BLOCKCHAIN – A TOURISM INDUSTRY'S POTENTIAL DISRUPTER

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Despite the last years' increase of blockchain technology's (BCT) approval and growing in popularity, still there is little research on BCT and its real-life use-cases and application in the service sector, in general, and in the tourism industry, in particular. Moreover, it would be highly recommended to carry out in-depth research that explores the benefits provided for both users and consumers of such products, considering that BCT can also grant a framework for bridging tourism to other areas of the service sector.

Generally speaking, the blockchain technology represents a public and decentralized database (known usually as a digital ledger) which contains a great amount of sharable data, sorted chronological, which cannot be modified once it has been registered. The main difference to other high-tech frameworks consists in the use of a mathematical consensus that excludes human participation (Moro Visconti, 2020). Its use-case can be far greater than the not so approved use of cryptocurrencies and is correlated to a new era of digital development that can be illustrated via new business models in accordance to an updated sharing economy profile. In this context, one of the principal use-cases of BCT is to slowly eliminate the middleman as a provider of online platforms where a customer and a vendor virtually meet, in order to exchange (products or services) and co-create value in a faster, secure, trustful and cheaper way. The transfer of value takes place in real-time and is stored permanently on the blockhain, without anyone's possibility to modify the data.

In the context of a growing sharing economy, the so called *technology companies* that provide services such as ride-hailing or vacation rentals (lodging and other tourism homestays) have become business models that dominate the global market worldwide. The implementation of blockchain and the making of new business models will create the peer-to-peer (P2P) framework for a sharing economy where the only parties that will get real gains in a service exchange are mainly the vendor and the customer, or guest and tourist, avoiding the middleman's high taxes. Implemented in good faith, BCT can become a disrupter in tourism, mostly in relation to global online travel agencies (OTA), marketplaces or global distribution systems.

According to Calvaresi et al. (2019) blockhain offers a proper framework that ensures the avoidance of contradictive and dangerous practices or partnerships, between guests, hosts or other third parties implicated in a tourism service. Therefore, an online tourism business model based on BCT can become an updated marketplace where parties can exchange value based on their own rules without any mediation and being actively involved in the governance of the business as stakeholders. Instead of a small and centralized group of decision makers, the community (vendors, consumers, guest or hosts, depending on the business model) hold the power of decision under the rules and parameters developed for the decentralized autonomous organization (DAO).

Blockchain can also be implemented in the accommodation sector of hospitality. For example, a hotel P2P project has already been implemented since 2017 and represents the first decentralized digital platform for hotels adopting the Ethereum's blockchain smart contract technology. The main problem addressed by this business model is the integration of hotels on a global scale, which normally are dispersed on marketplaces or platforms, and access for customers is limited, overpriced and time-consuming. This platform allows providers of services (hotels) to become more visible to their clients and have direct contact to each other. In other words, this type of platform minimizes the barriers to enter the market creating an ecosystem that provides direct contact between all interested parties.

Implementing this technology will also have a huge impact from a social and economic perspective, mostly for underdeveloped or developing countries or locations (such as small islands). In these countries, in order to achieve soaring results, many firms consider that creating a self-sufficient business and pointing at a high level of transparency might represents the key for success. For example, islands such as the Caribbean where the economy relies predominantly on tourism have already agreed upon the fact that by implementing blockchain might help to directly connect tourists to local hotels (or locals that provide accommodation) and other service providers at lower fees and in a trustworthy setting.

In the current setting of a digital economy, false and hostile reviews represent huge problems for hotels, directly affecting the company's image and indirectly its competitiveness on the sector. Using BCT will mean these hosts will get real and verified reviews that it will not be possible to get altered at any time, neither by the vendor, customer or developers of the platform. Once the information is registered on the blockhain, it will remain at it was initially validated. This way, a hotel, accommodation or other type of tourism worker or business will build an image based on trustful credentials and goodwill by providing a great quality of services and setting a customer relationship management.

There are many other use cases, which have already been investigated or are going to be discovered by practitioners open to innovation. Nonetheless, the highly regarded and essential to every tourism business are the customer loyalty programs, that have got a completely new vibe in accordance to the buyer-persona's profile consisting mostly of millennials. Considering that they have become the major driving force behind the development of online sharing economy, there are reports (Airbnb, 2019) that suggest this younger generation and the following will account for almost 80% of both consumers (tourists) and vendors by the end of 2024. This phenomena has now increased and precipitated due to the current health and economic situation. Moreover, by that time, it is likely that cryptocurrencies (or blockchains native tokens) will represent a favored form of payment and a motivating resource for builduing cutomer loyalty.

These customer loyalty programs will persuade clients to pick the same hotel chain, airline, the services provided by a certain global alliance or online travel agency. At present times, these loyalty programs are more appealing to crypto-enthusiasts that are even willing to contribute to the development of these decentralized platforms by testing and getting rewards in native tokens. Thus, they have become inevitable and indirectly more beneficial for the luxury niche of tourism, because these firms were the first open to enroll to an innovative listing process and platform.

One of the most ingenious and convenient application of BCT in tourism (via digital platforms) might be the integration of various systems with the main purpose of simplifying the process of transferring credits from airlines to hotel partners, venue partners, car rental firms and even restaurants. Moreover, BCT can assure a higher protection regarding personal data and speed of transactions, protecting partners from currency volatility and exchange, but also mitigating additional problems and efforts of accountants working in the billing department by providing correct data with the use of artificial intelligence. In addition, accurate data can be obtained for a further development of a business strategy, operations, environmental management and even custom policy for franchise owners that are willing to upgrade their businesses (Hospitality Technology, 2017).

Little has been found on the matter and yet we have a long road ahead of us. Nevertheless, our main responsibility is to consider if implementing blockchain in tourism will bring forth new opportunities for the entire industry and if this change will deliver more power and value to the people, as decentralization's main objective is taking back the sovereignty from monolithic and centralized powers to parties that are directly involved and willing to exchange value, exclusively created by them, from them, as goods or services.

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