

Blockchain innovation: Current and future viewpoints for the travel industry

Untung Rahardja¹, Qurotul Aini², Sabda Maulana³

Master of Information Technology^{1,2}, Department of Sains and technology³
University of Raharja^{1,2,3}

Jl. Jenderal Sudirman No.40, RT.002/RW.006, Cikokol, Kec. Tangerang, Kota Tangerang,
Banten 15117, Indonesia^{1,2,3}

e-mail: untung@raharja.info¹, ani@raharja.info², sabda@raharja.info³



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Abstract

Disintermediation of the travel industry in the modern area has the most powerful and successful innovation, obviously with the assistance of Blockchain innovation. The market structure has changed since the appearance of online travel planners. Determined to improve the system for the travel industry that as of now depends on this blockchain innovation, for which the reason for this paper was made, a subjective strategy with semi-organized meetings appears to be appropriate to decide the ideal use to draw out the fundamental capability of this blockchain innovation for the business. the travel industry as per specialists. From the consequences of meetings led just as from the aftereffects of considering the impact of blockchain on business, it tends to be inferred that blockchain innovation is a fitting new advance as far as restricting and forbidding new go betweens in the entrance of the travel industry, subsequently it will prompt the vanishing of go-betweenes from the travel industry market and an increment in the framework straightforward that everybody knows.

Keywords: blockchain, industry, framework, innovation

1. Introduction

Blockchain is a decentralized high-limit and solid security information base framework dependent on a progression of information protection[1]. This can be a circulated guide and record exchanges over the organization. Blockchain innovation has a computerized ID, which makes it simpler for clients to do exercises and abbreviate holding up occasions. The utilization of blockchain innovation (BTC) will make it simpler for organizations to keep secure information records. By embracing crypto as installment strategies can liberate all clients from extra charges on the platform. Through shared transmission clients will realize all the data required for their necessities. This shows that blockchain innovation is extremely straightforward, on the grounds that everything exercises can be seen by any remaining clients without the requirement for an outsider. The middle person will be answerable for checking and reporting each exchange to guarantee that the exchange interaction is completed lawfully, the connected gatherings get a commission for their administrations[2]. The organizations Lyft, Airband and Uber are at present going about as delegates, they are additionally making their own economy in their own way. Despite the fact that they are delegates, they are not generally trusted. for reasons unknown clients are subject to clients

this is one of the wellsprings of the significant expenses underlined by the middle person. The pattern of Blockchain innovation is to decrease the requirement for specialists in medical clinics. Accordingly, blockchain can lessen reliance on go-betweens in the business and the travel industry[3]. In this examination, the future effect on the movement and accommodation industry will be identified with blockchain innovation. The primary objective is that in this industry blockchain-based systems are relied upon to build their disintermediation. With this disclosure can answer the part of blockchain innovation whether it upholds the end of middle people and will foster a structure that prompts the force of expanding the degree of disintermediation.

This paper expects to comprehend the effect and capability of BCT on business, business openings and the fate of the travel industry. The specialists in this investigation have given expectations and featured the fate of mediators once this blockchain innovation is executed. Adding to the travel industry writing, this investigation will change the travel industry in new plans of action, just as lessen the effect of blockchain selection. At long last, this investigation adds to the travel industry writing by talking about why BTC is significant for this specific industry.

The construction of this paper is. An outline and outline of blockchain, trailed by writing on why blockchain innovation is so significant and has potential in this industry. Moreover, the exploration strategy will appear exhaustively when the outcomes are found. Furthermore, the end contains the discoveries in this paper.

2. Research Method

This investigation utilizes a subjective technique. For this situation, the specialists' points of view on BTC and their expectations for the aftereffects of the utilization of BCT were discovered to be a reasonable way to deal with answering the examination questions directed by[4]. The specialists who partook in this examination were chosen to acquire top to bottom data on what BCT can mean for the travel industry delegates. There are individuals who are specialists who have broad information based on examination, or involvement with certain exploration fields.

ZBCT characteristics and benefits	Description
Disintermediation	Reduce the industry's dependence on intermediaries within blockchain processes
Non-repudiation	Show the integrity of blockchain
Automation	Fully automate interactions between stakeholders
Processing speed	Increase execution speed due to the automation of the business process
	Reduced transaction time
	No single point of failure
Cost reduction	Reduced cost of transactions
Trust	This includes trust in the integrity and security of payment processing

	Does not require intermediaries or third parties
	Prevents double spending
	Transparency of all transactions without the need for intermediaries
Timestamps	Provide a proof-of-work of what happened before
Immutability	The chain of transactions cannot be tampered with
Less vulnerable	It is difficult to be attacked by malware and hackers
Transparency	Nodes on the blockchain network share the same master records and this leads to more accuracy and consistency among members of the network
Secure transaction	Transactions are controlled by secure algorithms that use public key encryption to reduce the risk of data fraud.

Table 1. Qualities and advantages of blockchain innovation.

2.1 Research design and sampling approach

The information acquired from members' involvement in BCT is reliant upon this examination. Their experience is a significant basis to include as a specialist in their field. Respondents chosen in this investigation depended on over 10 years of involvement with this field. In view of the length of involvement with the field it is legitimate as these individuals can give understanding into blockchain innovation and its latent capacity and effect on the travel industry and, specifically on their delegates. Their degree of skill is additionally seen as expanding the dependability of their answers. This methodology makes a setting dependent on viable data got from specialists. Analysts in this investigation looked for assessments on what they see the presentation of blockchain innovation conceivably meaning for the fate of middle people in the travel industry from specialists[5]. To accomplish this, this investigation utilizes eye to eye semi-organized meetings and Skype interviews that utilize open-finished and shut finished inquiries from various specialists in the field of business digitization, especially in blockchain innovation. Talking specialists in the field is a viable method of gathering information, particularly with regards to investigating new or arising advancements like blockchain. The point is to acquire a top to bottom arrangement and information on the job of blockchain innovation in expanding the degree of disintermediation in the travel industry. Since a couple of individuals have the essential experience, getting subjective data is more appropriate for this investigation which permits it to give answers to inside and out research questions[6].

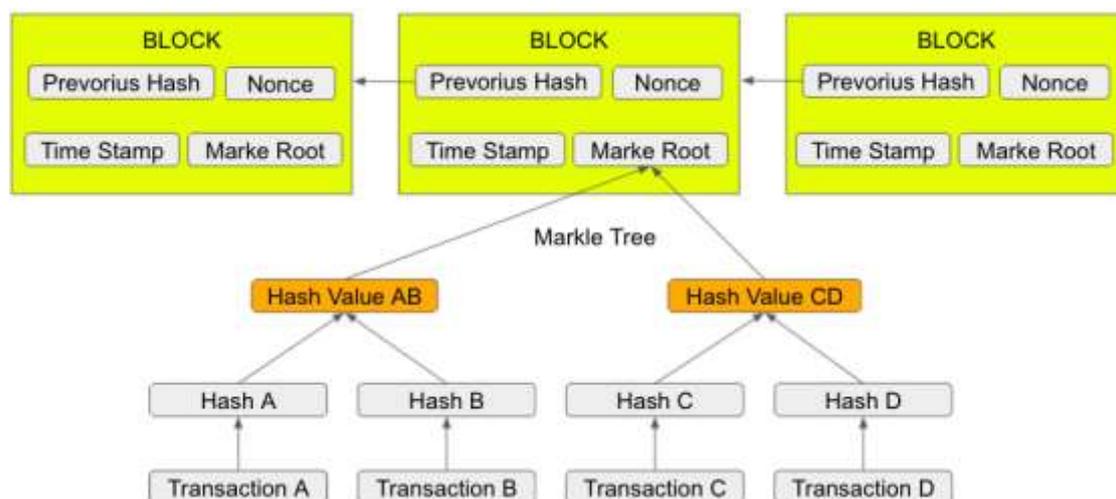
All members were resolved depending on the idea of the examination and the inquiries. The standard for undertaking this is to arrive at an admirable statement where no new data can be added. The analysts couldn't decide the quantity of potential members in advance. Subsequently, in the wake of meeting six specialists in the field of blockchain innovation, an issue was made for this exploration. To affirm the issues in this examination, three extra meeting members were led and concluded that these people didn't add any new data. Before the meeting the inquiries were ready; they center around the reception of blockchain innovation in the travel industry. These inquiries include: 1) how do these specialists characterize the current job of middle people; 2) what they see blockchain innovation will mean for existing and new go-betweens; 3) how they feel the current plan of action can be improved through BCT; and afterward 4) ask their assessment on how blockchain innovation will prompt an expansion in disintermediation rates, particularly in the travel industry. The primary goal of this investigation is centered around the last inquiry. Email will be shipped off specialists who have consented to take part in this investigation. These

members were educated by email about the examination destinations. Specialists directed meetings that kept going a normal of 45 minutes on every member. As far as anyone is concerned, this is the first inside and out subjective examination to explore how blockchain innovation is relied upon to prompt expanded degrees of disintermediation in the travel industry[7].

2.2 Literature Review

Blockchain as an innovation is a progressive creation that has drawn in the consideration of industry and governments all throughout the planet. Essentially, this innovation is a combination of dynamically enrolled data and exchanges that are followed through a dispersed record network in what is known as a circulated record innovation. Blockchain was presented in 2008 as a problematically inventive innovation, alongside the digital money Bitcoin. Utilizing the blockchain idea which is addressed by the utilization of cryptographic money. By working in a shared organization without a focal position[8], [9]. The overall record is associated with the whole organization and exchanges that occur don't need the intercession of an outsider. This construction legitimizes if the framework is available to all individuals who wish to complete substantial exchanges. The utilization of cryptographic calculations implies that every hub associated with the organization is guaranteed of an undeniable degree of safety when executing or approving exchanges. This sets up safer, secret, persevering, detectable, and decentralized admittance to clients. The recognizable proof code, which is articulated "hash", is entered into every aggregation made to the chain. Data can likewise be followed by a more prominent level of exactness, which further fortifies the security of the framework. Picture. 1 presents the mechanical construction of the blockchain.

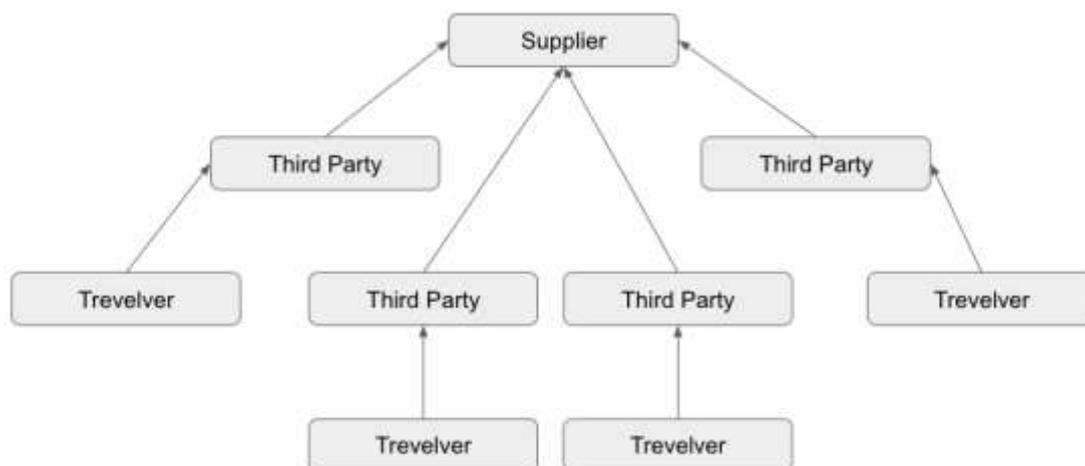
Shrewd agreements can affect organizations as they can advance more prominent degrees of disintermediation (diminish the requirement for mediators), more compelling execution of exercises and build up a system inside which decentralized self-ruling affiliations (DAOs) can be made. A DAO is an assortment of affiliations that, when consolidated, can work effectively as a single association that can be observed and realized through the blockchain without human intercession[10]. For instance, DAO people group taxis that capacity and own self-driving mechanized vehicles utilizing brilliant agreements to pay for fuel, strategies to improve money down installments and save interest in new mechanized vehicle Stocks. This is another model that incorporates giving convenience that helps utilize a general circulation network where organizations utilize brilliant arrangements to hazard saving whatever could affect organizations like Airbnb. Hurt arrangements can likewise assist networks with situating associations to accomplish capacities and issue installments for sanctions just as Smother the utilization of escrow attributes, this agreement contains two obscure get-togethers associated with exchanges supported on trust Office applications to mechanize any assignment like booking executive gatherings anyway this could be improved to incorporate huge and joint arrangements relying upon the idea of the interaction[11]. The huge number of overhauls that can be produced using buys to income and installment restores, allowed to reward and point and inventory network government gives These attributes discover why blockchain applications are so critical to business creation.



Picture 1. The typical blockchain structure

Globose Business has been checking improvement on most days. With the headway of uses, each general public is brought into the world with no capacity to go through this innovation and accompanies new models to maintain their business. Web applications have prompted quick phylogenetic in the assembling industry. For instance, the web permits customers to look and present their own movement orders online it has likewise prompted exhibitions locally like Uber and Airbnb, brought into the world without any preparation. support demonstrating to client to-client displaying dependent on the idea of shared reserve funds. For client should be met, the travel industry makers have utilized the utilization of consolidating dollars and information, subsequently expanding the pace of disintermediation[12]–[14]. Specialists and specialists are conceived who belittle the capability of web brownies in future undertakings in the travel industry.

Advances in the accommodation and the travel industry connote that contenders are turning out to be more cutthroat once more, so for a business that is feasible to flourish in a serious climate, it is significant for society to create serious prizes The capability of BCT to bring down the expense of development adequacy of intellectual cycles lessens openings for deceptive realities encourage a degree of trust in the business between support dividers and diminishing the part of middle people demonstration of receiving a wide range of business works Subsequently it is extraordinary to related each perspective of BCT and its corporations inside and between creation to all the more likely imprint future replacements in the travel industry producing. These fabricates are arranged dependent on their assortment and complex support connections that oblige people who share, get assistance and business measures, where contest is high[15]. To keep on adjusting to this air, it is essential to embrace current innovation which guarantees adding the information documents needed by the producer to rapidly adjust and incorporate and interface the Byzantine partners in the business, as well as remembering the different requirements of travelers and the expanding destitution because of the speed in assistance planning. The travel industry as well as having the job of most partners, transport and carrier, inn business, strategy firms, return specialist co-ops, political issue and numerous others.



Picture 2. Traditional architecture of tourism services.

3. Findings

There were contrasts between the members engaged with the investigation, with almost 80% being male[16]. Most are utilized in specialized, research and counseling occupations and assume various parts inside their associations, for example, being on the top managerial staff; in the improvement of instruction/imaginative arrangements; a CEO at a counseling firm; a ranking director; and a partner or full teacher and college analyst. All members seek after instruction, going from unhitched male's or graduate degrees, to PhD degrees. Table (5) presents all relevant data about the respondents. Every one of them has an adequate comprehension of blockchain innovation, comprehends the business measures engaged with the travel industry associations, has over 10 years of work insight in their field, and they are analysts or advisors in blockchain innovation. In this investigation, respondents were chosen using purposive strategies and hypothetical inspecting techniques to get specialists with different kinds of involvement identified with the issues examined[17]. Specialists are drawn from a wide scope of key undertakings (e.g., programming arrangements, counseling arrangements, the scholarly world, and examination).

3.1 Blockchain technology adoption in the tourism industry

Concerning the significance of BCT and how it can profit the travel industry, by assisting with expanding the degree of disintermediation the members concurred that this innovation will assume a significant part in this industry. The members concurred that blockchain can assume a part in the long haul working with movement methods. They suggested that an organization ought to be framed among the gatherings engaged with the travel industry and that this organization ought to utilize blockchain innovation[18]. Generally, the members discovered the advantages to be especially in accordance with the discoveries in the writing. BCT specialists propose that BCT can begin to enter the travel industry by exhibiting its capacity to assist the business with accomplishing more prominent perceivability. One member noticed the accompanying:

"The effect of blockchain innovation will contact our day by day lives, particularly in the manner in which we travel. Perhaps the main angles is expanded straightforwardness, enhancement of business cycles, and security in exchanges[19]. In this way, information security, permanence, and decentralization are the benefits or qualities of blockchain that can influence any business, including the movement business."

Another member expressed that "The capability of blockchain innovation is that all data on the web is public, solid, secure, straightforward, and expands purchaser certainty." Master 4 proposes that expanding blockchain security will ensure various wellsprings of data related with various partners simultaneously and will limit the requirement for middle people. He said,

"A decentralized framework will help specialist organizations dispose of agents. This is a result of the blockchain's capacity to safely share data and access kin, and it will save time. "The extraordinary force that specialists feel about BCT lies in the preparing speed that outcomes from the more prominent robotization[20]. One master said, "Blockchain doesn't have a solitary place of disappointment, and this will prompt decreased time for exchanges because of robotization of business measures." Security will likewise expand the degree of trust between different gatherings who are not known to manage exchanges. The utilization of cryptographic forms of money in the travel industry exercises is another significant point for blockchain. One master expressed, "There is a tremendous chance to utilize blockchain in the movement business. Utilizing cryptographic forms of money as an installment strategy will be safer and recognizable because of the changeless idea of records. Such installments are not liable to outsider obstruction. There is no postponement in moving cash to twelve nations. "

BCT has a few attributes and advantages that can expand disintermediation in the travel industry. These attributes give a response to one examination question: Regardless of whether the utilization of BCT in the travel industry can affect the business' plan of action and increment disintermediation rates. As one master put it, "A few utilizations of blockchain innovation can be valuable for the movement business, like shrewd agreements, single advanced IDs, and the utilization of cryptographic forms of money. In light of this use of blockchain innovation, this could significantly profit the movement business to some extent where it makes information secure and straightforward; This prompts an increment in the degree of trust between the gatherings[21]. Another member said, "Embracing blockchain can influence how traveler stuff areas are followed and it is trusted that it will permit partners engaged with the interaction to complete this following." Another master additionally said, "Blockchain can smooth out and supplant dependability cards and it can likewise shroud it into digital forms of money."

3.2 Blockchain application for the tourism industry

With the assistance of blockchain, this cycle can be improved and gotten by taking a gander at the affirmation of every voyager. SITA is a movement innovation organization that gives IT and broadcast communications backing to aircrafts. The cooperation has proposed a technique that upholds the help of smoothing out voyagers associations It utilizes blockchain investigators to execute a solitary and secure unclear biometric measure that perceives explorers to demonstrate their admission by utilizing a wearable or portable cockerel during their full excursion This substance doesn't exist identification acknowledgment, or drivers' approval[22]. For instance, customer power makes a certain tokenish that can be honored on the gadget, or joined to a person, which stores singular biometrics and various confirmations on their individual measurements. Hypothetically, it tends to be recognized by catches utilizing a biometric rake joined with confirmation. None of the client information documents will have any questions about being put away or seen by the local area since all checked, will happen on the organization network. Blockchain innovation can be vital in checking development, particularly during outside movement in light of the fact that, much of the time for instance, customer room changes additionally during their slip. The utilization of a decentralized data set will mean it is simpler to share compose observing among the public. The demonstration of expanding control of movement business utilizing blockchain applications. This permits explorers to scratch stockpiling and pay for their excursions utilizing digital forms of money as opposed to being needed to change their cash.

There are numerous perspectives on blockchain systems in assembling business[23]. This epistemology can have a positive side to an in general coordinated investigation that assists with making a dependable scoring framework to serve clients so they can address or improve their choices nearly to the business objectives. The strength of digital currencies, having solid arrangements and DApps, is that they support the introduction of cocksureness which brings about support dispersion. Presenting Bitcoin as a cryptographic money has changed the manner in which people see blockchain applications, because of the general absence of trust in coordinated banking[24]. This subsequent work has moved

customers and organizations to search for choices, for example, in digital forms of money. The travel industry experts including delegates and go specialists are investigating freedoms to receive blockchain applications in their support measures. Momentarily, we can observe the cocksureness of blockchain in these producers either in its capacity to deal with bargains utilizing digital forms of money, or in the over-the-counter assistance space (e.g., vague government control of go visas, stuff following). BCT will emphatically affect different parts of the business, for example, information sharing and trust in registering[25].

Platform	Deskripsi
LockChain	Operates to rent property
	No middleman
BeeToken / Beenest	Home-sharing platform
	No commission fee
	Keep users safe
Winding Tree	Luggage tracking via blockchain
	Transparent
ShoCard & SITA	Decentralized identity management database
Trippki	Customer loyalty reward system

Table 2. Blockchain stages in the travel industry

4. Conclusion

Blockchain is an incredible innovation that offers benefits in expanding disintermediation rates in enterprises like the travel industry. This innovation can contact a few parts of the movement business, for example, plans of action, cash move frameworks, security, execution, and reliability, and so forth. The evaluation of the investigation on blockchain innovation follows a subjective technique to accomplish the two examinations. Reason and to address the inquiries presented at the start of this examination. Blockchain's potential positive effect offers an extraordinary chance for different organizations to correspondingly profit with executing this innovation. This examination will help experts in the movement business come out as comfortable with the attributes and advantages of blockchain. They will perceive its utilization and how it can turn into a significant piece of the innovation they use. Depending on mediators has become a significant worry for some for a few reasons (eg, cost, trust and time issues, and the way that purchasers are now discovering approaches to stay away from go-betweens). Accordingly, it is suggested that the square chain be incorporated into the travel industry plan of action to decrease the quantity of middle people and the quantity of new participants in the business. This examination makes a critical commitment to the travel industry by giving a structure that will prompt expanded degrees of disintermediation. It additionally advances the conversation on the qualities and advantages of blockchain innovation corresponding to this specific part of the travel industry plan of action.

Humanistic business scientists and instructive points of view have proposed a few systems. Nonetheless, as of now, there is no comprehensive structure that tends to expanding disintermediation in the travel industry. The main result of this investigation is the improvement of such a system; the travel industry can utilize it not exclusively to expand its

disintermediation rate yet in addition to decrease the quantity of fresh debuts. The scientific classifications created in this examination give new experiences on the best way to adjust the utilization of blockchain to build proficiency in the travel industry. This examination not just gives knowledge into significant resource blockchain advances and digital forms of money like Bitcoin, yet in addition shows that these advances should be overseen so that the business can keep an upper hand in a changing worldwide climate. living climate.

The primary finding of this investigation, which adds to information, is the way the utilization of blockchain innovation works with effectiveness for voyagers as far as and assists them with diminishing the time and costs associated with arranging and planning to head out to their objective, to check their convenience. The exercise that associations can learn is that blockchain works with the movement cycle and expands productivity. The examination discoveries give direction to industry experts, scientists, pioneers, and administrators on the most proficient method to receive blockchain innovations and drives to help the turn of events and execution of systems that will expand effectiveness in business and industry.

Notwithstanding its discoveries, this investigation has constraints as it was intended for the travel industry. Different enterprises may confront various issues with respect to the appropriation of blockchain innovation. In this manner, different examinations are expected to affirm these outcomes on a more extensive scale, for example, by utilizing quantitative strategies and contrasting the outcomes and current discoveries. It is imperative to examine the effect of blockchain innovation and, specifically, digital currencies and trust survey frameworks that utilize blockchain procedures, for example, the travel industry item end customers and the travel industry specialists. Another examination is expected to clarify the interest in this innovation. The fundamental inquiries incorporate who will put resources into BCT? For what reason should organizations move to this new innovation? Is it important to make changes to the current plan of action? Shouldn't something be said about versatility? Also, how to augment the advantages of blockchain?

References

- [1] Q. Aini, U. Rahardja, and A. Khoirunisa, "Blockchain Technology into Gamification on Education," *IJCCS (Indonesian Journal of Computing and Cybernetics Systems)*, vol. 14, no. 2, pp. 1–10, 2020, doi: 10.22146/ijccs.53221.
- [2] P. A. Sunarya, U. Rahardja, L. Sunarya, and M. Hardini, "The Role Of Blockchain As A Security Support For Student Profiles In Technology Education Systems," *InfoTekJar: Jurnal Nasional Informatika dan Teknologi Jaringan*, vol. 4, no. 2, pp. 13–17, 2020.
- [3] P. Willie, "Can all sectors of the hospitality and tourism industry be influenced by the innovation of blockchain technology?," *Worldwide Hospitality and Tourism Themes*, 2019.
- [4] I. Amsyar, E. Christopher, A. Dithi, A. N. Khan, and S. Maulana, "The Challenge of Cryptocurrency in the Era of the Digital Revolution: A Review of Systematic Literature," *Aptisi Transactions on Technopreneurship (ATT)*, vol. 2, no. 2, pp. 153–159, 2020.
- [5] Sudaryono, U. Rahardja, and E. P. Harahap, "Implementation of Information Planning and Strategies Industrial Technology 4.0 to Improve Business Intelligence Performance on Official Site APTISI," *Journal of Physics: Conference Series*, vol. 1179, no. 1, pp. 0–7, 2019, doi: 10.1088/1742-6596/1179/1/012111.
- [6] L. Chandra, Amroni, B. Frizca, Q. Aini, and U. Rahardja, "Utilization Of Blockchain Decentralized System In Repairing Management Of Certificate Issuance System," *Journal of Advanced Research in Dynamical and Control Systems*, vol. 12, no. 2, pp. 1922–1927, 2020, doi: 10.5373/JARDCS/V12I2/S20201235.
- [7] U. Rahardja, A. S. Bist, M. Hardini, Q. Aini, and E. P. Harahap, "Authentication of Covid-19 Patient Certification with Blockchain Protocol".
- [8] A. Adiyanto and R. Febrianto, "Authentication Of Transaction Process In E-marketplace Based On Blockchain technology," *Aptisi Transactions On Technopreneurship (ATT)*, vol. 2, no. 1, pp. 68–74, 2020.

- [9] D. Mohammed, N. Aisha, A. Himki, A. Dithi, and A. Y. Ardianto, "Blockchain Is Top Skill For 2020," *Aptisi Transactions on Technopreneurship (ATT)*, vol. 2, no. 2, pp. 180–185, 2020.
- [10] U. Rahardja, A. N. Hidayanto, T. Hariguna, and Q. Aini, "Design Framework on Tertiary Education System in Indonesia Using Blockchain Technology," *2019 7th International Conference on Cyber and IT Service Management, CITSM 2019*, pp. 5–8, 2019, doi: 10.1109/CITSM47753.2019.8965380.
- [11] D. Calvaresi, M. Leis, A. Dubovitskaya, R. Schegg, and M. Schumacher, "Trust in tourism via blockchain technology: results from a systematic review," in *Information and communication technologies in tourism 2019*, Springer, 2019, pp. 304–317.
- [12] V. Filimonau and E. Naumova, "The blockchain technology and the scope of its application in hospitality operations," *International Journal of Hospitality Management*, vol. 87, p. 102383, 2020.
- [13] A. Bogner, M. Chanson, and A. Meeuw, "A decentralised sharing app running a smart contract on the ethereum blockchain," in *Proceedings of the 6th International Conference on the Internet of Things*, 2016, pp. 177–178.
- [14] N. Lutfiani, F. P. Oganda, C. Lukita, Q. Aini, and U. Rahardja, "Desain dan Metodologi Teknologi Blockchain Untuk Monitoring Manajemen Rantai Pasokan Makanan yang Terdesentralisasi," *InfoTekJar: Jurnal Nasional Informatika dan Teknologi Jaringan*, vol. 5, no. 1, pp. 18–25, 2020.
- [15] K. Nam, C. S. Dutt, P. Chathoth, and M. S. Khan, "Blockchain technology for smart city and smart tourism: latest trends and challenges," *Asia Pacific Journal of Tourism Research*, pp. 1–15, 2019.
- [16] M. Pilkington, "Can blockchain technology help promote new tourism destinations? The example of medical tourism in Moldova," *The Example of Medical Tourism in Moldova (June 11, 2017)*, 2017.
- [17] Z. Fauziah, H. Latifah, X. Omar, A. Khoirunisa, and S. Millah, "Application of Blockchain Technology in Smart Contracts: A Systematic Literature Review," *Aptisi Transactions on Technopreneurship (ATT)*, vol. 2, no. 2, pp. 160–166, 2020.
- [18] P. O. A. Sunarya and N. Lutfiani, "Analisis Sistem Sertifikasi Profesi Untuk Pengembangan Kompetensi Mahasiswa," *ADI Bisnis Digital Interdisiplin Jurnal*, vol. 1, no. 1, pp. 70–77, 2020.
- [19] Sudaryono, U. Rahardja, and N. Lutfiani, "The Strategy of Improving Project Management Using Indicator Measurement Factor Analysis (IMF) Method," in *Journal of Physics: Conference Series*, 2020, vol. 1477, no. 3. doi: 10.1088/1742-6596/1477/3/032023.
- [20] T. Hariguna, E. P. Harahap, and Salsabila, "Implementation of Business Intelligence Using Highlights in the YII Framework based Attendance Assessment System," *Aptisi Transaction On Technopreneurship (ATT)*, vol. 1, no. 2, 2019, doi: 10.34306/att.v1i2.32.
- [21] N. Lutfiani, E. P. Harahap, Q. Aini, A. D. A. R. Ahmad, and U. Rahardja, "Inovasi Manajemen Proyek I-Learning Menggunakan Metode Agile Scrumban," *InfoTekJar: Jurnal Nasional Informatika dan Teknologi Jaringan*, vol. 5, no. 1, pp. 96–101, 2020.
- [22] U. Rahardja, T. Hariguna, and Q. Aini, "Understanding the impact of determinants in game learning acceptance: An empirical study," *International Journal of Education and Practice*, vol. 7, no. 3, pp. 136–145, 2019, doi: 10.18488/journal.61.2019.73.136.145.
- [23] Q. Aini, E. P. Harahap, and F. Faradilla, "The Effects of Sales Reports Business Intelligence on Employee Performance," *Aptisi Transactions On Management*, vol. 4, no. 1, pp. 83–91, 2019.
- [24] Sudaryono, N. Lutfiani, Suseno, and Q. Aini, "Empirical Study of Research Performance Leading to Education 4.0 using the iLearning Method," *International Journal of Advanced Trends in Computer Science and Engineering*, vol. 8, no. 1.5, pp. 264–268, Nov. 2019, doi: 10.30534/ijatcse/2019/4681.52019.
- [25] Sudaryono, U. Rahardja, Q. Aini, Y. Isma Graha, and N. Lutfiani, "Validity of Test Instruments," *Journal of Physics: Conference Series*, vol. 1364, no. 1, 2019, doi: 10.1088/1742-6596/1364/1/012050.