Digital Economy and Tourism Industry Within the Frame of Information and Communication Technology

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Abstract : This study investigates the impact of economic digitization on the tourism industry using the content analysis method by comparing various sources of literature to arrive at a complete conclusion. We found that economic digitization had an impact on the tourism industry.

Keywords: Digital Economy, Information and Communication Technology, Tourism

JEL Classification : G0,E4,O10

1 INTRODUCTION

Tourism business innovation can be carried out from various sectors ranging from the protein sector by innovating in the supply chain such as the use of websites and search engine optimization so that consumers can order hotel services directly without going through intermediaries so as to get more economical prices. Many innovations in the tourism industry involve communication and information technology such as the Internet. The increasingly massive use of the internet creates new opportunities, namely marketing via the Internet

According to the WTO, the Internet is revolutionizing information distribution and tourism sales. The more Internet users who buy online and tourism will gain a bigger share of the online commerce market.

E-commerce is a place where sellers and buyers meet on the Internet (Rainer & Turban, 2008). E-commerce is a form of technology adoption or adaptation to business. With Internet technology, marketing costs can be maximally cut and saved.

The government plays an important role in the development of communication and information technology. Of course, to increase the inclusion of Internet technology, a fairly good infrastructure is needed, such as a series of fibre optic installations and other internet support facilities. The internet is a development of communication and information technology that provides great opportunities in the business world including the tourism business. The internet creates a new economic trend, namely the digital economy. The digital economy is business digitization and all aspects of the economy including finance, known as financial technology.

The digital economy speeds up transactions and saves a lot of money. The internet makes it easy for many people to meet each other and develop themselves and their respective businesses. The internet certainly has penetrated into the world of government such as e-government where the entire process of public services starts using internet technology such as online licensing to online tickets. This massive development of internet technology needs to be anticipated and utilized properly (Vardan, et al., 2019).

The digital economy creates internet business and commerce known as e-commerce. Online commerce is increasing new business which is the logistics business. The increase in the logistics business is supported by an increase in online transactions where the delivery of physical goods still requires logistics. Digital business drives productivity massively in all fields and of course has an impact on economic growth

2 LITERATURE REVIEW

The internet developed massively and the development of the internet was followed by the development of information technology, including the development of software programming. This increases the use of the internet from various sectors including the business sector (Peitz & Waldfogel, 2012).

The Internet was first developed in the early 1990s. The internet has developed since the discovery of the website for the first time. The use of the internet has grown with the development of websites in the digital world. The website is increasingly sophisticated and is increasingly able to meet human needs and be able to help human work. The next development is a mobile application that is increasingly sophisticated and helps website technology in providing digital technology services to humans (Metzler, 2011).

Internet users increased rapidly in the 2000s worldwide. The use of the internet has increased so rapidly that it

supports business lines in terms of transactions and marketing. Everyone can sell and buy on the Internet making it easier for people to market their products. Marketing costs using the internet are relatively cheap. The use of the internet in the business world encourages more massive internet users (Inayatullah, 2009).

Information technology and internet users continue to increase sharply. Massive internet use cannot be stopped. The trend of the digital economy cannot be blocked by any country. Massive online commerce to business and all activities have used the internet. The internet speeds up and makes human work easier. The internet is a form of technological leap that can change the face of the world (Yang, 2019).

The development of digital regulations has been developed in many countries in the world. The development of regulations is deemed necessary to provide legal certainty in the digital world. The governments of countries in the world are starting to care and develop policies that support internet empowerment by increasing internet security.

The internet does not only provide blessings in the form of a growing economy. But the emergence of the internet also gave birth to a new form of crime, namely cybercrime. For this reason, security is very important in today's modern times.

Government policies related to the digital economy must be right. Policy formulation must understand that the digital economy is global in nature and is not limited by regional boundaries regarding the exchange of information. The right digital economy policies in regulating internet use can drive economic growth. The tourism industry is required to create demand in order to increase tourism industry customers. The internet can be an opportunity to make this happen (Schmitz & Diaz, 2013).

The tourism sector requires skilled workers such as having good communication skills and being able to master foreign languages well. Things like that need to be the attention of tourism business actors. The tourism industry knows the high season and low season. The needs of employees in each season are, of course, different. However, this can be overcome by developing appropriate human resources.

The tourism industry continues to grow and develop well. This is certainly a good thing for tourism business people. The growth of the tourism industry has been threatened since the emergence of the Covid 19 virus which has become endemic and became a global pandemic. In the period before the Covid 19 pandemic, the tourism industry was able to compete in income with the oil and gas industry in various parts of the world (Buhalis &

Darcy, 2011). The challenges of the tourism industry globally need to be considered, such as health challenges which must be responded to by improving standard health-related procedures. This kind of thing can be adapted and communicated via the internet.

The presence of technology plays an important role in facilitating people's lives in various ways, one of which is the tourism sector. technology can influence and shape the way a person conducts tourism activities, from planning a trip, while travelling, to returning from a trip. Internet services or information and communication technology (ICT) in the tourism sector are very important. The internet has become one of the tourism infrastructures needed by tourists.

The internet is very important for our lives today. With the internet, it seems as if there are no boundaries and distances between one person and another. With the internet, various business sectors can also develop, including the tourism sector.

The existence of the internet in life also has an impact on the social life of the community. Like the coin, there is a downside and a positive side. And we know what the positive side is when seeing news broadcasts on television. Apart from having a bad impact on the young generation, there are also good impacts

The internet has become a strategic infrastructure in the world of tourism, so it is hoped that all tourist attractions are covered by the internet. Usually, both domestic and foreign travellers like to take pictures at tourist attractions and want to share them on social media, but what if there is no internet network, maybe that is it. will be a bad impression. The internet has become a necessity for every traveller so this must be fulfilled. At least accessible at several strategic points such as airports, immigration, hotels and tourist attractions.

Armed with devices that are now competitively priced for cheap visitors to tourist attractions will definitely take pictures in selfie-style. And this seems to have become a lifestyle for people in today's digital era. someone who intends to visit a tourist spot will usually look for reviews or sources of information. And the very first thing to aim for is the search engine feature in an internet browser. And that's where the prospective tourists are looking for as much information as possible (Daim, et al., 2017).

The existence of social networks has contributed greatly to the development of tourism. The rise of selfie culture has had a positive impact on tourism. How not, it is certain that tourists who take pictures at tourist attractions will certainly spread the content, either videos or photos on social networks (Salam, et al, 2006). the development of the internet makes all things have equal opportunities in the world of the internet. This means that

everyone can fill in any content on the internet. Everything is open to anyone, including the management of tourist attractions. That's why tourist spots now have official pages on the internet.

Official pages on tourist attractions can be in the form of websites, blogs, official pages of social networks and so on. And that's where tourists can get as much information as possible before deciding to visit. In managing the official page, there are tourism managers who manage it professionally by creating a website, with the presence of the internet and the entry of tourist content in the virtual world, it seems that it triggers economic growth in other sectors (Schütte, 2013). At the same time, tourists are becoming more knowledgeable, more informed and demanding. Competition has shifted from increased productivity to added value quality, flexibility and agility in the market and meets customer demands anywhere, anytime with customized solutions. Decisions are faster and reaction times are shorter, so success will depend on one's ability to position products and services and to respond quickly to customer needs. While knowledge and innovation are essential for success, the global economy is also characterized by stark socioeconomic differences between developed and developing countries.

The main characteristic of globalization is the mobility of information, capital and people driven by the restructuring of economic relations and competition. To answer strategic challenges, innovative and flexible local initiatives are needed (Mayo, 2012). Globalization which is influenced by technological advancement factors is one of the things that affects globalization in the tourism sector. Compared to the past, promotion of tourist attractions can also be done more professionally, such as through sites or advertisements on the internet. In the current era of globalization, tourism has been recognized as a developing industry, seen from various indicators of world development and employment. Based on its development, in the coming years, the role of tourism in the predictions will increase. Therefore, much needs to be done to develop tourism potentials. But pandemic virus covid 19 need to be solved first.

3   RESEARCH OBJECTIVE AND METHODOLOGY

This study used a qualitative content analysis method by collecting articles and literature from various sources to be analyzed in a complete conclusion.

4   RESULTS AND DISCUSSION

tourism today is considered a catalyst for development. This means that the tourism sector is a factor that can accelerate the development process itself, such as infrastructure development and transportation access. The further impact is to increase job opportunities,

accelerate the distribution of income, increase state taxes, and local levies. Not only that, but this can also encourage the development of areas that have natural and historical potential. The culmination of all this is the significant effect on state income. In particular, the positive impact of increasing the tourism industry, especially in developing countries.

tourism sector which has been proven to provide added value to society. The tourism sector, if properly managed, is actually a sector that drives the economy whose raw materials will never run out. If it is developed in a planned and integrated manner, the role of the tourism sector has the potential to exceed the oil and gas sector, which has been the prime source of state revenue.

Tourism destinations are the main core of tourism development. In its development, tourist attractions should be built synergistically by paying attention to tourist facilities, public facilities, accessibility/infrastructure. No less important, tourism development must be based on community empowerment. This empowerment must adopt a complete and sustainable system.

The development of economic growth needs to be supported by efforts to find new sources of growth which have been continuously increasing one of these sources, namely the tourism sector. Tourism is a mainstay sector of the national economy which has the potential to boost the economic growth of a country. Tourism is a sector that has recently become important and cannot be separated from human activities, especially regarding social and economic activities. In fact, tourism has developed into one of the largest industries in the world, which is marked by, among other things, the growth in the number of tourist visits and the income earned from international tourists. Economic growth has a unidirectional causal relationship affecting the tourism sector. This inverse causality relationship shows that there is a need for efforts to increase growth in order to cause an expansion in the tourism sector.

The government needs to facilitate the flow of tourism investment, goods and services by issuing economic policy support related to tourism development. One of them is by establishing a strategy for achieving tourism performance through increasing accessibility and diversity of attractions. This is supported by promotional activities and the enhancement of human resources in the tourism sector. That way the dual effect of the tourism sector, such as an increase in the workforce, will increase and encourage economic growth.

The world of tourism is one of the foreign exchange earning sectors that has enormous potential to continue to be developed. The tourism sector is currently growing in line with the increasing human need for travel, tourism

is closely related to the life patterns of modern society. The higher the economic level and education level of a person, the greater his need for travelling.

The tourism sector has become an economic sector that will also develop along with the progress and dynamics of the world community, so it is not surprising that various countries, one of which is Indonesia, makes tourism a source of driving the country's economy. The success of developing the tourism sector does not only depend on how many destinations you have, natural beauty, naturalness, unique traditions or culture, but what is far more important is the quality of human resources that play a role in its management and tourism information that is managed with appropriate information technology. The role of information and communication technology in the tourism sector is quite large and important because the existence of information and communication technology makes it easier for tourists to find out more easily about existing tourist attractions even in remote areas..

4.1. TECHNOLOGY IMPACT ANALYSIS

One of the factors that hinder or accelerates the rate of tourism activities is the pattern of promotion and information management systems that have an impact on whether a tourist object is known or not known, the ease of obtaining a tourist destination, the ease of access to tourist sites, the benefits obtained during the tour, the availability of transportation, facilities and visitor facilities infrastructure as well as the uniqueness of objects, culture, local wisdom of the community and tourist trends. Existing information will greatly determine tourists in determining the choice of activity patterns or tourist locations.

Information technology is a method or tool used to process data, including processing, obtaining, compiling and storing, manipulating data in various ways and methods to produce quality information, namely information that is relevant, accurate and timely and very influential in determining a decision.

The development of technology has a very long history, but the impact that is felt now on the development of Information and Communication Technology is the development of the Internet world that can move information very quickly.

The development of Information and Communication Technology (ICT) has greatly evolved the development of the tourism industry, with ICT information and communication can be carried out very quickly, precisely and accurately, able to reduce human errors (reduce human error), for example, the emergence of Internet-based travel applications. Tourism Information which joins E-commerce such as Traveloka, Alibaba.com,

Torifago, as a Transport-Accommodation-Information System software program. By using this software, information about ticket prices, hotel/lodging prices, accommodation availability, the certainty of bookings, future tourist information, ease of booking hotels and transportation tickets in any situation can be fulfilled anytime and anywhere. This convenience will make tourists feel happy and cause the number of movements and tourist arrivals to continue to increase.

The development of ICT is also very helpful in opening information or introducing well-known or very new destinations to prospective tourists or tourists who have arrived, introducing cultural uniqueness, local wisdom of the people around the destination. The very flexible movement of information also has an impact on the overall movement of tourists.

4.2. ANALYZE THE IMPLICATIONS FOR TOURISM POLICY

Tourism policy is a product of a very complex process and is related to various aspects. The complexity of tourism is caused by major changes at the local, national and international levels. In the context of major changes, the policy environment on tourism has become a strategic medium for the government to market its tourism potential. This condition has become a very strategic and important tourism policy in tourism development. Tourism is a multidimensional and cross-sectoral industry.

The involvement of all parties is needed because tourism is not an independent sector. The consideration of the inter-sectoral linkages and management is increasingly complicated in the development of an integrated destination. One of the stakeholders that has an important role is a good understanding of the government in planning and implementing all tourism planning in a consistent and sustainable manner. The government will certainly pay attention and ensure that tourism development will be able to provide a crisis of social, economic and environmental costs. On the other hand, business actors who are more profit-oriented certainly cannot guide what should be formed, but the government can foster what they are not allowed to do through policies and regulations. For example, with the provisions of spatial regulations, permits, licenses, accreditation, and regulations.

Government intervention in tourism development can be carried out by implementing several policy instruments that can be used to control and provide incentives in developing sustainable tourism, such as; utilization regulations, limiting tourist access to areas prone to damage, protecting local culture, directing environmentally friendly tourist behaviour, accessing energy use, protecting scarce natural resources, reducing

pollution and providing incentives for infrastructure development that also benefits the host homes such as transportation systems, protection of urban green spaces and national parks. The choice of policy instruments will be very decisive based on a complete analysis of the objectives to be achieved from a possible perspective, not based on a partial and incomplete study. The most important thing also needs to be based on good morals and political will. Currently developing issues regarding tourism planning only emphasize the technical aspects only, even though it is actually a political problem that regulates all existing components of tourism in the direction of sustainable tourism.

The role of policymakers is very important in determining the tourism policies that will be taken to develop sustainable tourism. For this reason, it is necessary to understand the understanding of policymakers about the concept of good tourism planning. In various cases in Indonesia in general, planning is very important as a new development in the future. Without comprehensive planning, tourism development can be carried out in a sustainable manner. The increase in the number of visits and the equal distribution of tourist movements will once again greatly stimulate the regional economy and ultimately increase the country's foreign exchange.

The policy of limiting mobility and crowds to reduce the spread of Covid-19 has a direct impact on the tourism sector in various countries in the world. Since Covid-19 has not been declared a global pandemic, this travel restriction policy has a direct impact on the tourism sector. The development of appropriate health protocols and policies can help the tourism industry to revive and support economic growth. tourism development is not just building infrastructure or creating events. There is also something important, namely by increasing the interpretation of a tourism place or destination.

Tourists are now impatient to wait for tourist information previously provided by service bureaus or organizations that have an interest, they are more active in searching for information about the desired destination. For this reason, tourism activists provide websites or pages on the internet to fulfil the desires of these tourists. In essence, the internet has an inseparable role in technological development, especially in the field of tourism, the internet is a solution offered to facilitate tourism development. Through the internet, many things can be accessed easily, existing information can be used as a basis for strategic policies and changes in the concept of more effective tourism innovation. The E-Tourism Information-based tourism industry collaborates with E-commerce or E-business and produces ticket booking services, hotel reservations, transportation reservations, destination ticket bookings, and online travel bookings.

The tourism sector is basically a sector that has enormous potential for increasing state or regional income as well as increasing community income when it is managed properly. One of the factors causing the underdevelopment of the national tourism sector at this time is due to the management of information that is promotional in nature and has not been able to maximize the availability of available information technology. Therefore, in developing the tourism sector, it is necessary to develop a tourism information system that functions as a medium of information and a guide for visiting and future tourists.

The use of information technology in the development of the tourism sector in the form of E-Tourism will have a huge impact on the development of the tourism sector and lead to an increase in income in the tourism sector. The use of information technology must be synergized with government policies in the tourism sector which are contained in the master plan for regional tourism development and integration with other tourism support systems.

4.3. GENERAL ANALYSIS

Nowadays, there are many websites, both owned by individuals and agencies/companies with various kinds of motivations and goals that they want to achieve. One of them is with the aim of promoting tourism. Advances in information technology are increasingly developing today, have had a major influence on various aspects of life. The development of the virtual world is increasingly rapid. Starting from just using websites and e-mail, then growing with the emergence of various social media in cyberspace, such as personal blogs, then the boom in the use of Facebook, Twitter, and various similar applications. Every day more and more internet users create accounts in applications such as Facebook, Twitter, Instagram, Path, and blogs. These accounts can be accessed either via personal computers or via smartphones and tablets which have become a daily part of the life of the world community. The internet is no longer a static medium, which provides one-way information, but also two-way because there is the interaction between users in it.

Disseminating information via social media can have both advantages and disadvantages depending on how it is used. By using social media appropriately, it has the potential to increase tourism interest for internet users who read and follow social media. With the rapid development of the use of the internet, the flow of information exchange can occur in seconds. Sources of information do not always come from official sources, and even many private accounts can provide information that is then read and trusted by many users. Thus, many personal accounts or unofficial accounts have emerged which have become famous for their role in providing information in cyberspace. The rapid growth of internet

use and the use of smartphones today have an impact on the revolution in the tourism industry based on digital technology. Tourism is one of the important sectors in the world. The development of world tourism is very fast.

The tourism industry today has become one of the most promising industries because it can provide significant benefits for the tourism entrepreneurs themselves, the region and the surrounding community and it is even possible to provide real benefits to a country. Thus it is not surprising that today we see so many countries, both developed and developing countries, are trying to continue to develop the Tourism Industry. One of the driving factors for the advancement of the tourism industry is the development and advancement of information and communication technology known as ICT (Information and Communication Technology).

5   CONCLUSION

Web technology coupled with an information management strategy and the selection of the right information technology can produce a means of digital media promotion that is attractive in the field of tourism which is fast and precise so as to increase the number of visitors in tourism or tourists, both domestic and foreign. The advancement of information and communication technology needs to be optimized by tourism business actors to encourage the advancement of the tourism industry.

Tourism and technology support and strengthen each other in developing the tourism industry and promoting economic growth. The tourism industry is a potential industry that can be developed through internet-based communication and information technology..

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