International Journal of Advanced Research and Review

www.ijarr.org

Cloud Computing-Based Information System as an Effort for Developing Tourism Village

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ABSTRACT

An information system based on cloud computing may do wonders for economic growth in a certain area. Good management and exploitation of the area's current potential will allow it to be put to good use in the expansion of its environs' supply of useful things. Cloud-based information management has the potential to be utilized in a number of different kinds of advertising to better reach and engage target audiences. Segments of the local economy. In an attempt to promote tourism growth, this paper will describe a Cloud-Computing-powered information system for managing the village's infrastructure. This study is a literature review. The research team collects its knowledge through reading and analyzing a wide range of sources, such as academic publications, papers, data sets, and other materials. The findings of this research show that using Cloud computing in tourist communities ensures that data is safely kept in a centralized location. Cloud computing eliminates the need for consumers to supply physical storage devices like hard drives by storing data electronically. In addition, the availability of the Cloud-based information system may help the larger community learn more about the village's tourist potential.

1. INTRODUCTION

There are many different ethnic groups and religious denominations in Indonesia. Furthermore, there is potential in every area that may be developed further. The ecological, cultural, and economic spheres. With the right planning, it has the potential to serve as a tourist destination and recreational hub. One of the many tourist attractions in every given place is certain to gain iconic status and become a must-see for visitors. The tourist village is one of the most widely practiced kinds of regional tourism [1]. The growth of tourist villages, as suggested by [2], has emerged as an alternative to local economic development that has been implemented in a number of areas. The growth of tourist communities is an important way to stimulate the local economy. As defined by the World Tourism Organization (WTO), a tourism village is "a village managed by the community or village community that interacts with each other in managing care, has the awareness to play a joint role according to the skills and abilities of each individual in developing the potential of the village in a manner conducive to the growth and Development of tourism in the area" [3, 4]. Information technology may be used as

a tool in the growth of a tourist community. The public will have much easier access to the tourist village's data if it is stored and retrieved through information technology (IT). The widespread uptake of information technology (IT) nowadays is a result of its ability to foster cooperation across several different areas of study [5]. Implementing a cloud-based information service system will aid in the

Growth of the tourist town. By providing more comprehensive data, information systems built on cloud computing make it simpler for locals to oversee the growth of tourist communities. The term "cloud computing" refers to a computer model in which the internet serves as the primary access point for the management of software, the storage of data, and the provision of computing resources. Kind of assistance (6). Cloud computing makes it simple to get data about a specific location.

Users of a cloud computing service may access their data instantly through the internet, without the need for a locally installed computer [7]. As a result, people will have access to reliable details regarding the circumstances at the time. One definition of cloud computing is "a paradigm for delivering computer services via the Internet that is characterized by scalability, convenience, on-demand availability, and the use of distributed rather than locally hosted resources for data storage and retrieval" [8]. Cloud computing systems use computing to conveniently store and exchange data with a number of users across a variety of devices and networks, including desktop and laptop computers, mobile phones, and other mobile devices [9,10].

Cloud computing is not a brand new technology; rather, it is the outcome of combining grid resources with a distributed system and some novel concepts to provide superior service to end users [7]. Cloud computing has the potential to assist both the tourists and the local businesses by making information more accessible and facilitating simpler management. Using cloud computing to create a tourism community is the best strategy. As a result, employing cloud computing may simplify marketing efforts for destinations. Researcher provides term "Cloud Computing-based Information System as an Effort for Developing Tourism Village" to reflect the aforesaid context.

2. LITERATURE REVIEW

Rapid technological advancement necessitates us keeping pace with the state of the art. One technology that has had a significant impact recently has been the computer. Impact people's daily lives, particularly in terms of labour. It seems like every time you turn around; a new innovation comes along that improves everything. It's a method of integrating and enhancing computer systems that rely on the internet, much like cloud computing. Since we have the means to do so, all of the server's data and programs are kept in cyberspace. This system is employed with the intention of resolving issues related to the administration of worship facilities, such as the number of congregation registrations, and is grounded in research [11] on a cloud computing-based information system to improve performance efficiency in internet-accessible religious buildings. Independent pilgrims may now more easily register using this system's streamlined mobile app registration process. Cloud computing is being used by government agencies to help them provide services to citizens more efficiently and at a lower cost. Some of the benefits of cloud computing for government are outlined in [12]: a) cloud computing works quickly, integrates data easily, and provides timely feedback; b) cloud computing also helps the government to store data with large capacity; c) as a result of its speed, government performance becomes effective; d) this system also easily distributes data to various providers quickly; and e) low cost, making it easier for the government to allocate its budget. Below is an example of the government's use of cloud computing systems:

Current E-Government	Government Cloud
• Limited services	• Ubiquitous services
• Information island	• Standard APIs
• Network isolation	• Business Collaboration
• Rigid configuration	• Dynamic distribution
• Respective management	• Professional teams
• Respective deployment	• Unified Supervision
• High cost, Low RI	• Low Cost, High RI

Figure 1 Comparison of e-government and government cloud [12]

The potential of tourist villages is stressed further in the community's information system, as stated in [14.15]. One may implement an excellent plan. Via the use of electronic means of promotion in rural tourist areas.

Because media advertising requires access to the web, it is essential that all industries have one. The website will be used as a marketing tool to improve accessibility for both domestic and international visitors. Names of attractions, lodging options, cuisine, and modes of transportation are just few of the menu items that change from site to site. The website displays the waterfall technique, which is a subset of application development that belongs to the traditional life cycle and is symbolized by a waterfall since its phases are completed in a sequential order.

Research [6] shows that cloud computing on the website makes it convenient to access at any time. Cloud computing also facilitates wider distribution of content for owners and administrators. The website has data generated by a technology that streamlines the process of booking tours and other attractions for guests. It will be far more convenient for guests to avoid waiting in line by making reservations in advance utilizing modern technologies. The concept of SaaS computing refers to a service provider that offers its infrastructure and platform software to other businesses. Following interviews with informants who have succeeded with cloud computing, a system analysis approach is also used in this research. The research makes use of system architectural design as a representation of the reservation strategy. According to studies cited in [16], emerging tourist communities that lack an information infrastructure often struggle to attract and retain visitors.

With POKDARWIS, we create web-based information systems (Tourism Awareness Group). This Despite the fact that the media promoting the tourist village is essential for getting the word out about the services on offer, the town itself lacks the necessary information and communication technologies. The administration of time and people in a tourist town will be simplified with the help of this web-based information system. Gathering data on cluster members' human resources, physical infrastructure, institutional makeup, and output is step one in putting this information system into action. As an added bonus, the formulation and analysis of the tourist village's requirements are completed. Afterwards, we go on to providing help with implementation. Implementation is the last phase of this program. Now is the time to advertise the village's information system to locals. The infrastructure may serve as a data hub and as a tool for keeping tabs on the operations of a corporation.

More studies [15] show that as cloud computing evolves, it may better serve as a public service helper in rural areas by keeping sensitive data safely saved in the cloud. With the use of a "smart village" application, the management of Buds (village-owned businesses) is simplified and made more transparent in this research. Due to the scalability of the system, a huge amount of data may be saved in this cloud-based smart village implemented as an android platform with its data administration performed entirely in the cloud.

3. METHOD

This investigation makes use of the library system. When conducting a study, it is common practice to consult a library for relevant background information. Related to the subject under discussion [17]. Researchers in this study employed library resources to gather background information, and they reviewed and built upon the findings of other studies to influence their own data gathering efforts. This study draws from journals published during the recent five years, and some of these publications have fresh content. Vivo 12 Plus's clustered by word similarity function [18, 19] is used to analyze literature data. This study makes use of library resources since the supplied data are stable, accessible, and verifiable via research processes. The goal of a literature review is to provide readers with background knowledge on a topic by summarizing and evaluating relevant prior studies and providing a review of relevant literature gleaned from a variety of print and digital sources [20].

4. RESULTS AND DISCUSSION

A search revealed that there were 202.6 million internet users in Indonesia in the first few months of 2021. There has been a 15.5% gain, or a 27 compared to the population at the start of the year 2020. The number will, of course, rise each year. It is anticipated that the people of Indonesia would learn to become news creators in addition to being consumers of the internet as a result of this phenomena. Numerous individuals in the modern world now utilize the internet as a tool for financial advancement. Many individuals have been able to use the internet to create new career opportunities for others as well as for their own financial gain.

To put it simply, the internet has simplified every facet of human existence. People may now instantly share information with anybody, anywhere in the world, no matter how many thousands of kilometres separate them. To make technology more useful in everyday life, in the workplace, and for the public at large, it is important to implement a concept known as cloud computing [13, 21]. Due to the fact that more and more small towns around the nation are becoming resourceful in how they use their resources, cloud computing has to be made available to the masses immediately.

The Effectiveness of Cloud Computing in Tourism Villages

The existence of new developments has made tourist settlements a particular focus of attention. Many advantages of cloud computing are especially relevant in tourist communities, like advantages. Cloud computing is the practice of doing computational tasks through the internet without the need for local storage media like hard disks. Additionally, the price is low, and there is no restriction on the amount of space you may use. To advertise and store information about vacation communities, cloud computing is a natural fit. How can cloud computing function as a marketing tool for vacation communities? A website run by a tourist town is required for this to function. All the possible tourist attractions, from restaurants to shows, are included here. The website may also give comprehensive information on the villages many tourism attractions. Hours of operation, visitor amenities, photographs of sights, and menus for culinary excursions, online bookings, and more are all available through the website. Using cloud computing, information provided by a tourist village may be kept in a single location. The reassurance that all their information is secure on a single server frees them from the burden of choosing a safe location for their data. The community in a tourist town would benefit greatly from adopting cloud computing so that they could better market themselves and attract more visitors. Naturally, this has the potential to significantly increase public awareness of tourist villages. Implementing this website is a no-brainer; it allows for widespread, instantaneous access to information, making it very useful (5). Cloud computing is a system that allows everyone to use shared computer resources, such as memory storage. With this approach, cloud computing becomes a highly efficient tool for usage in a tourist town, cutting down on both wasted time and unnecessary expenditures.

The use of cloud computing in tourist towns, particularly the expanding and more self-sufficient tourist communities has numerous potential benefits. How quickly one can place an order at a restaurant in a tourist resort, for instance, and how quickly those customers are attended to when they do so. It's quick and easy to place an order. Cloud computing, according to the majority of service providers, runs entirely on software. Cloud computing makes use of technologies that may relocate and even alter the website to better suit the user's requirements. Because of its adaptability, cloud computing has been earmarked as a development tool for tourist communities. In addition, cloud computing vendors have the freedom to set their own storage limits [14]. Naturally, in this scenario, it is not necessary for each seller at a tourist attraction to upgrade to a bigger storage unit. Cloud computing information systems may serve as a promotional tool and a source of detailed, up-to-date data on tourist communities [5]

Implementation of Cloud Computing in Tourism Village Development

In order to attract tourists, a community has to be advertised in a way that demonstrates it has a good chance of being well-known. By using Thanks to cloud computing, it's less difficult to oversee the budget, the payroll, the quantity of available workers, and the expansion of the tourist town. The amount of data that may be stored with cloud computing is substantial. Cloud computing allows for a wide variety of data types to be saved, including promotional material in the form of both still images and moving pictures, which is crucial for the growth of tourist towns. The community is encouraged to take part in the implementation process. Cloud computing may help tourist villages grow in the digital information systems, but only if the local community is involved in its implementation.

Since 2013 [22], the Ministry of Communication and Information Technology has used this system as one of its primary technological goals In a cloud computing environment, all internet users have access to the shared server where the data is stored and processed. Technology use in the 4.0 age is rising quickly, and keeping up is essential. The first step in putting up a tourist town is to undertake a review of the current state of the amenities and infrastructure that will be required. Governance of cloud computing security is the next stage. Doing so ensures the safety of any data you submit to the server. The next step is to keep an eye on the cloud infrastructure. In order to discover what limitations were encountered during implementation, the procedure ends with an assessment of the whole system.

Figure 2 Items clustered by word similarity by Vivo 12 Plus

In terms of human resources, there are flaws in the way cloud computing is being used in the growth of tourist villages [23, 24]. Because of the shortage of professionals fluent in the use of computers and the internet who work with seniors. There is also the issue of safety [24, 25]. Despite the fact that cloud computing doesn't

physically store data, many Indonesians still believe that their information is safer in a more traditional, on-premises setup. The slow speed of the internet is a third problem. If cloud computing is performed locally, in the village, it will be subject to the same limitations imposed by the local area network. One must have a reliable internet connection in order to utilize cloud computing [6].

5. CONCLUSION

These findings suggest that cloud computing is a viable option for the future of tourist village development. Efficient. Cloud computing eliminates the need for specialized hardware like hard drives by storing all data on a single server. Cloud computing makes it easy for the general public to identify popular tourism attractions in rural areas Cloud computing may also be used as a branding medium and promotional medium by businesses in tourist communities. It is important to note, however, that there are challenges unique to rural areas when using cloud computing. These include a lack of trained IT personnel, a general mistrust of online security, and a less reliable internet connection.

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