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THE IMPACT ANALYSIS OF BLOCKCHAIN ON THE TOURISM INDUSTRY

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Abstract

Blockchain is one of the most recent network-based technology, with important implications for various sectors, including tourism. Blockchains, which are digital databases, require a computer network to function. Blockchain technologies have fascinated the interest of academics and industry alike because to its unique characteristics such as data integrity, security, decentralisation, and reliability. The most important impact of blockchain technology on the tourist industry is its ability to increase disintermediation. This study examines many elements of blockchain technology and its possible applications in tourism.

Keywords: Blockchain Technology, Tourism, Hospitality, Opportunities.

Introduction

In the last 10 years, the concept of blockchain technology has developed from a conversation in the disciplines of decentralised networking and communication security. The blockchain is being explored as a key to innovation, and it looks to be a technological advance that will disrupt many sectors in the coming decade (Morabito, 2017). Despite being a term, it has swiftly captured the interest of businesses, governments, and financial institutions worldwide. Satoshi Nakamoto, the inventor of the blockchain concept, authored the paper on Bitcoin in 2008, defining the phenomena as a "purely peer-to-peer form of electronic payments without passing via a financial institution." (Nakamoto, 2008). Blockchain is a decentralised transaction and information management system that was first created for the Bitcoin cryptocurrency. Since then, curiosity in blockchain has risen due to the technology's core characteristics: it enables security, privacy, and data integrity without a third-party organisation controlling the transactions. (Yli-Huumo et al., 2016).

A blockchain is a type of digital ledger that is made up of "blocks" of information. Each "block" is a record of the transactions that take place within a network. In the case of cryptocurrencies, these transactions often include the exchange of cash for products or services. Once a certain number of transactions have been recorded, that "block" of data is added to the ledger, producing a "chain of blocks," thus the word blockchain (White, 2017).

Chen et al. (2018) summarises four technological characteristics of blockchain: decentralisation (trust is built through mathematical methods rather than an authority), traceability (every transaction is traceable through the block information), immutability (once a transaction has been completed, it cannot be changed), and currency properties (blockchain and cryptocurrency are inseparable). Furthermore, these characteristics contribute to benefits in the use of technology such as dependability, trust, security, and efficiency.

Because of the rising number of tourists and the changing needs of travellers' organisations, the quick rise and growth of digital technology has provided an incredible potential for the tourism sector to reinvent itself (Rejeb & Karim, 2019). To stay up with post-pandemic recovery and preserve healthy competition in its ecosystem, the tourist sector will embrace new strategies and technologies.

Review of literature

Blockchain technology is an invention applied in the tourism industry (Kowalewski et al., 2017). It enables businesses to function in a trustworthy and transparent manner without the need for central control. The capacity to analyse and arrange information in long-lasting and trustworthy blocks is a novel method of gathering and documenting tourism activities (kumar eta al., 2020) By fostering trust among diverse stakeholders, blockchain technology will help increase the efficiency of the tourist business (Lin et al., 2020).

Despite technological breakthroughs, the blockchain business and applications are still in their early phases (Felin & Lakhani, 2018). These are primarily isolated examples of how technology may help businesses enhance their operations. Nonetheless, it is critical to investigate how blockchain might be used to improve a company's operations.

Visitors must manage their personal information for identification using their passports or cloud-based identity verification (Gahlawat, 2020) Conventional methods of verification are acceptable, but have a single point of failure and present security and privacy concerns.

The recommended use-case scenarios in the hotel business stay consistent. The authors Dogru et al. (2018) propose utilising blockchain to track visitor data, which is similar to tracking luggage information in the airline sector. Food traceability is a hot topic in the restaurant sector. Nonetheless, in all circumstances, the customer's privacy must be protected in order for the application to be successful (Dogru et al., 2018; Akmeemana, 2017). Another use of BCT in the hotel business is presented in Dogru et al. (2018), which, like the airline industry, involves loyalty programmes on a blockchain network. The benefits and prospects of adopting BCT for loyalty programmes in general are discussed in further depth in (Choi 2018; Crnojevi & Katzela, 2017). The authors of Crnojevi and Katzela (2017) suggest POINTS, which are blockchain-based tokens.

Another BCT application related to the hotel and airline industries, but not restricted to them, is the enhancement of online consumer evaluations of tourist items (such as hotels, restaurants, flights, events etc,) as assessed in (Önder & Treiblmaier, 2018; Lam, 2017). In relation to the existing use, there is thus a necessity for technology solutions capable of certifying that the evaluations are genuine and cannot be manipulated by hotels or customers (Önder & Treiblmaier, 2018). Another significant, though not critical, influence of blockchain on the hotel and airline industries is the transition in the structure of online travel platforms from reliance on centralised intermediaries to decentralised governance (Önder & Treiblmaier, 2018).

Research Methodology

Secondary data were acquired through a thorough literature search and other accessible data sources to gain a better knowledge of blockchain technology utilisation by tourist enterprises in general and by all players involved in tourism intermediation. Various secondary data sources were used during the writing process, including books, publications of national and international organisations and statistical

institutes, reports from chambers of commerce, market research conducted by agencies, expert and academic articles, newspaper articles, master's theses, and similar. Among a variety of academic research-supporting sources, Science Direct, Scopus, and Web of Science were chosen as the key databases for the data used in this study.

Conclusion

As blockchain technology rises in popularity and interest in its use in many areas, so does the quantity of research papers is increasing. Despite this, blockchain tourism research is still in its early stages. The use of blockchain technology can affect the role of intermediaries. As blockchain technology advance, their implications will be seen across a broader range of industries. There is a chance that the number of middlemen who supply various sorts of coins/tokens to travellers and businesses may rise. In closing, it would be appropriate to state that few academic research publications exist on the topic especially in the tourism context, which makes this study relevant and timely. According to Dogru et al. (2018), as more hospitality organisations implement blockchain technology, stakeholders in the hotel sector would gain mutually benefits from its adoption. To achieve the study's goal, a full regressive analysis of the existing literature was carried out using information from reliable sources such as Scopus, Google Scholar, Web of Science, and other relevant sources.

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