ethical issues, including bias and responsibility. These reforms would boost the legal certainty and promote technological innovation.

7. Conclusion

To sum up, the advent of AI-driven contracts poses a major challenge to the traditional contract law. The original principles of the Indian Contract Act, 1872 based on human intention and consent are growing to be stressed out by autonomous technologies. Adaptive legal interpretation and specific reform is urgently needed to cover the problems of validity, liability, and enforceability. To achieve a balance between encouraging innovation and legal certainty is a key to sustainable adoption of AI into the business world. Finally, the future of contract law will be in its capacity to adapt to the changes in technology so that the law remains pertinent in a more automated world.

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