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# Implementation of the Public Blockchain Technology System in the Future to Increase Tourist Visits in Tangerang City

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**ABSTRACT**

This research discusses the implementation of a public blockchain technology system in the future to enhance tourist visits to the city of Tangerang. The research method used is qualitative with a content analysis approach, involving the participation of relevant stakeholders, including the Tourism Office, travel agencies, destination managers, and tourists. The research findings indicate that the use of a public blockchain system, focusing on the concepts of decentralization, security, and cost reduction, has the potential to significantly increase tourist visits to the city of Tangerang. This method enables the involvement of the entire tourism ecosystem, strengthening trust and transparency, and providing innovative solutions to enhance the tourist experience. The conclusion of this research emphasizes that the implementation of blockchain technology in the tourism sector can be a key driver of industry growth and create a sustainable ecosystem. It is expected that these findings contribute to stakeholders in planning and implementing innovative solutions to enhance the attractiveness of Tangerang City as a tourist destination



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## 1. INTRODUCTION

The Department of Culture and Tourism (Disbudpar) of Tangerang City, Banten, noted that during the first semester of 2023, the number of tourist visits reached 7,573,807 individuals [1]. Rizal Ridolloh, the Head of Disbudpar in Tangerang, stated this on Tuesday in Tangerang, explaining that the total comprised guests staying in hotels and visitors to various tourist attractions [2].

Breaking it down, there were 665,686 domestic tourists staying in hotels, 134,942 international tourists also staying in hotels, and 6,773,179 tourists visiting various tourist attractions [3]. "The post-pandemic economic recovery program has successfully boosted the number of tourist visits in Tangerang City, which is a positive development for the tourism industry."

He added that several factors driving tourist arrivals include the presence of dozens of hotels with diverse concept offerings, 17 thematic parks that are always bustling with visitors, and culinary attractions such

as Pasar Lama [4].

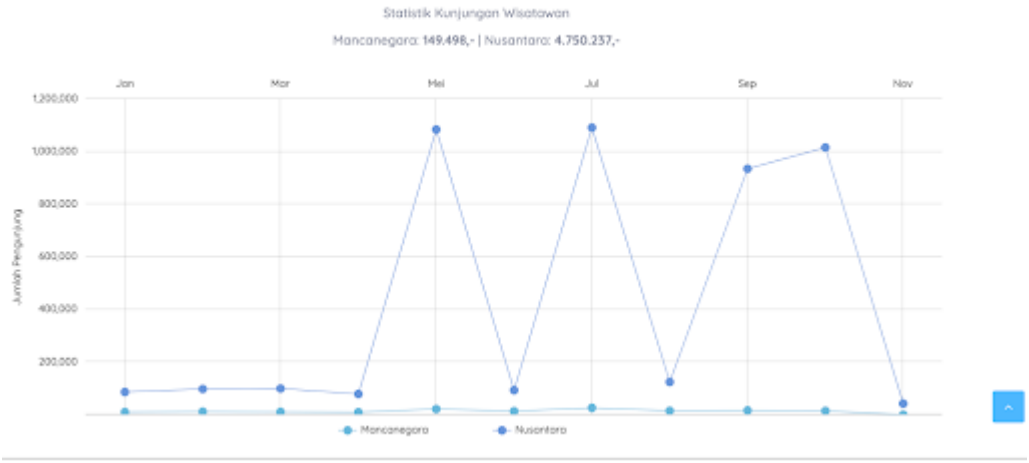


Figure 1. Tourist visits to the city of Tangerang

A framework based on public blockchain technology has the potential to increase the level of disintermediation in this industry [5]. These findings address critical questions about how public blockchain technology can support the removal of new intermediaries from the tourism supply chain, with its primary goal being the development of a framework that will lead to an increase in the level of disintermediation [6]. The growing demand for this model aims to reduce the time and costs associated with tourism-related travel, as well as to secure tourist data more effectively and efficiently in the operation of the tourism business [7]. Research conducted by Chamdani (2019) on the principles of public blockchain technology emphasizes that this technology conditions each server running the software to automatically form network consensus, replicate data, and verify existing data [8]. Therefore, when one server is hacked, it can be disregarded as it is considered to have different data from the majority of other network servers. Using this method ensures that data stored in public blockchain technology cannot be altered at will, and each change will leave a clear record of the change history. However, there is an unresolved issue from previous researchers: whether it is necessary to make changes to the current business model [9]. Therefore, researchers are interested in investigating the ”Implementation of public blockchain technology systems in the future to enhance tourism visits in the city of Tangerang.” [**?**].

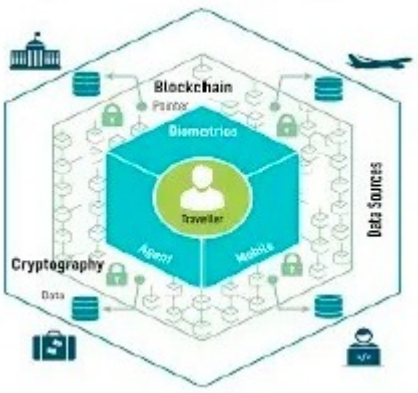


Figure 2. Public blockchain chain in tourism

Applications utilizing public blockchain technology can facilitate travelers before embarking on their journeys [10]. By solely using such applications, travelers can plan their trips effectively so that upon arrival in Tangerang City, they can save time that would otherwise be spent searching for transportation, accommodation,

tourist attractions, dining options, and places to purchase souvenirs. In addition to time savings, travelers can also reduce costs as there are no intermediaries to increase prices [11]. Tangerang City itself is recognized as an industrial and trading area. These sectors are the reasons why many investors choose to invest in Tangerang, contributing to the city's economy growing as one of the fastest-growing cities in Indonesia. [12].

## 2. RESEARCH METHODS

### 2.1. Sample and Procedure ]

The type of research to be utilized in this study is descriptive qualitative research. The techniques employed include interview and observation [13]. The interview technique involves a question-and-answer process with the respondents, while the observation technique entails observing the location of the respective informants [14]. The data sources for this study include tourism stakeholders such as:

1.Tourism Office
2. Tour and Travel Agencies
3. Tour Guides
4. Hotel Representatives
5. Tourists who have visited Tangerang City

Primary data for this research consists of information obtained through interviews and observations with informants engaged in the tourism sector, particularly those related to the future implementation of public blockchain technology to enhance tourism visits in Tangerang City [15]. Supporting data are derived from the collection of variables measured and an analysis of previous research findings obtained from reading journals, articles, literature, books, and websites related to the conducted study. The aim is to provide valid information for the ongoing research [16].

## 3. RESULT AND DISCUSSION

This study examines the implementation of blockchain technology systems in the future to enhance tourism visits in Tangerang City. In previous research, many scholars explored the framework of blockchain technology, current perspectives, and future considerations for the tourism industry. Subsequently, researchers began to concentrate on the intersection of blockchain and tourism [17].

### 3.1. Conceptual Framework]

The conceptual framework of this research involves examining the impact of trust, security, cost reduction, and speed on tourism visits mediated by public blockchain technology [18].

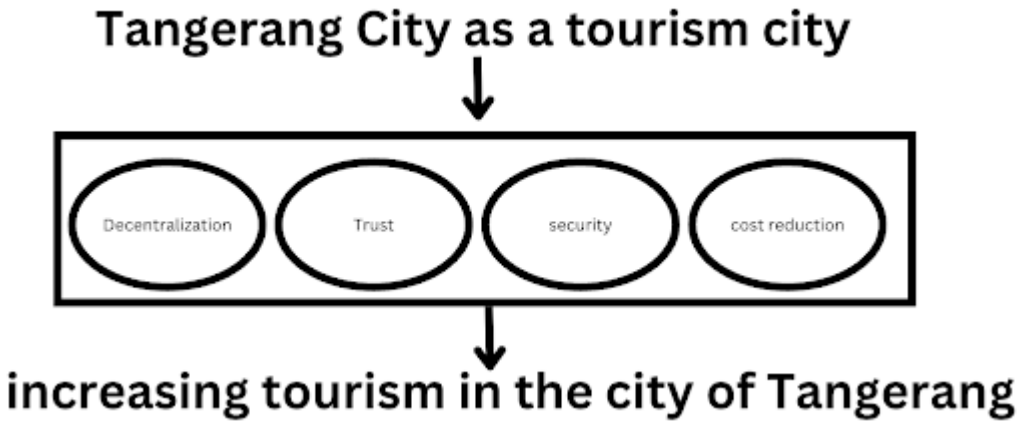


Figure 3. .Conceptual framework Kota Tangerang

### 3.2. Public Blockchain Technology]

Public blockchain technology is a revolutionary innovation that has captured the attention of companies and governments worldwide. Essentially, this technology combines data and transactions that are progressively recorded and traceable through a distributed ledger network, known as distributed ledger technology [19]. The concept of public blockchain operates as a peer-to-peer network that functions without a central authority. The ledger is synchronized across the entire network, and transactions occur without the need for third-party intervention [20]. This structure ensures that the system is open to anyone who wishes to conduct valid transactions [21]. The impact of public blockchain technology will extend to our daily lives, especially in the way we travel. One of its crucial aspects is the enhancement of transparency, optimization of business processes, and transaction security [22]. Therefore, data security, resilience, and decentralization are the advantages or characteristics of public blockchain that can influence various businesses, including the travel industry [23].

### 3.3. Decentralization]

A decentralized system will help service providers eliminate intermediaries. This is due to the ability of public blockchain to securely share information that is easily accessible and requires less time." The acknowledged expertise of BCT lies in the processing speed resulting from greater automation [24]. An expert states, "Blockchain has no single point of failure, and this will reduce transaction time due to the automation of business processes." Security will also enhance the level of trust between different parties unfamiliar with each other when conducting transactions [**?**]. The researcher can comprehend how a highly capable decentralized public blockchain system facilitates easy access for tourists to transact. Transactions within public blockchain technology can be evenly distributed, allowing both organizations and individuals to observe these transactions.

### 3.4. Trust]

The security of online transactions has become significant news in online transactions. Website visitors are hesitant to make purchases if the security of the website is not guaranteed. If a company wants to capture consumer attention, it should focus on managing online security systems effectively. Security is a crucial condition in the tourism industry as it has a significant impact on the continuity of travel and tourism activities.

### 3.5. Cost Reduction]

The digital era has indeed brought a new wave, and online marketing in the digital age seems to be the prima donna as a solution breaker. Therefore, business actors are flocking to utilize online marketing as the driving force behind their business wheels. Online marketing has become a solution to connect producers with consumers at minimal costs. This makes the internet a basic necessity for most people, in addition to the basic needs of food, clothing, and shelter. In the future, travelers will require public blockchain technology due to the advancements in technology and the shift in people's habits from offline to online. Public blockchain technology can enhance visits from both local and international tourists, bypassing intermediaries. Instead, it enables them to independently plan their visits to Tangerang City. With public blockchain technology, all the needs of travelers, even in large numbers such as groups utilizing tour and travel services or tour guides, can be accommodated. Based on the above analysis, the findings from previous research state that Big Data technology can store all traveler data without limitations, and currently, public blockchain technology is being utilized across various business sectors to enhance organizational capabilities by creating efficient business processes. This will impact new business models, introducing a transformation in the business world. Public blockchain can record asset transfers between two parties without the need for a trusted intermediary.

## 4. CONCLUSION

This research has yielded significant findings regarding the implementation of a public blockchain-based technology system to enhance tourism visits in Tangerang City. The study reveals that the utilization of this technology receives positive support from tourists who stay updated with current technological advancements. Stakeholders in the tourism sector can leverage this technology to increase their interaction and engagement, aligning themselves with the latest trends in the industry. The research methodology, involving interviews and observations, provides a comprehensive insight into the potential and challenges of implementing public blockchain technology. The outcomes offer a better understanding for the Tourism Office, travel

agencies, and tour guides to enhance the overall tourism experience and facilitate tourists in choosing their destinations in Tangerang City. In conclusion, the implementation of public blockchain-based technology in the tourism sector has a positive impact on improving efficiency, transparency, and stakeholder engagement. These findings are expected to serve as a foundation for developing strategies and policies that support the growth of tourism in Tangerang City, delivering a better experience for tourists.

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