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Blockchain and Smart Contracts: Opportunities for the Franchising Sector

Introduction

In recent years, the continuous evolution of blockchain technology and the related proliferation of so-called smart contracts has increasingly fueled the debate on the potential that these tools hold for the business world. This alert aims to provide an overview of the topic, highlighting the opportunities that these innovations may offer—particularly for franchising operators—despite the challenges they still face in terms of legal classification.

Blockchain and Smart Contracts – A Brief Overview

Although, as previously mentioned, these are concepts that have been the subject of debate across various sectors for some time, it is worth briefly recalling—without delving into technicalities—what is meant by blockchain technology and smart contracts.

Many readers will already be familiar with the concept of blockchain as a technology based on a so-called "distributed ledger," a system that enables data to be stored and shared among all participants in a network. To simplify, one can imagine blockchain as a kind of "ledger" used to record various types of information (such as the origin of a product, the execution of a contract, and so on), with each entry written on a separate "page" (referred to as a "block"), which—just like in a book—is linked to the previous one (hence the term "blockchain"). What sets this "ledger" apart is that it doesn't exist as a single copy. Instead, identical versions are stored on numerous computers distributed across the globe. Each new entry is automatically and simultaneously recorded on all copies, ensuring that the data is consistent across the network. This decentralized structure underpins the strong security typically associated with blockchain technology: altering any piece of information is virtually impossible without that change being immediately flagged, as the remaining distributed copies act as a constant system of verification.

Among the various types of data that can be stored on a blockchain are so-called smart contracts. These are self-executing software programs that automatically carry out the terms of an agreement when predetermined conditions are met—essentially following an "if A, then B" logic. For instance, in the context of selling a digital music file, a smart contract might operate as follows: "if the user pays X, then the download of Y is enabled."

As soon as the payment is successfully processed, the file becomes available for download, with no further human intervention required. In such cases, the blockchain records—using computer-readable code—the applicable rules, the identity of the contract's creator, the payment instructions, the identity of the payer, the amount paid, the timestamp of the transaction, and so on. This combination of data ensures that the transaction is securely and unequivocally documented.

To offer a more complete understanding, it is useful to begin with a brief examination of the legal context and the challenges these technologies inevitably raise. Such challenges are common when highly innovative tools must be assessed within legal frameworks that are, by nature, rooted in longstanding traditions and prior experience. As will become clear, this is not merely an abstract or theoretical exercise: it has direct implications for how smart contracts can be practically implemented through blockchain technology—a point that will be explored further in the sections that follow, with a focus on the practical potential of these tools.

Smart… "contract"?

Under Italian law, a contract is defined in Article 1321 of the Civil Code as "*an agreement between two or more parties to create, regulate, or extinguish a patrimonial legal relationship between them.*" Likewise, smart contracts now benefit from a statutory definition pursuant to Article 8-ter of Legislative Decree No. 135 of 14 December 2018, as converted by Law No. 12 of 11 February 2019 (hereinafter, the "**Simplification Decree**"): they are defined as "*computer programs operating on distributed ledger technologies*[1]*, whose execution automatically binds two or more parties based on effects predefined by the parties themselves"* and which *"fulfill the requirement of written form through the electronic identification of the parties involved*."

It is easy to observe that the term "contract" does not appear anywhere in the definition of a smart contract. Indeed, a smart contract is certainly a tool that, compared to the traditional notion of a contract, has a much narrower scope.

In this regard, without delving into legal technicalities, it should be noted that, as simply a piece of software executing instructions, a smart contract—unlike a traditional contract—is limited in its ability to capture, for example[2]:

[1] By this definition, blockchain technology is precisely meant, which is described in the same Article 8-*ter* as "*the information technologies and protocols that use a shared, distributed, replicable ledger, simultaneously accessible, and architecturally decentralized based on cryptographic principles, enabling the recording, validation, updating, and storage of data both in clear text and further protected by encryption, verifiable by each participant, and immutable and tamper-proof*".

[2] For further reference on this matter, see the comprehensive Study 1_2019 DI by the Italian Notarial Council dated April 4, 2019, as well as the European Commission's 2021 report titled "*Smart Contracts*

(i) The **contractual cause**: in the typical structure of a smart contract's instructions, there is no room for the practical purpose of the transaction to emerge—that is, the synthesis of the parties' interests that the contract aims to satisfy, which is a fundamental requirement for the validity of a contract. For example, from a smart contract that executes a transfer of funds to a party, it is unclear why the transfer occurs: is it the price of a sale? A loan? A lease payment? This issue opens a significant interpretative challenge, especially when considering the potential pathological consequences for the contractual relationship;

(ii) **Contract interpretation**: the simplicity of the smart contract's programming language—which is one of its greatest strengths—leaves very little room for applying the provisions of the Civil Code governing contract interpretation. For instance, it is difficult to ascertain the parties' common intent or to interpret a smart contract in light of the principle of good faith. The absence of an informational context that "narrates" the underlying relationships giving rise to the smart contract makes such interpretative operations particularly challenging;

(iii) **Contract termination**: This is especially relevant when termination arises from legal grounds dependent on unforeseen external factors, such as the so-called "supervening excessive onerousness" (hardship).

This brief overview is accompanied by a series of further considerations—more practical in nature—relating to the social and economic operability of the instrument, which all appear to point in the same direction. In this regard, it is important to consider the following:

(i) Compared to traditional contracts, smart contracts inevitably suffer from the **limitations of computational language** in expressing the parties' contractual autonomy. While traditional contracts rely on semantic nuance, interpretive clauses, and a degree of flexibility, computer code requires absolute and binary determinacy. In other words, a simple "if-then" clause does not allow for contextual or evolving interpretations. This not only limits the ability of a smart contract to be interpreted, as noted above, but more fundamentally, undermines its capacity to adequately reflect the complex set of interests that typically underpin a traditional contract;

(ii) When considered in isolation, smart contracts also carry the tangible risk of **lacking a clear and informed manifestation of contractual intent**. The informational asymmetry between those who write the code and those who

and the Digital Single Market Through the Lens of a 'Law + Technology' Approach", both of which have highlighted issues that remain highly relevant and open to debate today.

sign (or activate) it is often significant, raising the possibility that parties may not fully understand the content of the obligations undertaken. This raises an issue concerning the formation of the agreement: can a party truly be considered validly bound if they did not understand—or were not in a position to understand—the substance of the obligation?;

(iii) Lastly, there is the issue of **judicial protection**: the automatic and irreversible execution of a smart contract makes it extremely difficult to reconcile its structure with, for example, the ability to seek judicial intervention prior to execution in order to counter an imminent breach; or to request interim relief; or to initiate legal action for termination in the event of non-performance—remedies that are all available under traditional contract law.

At this point, it is natural to ask whether all these considerations condemn smart contracts to a limbo of practical uselessness—or, worse, render their use potentially dangerous.

Clearly, this is not the case. Rather, the conclusion we can draw is that, although a smart contract cannot be understood as a "contract" in and of itself, it nonetheless serves as a valuable supporting tool during the execution phase of a contractual relationship.

In other words, a smart contract can fully realize its innovative potential provided it is clearly acknowledged as something "other" than a contract. Therefore, the contract remains a distinct and external instrument, to which the smart contract necessarily relates, finding in it its proper foundation.

Having thus proposed a possible reconstruction of the legal nature of the smart contract, it is now possible to better appreciate the tool in its practical application, allowing us at least a glimpse of the innovative potential alluded to earlier.

Business prospects: potential applications of smart contracts in franchising dynamics

Although originally developed within the financial and technological sectors, blockchain and smart contract technologies are gradually finding concrete applications across a wide range of economic fields. In this context, the retail sector, food & beverage industry, and more generally, all businesses organized into chains and commercial networks are no exception; indeed, they represent fertile ground capable of elevating these technologies to a new level of practical implementation.

A "pioneering" frontier for the application of these new technologies lies in their use within the organization of franchising networks, where they have the potential to redefine many aspects of the relationship between franchisor and franchisee.

Among the most interesting applications of blockchain technology in franchising is the management of the supply chain. It is well known that having a reliable and transparent

supply chain is one of the keys to success in franchising, since the reputation—and thus the value—of a brand necessarily depends on the ability to offer a high-quality product or service to end customers. Managing product procurement through smart contracts on the blockchain would enable, for example, faster response times, reduction of delays in stock management, and shorter handling times for non-compliant products. Consider, for instance, the opportunities these technologies offer for full traceability of logistical flows from producer to point of sale, with significant advantages in terms of quality control: by recording every stage of the process on a distributed ledger (blockchain)—from production, to transport, to storage—it becomes possible not only to promptly identify liabilities in the event of anomalies, but also to trigger automatic compensation or replacement mechanisms via smart contracts (supported, of course, by an appropriate contractual framework). For example, in a food franchising system, a sensor could register a temperature variation during the transport of fresh food; this event, recorded on the blockchain, would automatically trigger the replacement process for the batch and any related reimbursement, without human intervention—enhancing operational efficiency and contractual trust among franchisor, suppliers, and affiliates.

The protection of the franchisor's know-how offers another perspective on the potential of blockchain technology. Specifically, by using "permissioned" blockchains (where access is granted not to everyone, but only to pre-verified parties), it is possible to set up a system in which only authorized entities—such as contractually bound affiliates—can access certain content, including operational manuals, commercial strategies, internal processes, or proprietary software. The immutability of the ledger allows for tracking every access to confidential information, generating incontrovertible and tamper-proof digital evidence that is also useful in litigation. Furthermore, by integrating smart contracts into the system, access to specific informational assets can be conditioned on the occurrence of certain contractual requirements (for example, payment of an entry fee or the signing of NDAs in digital format), thus automating compliance with confidentiality obligations and transparently recording every step. From this perspective, it becomes clear how the application of new technologies is inextricably linked to a pre-existing and well-defined contractual framework.

At the same time, blockchain technology lends itself to a more efficient, automated, and transparent management of the contractual royalty payment mechanism. In this regard, through pre-programmed smart contracts, it is possible to establish verification and calculation mechanisms based entirely on uniquely verifiable data. Consider a context in which the economic performance of franchisees is collected via integrated digital systems (for example, digitally tracked sales volumes and payments). By linking such systems to a blockchain, it becomes possible to ensure that sales data is immutable, certified, and accessible to the franchisor in real time. The smart contract can then operate according to predefined rules (for instance, a fixed percentage of sales within a given period), automatically triggering the transfer of the due amounts directly to the franchisor's wallet. In this way, the contract not only self-executes but also self-certifies, potentially rendering accounting audits and ex-post controls unnecessary or, at least, residual. It is thus easy to

see how such a mechanism could drastically reduce the risks of underreporting, disputes, and even payment delays.

A final example of how these new technologies can enhance the efficiency of franchising network dynamics is the adoption of strategic decisions based on measurable data through forms of dynamic contractual automation. By collecting information such as the number of receipts issued, stock turnover, or the purchase rate of specific items at particular times—appropriately imported onto the blockchain—such data can serve as trigger events for the execution of dedicated smart contracts. These contracts may, for example, activate promotions on products experiencing sales declines, automatically assign bonuses to franchisees upon surpassing certain targets, or require mandatory attendance at refresher courses in the event of below-average performance, and so forth.

These examples highlight the main advantages of an organic implementation of these new technologies within franchising networks, which can be summarized as follows:

(i) **Increased trust within the contractual relationship**: smart contracts have the potential to eliminate elements of asymmetry and thereby enhance the trust relationship between franchisor and franchisee (consider, for example, the regulation of royalties as well as order management);

(ii) **Reduction of costs and time**: by definition, the content of smart contracts is executed fully automatically, eliminating the need for human intervention;

(iii) **Speed of response**: the ability to know in real time the market conditions in a specific area, consumer preferences, and the performance of a point of sale—verified and secure—undoubtedly constitutes a strategic advantage for making increasingly targeted and informed business decisions.

This summary aims to illustrate only a few of the many potential applications of smart contracts and blockchain technology. However, the scope of their use and the associated benefits is certainly much broader and continuously evolving. Naturally, it is easy to understand that these tools, on one hand, require significant technological investments to integrate them effectively within a business system in order to fully realize their advantages. On the other hand, as highlighted in the preceding sections, they must be employed only when properly framed within an adequate and legally coherent contractual context, so as to avoid the potential issues previously discussed.

Final remarks

There is little doubt that smart contract and blockchain technologies represent, in the long run, a significant opportunity for market players to secure important strategic advantages over their competitors. However, they also pose considerable challenges. Not only does their implementation involve quite high costs, but it must also necessarily

contend with a regulatory framework that, as is often the case in the tech sector, is struggling to keep pace with a rapidly evolving landscape.

More than six years after its enactment, the "Simplification Decree" has yet to be accompanied by the implementing decree that was supposed to establish the technical standards for blockchains—standards essential for smart contracts registered on such blockchains to have full legal validity, including evidentiary value. Moreover, the limited regulatory development on smart contracts—hopefully pending a framework that is more coordinated with contract law—leaves interpreters with the task of a careful hermeneutic effort to ensure the legal soundness of the system and promote an application of these tools that is as consistent as possible with our legal system.

In this regard, it is worth noting that a first step towards even a modest regulation of smart contracts can be found in Regulation (EU) 2023/2854 (the "**Data Act**"), which came fully into force on September 12, 2025. Although this regulation primarily addresses specific data-sharing agreements, it nevertheless introduces initial requirements imposing on smart contracts stringent security models, kill-switch functions to prevent undesired executions, access control mechanisms, and so forth[3].

Therefore, blockchain and smart contract technologies remain a largely "virgin" territory—both in terms of practical application and, especially, legal regulation—full of challenges and gray areas, but also ready to offer significant opportunities to those who will be able to gradually integrate them into their business models.

About Curtis

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[3] Moreover, the Data Act explicitly confirms the nature of the smart contract as a tool for contract execution, rather than as a contract in itself—precisely as highlighted in the preceding sections (see Article 36, paragraph 1, letter e).

Please feel free to contact any of the persons listed below if you have any questions on this important development:

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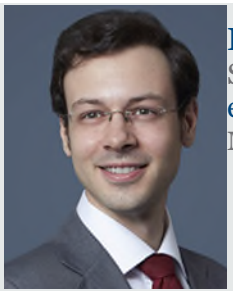

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