Implementation of E-Tourism In Aceh Province for Future Sustainable Development through Media Promotion

Khalida Ulfa1, Ulung Pribadi2, Herizal3, Suswanta1
1Department of Government Affairs and Administration, Universitas Muhammadiyah Yogyakarta, Indonesia
2Government Science, Faculty of Social Science and Political Science, Universitas Syiah Kuala, Aceh, Indonesia
Email: 1khalida.ulfa.psc19@mail.umy.ac.id
Correspondent: Khalida Ulfa

Abstract: E-tourism is a new strategy in Indonesia for the tourism development. Indonesia possesses great potential in tourism, including marine, culture, history, culinary and many other types of tourism. The concept of sustainable development remains the best development principle, one of which is as a guide in the development of tourism and is used for economic growth in the society. This research is based on a previous article published in Sustainability by presenting an integrated framework using a comprehensive and in-depth review on literatures related to tourism. Application of E-Tourism in Aceh province’s tourism management through media promotion is to boost economic growth in tourism development and management. Tourism in Aceh Province has very good potential. This condition has the potential to market tourism using social media.

In this modern era, humans tend to use social media as a means of finding information. In this case, the role of social media, such as website and Twitter, is a suitable tool for marketing E-Tourism in Aceh Province. This study used descriptive qualitative method. Data sources were be obtained from Aketchourism, travel website report documents, and journals related to the research topic. The data were analyzed using the Nvivo 12 plus application and crosstab. The results showed that the implementation of E-tourism in Aceh Province through social media was very influential. This social media is a promotion platform for the region because it is easier, more effective, strategic, and this can increase the regional economic development and the sustainable community in the future.

Keywords: Artificial Intelligence, E-Tourism, Social Media, Sustainable of Development, Aceh Province.

1. Introduction

E-tourism is a new strategy in Indonesia and a great breakthrough in developing tourism. With increasingly-better and sophisticated technology, it is easier for an area to promote its tourism, one of which is through E-Tourism. Because we know that Indonesia has great potential in its tourism, from its marine, culture, history, culinary, and other types of tourism, this is good for supporting the economy of the people in Indonesia so that both foreign and domestic visitors will easily find out various interesting things about tourism in Indonesia, for example, tourism in Aceh Province. The concept of sustainable development remains the best principle of development, one of them is as a guide in tourism development. Development planning with a sustainable concept is needed in the area because it has great potential to be utilized for the economic growth of the community.

E-tourism describes the digitalization, optimization, and effectiveness of the flow process of tourism-related information [1]. In web-based e-tourism services, the complexity of selecting various tourism products, travel routes, transportation models, and accommodation makes the availability of accurate, current, and relevant information very important for efficient tourism industry operations. [2]. However, some tourists plan their tourist destinations which have good reviews and budget-friendly. For tourists who plan their tourist destinations, it takes more time to gather information about tourist destinations [3]. Regulations on tourism in Aceh Province Chapter VIII concerning the Marketing and Promotion of Tourism, Clause 65: to promote tourism activities in Aceh and achieve the vision and mission of tourism, the Aceh Government and district/city governments are obliged to carry out marketing and promotional activities. Development of culture and tourism is part of the regional development process and character building of the society (character building) towards an independent, advanced, just, prosperous and civilized society. The development of culture and tourism is also a series of continuous development efforts covering all aspects of community life, such as aspects of religion, economy, education, society, and culture. In cultural development, the
creation of a society with noble, moral, and ethical character is very important to create an atmosphere of community life that is full of tolerance and harmony.

The implementation of E-tourism has been carried out by Aceh Province. In this study, it focuses on the implementation of E-Tourism in Aceh Province for sustainable development through promotional media, one of which is through social media. The Internet is essentially an important role in tourism. The internet has become one of the solutions offered to facilitate tourism development in Indonesia. Through the internet, many things are easily accessible by many people in the world. Dissemination of information regarding tourism development can be accessed anywhere and anytime. In Aceh province, the implementation of e-tourism can be seen through the official Acehtravel.com and the government-owned Twitter account @Acehtourism. Also, there is a community account @wisataacehid that is privately owned and this is also very supportive to tourism in Aceh.

2. Method

The research used qualitative and descriptive methods through literature review technique. Qualitative research is a descriptive research and the analysis, the process, and meaning (subject perspective) are emphasized and prioritized in it. [4]. This article discusses the implementation of e-tourism in Aceh Province for sustainable development through its special promotional media on social media. Sources of data were obtained through journals, the Acehtravel.com website, and Twitter. The data were analyzed using the Nvivo plus 12 analysis in the form of Twitter Sociogram, Chart, and Website. NVivo is an application that can answer the needs of qualitative and mixed methods researchers (qualitative and quantitative) in managing and analyzing data effectively and efficiently, both for individual research and team research. NVivo can also strengthen the validity and reliability of qualitative research and is very powerful for conducting digital and non-digital data analysis [4].

3. Basic Theory

Program Implementation Theory

Korten claimed a program implementation would be efficient if these three elements exist. First, the appropriateness of the program and its beneficiaries, which are the suitability of what the program offers and what is needed by the target group (beneficiaries). Second, the suitability between the program and the implementing organization, namely the suitability between the tasks required by the program and the capabilities of the implementing organization. Third, the suitability between user groups and implementing organizations [5].

Concept Artificial Intelligence in Tourism

Implementation of artificial intelligence varies widely across organizations and AI is valued as an organizational strength to increase the efficiency and effectiveness of process [6]. Artificial intelligence is designed to create changes in the future, especially in tourism and is beneficial for tourism actors [7]. The development of artificial intelligence must be supported by infrastructure [8]. Through artificial intelligence, tourism can be managed properly through applications provided by the government [9]. The involvement of ICT and social media in tourism sector is now very popular in developed countries [10]. Artificial intelligence in tourism, through applications, can help to find attractive tourist destinations [11]. Meanwhile, according to [12], tourism is one of the largest businesses in the world.

Social Media

According to the analysis, [13] media is one of the important aspects in human life. Almost in every aspect of life, both individually and in groups, people need information media [3]. The information needed in data processing is the data on the types of tourism (cultural, nature, entertainment & recreation, education, shopping, and cultural heritage tourism). Other than functioning as information, social media also functions as a tool for promotion, education, entertainment, propaganda, social or humanitarian, and supervisory functions [14]. Social media is an online media, where users can easily participate, share, and create content from social media (
Prasetya, 2019). This social media is used by various fields, including economy, business, social, and politics [16].

**E-Tourism Sustainable Development**

Sustainability is a development to meet the needs of the current generation without harming the needs of future generations [17] [18]. Sustainable development is about finding better ways of doing things, both for the future and the present. Observation result [19] on economic practices that occur in the field, especially in the industry amidst the trend of halal industry issues and the implementation of the international Sustainable Development Goals project [20]. The research [12] focuses on exploring regional potentials related to the Community Based Sustainable Tourism Development (CBSTD). Local people play an important role in creating awareness about tourism potential. Meanwhile, according to the analysis from [21], currently considering the development of tourism in the periphery areas through the empowerment of local communities. There are various alternatives in developing tourism potential, such as: reforming and renovating tourist areas and creating tourist destinations [22].

**Theoretical Framework**

![Artificial Intelligence in Tourism through promotional media](#)

- Social Media: Twitter
- Website: Acehtravel.com
- Aceh Tourism Application

4. Findings and Discussion

**Visits of Foreign And Domestic Tourists to Aceh Province in 2015-2019**

![Foreign Tourists](#)

Figure 1. Data Source: Aceh Provincial Culture and Tourism Office and Processed by Researchers, 2020.

The graph above shows that the number of foreign tourists from 2015-2019 has increased quite significantly. In 2015, there were 54,588 people and there was an increase in 2016 as many as 76,452 foreign tourists. In 2017, it decreased 0.2% from the previous year, and increased by 32% in 2018 compared to the previous year. In the same year, there was an increase of 107,037 foreign tourist visits to Aceh. Most of the foreign tourists who come to Aceh are from Malaysia, China, Germany, the UK, Singapore, Australia, the US, Canada, and the Netherlands, according to data from BPS (Statistics Indonesia) of Aceh Province. This graph proves that E-tourism can increase the country’s foreign exchange through the tourism sector which is promoted through social media; because with the social media, foreign tourists can easily access all information about tourism in Aceh.
The graph above shows that the number of domestic tourists from 2015-2019 increased. In 2015, there were 1,662,528 people and there was an increase in 2016 as many as 2,077,797 people visiting domestic tourists. In 2017, 2018, and 2019, there has been a continuous increase. This graph proves that social media and government websites on tourism marketing provide many benefits in various sectors, especially in the economic sector of the Acehnese people. The increase in domestic tourists to Aceh is because it is supported by various adequate facilities in Aceh's tourist attractions, various culinary and transportation that are easily accessible through social media, hence information is easily accessed by domestic tourists.

**E-Tourism Promotion via Twitter**

Social networks show that the above tweet is a network connection visualization with defined boundaries. The sociogram through the @wisataacehID Twitter account which shows the central point of out-of-degree for twitter accounts will explain all outgoing connections made in the network and build good cooperation in promoting tourism channeled through the @wisataacehID twitter account in the very middle position or center and many are reposted by other twitter accounts in promoting the Aceh tourism. With this social media, it is easier for foreign and domestic tourists to find ideas about tourism through social media accounts, including Twitter; because we know that in today's modern era, everyone uses social media for many activities, including searching for tourist attractions, one of which is in Aceh Province. This @wisataacehID twitter account is a private account owned by the Acehnese citizens themselves. The twitter account that provide such information is @wisataacehID, and then the Twitter accounts that often reposted the Aceh’s tourism promotion are @Acehtourism, @Genpiaceh,
@Indtravel, @Aceh_disbudpar, @Seputaraceh, @Humasaceh, @Iloveaceh, @Dubesaustralia, @Modern_models, @Acehtravel, and @Tourismaceh. In this case, the people of Aceh also take part in promoting and developing tourism in Aceh Province, as evidenced by the number of tweets reposted by other accounts. This is very influential in the implementation of E-tourism in Aceh Province via Twitter. This social media becomes a forum for promoting the region because it is easier, more effective, and strategic, and this can increase the regional economic development and the sustainable community in the future.

![Figure 4: Result of analysis of Nvivo 12 Plus via Twitter, in chart](image)

Figure 4 above shows that the twitter account owned by the Aceh Government is very active in promoting tourism. In 2019, October-December, the number was 14.78%. This is the highest year on the @acehtourism twitter account in promoting tourism in Aceh compared to the previous years. This twitter account experienced a decline in January and March 2018. It can be seen that the active tourism twitter account of the Aceh government is also very supportive of tourism development in Aceh province. Social media via twitter on this @acehtourism account offers foreign tourists and domestic tourists to participate and exchange information about tourism through social media networks, one of which is Twitter. In other words, the government has successfully implemented E-tourism in Aceh Province.

**E-tourism Aceh Province Promotion Via Website**

The Acehtourism website, which is owned by the Aceh Government, provides accurate and complete information about tourism in Aceh Province. On this website, you can see the sub-menus and names of districts/cities regarding tourism information. With this e-tourism, through foreign and domestic tourism websites, it is easier to access information about any tourism in Aceh Province before visiting. The website also provides information about transportation, culinary delights, and various other explanations. This is a way for the government to support the economy of its people, so that the community can develop their areas to advance their tourism and increase the number of visitors to the area. Social media through website is the most effective, easy, and strategic way to promote and develop tourism in an area, one of which is Aceh Province. Because the website can provide the information needed by foreign tourists and domestic tourists. Also, the use of the internet and social media is now very popular among the public as a means of exchanging information and communication.

**Application Tourism Aceh**

The Aceh tourism application “Aceh Tourism” can be downloaded on smartphone and can make it easier for tourists to access all information about tourism in Aceh Province. This artificial intelligence is able to make the tourism sector in Aceh Province better so that foreign and domestic visitors find it easier to access all information about tourism in Aceh province. In the Aceh Tourism application, there are various facilities, such as tourist destinations, Acehnese culinary specialties, Acehnese cultures, and annual events. This is supported by the Aceh Tourism application which can be obtained in an application available on everyone's smartphone.
Discussion

This article relates sustainable development with the implementation of E-tourism in Aceh province through social media, which supports sustainable development. The purpose of sustainable development is to find better ways of doing things, both for the future and today [18]. To plan a tourist destination, tourists generally use the services of a tour agent or tour guide. However, some tourists plan their tourist destinations with good reviews and budget-friendly. For tourists who plan their tourist destinations, they need more time to collect information about tourist destinations, thus, with the existence of social media, it is easier for them to access information about the destinations they are going to visit.

Program implementation theory expressed by David C. Korten uses a learning process approach and is better known as the program implementation suitability model. This program has been implemented by the Acehtravel.com website on the website. Korten describes this model with three elements. First, the suitability of the program and the beneficiary, The program offered is useful for supporting the progress of tourism in the province of Aceh and this e-tourism program is also an important point in the Aceh Government's Vision Year, "Aceh is dignified, prosperous, just and independent based on the UUPA as a manifestation of the Helsinki MoU. The target group is foreign and domestic tourists, so that every tourist who wants to visit Aceh does not have to bother looking for information manually but can be accessed directly on the Aceh travel website, it can be accessed via Twitter @wisataacehID or can be accessed via application named Aceh Tourism. Second, the program carried out by the Aceh government is closely related to the implementing organization because one of the tasks given by the central government to the Aceh government, especially Aceh, gets special autonomy and can develop and advance its region, especially through its tourism sector because Aceh is very rich in marine, culinary, and cultural arts tourism. Third, the suitability between the requirements decided by the organization to be able to obtain program outputs with what the program target group can do. The increase in foreign and domestic tourist every year can be proven through data from the BPS of Aceh province.

Through artificial intelligence and the sophistication of technology in the current era, social media has become a very profitable platform for promoting tourism, its benefits include: it can increase the country's foreign exchange, increase the economy, and tourism is growing and more advanced. The Aceh tourism application is one of the Aceh Provincial Tourism Office programs designed to make it easier for tourists with the existence of artificial intelligence tourism promotional media, such as Twitter and websites. For foreign and domestic tourists, it is easier to access all information about tourism in Aceh, ranging from transportation, culinary, marine, Islamic, and historical tourism. The implementation of the E-tourism program is said to be very successful in advancing tourism in Aceh Province, it can be proven by the level of graphs of foreign and domestic tourists visiting Aceh. Therefore, through social media, such as Twitter, everyone who visits Aceh can explore and post moments and this is also a strategy to attract foreign and domestic tourists who have not visited Aceh.

5. Conclusion

It can be concluded that the existence of tourism artificial intelligence can increase the country's foreign exchange and improve the people's economy in the future, in this case, is through an application named Aceh Tourism. This social media becomes a forum for promoting the region because it is easier, more effective, and strategic, and this can increase the regional economic development and the sustainable community in the future. The Twitter accounts @wisataacehID @acehtourism are respectively a personal account and an account managed by the government. In this case, the people of Aceh and the Aceh government work together in promoting and developing tourism in Aceh Province.
6. Acknowledgment

Thank you for the Master Program of Government Affairs and Administration, Universitas Muhammadiyah Yogyakarta, Indonesia.

7. References

[1] A. I. Daya, “Implementasi Elemen User Interactive ( UI ) Dan User Experience ( UI ) Dalam Perancangan Antarmuka Sistem Informasi E-Tourism Di Bali Berbasis Web,” pp. 153–160, 2019, [Online]. Available: https://www.jurnal.undirabali.ac.id/index.php/sintesa/article/view/829/726.

[2] H. Himawan, “E-Tourism: Antara Konsep Dan Implementasi Dalam Mendukung Industri Pariwisata Indonesia,” May 2009.

[3] M. R. A. Rizki Wahyudi, Ema Utami, “Sistem Pakar E-Tourism Pada Dinas Pariwisata D.I.Y Menggunakan Metode Forward Chaining,” J. Ilm. DASI, vol. 16, no. 4, pp. 1–14, 2016.

[4] D. Agung, Dian, “Pengabdian Masyarakat: Pelatihan Nvivo 12 Plus Di PSDKU Unair Banyuwangi,” KUAT Keuangan. Umum dan Akunt. Terap., vol. 1, no. 3, p. 151, 2019, doi: 10.3109/2/kuat.v13.625.

[5] S. D. L. S. Ghifari Yuristaati, “Strategi Branding Pariwisata Indonesia Untuk Pemasaran Mancanegara,” ETTISAL J. Commun., vol. 2, no. 2, p. 31, 2018, doi: 10.21111/ettsial.v2i2.1265.

[6] K. R. Ririh, N. Laili, A. Wicaksono, and S. Tsurayya, “Studi Komparsai Dan Analisis Swot Pada Implementasi Kecerdasan Buatan (Artificial Intelligence) Di Indonesia,” J. Tek. Ind., vol. 15, no. 2, pp. 122–133, 2020, [Online]. Available: https://ejournal.undip.ac.id/index.php/jgti/article/view/29183.

[7] I. Tussyadiah, “A review of research into automation in tourism: Launching the Annals of Tourism Research Curated Collection on Artificial Intelligence and Robotics in Tourism,” Ann. Tour. Res., vol. 81, no. February, p. 102883, 2020, doi: 10.1016/j.annals.2020.102883.

[8] Z. Zhou, X. Chen, E. Li, L. Zeng, K. Luo, and J. Zhang, “Edge Intelligence: Paving the Last Mile of Artificial Intelligence With Edge Computing,” Proc. IEEE, vol. 107, no. 8, 2019, doi: 10.1109/JPROC.2019.2918951.

[9] K. A. Astuti, “Community-based tourism: measuring readiness of artificial intelligence on traditional village,” Int. J. Soc. Sci. Humantit., vol. 3, no. 3, pp. 81–89, 2019, doi: 10.29332/jssh.v3n3.352.

[10] J. Tchamy, J. Ateba, B. C. Maleou Koubikat, and I. T. Tchamy, “E-tourism in developing and underdeveloped countries: Case of Cameroon,” Front. Manag. Bus., vol. 1, no. 7–15, 2020, doi: 10.25082/fmb.2020.01.003.

[11] S. Idrus, “PERSPEKTIF SUMBER DAYA MANUSIA PARIWISATA DI ERA REVOLUSI INDUSTRI 4.0,” no. November, pp. 587–594, 2018.

[12] B. Gunarekha and T. Binoy, “Community Based Sustainable Tourism Development in Karnataka: a Study on Mysuru District Community Based Sustainable Tourism Development in Karnataka: a Study on Mysuru District,” Asia Pacific J. Res., vol. 1, no. L, pp. 121–126, 2017.

[13] Musfialdy, “Peran media massa saat pemilihan umum mengawasi atau diawasi,” Risalah, vol. 26, no. 2, pp. 69–76 69, 2015.

[14] L. A. Abdillah, “Social Media As Political Party Campaign in Indonesia,” no. 12, pp. 1–10, 2014.

[15] A. R. Prasetia, “Pengaruh Politik Identitas Melalui Media Sosial,” pp. 21–33, 2019.

[16] Muhammad Hafizh, “Peran sosial terhadap persepsi aktifis mahasiswa fisip undip sebagai pemilih pemula dalam pilpres 2014,” 2016.

[17] F. Obot and D. Setyawan, “Implementasi Kebijakan Pemerintah Kota Batu Dalam Mewujudkan Kota Pariwisata Berkelanjutan Yang Berwali,” J. Ilm. DASI, vol. 16, no. 4, pp. 113–120, 2019, [Online]. Available: https://publikasi.unitri.ac.id/index.php/fisip/article/view/1469.

[18] S. C. Nita, “Sustainable development and economic growth,” Qual. - Access to Success, vol. 20, no. S2, pp. 428–432, 2019, doi: 10.1007/978-94-011-0451-7_16.

[19] D. A. Pujayanti, “Industri Halal sebagai Paradigma bagi Sustainable Development Goals di Era Revolusi Industri 4.0,” Youth Islam. Econ. J., vol. 1, no. 1, pp. 1–14, 2020.

[20] A. L. M. and R. W. Kates, “Sustainable Development in Ijebu-Ode, Nigeria: The Role of Social Capital, Participation, and Science and Technology,” J. Food Syst. Res., vol. 19, no. 3, pp. 225–355, 2019, doi: 10.5874/jfstr.19.223.

[21] J. Schmidt and N. Urieil, “Tourism development and the empowerment of local communities: The case of Mitzpe Ramon, a peripheral town in the Israeli Negev Desert,” J. Sustain. Tour., vol. 27, no. 6, pp. 805–825, 2019, doi: 10.1080/09669582.2018.1515952.

[22] A. D. Manuputty and A. R. Taaaamab, “Kepariwisataan Berbasiskan E-tourism,” J. Teknol. Informasi-Aiti, vol. 3, no. 1, pp. 52–65, 2016.