

Research on the Applications of Blockchain Technology Within Tourism Industry in Vietnam: Proposed Model in Phu Quoc Island

Ngoc Thuyen Ngo

Faculty of Management and Economics, Tomas Bata University in Zlín, Czech Republic

Faculty of Finance and Economics, HUFLIT University, Vietnam

ngo@utb.cz

Abstract: In recent years, blockchain technology has garnered interest from a diverse range of industries and areas, mostly due to its enormous possibilities for transforming the way data is stored and utilized, enhancing security and transparency, and facilitating transactions. In light of the rapid advancement of blockchain technology and the trend toward increasing the awareness of its benefits in the tourism sector, the Vietnamese government, particularly Ministry of Culture- Sports and Tourism, has made significant efforts and played a pivotal role in trying to establish an ecosystem, facilitating blockchain technology to gradually integrate into tourism activities. This contemporary study was conducted to ascertain the level of government interest in fostering an environment conducive to the adoption of blockchain technology in Vietnam. To begin, the author collected secondary data on the number of seminars held and sanctioned by local governments in Vietnam about the use of blockchain technology in tourism since 2018. Second, fifteen tourism specialists who work in resorts, travel agencies, and tourism-related enterprises on Phu Quoc Island were chosen to collect primary data using a mix of open- and closed-ended questionnaires. The Delphi technique was used to evaluate the data collected in order to estimate the outcome of a future scenario involving the establishment of a blockchain system on Phu Quoc Island. The findings indicate that local governments are likely to be interested in expanding the legal framework for access to blockchain technology, and tourism organizations are willing to incorporate blockchain technology into their current operations if the legal framework allows for this new technology. According to the findings, there are two distinct views on which business scope should be prioritized first. For example, hotel and resort representatives prefer to integrate booking and luggage checking first, while travel agencies prefer automatic commission allocation for travel parties involved in the entire tourism procedure.

Keywords: blockchain technology, tourism industry, Vietnam, blockchain applications

1. Introduction

Since its worldwide prominence in 2017, the promise of blockchain technology is now being realized through its application in a variety of other fields (Boucher, Nascimento, & Kritikos, 2017), including financial services, healthcare, and insurance, as well as supply chain and logistics, entertainment, and government (Schlegel, Zavolokina, & Schwabe, 2018), as well as tourism (Kwok & Koh, 2018; Onder & Treiblmaier, 2018). Blockchain technology is a distributed, secure, and immutable public ledger that ensures the security and stability of all transactions. Due to the decentralized structure of this ledger, data saved in it is never lost or deleted accidentally or as a result of a virus attack, and even the smallest details of transactions remain traceable. The travel and tourism industries must share customer information with several providers, which always involves some danger of losing the tourists' personal information. Financial transactions are also critical to this industry, as are money losses as a result of transaction costs. Due to the fact that blockchain is a decentralized storage method, it gives all solutions for securing tourist information while concealing the clients' personal information. It also provides a commendable solution for financial transactions, as it avoids the involvement of a third party and the associated loss of funds due to transactional commission. Recognizing the positive and beneficial application of blockchain in the tourism industry, Vietnam's authorities were among the first in South East Asia to conduct research and initially announce some government-backed legislations to lubricate and ease the use of blockchain in the local tourism sector. Specifically, in March 2020, the Vietnamese government issued Resolution No. 17/NQ-CP, which outlines the critical tasks and solutions necessary for the country's e-government system development. The resolution establishes a legal framework for the use of cutting-edge technologies such as blockchain, the Internet of Things, artificial intelligence, big data, and open APIs. Vietnam's tourism sector is regarded as a spearhead economic sector by the government due to the country's diverse and abundant tourism prospects. In 2019, Vietnam's tourism industry achieved its first miracle, welcoming 18 million international visitors and earning \$32.8 billion in revenue. While tourist arrivals climbed at an average annual pace of 22.7 percent from 2015 to 2019, the tourism industry's contribution to GDP increased from 6% to 9.5 percent during the same period. The desire for simple and inexpensive international transaction procedures and payment systems is being driven by the globalization and digitization of travel and tourism in Vietnam. Thus, "Vietnam's tourism development strategy to 2030" is a policy breakthrough for Vietnam's tourism development in the new era, leveraging advanced technologies to develop tourism and transforming Vietnam into one of the

world's top 30 smart tourist destinations, according to Central committee Resolution No. 08-NQ/TW dated January 16, 2019. There are issues about the current status of the blockchain literature and its relevance/use in the tourism sector, notably in terms of operational issues and the interconnectivity system that links all entities involved in the tourism environment. To achieve success in adopting new technology it should be a result of a mix of government-backed legislation and industry participants' approval and willingness. This study contributes to the Vietnamese tourism industry by assessing the local government's attitude toward blockchain applications, as well as the readiness of tourism entities and the areas of travel enterprises that should be piloted for blockchain applications in Phu Quoc Island-- a Special Economic Zone in Vietnam with strong local government support and minimal bureaucracy. The findings will help some experts to build up the framework model to apply blockchain technology in Phu Quoc Island as the first smart tourism destination in Vietnam. This essay is structured as follows. To begin, an overview of blockchain technology and government regulation surrounding it. This is followed by a study of the literature on the importance of blockchains to the tourism industry, the potential application of BCT in this business, and local government rules and regulations. Following that, the study's methods are reviewed in detail, followed by the presentation of the results and findings. Finally, judgments are taken in light of the data.

2. Literature review

2.1 Blockchain application in tourism industry

The conventional field of tourism and hospitality is being disrupted by blockchain technology's economic and technical paradigm shift, as its underpinning premise allows for the transition from a centralized server-based internet infrastructure to a transparent cryptographic network (Saber et al., 2019; Flecha-Barrio et al., 2020). Online Travel Agencies (OTA) wireless transmissions encounter challenges with transaction fees due to inefficiencies in the finance and banking industries, which can be readily handled with blockchain technology removing intermediaries. By simplifying digital identification of visitors (travelers), increasing provenance, and enabling effective identity, inventory, and credential management, blockchain has the potential to revolutionize the tourist and hospitality sectors (Erceg, Damoska Sekuloska, and Kelic, 2020). The diverse features of DApps, which use smart contracts and cryptocurrencies, facilitate the creation of new business models, which will improve and enhance current business practices, thereby benefiting citizens and travelers alike, because it is expected that more DApps will be introduced into the market, which will streamline the implementation of smart cities and smart tourism.

2.2 Blockchain situation in Vietnam

The year 2021 was predicted to be devastating for a number of businesses, yet Blockchain soared throughout this time period, with all Blockchain-related indexes experiencing significant growth. Vietnam is ranked 10th on the Global Cryptocurrency Acceptance Index, indicating that the Vietnamese people are quite receptive to Blockchain technology. In 2021, Vietnam was a shining light in the global Blockchain world. Historically, it was difficult for Vietnamese firms to compete with international technology corporations. This disparity appears to have reduced in the Blockchain world, where countries' starting points are not that dissimilar. According to Chainalysis, Vietnam is an ideal example of a country whose participation in bitcoin transactions much exceeds its economic position. Vietnam, which ranks 53rd in terms of GDP at approximately \$262 billion and is classed as a low-middle-income country, has a rather high degree of acceptance for bitcoin transactions. It is ranked tenth out of 154 nations on the Global Cryptocurrency Acceptance Index, comparable to industrialized countries such as the United States, China, or South Africa, and even higher than the United Kingdom, France, Germany, Spain, Japan, and Korea. Additionally, according to Finder's poll of 42,000 people in 27 countries, Vietnam has the highest percentage of bitcoin usage. Vietnamese respondents reported purchasing cryptocurrencies at a rate of 41% and Bitcoin at a rate of 20%. This is the highest rate of any country surveyed.

2.3 Vietnamese legal framework

According to the Financial Operations Task Force (FATF), virtual currency is a digital expression of value that can be used in a digital transaction and has functions such as (i) a medium of exchange change; (ii) an accounting unit; and/or (iii) a non-fiat store of value in a country or territory; not issued or guaranteed by any country or territory; the above functions are performed only on the basis of agreement among the virtual currency's user community. Similarly, the European Union (EU) has stated that virtual currency is designed to be a technological representative in Directive No. 2108/843 dated May 30, 2018 relating to the prevention and combat of financial fraud and money-laundering. Digital value that is not issued or guaranteed by a central bank or government agency, is not tied to fiat money, and does not have legal value in the same way that fiat money does, but is

accepted as a medium of exchange by a person or legal entity and can be transferred, stored, and transacted electronically. Additionally, the International Organization for Standardization (ISO) defines virtual currency as a virtual asset with monetary characteristics, meaning that it can be used as a medium of exchange or a store of value in a particular environment, such as a video game or a financial transaction simulation game.

The Vietnamese government is continually upgrading and altering its Bitcoin legislation and regulations in order to stay current with technology breakthroughs while increasing its competitiveness in terms of attracting global investment capital. Indeed, their initial reaction to bitcoin was negative; as stated in Clauses 6 and 7 of Article 4 of Decree 101/2012/ND-CP, as amended by Decree 80/2016/ND-CP. Checks, payment orders, payment orders, collection orders, bank cards, and other non-cash payment instruments, as well as other means of payment, are non-cash payment instruments used in payment transactions, according to Clause 6. And, according to clause 7, "illegal payment methods are those that are not listed in this Article's Clause 6." Additionally, the State Bank of Vietnam's Official Letter 5747/NHNN-PC, dated July 21, 2017, delivered to the government office, states that virtual currencies in general, and Bitcoin and Litecoin in particular, are not currencies and are not authorized means of payment under Vietnamese law. It is illegal to issue, supply, and utilize virtual currencies in general, and Bitcoin and Litecoin in particular (illegal means of payment) as a currency or a method of payment. The local government, on the other hand, has modified its behavior since 2019 as a result of the expansion of blockchain technology and the exponential growth rate of bitcoin. The Ministry of Justice has worked actively and proactively with relevant ministries, branches, organizations, and experts in the fields of technology, domestic, and international law since 2019 to organize economic research, learn from foreign experience through documents, and review the relevant domestic legal system. Additionally, conducting seminars and discussions with professionals and scientists to exchange and explore the practice and requirements for developing and completing the legal framework governing the application and development of blockchain-based products and services (blockchain technology). According to the Ministry of Finance, it established a Research Team on virtual assets and virtual money pursuant to Decision No. 664/QĐ-BTC dated April 24, 2020 in order to conduct research and propose policy contents and management mechanisms consistent with the Ministry of Finance's functions and responsibilities. As a result, on December 16, 2020, the Prime Minister released Decision 2117/QĐ-TTg promulgating a list of prioritized technologies for research, development, and implementation in order to engage actively in the Fourth Industrial Revolution, including blockchain technology.

3. Materials and methods

3.1 Secondary data- study of number of seminars

This study analyzed secondary data to compile a list of all seminars given by the Vietnamese government and foreign organizations on the application of blockchain technology in the tourism industry in Vietnam. Secondary data was gathered from all seminars held in Vietnam between 2018 and October 2021 to determine the possibilities and benefits of implementing blockchain technology in the tourism sector, as well as to discuss and brainstorm on how certain blockchain applications could be used in Vietnam. The author conclude and propose a piloted plan for the adoption of blockchain applications in terms of payment, customer loyalty, luggage screening, and the commission structure of intermediaries based on the conclusion of examined seminars and consolidation of suggested proposals from experts and speakers at seminars.

3.2 Primary data- online interview

Second, the study incorporated a forecasting process framework known as the Delphi method via a focus group interview. In this case, the opinions of local travel agencies on Phu Quoc island regarding blockchain applications were elicited in order to ascertain their readiness to implement sophisticated technology in the island's ecotourism system and which business sector should be targeted first if the government approves blockchain application in the tourism sector completely. The respondents for this study were chosen based on their experience working in the tourism business on Phu Quoc Island for more than five years and were classified into two categories: tourism service providers such as resorts or hotels ranked 4-star above and travel agencies. The depth of experience was justified since these individuals could provide basic knowledge of blockchain technology and its potential impact on the tourism industry in term of immediate and secure payment, loyal customer scheme, luggage screening, and the commission structure of operating travel agencies. Additionally, their level of experience was deemed to increase the dependability of their responses. This method established a context based on practical information received from specialists (Taylor & Wallace, 2007). The researcher sought the viewpoints of these professionals on how they saw the adoption of blockchain technology affecting the future

of tourism on Phu Quoc Island. To do this, the study performed two rounds of semi-structured online interviews with a variety of tourist sector expertise (Cres-well, 2014).

As a first step, the researcher emailed to invite for an online interview fourteen top resorts with five years of experience and seven top travel companies with extensive knowledge in the tourism industry on Phu Quoc Island, receiving responses from ten resorts & hotels and five travel agencies. Prior to the interviews, questions were prepared focusing on their readiness and willingness to adopt blockchain technology in the tourism business. The first round of questions centered on how these stakeholders defined blockchain technology's current role in the industry and how they believed BCT could be used to improve existing business models. The second round of questions fixated on how BTC can be used in payment systems, luggage checking, loyalty programs, and commission fee structures within travel intermediary entities. Following each round of questions, experts are supplied with an aggregated summary of the previous round, which enables them to change their responses in light of the group response. Due to the lockdown situation in Vietnam, the interviews were performed online via Skype with resort and tourist agency management. The purpose of the research and the researcher's responsibilities were explained orally to the participants at the start of the interview; it was emphasized that the interviews would be used solely for research purposes; and it was noted that the participants' identities would not be disclosed in research reports. All interviews were recorded using a laptop recording tool and typed as notes in Microsoft Office Word for later analysis.

4. Results and discussion

4.1 Study of number of seminars regarding to blockchain technology in Vietnam

Table 1: Number of seminars held during 2018-2021

| No. | Name of seminar | Organization | Date | Participants | Speakers | Main Content |
|-----|---|--|--------------------------------|---|---|---|
| 1 | Blockchain application and data management system | Vietnam National University and Vietnam Internet Association | 4 th May 2018 | 300 Blockchain experts and academia | Mr. Pierre Bonnet – CEO of Orchestra Networks Mr. Đỗ Văn Long – Strategic Director of Infinity Blockchain Lab Ms. Nguyễn Huỳnh Phương Thảo – Legal Advisor of Infinity Blockchain Lab | Examine the core issues of Blockchain and Master Data Management, as well as their wide range of applications. Discuss the potential of applying blockchain technology in Vietnam |
| 2 | Blockchain for tourism development in Vietnam | Ministry of Culture, Sport and Tourism | 15 th June 2018 | 200 Government Blockchain experts Tour operators, Traveler, Hotels, Airlines & Land Transport, Insurance | Mr. Alexander Rayner – Advisory Executive of Amadeus Travel Intelligence | The Blockchain approach is comprised of three components in Vietnam. The first is about demand. the second is about connectivity. The third is about the booking decision. |
| 3 | Developing Vietnam tourism-Enhancing decision-making efficiency using Big Data and Blockchain | Tourism Associations in Mekong countries | 8 th September 2018 | 120 Travel companies from Lao, Thailand, Cambodia Government representatives from different ministries | Mr. Patrick Basset-Operational Director Accor Mr. Hà Văn Siêu – Deputy General Director of Vietnam National Tourism | Utilizing blockchain technology for the tourism industry is one of the government's objectives for developing Vietnam tourism. Due to its location and status as a free economic zone, Phu Quoc Island should be regarded the first attempt to implement blockchain technology. |

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| No. | Name of seminar | Organization | Date | Participants | Speakers | Main Content |
|-----|--|---|--------------------------------|--|--|--|
| | Blockchain technology | | | | | |
| 4 | Application of blockchain technology to agricultural product traceability | The Asia Foundation Ministry of Agriculture and Rural Development of Vietnam | 3 rd April 2019 | 100 Government representatives Australian government representatives Australian Tech Company Representative of The Asia Foundation | Ms. Le Thu Hien- Manager of the Asia Foundation's institutional and economic development programs Representative - Ethitrade International, Australia | Launch APEC Connect Project- assisting farmers and participants in the deployment of blockchain technology for agricultural product traceability via QR code for export and participation in the global supply chain. |
| 5 | Blockchain and artificial intelligence applications to optimize company processes and operations | Department of Science and Technology of Vietnam | 12 th December 2020 | 150 Ministerial leaders from a range of ministries | Dương Ngọc Tuấn – Director of Department of Science and Technology Mr. Bui Thanh Tung- Deputy Head of National Assembly Delegation | Overview of Blockchain and AI uses for business and operations; Employing Blockchain in business and organizations particularly in payment system; and identification. |
| 6 | The trend of blockchain applications for government and companies | Vin University | October 2020 | 100 Academia Tech Experts | Prof. Duc Tran – Head of Information Technology Faculty | Panel discussion on the distinctions between blockchain technology and artificial intelligence, as well as some examples of how other countries throughout the world have successfully used blockchain technology. The key sectors in which blockchain technology is being used by governments and businesses are e-government, environmental resources, medicine, tourism, education, logistics, and manufacturing, as well as smart cities. |
| 7 | Creating a non-fungible token (NFT)-based online transaction platform for hotel stays | Vietnam Tourism Association | 5 th October 2021 | 70 Government representatives Travel agencies Hotels and Resorts | Mr. William Nguyen – Founder of Beowulf Mr. Nguyen Tien Trung- CEO of Crystal Bay | Each hotel night, airbnb rental day, and related travel product will yield NFT tokens. These NFT coins will be listed on the NFT exchange and traded. Travelers who have reserved a hotel stay or an AirBNB room, or other travel services that cannot be used for whatever reason, can sell or trade the reserved dates, as well as their own services, |

| No. | Name of seminar | Organization | Date | Participants | Speakers | Main Content |
|-----|-----------------|--------------|------|--------------|----------|---|
| | | | | | | on the NFT market to recoup costs or even profit. |

We can deduce the government's level of interest in developing and deploying blockchain technology in tourism and other industries based on the number of seminars held over a two-year period from 2018 to October 2021, which includes nearly two years of global pandemic and a year of lockdown in general in Vietnam. All government representatives speak positively about the adoption of blockchain technology, particularly Ha Van Sieu, Deputy Director General of the Vietnam National Administration of Tourism, who emphasized the role of the fourth industrial revolution and the application of blockchain technology in tourism development. These programs not only save time while searching for information, but also facilitate travel by establishing optimal connections. The fourth industrial revolution brings about significant advances but also presents numerous problems to all businesses, including tourism. Vietnam's tourism authorities view information technology adoption as an unavoidable development trend that should be accelerated in order to achieve breakthroughs in development and competition. Simultaneously, the government official designated Phu Quoc as a pilot for becoming a smart tourism destination for domestic and international tourists by integrating blockchain technology applications throughout tourism ecosystem.

From the perspective of travel companies and hotel providers, they are all eager to structure their businesses in such a way that they can adopt a variety of blockchain applications aimed at improving the ease and convenience of international payments from international travelers, shortening the time required for authentication, and automating commission frameworks among all involved players.

From the point of view of international and local technological experts regarding of applying blockchain technology in Vietnam, its start-up ecosystem is thriving and might provide fertile ground for blockchain application development. The government has demonstrated a strong commitment to tech startups and has initiated a program to provide resources and training to technology companies over the next few years. Particularly, according to Mr. Dương Ngọc Tuấn – Director of Department of Science and Technology, stated that among the four technological pillars of the fourth industrial revolution, namely the Internet of Things (IoT), artificial intelligence (AI), robotics, and blockchain, the most likely area for startups to exploit and develop is blockchain technology, whereas the remaining technologies require much larger infrastructure investments. Stability and security are the most desired benefits that Blockchain technology may provide to the tourism industry. Due to the decentralized nature of the blockchain, information cannot go "offline" or be lost due to inadvertent deletion or hacker attack, ensuring that each transaction is traceable. The travel sector is significantly influenced by companies exchanging information. For instance, a travel agent must send customer information to airlines and hotels, and tourists' personal belongings are frequently exchanged and tracked between organizations. Accessing and preserving critical information can become easier and more dependable using blockchain technology, as the duty for data storage is now shared across the whole network.

5. Results of online interview internal stakeholders in Phu Quoc Island

For middlemen or provider users – hotel and travel agency managers, for example – the researcher would undertake an initial investigation on their current operational status. The facilitator chose to perform a preliminary round of information gathering from specialists prior to assigning forecasting assignments relating to the feasibility of blockchain application and what and how the business scope should be initially applied using blockchain technology in the tourism context. The preliminary round questioned applicants about their use of blockchain technology across their system's divisions. Except for Fusion Resort Phu Quoc, nine hotel and resort respondents claimed that they have not yet integrated blockchain technology into their operations. According to the resort's representative, they use blockchain technology to generate a token to recognize loyal customers. While three travel agencies stated that they do not employ any technology advancements, two travel agencies began by connecting their systems to Bamboo Airway, one of Vietnam's largest airline businesses, in order to provide trip tickets via smart contract. As a result, the author concluded that the blockchain environment on Phu Quoc Island is not typical, given that the majority of resorts and hotels surveyed have not implemented blockchain technology and nearly half of tourism agencies have begun integrating with airline services to initiate basic blockchain functions.

The first forecasting task/challenge through second question is to determine whether hotels and travel companies are prepared to integrate blockchain technology, provided the government develops a legal framework and guidelines for technology adoption, and that the entire system is in sync to operate apps. All good and positive response was received from respondents, with Interviewee No.7 representing Pullman Phu Quoc – an Accor member – stating: "Worldwide, Accor members have already begun using blockchain technology to book and pay for travel reservations and other travel-related activities. And we are still awaiting approval from the local government to integrate Pullman Phu Quoc into our global operation." Indeed, Webjet, CheapoAir, Expedia, and One Shot Hotels are among the travel companies that accept Bitcoin as a form of payment (Cho-kun, 2013). It can be inferred that all hotel and travel agency representatives are willing to implement blockchain technology and integrate their operations with the local operational system once an approved decree is released by authorities. Within two days, the researcher gathers all of the participant input into a consolidated report. After seeing the first round summary, each Delphi participant is given a third questionnaire in which they are asked to evaluate the things specified by the investigator using the information provided in the first round, with their response staying unchanged.

Delphi Round 2 findings were based on a 5-point Likert scale to determine which areas of business should implement blockchain applications first, including improving customer experience in terms of payment system, booking and checking baggage, incentive systems for loyalty programs, and commission allocation for intermediaries. The results of the experts' opinions are quite disparate: eight hotel representatives believe that booking and checking baggage should be integrated into the blockchain system to increase booking ratios and tourist visits, while five travel agency representatives believe that commission allocation for intermediaries should be the priority blockchain integration. As a consequence, the researcher recommended a piloting plan for the use of blockchain on Phu Quoc Island, as demonstrated in Figure 1, and proposes Dapps (current Dapps) with easy-to-use and viable features for use in the context of tourism, as illustrated in Table 2.

Table 2: Dapps for Phu Quoc Island

| No. | Company Name | CryptoCurrency | Functions |
|-----|---|--|---|
| 1 | Locktrip https://locktrip.com/ | Name: LOC - Ethereum (ERC20) based token - Total Supply: 18,579,041 - Market Cap: \$112,808,874 -Vol(24h): \$219,290 | A decentralized, open-source online travel agent that allows customers to contact directly with property owners via the website or app without paying a commission. - All transactions on the Ethereum-based platform will be recorded and regulated by smart contracts, with the LOC token being the only accepted payment mechanism, but other ways may be used as long as they are converted to LOC at the booking stage. - Value-added services, such as priority listings, will generate revenue. |
| 2 | Winding Tree https://windingtree.com/ | Name: LIF - Ethereum (ERC20) based token - Total Supply: 24,976,439 - Market Cap: \$1.8M -Vol(24h): \$7,286 | A decentralized, open-source online travel agent that enables consumers to contact directly with property owners. The Winding Tree technology, which also includes ticketing, is perhaps the best example of luggage monitoring via blockchain today. Eliminating middlemen simplifies, secures, and streamlines booking and tracking, since every process benefits from transparency. Winding Tree charges suppliers and consumers a nominal price to post and book packages, respectively. - Smart contracts will track and govern all transactions that occur on the Ethereum-based platform. - Miners will be compensated for providing computing power to the network. - Winding Tree is a back-of-the-house system that encourages third parties to develop user-facing interfaces. Future improvements will include the ability to communicate with property management and travel agent systems. |
| 3 | ShoCard & SITA https://www.sita.aero/ | Type: project - N/a - Total Supply: n/a | ShoCard and SITA collaborated on a project to apply Blockchain technology to identity management. Although the platform is still in its infancy, it is expected to pave the |

| No. | Company Name | CryptoCurrency | Functions |
|-----|---|--|--|
| | | - Market Cap: n/a - Vol(24h): n/a | way for a decentralized ID database using a standardized format that would enable travel operators to rapidly and effectively identify clients. |
| 4 | Trippki www.trippki.com | Name: Trip token - Ethereum (ERC20) based token - Total Supply: 100,000,000 - Market Cap: \$112,808,874 - Vol(24h): \$16,086 | Trippki is a consumer loyalty system in action. Customers will be connected to the system, as will a chain of hotels or travel service businesses. Through their stay at a hotel, eligible clients will earn "TRIP" bonus points, which will be permanent, stored on the Blockchain, and can be redeemed - Reservations and payment via Trippki, as well as customer reward/incentive schemes utilizing tokens - A booking, payment, and incentive system built on smart contracts - Users are always rewarded with tokens by the hotels. |
| 5 | Travel Block https://travelblock.io | Name: Travel Block token - Ethereum (ERC20) based token - Total Supply: 600,000,000 | TravelBlock users acquire TRVL tokens to book airline, hotel, cruise, or auto rental reservations, and the ensuing transactions are safely processed and recorded on the blockchain. TravelBlock lists its own inventory and charges no commissions to its members. |
| 6 | Tripago www.tripago.io | Name: Travel Block token - Ethereum (ERC20) based token - Total Supply: n/a | Allows for the creation of a wallet to store TPG for the purpose of purchasing tourism packages quickly and without regard for currency exchange rates. - Allows for fast booking and redemption of reward points. - Tripago's goal is to provide a comprehensive travel solution that includes mobile roaming and Wi-Fi packages, as well as currency exchange services. |
| 7 | TUI-BED SWAP | Project: Bed Swap | TUI, the world's largest tourism corporation, was one of the first to demonstrate a genuine commitment to blockchain technology with the launch of 'Bed-Swap,' an in-house Blockchain project. TUI can use the technology to analyze demand and transfer inventory between points of sale in real time. From there, it can adjust its selling margins in response to demand. |

Note: Market Capital value and daily volume value were captured from CoinGecko on 31st October, 2021.

6. Conclusion

The purpose of this article is to conceptualize the role that blockchain technology can play on Phu Quoc Island, with an emphasis on assisting in the achievement of the Smart Tourism Destination's primary objectives, based on suggestions made by experts during seminars and responses from tourism stakeholders during an online interview. Given the extremely competitive and innovative environment in which tourism destinations operate, blockchain technology may offer a realistic solution for improving the tourism experience, rewarding sustainable behavior, and ensuring benefits to local communities. Additional research could include additional business-related factors that tourism participants should consider, such as inventory control and enhancing the user-friendliness of the booking and payment processes. Additionally, future studies can address the limitation by conducting research with a larger sample size and conducting live discussions to generate a more consensus forecast.

References

- Anddy Lian (2021, October 29). The rise of the use of blockchain and crypto in Southeast Asia. The Business Leader Forum, Retrieved from <https://e.theleader.vn/>
- Anti-money laundering (AMLD V)- Directive (EU) 2018/843 (2018, May 30). Retrieved from [Anti-money laundering \(AMLD V\) - Directive \(EU\) 2018/843 | European Commission \(europa.eu\)](https://ec.europa.eu/eu-anti-money-laundering/)
- Boucher, P., Nascimento, S., & Kritikos, M. (2017). How blockchain technology could change our lives. In European parliamentary research service, scientific foresight unit (pp. 1–28). Brussels: European Parliament.

- Boes, K.; Buhalis, D.; Inversini, A. Smart tourism destinations: Ecosystems for tourism destination competitiveness. *Int. J. Tour. Cities* 2016, 2.
- Chokun, J. (2013). Who accepts Bitcoins as payment. List of companies, stores, shops. <http://www.bitcoinvalues.net/who-accepts-bitcoins-payment-companies-stores-shops.html#sthash.32HN9q5g>.
- Cong, L. W., & He, Z. (2019). Blockchain disruption and smart contracts. *The Review of Financial Studies*, 32(5), 1754–1797. <https://doi.org/10.1093/rfs/hhz007>
- Creswell. (2014). *Research design: Qualitative, quantitative, and mixed Methods*. Sage.
- Crosby, M., et al., 2016. Blockchain technology: beyond bitcoin. *Appl. Innovat.* 2, 6–10.
- Erceg, A., Damoska Sekuloska, J., Kelí c, I., 2020. Blockchain in the tourism industry—A review of the situation in croatia and macedonia. *Informatics* 7 (1), 5. <https://doi.org/10.3390/informatics7010005>. MDPI Multidisciplinary Digital Publishing Institute
- Flecha-Barrio, M.D., et al., 2020. Blockchain Implementation in Hotel Management. *Information and Communication Technologies in Tourism 2020*. Springer International Publishing, pp. 255–266. https://doi.org/10.1007/978-3-030-36737-4_21.
- Gupta, V. (2017). A Brief History of Blockchain. *Harvard Business Review*. online at <https://hbr.org/2017/02/a-brief-history-of-blockchain>.
- Hasson F, Keeney S, McKenna H. Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing*. 2000;32(4):1008–1015. <http://dx.doi.org/10.1046/j.1365-2648.2000.01567.x>.
- Kwok, A. O. J., & Koh, S. G. M. (2018). Is blockchain technology a watershed for tourism development? *Current Issues in Tourism*, 1–6
- Lemieux, P. (2013). Who is satoshi nakamoto? *Regulation*, 36(3), 14–16.
- LockTrip. (2018). LockTrip. <https://medium.com/@LockChainCo/lockchain-rebranding-to-locktrip-completed-3cbd97d4f9c1>.
- Önder, I., & Treiblmaier, H. (2018). Blockchain and tourism: Three research propositions. *Annals of Tourism Research*, 72, 180–182
- Revfine. (2018). How blockchain technology is transforming the travel industry. Retrieved from <https://www.revfine.com/blockchain-technology-travel-industry/>.
- Saberi, S., et al., 2019. Blockchain technology and its relationships to sustainable supply chain management. *Int. J. Prod. Res.* 57 (7), 2117–2135. <https://doi.org/10.1080/00207543.2018.1533261>. Taylor and Francis Ltd.
- Schlegel, M., Zavolokina, L., & Schwabe, G. (2018). Blockchain technologies from the consumers’ perspectives: What is there and why should who care? *Proceedings of the 51st Hawaii international Conference on system Sciences, Hawaii*.
- Sita. (2016). Travel identity of the future - white paper. Sita, 16. Retrieved from: <https://www.sita.aero/globalassets/docs/white-papers/travel-identity-of-the-future.pdf>.
- Taylor, P. C., & Wallace, J. (Eds.). (2007). *Contemporary qualitative research: Exemplars for science and mathematics educators* (Vol. 33). Springer Science & Business Media.
- The Government (2012, November 22). Decree No. 101/2012/ND-CP OF NOVEMBER 22, 2012: On non-cash payment. *Vietnam Law and Legal Forum*, Retrieved from [DECREE No. 101/2012/ND-CP OF NOVEMBER 22, 2012: On non-cash payment \(vietnamlawmagazine.vn\)](https://www.vietnamlawmagazine.vn/decree-no-101-2012-nd-cp-of-november-22-2012-on-non-cash-payment)
- Travelblock. (2018). travelblock2018, (2018). Travelblock. Retrieved from <https://www.travelblock.io/>.