Pros And Cons Of Artificial Intelligence (AI) Technology By Local Guide In Dusun Adat Sade Rembitan Village In Central Lombok - NTB - Indonesia

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ABSTRACT
Technology is rapidly advancing today, with the most popular technology known as Artificial Intelligence (AI). This technological innovation greatly benefits the tourism sector. However, the implementation of Artificial Intelligence (AI) technology often sparks debate, including in the tourism industry. This study aims to identify the pros and cons related to the presence and use of AI technology by local guides at tourist sites that still maintain the authenticity of culture, such as in the Dusun Adat Sade, Rambitan Village, Central Lombok, West Nusa Tenggara, Indonesia. The research was conducted using an inductive approach, with a qualitative methodology; a case study research strategy, and a cross-sectional research time frame. Data collection and analysis were performed using data reduction, data display, and conclusion drawing. Data analysis utilized content analysis, categorizing data into specific themes or categories. Triangulation of methods and sources was employed for data validity. Methodological triangulation involved three methods: observation, interviews, and documentation. Additionally, source triangulation was conducted by interviewing 8 informants. The research findings categorized data into the following: Pros and Contras regarding Artificial Intelligence (AI) technology. After analyzing and processing the data from both categories, the majority of local guides in the Sade Traditional Village, Rambitan Village, exhibit a predominantly contra or skeptical attitude towards Artificial Intelligence (AI) technology due to concerns about Artificial Intelligence (AI) taking over their jobs. However, they still acknowledge technological advancements that facilitate their service to tourists. To further assess the extent to which Artificial Intelligence (AI) technology assists local guides, especially at tourist sites, further research on the benefits of Artificial Intelligence (AI) for supporting and facilitating local guides in their work is needed.

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1. INTRODUCTION
With the equipment produced from human intelligence, daily activities become more effective and efficient. Technological advancements as a means to support human life are now increasingly diverse, ranging from simple to sophisticated devices. These devices can support various daily activities of the community, from simple to complex. (Kurniawan 2023).

The rapid technological development today has changed the way humans work, communicate, and live life as a whole. In this technological era, the existence of artificial intelligence has become very important and relevant to provide innovative and effective solutions in facing various challenges faced by humans. (Farwati et al. 2023). Artificial Intelligence (AI), more precisely known as artificial intelligence, refers to the development of technology that can mimic human thinking and acting abilities. The term "Artificial" in Artificial Intelligence (AI) indicates that it is man-made, while "Intelligence" describes its intelligent nature.
The development of Artificial Intelligence (AI) technology is very helpful in the field of tourism, one of which is chatbots that can assist users in booking hotel rooms to purchasing tour packages automatically. Artificial Intelligence (AI) also helps tourism companies analyze customer data and provide a more personalized travel experience.

The advantages provided by Artificial Intelligence (AI) technology include personalized travel experiences, cost and time savings, faster and more accurate data analysis, and enhanced security and comfort. Another example of Artificial Intelligence (AI) usage is the use of Google Search and Google Maps to determine the best travel routes to tourist destinations. (Farwati et al. 2023).

In addition, leveraging technological advancements through the use of Artificial Intelligence (AI) technology in destination management has played a key role in enhancing operational efficiency and the traveler experience. This also helps local guides provide optimal information and services to tourists, making tourist destinations more organized, safe, and enjoyable for visitors.

This illustrates that the tourism industry has begun the process of comprehensively adopting digital innovations to enhance tourism development. However, the utilization of technology in the tourism sector also faces challenges and weaknesses that are important to understand in order to anticipate their potential impacts thoroughly. (Hutagaol 2023).

One aspect with both pros and cons regarding the application of Artificial Intelligence (AI) technology in tourism is its use by local guides in cultural tourism sites aimed at preserving authenticity, such as in Dusun Adat Sade, Rembitan Village, Central Lombok, NTB, Indonesia. Dusun Adat Sade Rembitan village is a cultural tourism location that consistently maintains the values and culture of the Sasak tribe. The development of tourism in Sade village relies on cultural heritage assets such as traditional houses, ikat weaving, the art of peresean, and Gendang Belegq performances. The development process of Dusun Adat Sade focuses on community participation, where all tourism activities are conducted by local residents of Dusun Adat Sade (Akbar 2019).

Based on this, direct observation in Dusun Adat Sade, Rembitan Village is expected to provide answers or opinions regarding the pros and cons of Artificial Intelligence (AI) technology used by local guides in Dusun Adat Sade, Rembitan village.

2. LITERATURE REVIEW

Pros and Cons

According to the definition in the Kamus Besar Bahasa Indonesia, the term "Pro" refers to agreement or approval of something, while "Kontra" describes a stance of disagreement or opposition to something. In other words, "Pro" indicates support from a group or individual for a concept, whereas "Kontra" reflects a stance of disagreement or rejection of that concept. (Dwiyanto 2020).

Artificial Intelligence (AI)

Artificial intelligence, commonly referred to as Artificial Intelligence (AI), is a form of intelligence created to learn how to make computers and software behave intelligently and mimic human behavior. Today, Artificial Intelligence (AI) technology has become widespread across various fields. (Lie et al. 2023).

There are two types of artificial intelligence (AI):

1. Narrow Artificial Intelligence (AI): This type of Artificial Intelligence (AI) system is specifically designed to handle particular tasks exceptionally well, such as recognizing faces, playing chess, or translating

2. General Artificial Intelligence (AI): This type of Artificial Intelligence (AI) possesses intelligence comparable to human intelligence and can understand, learn, and act across various domains like a human.

The Role of Local Guides at Tourist Attractions

According to Cole (2008), a local guide is the first person that tourists meet and talk to, and they often see the tour guide as a representative of a tourist attraction. (Mulyana and Chandra Lesmana 2021).

Local guides play a crucial role in culture-based tourism. They not only provide professional services in guiding tourists but also integrate various tourism sectors, ranging from natural beauty to local cultural heritage. (Proyogo Dey 2023).

Local guides serve as the representatives of the local community to tourists. The information conveyed by local guides becomes the knowledge that tourists will remember even after returning to their home regions. Therefore, local guides must provide accurate and comprehensive information about tourist destinations, culture, and other related aspects. (Andajani, Rahayu, and Prihatiningrum 2018).

Technology Acceptance Model (TAM)

Based on the theory developed by Fred Davis in 1986 in the field of management at the University of Michigan, known as the Technology Acceptance Model (TAM), this theory identifies the factors that influence the adoption and acceptance of new technology by individuals. (Atchariyachanvaniah, Okada, and Uesugi 1989).

TAM focuses on two main variables that influence technology adoption:

1. Perceived Usefulness: This is based on how much someone believes that using the technology will enhance performance or productivity in specific situations.
2. Perceived Ease of Use: This refers to an individual's belief that using the technology will be an easy process without requiring excessive effort.

**Previous Research**

<table>
<thead>
<tr>
<th>No</th>
<th>Nama peneliti</th>
<th>Judul</th>
<th>Hasil</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>Wanti Eka Jayanti dan Eva Melinda</td>
<td>The Role and Trust in Artificial Intelligence in Enhancing Lecturer Performance (Jayanti and Melinda 2024)</td>
<td>Although Artificial Intelligence (AI) is considered capable of handling routine tasks, there is still a lack of trust in AI's judgment in complex tasks. Some major issues in human collaboration with Artificial Intelligence (AI) include the low transparency of Artificial Intelligence (AI) algorithms, limited two-way communication, and AI's limited understanding of context. Adjustments to business processes and tasks are needed to align with the capabilities of each party, as well as the importance of Artificial Intelligence (AI) limitations and auditability for humans to understand the basis of Artificial Intelligence (AI) judgments.</td>
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<td>2</td>
<td>Hanifa, Ahmad Solihin, Febriyanti Ayundya</td>
<td>The Role of AI in the Performance of the Creative Industry in Indonesia (Hanifa, Solihin, and Ayundya 2023)</td>
<td>The implementation of Artificial Intelligence (AI) has brought significant positive results to the creative industry in Indonesia. Artificial Intelligence (AI) has enhanced creative processes, improved production efficiency, and expanded market reach. With the right policies and a fundamental understanding of AI's potential, Indonesia can continue to develop its creative industry to be more innovative and competitive globally.</td>
</tr>
<tr>
<td>3</td>
<td>Aceng Badruzaman, Sukron Mamun, Ahmad Fauzi</td>
<td>&quot;Introduction and Implementation of Artificial Intelligence in Enhancing the Competence of Teachers at the Qur'anic Boarding School Al-Latifa in West Cikarang.&quot; (Badruzaman, Mamun, and Fauzi 2024)</td>
<td>The application of Artificial Intelligence (AI) in education holds great potential for enhancing the capabilities of teachers in Islamic boarding schools (pondok pesantren). The collaboration between Artificial Intelligence (AI) and education focuses on individuals through features such as Artificial Intelligence (AI)-based games and learning programs. Artificial Intelligence (AI) also offers solutions by analyzing learning histories, identifying deficiencies, and providing relevant recommendations for improving the quality of education, as well as many other opportunities.</td>
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</table>

**Conceptual Framework**

**Figure 1. Research Conceptual Framework**

![Conceptual Framework Diagram](image-url)
Based on the presented train of thought, an analysis will be conducted on the opinions of the local guides from Dusun Adat Sade, Rambitan village regarding the existence and use of Artificial Intelligence (AI) features. This research will identify the two opinions of local guides, namely agreeing (pro) and disagreeing (kontra). After the identification, it will be evident which viewpoint the local guides hold regarding Artificial Intelligence (AI).

3. RESEARCH METHODS

In this study, the qualitative research method with a case study design was chosen. Data collection techniques included direct observation, semi-structured interviews, and documentation. Informants for this study were selected using non-probability sampling, where informants were chosen based on specific characteristics deemed relevant to the research topic, namely local guides in Dusun Adat Sade, totaling 8 individuals.

Content analysis was employed for data analysis in this research. To ensure data validity, triangulation was utilized, both methodologically and through source triangulation.

Types And Sources Of Data

To obtain in-depth and accurate data, the researcher will use both primary and secondary data sources. According to Sugiyono (2019), primary data is data obtained directly by the researcher from its source through interviews and direct observation at the research location. Meanwhile, secondary data is data obtained from indirect sources such as books, articles, websites, journals, and other relevant information related to the research problem. (Fadhilla and Silmi 2017).

Research Location And Time

The research was conducted from February to May 2024 in Dusun Adat Sade, Rambitan village, Central Lombok Regency, specifically focusing on the local guides in Dusun Adat Sade.

Selection Of Informants

The informants for this study were selected using non-probability sampling, wherein informants were chosen based on specific characteristics deemed relevant to the research topic, namely local guides in Dusun Adat Sade, totaling 8 individuals.

Data Collection Techniques

1. Interview

   Interview is a meeting between two people to exchange information and ideas through question and answer, so that meaning can be constructed on a particular topic (Sitti Nuralan 2022).

2. Observation

   Observation is a data collection technique involving observing an object or situation, and recording the condition or behavior of that object (Hasibuan et al. 2023).

3. Documentation

   The documentation method is the process of collecting information or data through the examination of relevant archives and documents (Nasser dalam Tanjung et al. 2022).

Data Analysis Techniques

Data analysis is a step taken to organize, summarize, and understand data collected from various sources, with the aim of drawing conclusions or information relevant to the researcher's purpose.

In this research, content analysis is used, which is a research method used to analyze text, images, audio, or other media with the aim of extracting specific patterns or information.

4. RESULTS AND DISCUSSION

Overview of the Research Area or Region

Dusun Adat Sade is the home of the Sasak tribe, who highly value their traditions. Located in Rambitan Village, Pujut District, Central Lombok, West Nusa Tenggara, this hamlet has been known since 1975 and officially designated as a tourist village in 1989 based on the decision of the Governor of NTB No. 2 of 1989. Over time, the number of tourists, both domestic and international, has continued to increase, especially after the opening of Lombok International Airport in 2011, which made access to this hamlet easier.

Covering an area of about three hectares and inhabited by around 700 people from 152 families, most of the residents in this hamlet work as seasonal farmers and weavers. When visiting Dusun Adat Sade, visitors can witness various traditional activities and attractions typical of the Sasak tribe and learn about their culture.

Description of Research Findings

Below is a simplified code used in the analysis of interview data presented in Table 2. Interview data presentation: Results of data reduction related to the opinions of local guides in tabulation.

<p>| Tabel 2. Simple coding of interview data analysis |
|----------------------------------|---------------------------------------------------------------------|</p>
<table>
<thead>
<tr>
<th>No</th>
<th>Coding</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>Kt-AI</td>
<td>Cons of AI</td>
</tr>
<tr>
<td>2</td>
<td>Pt-AI</td>
<td>Pros of AI</td>
</tr>
<tr>
<td>3</td>
<td>B-Ta-1</td>
<td>Informant 1</td>
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</table>
Here is the presentation of interviews data, which is the result of data reduction regarding the opinions of local guides.

**Table 3. Presentation of Interview Data: Tabulation of Local Guides’ Opinions from Data Reduction**

<table>
<thead>
<tr>
<th>No</th>
<th>Research Focus</th>
<th>Source</th>
<th>Interview Results Fragment</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>&quot;I see the potential of Artificial Intelligence (AI) in simplifying my job in handling visiting tourists, for example, using Google Translate to communicate with tourists, especially foreign ones who cannot speak English. However, we here have our own fears about Artificial Intelligence (AI). Artificial Intelligence (AI) could threaten the uniqueness and added value of human tour guide services, and indirectly could take over our jobs as local guides here.&quot;</td>
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<td>2</td>
<td>&quot;In my opinion, Artificial Intelligence (AI) technology like Google Search, QR code payments, and Google Maps can greatly help facilitate our work as local guides. They minimize time and provide information about the best routes to nearby attractions in Dusun Adat Sade. Additionally, they ease our task of finding information about what different types of tourists visiting, as most tourists coming to Dusun Adat Sade have diverse backgrounds, such as backpackers or group tourists.&quot;</td>
<td></td>
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<td>3</td>
<td>&quot;My understanding of Artificial Intelligence (AI) is that it is a technology that already takes the form of smart robots, which poses a threat to me as a local guide, as it could take over my job.&quot;</td>
<td></td>
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<tr>
<td>4</td>
<td>&quot;I personally cannot use Artificial Intelligence (AI) technology to facilitate my work as a local guide because I have never received training or information about what Artificial Intelligence (AI) technology is like.&quot;</td>
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<tr>
<td>5</td>
<td>&quot;Although I use my cellphone daily to assist in my work, I have my own fears regarding Artificial Intelligence (AI), as it could indirectly take over my job as a local guide here.&quot;</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td>&quot;Similar to the opinions already expressed by my fellow local guides, AI technology like Google Search can assist us in finding information related to customer service techniques for tourists, and QR code payments ease our service when tourists want to purchase souvenirs. Additionally, Google Maps greatly aids us in facilitating our work as local guides.&quot;</td>
<td></td>
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<tr>
<td>7</td>
<td>&quot;Even though I routinely utilize technology to aid in my activities as a local guide, I have specific concerns regarding artificial intelligence, as it could indirectly replace my role as a local tour guide in this area&quot;.</td>
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</table>
Based on the results of interviews with 8 local guides located in Dusun Adat Sade, Rembitan village, it can be understood that there are pros and cons regarding Artificial Intelligence (AI) technology as follows:

a. Local Guide Pros of Artificial Intelligence (AI) Technology

The Artificial Intelligence (AI) technology commonly used by local guides in providing services to tourists visiting Dusun Adat Sade includes Google Translate, QR code payment tools (QRIS), Google Maps, and Google Search, offering numerous benefits in assisting their work. Firstly, these solutions help improve efficiency and productivity by facilitating language translation, smooth payment transactions, accurate travel navigation, and quick access to information and knowledge.

Moreover, their wide availability on various mobile devices and computers, as well as affordable costs, allow these technologies to be utilized effectively. The personalized features provided enable users to tailor these technologies to their preferences and needs, such as determining the best travel routes on Google Maps. The use of digital technology like QR code payment tools can serve as an alternative for tourists who visit and do not carry cash.

b. Local Guide Cons of Artificial Intelligence (AI) Technology

The local guides have significant concerns about the possibility of artificial intelligence (AI) technology taking over their jobs. They worry that with advanced Artificial Intelligence (AI) capabilities, tasks such as providing tourist information, explaining local history and culture, and guiding tours could be performed by Artificial Intelligence (AI) systems, thereby reducing the need for human guides. Additionally, the local guides also face challenges due to a lack of education and adequate understanding of Artificial Intelligence (AI) technology. Human resources among them have not received sufficient education or training to understand the concepts and potential of Artificial Intelligence (AI) comprehensively, leading to knowledge and skills gaps in facing the latest technological developments.

One of the factors causing a lack of understanding about Artificial Intelligence (AI) among local guides is a misconception about this technology. They perceive AI only as physical robots, without realizing that they have already been applying Artificial Intelligence (AI), such as using Google Translate to interact with tourists, especially foreign tourists who cannot speak English, Google Maps to find specific routes when tourists inquire about destinations around Dusun Adat Sade, and using QR code payments. These three factors, namely concerns about job takeover, lack of education, and misconceptions about Artificial Intelligence (AI), contribute to their apprehensions.

It can be concluded that local guides in Dusun Adat Sade tend to be against Artificial Intelligence (AI) technology because they believe that Artificial Intelligence (AI) technology could take over their jobs. However, they still accept technological advancements that facilitate their work in providing services to tourists.

Discussion

In order to explore the perspectives of local guides in Dusun Adat Sade, Rembitan village, regarding Artificial Intelligence (AI) technology, the author conducted a series of interviews with eight respondents on May 3 and 9, 2024. The results of the interviews revealed variations in views among the local guides regarding Artificial Intelligence (AI) technology.

Among the eight informants, two of them expressed responses covering both the positive (pros) and negative (cons) sides of Artificial Intelligence (AI) technology. These informants acknowledged the potential of Artificial Intelligence (AI) in improving the quality of tour guiding services, such as providing accurate information and assisting in language translation. However, on the other hand, they also expressed concerns about the possibility of Artificial Intelligence (AI) threatening the uniqueness and added value of human tour guide services, as well as taking over much of their work.

Meanwhile, two other informants only highlighted the positive side of Artificial Intelligence (AI) technology, such as its ability to help facilitate the work of local guides, both in minimizing time and providing information related to the best routes to tourist attractions around Dusun Adat Sade through Google Maps, as well as assisting local guides in finding information related to content that will be presented to tourists with diverse backgrounds through Google search.

And four other informants emphasized more on the negative side or weaknesses of Artificial Intelligence (AI) technology. One of the main concerns expressed was the potential disruption or threat to the preservation of local culture and traditions due to the implementation of Artificial Intelligence (AI). Additionally, they also worried...
about the loss of human touch and personal experience in tour guiding services if overly reliant on Artificial Intelligence (AI). The challenges in adopting and using Artificial Intelligence (AI) technology effectively, especially for senior local guides, were also a concern.

Based on the interview results, it can be concluded that most of the local guides in Dusun Adat Sade, Rembitan village, have a more dominant stance against or skeptical towards Artificial Intelligence (AI) technology. However, they are not completely closed off, and they accept the presence of Artificial Intelligence (AI) as long as it does not threaten the existing jobs and culture there.

5. CONCLUSION
The research conducted by interviewing 8 local guides in Dusun Adat Sade, Rembitan village, revealed both pro and con opinions regarding Artificial Intelligence (AI) technology. Some informants highlighted the positive and negative aspects of Artificial Intelligence (AI), while others only focused on the benefits of Artificial Intelligence (AI). Meanwhile, some informants emphasized more on the weaknesses or drawbacks of using and having Artificial Intelligence (AI) technology.

Overall, the research findings indicate that most local guides in Dusun Adat Sade tend to be against or skeptical about Artificial Intelligence (AI) technology. This is because there are major concerns expressed during the interviews, including potential threats to the preservation of local culture and traditions, the loss of human touch and personal experience in tour guiding services, and challenges in the effective acceptance and use of Artificial Intelligence (AI) technology, especially for senior tour guides who are not familiar with and cannot use Artificial Intelligence (AI).

However, the local guides are not completely opposed and closed to the possibility of accepting, learning, and using Artificial Intelligence (AI) technology wisely in the future. They acknowledge the potential of Artificial Intelligence (AI) in improving the quality of tour guiding services, such as providing accurate information, assisting in language translation, facilitating travel planning and management, and promoting tourist destinations more effectively.

6. SUGGESTION
To optimize the acceptance and use of Artificial Intelligence (AI) technology, especially for local guides and the tourism industry in general, without compromising cultural values and local traditions, concrete efforts are needed.

1. Local guides need better education and training regarding the concepts and potential of Artificial Intelligence (AI), as well as how to integrate it into tour guiding services.
2. Furthermore, there needs to be stakeholder initiatives to develop programs aimed at bridging the gap between the acceptance and use of Artificial Intelligence (AI) technology and efforts to preserve local culture.

This way, both aspects can work harmoniously and support each other.

REFERENCES


