

1. Introduction

Sustainable development is essential with regards to considering the imbalance between the 'two worlds' of natural and artificial—a problem today [1,2]. Sustainable development on a regional scale requires an understanding of the dynamics and the transformation of local development to maintain superior regional resources [3]. Local, sustainable development includes the transformation of economic, social, and environmental dimensions in a region, as well as the relationship between the public, private sector, educational institutions, government, and Non-Governmental Organizations (NGOs) [4]. Subsequently, the United Nations and member countries agreed on 17 Sustainable Development Goals (SDGs) [1,5]. In Indonesia, SDGs are supported through Presidential Regulation Number 111 of 2022 concerning the implementation of Sustainable Goal Achievement. Based on the Sustainable Development Report [6], Indonesia occupies the 82nd position out of 163 countries in the world, with 69.2 points.

SDGs are supported by digital transformation in capturing patterns and trends of applicable information [7]. Digital transformation is a response to the demands of rapid administration by the public, thus motivating related parties to change [8]. In the last two decades, the development of Information and Communication Technology (ICT) has encouraged various sectors to adopt business processes, service delivery, relationships, and Human Resources (HR) development, which affects other aspects of the organization [9]. The COVID-19 pandemic has caused tragedy for many people regarding health, the economy, and society, which can be seen in changes in social dynamics and interactions [10].

One of the efforts made by the government to prevent the spread of COVID-19 was to limit the movement of people. This COVID-19 measure displays inclusive governance but creates trade-off consequences for public health and the economic system, making it a cross-sectoral issue [11,12]. This outbreak also affects and stops the achievement of SDGs for member countries [11,13]. With this impact, it is necessary to analyze the capacity of each policy actor in the decision-making process [14]. The COVID-19 pandemic has infected more than 180 million of the world's population, with 4 million deaths that have spread to more than 200 countries [15].

Tourism is the worst affected area by the COVID-19 pandemic due to it depending on other fields and being vulnerable to sudden events, such as natural disasters, terrorist attacks, and pandemics [10,16]. In 2020 and 2021, world tourism revenues fell by more than USD 4 trillion, and the unemployment rate increased by 5.5–15% [15]. In Indonesia, foreign tourists decreased by 76.8%; there were only 3.77 million tourists in 2020, while in the previous year, 2019, there were 16.1 million visits [17].

With the COVID-19 pandemic, the economic system is forced to adapt faster and remain productive. Hence, public services that utilize digital technology to reduce risks that may be more important during the COVID-19 period [18]. In addition, it is necessary to change the policy on service standards during COVID-19, which is essential so that people can still access services [19]. Various parties, such as communities, institutions, and governments, also collaborate in overcoming daily problems by using technology to improve the quality of life of the group; this is then referred to as a smart community, with components of connectedness, infrastructure, and a sense of ownership [20,21]. Shifting activities of previous face-to-face meetings to virtual ones indirectly supports digital transformation during the COVID-19 period [22].

Tourism, one of the sectors that apply technology with the rapid use of digital platforms, has changed practices widely and profoundly [23]. The tourism sector is one of profitable economic growth, and, in the past 10 years, tourism has become the largest category of Internet service sales globally due to support by digitalization [24,25]. Based on the 2022 State Budget Financial Memorandum (APBN), the tourism sector contributed 4.2% of Indonesia's Gross Domestic Product (GDP) in 2021. The use of technology in everyday life can make it easier for people to carry out activities, such as those carried out by Tarumajaya Village, West Java Province, Indonesia. However, there are obstacles, namely, the lack of access to technology for village officials and the local community to increase village capacity in developing local potential, such as tourism [26]. Tarumajaya Village has a community institution called the Tarumajaya Smart Community Information Group (KIM), which is responsible for forwarding information related to the village to local and outside communities. This information is conveyed through social media, such as Instagram, Youtube channels, and Facebook. KIM Cerdas Tarumajaya's Instagram account,

kimcerdastarumajaya, has 353 uploads and 976 followers. Meanwhile, a Youtube channel in service since 12 December 2019, called KIM Cerdas Tarumajaya, with a total of 74 videos, has been viewed 12,683 times with 433 subscribers.

Research by Rahman, Hassan, and Sifa [10] found that the COVID-19 pandemic has had a substantial impact on tourism events and the international tourism market as a result of perceptions of risk due to uncertain conditions during a pandemic. Tourism organizers are accelerating technology by redesigning innovative travel experiences to remain adaptable amid the COVID-19 pandemic. Furthermore, another study by Srisawat Zhang, Sukpatch, and Wichitphongsa [27] researched foreign tourists traveling to Thailand. This study revealed that accommodation and information significantly influence travel decisions during the COVID-19 pandemic. This study provides recommendations for post-COVID-19 tourism policies to provide room for improving the quality of accommodation and the availability of information for tourists.

With regard to policy changes, the growth of the contents and issues of the regulations that have been determined have three aspects to be analyzed: the period, the level of policy implementation, and the institution/organization that issued the policy [28]. The use of technology in tourism is an important aspect that can increase the competitive advantage in the promotion of tourism and strengthen strategies in tourism operations, so exploration is needed in the field of research at the intersection of tourism studies and technology [29,30]. Furthermore, this utilization requires a policy foundation to harmonize the use of technology and tourism development that impacts sustainable development with the support of collaboration from various actors to develop policies [31].

Based on this explanation, studies on digital transformation policies and tourism development are needed, especially for the alignment of the two fields that affect sustainable development. Therefore, the purpose of this study is to analyze digital transformation policies and tourism policies in Indonesia, specifically how they are historically linked, as well as their implications in the future. The following research question was proposed: "How do the digital transformation policy and the tourism policy in Indonesia interlock historically, and what are their implications in the future?"

The study consists of five parts. The first part is an introduction that explains the conceptual and contextual phenomena raised. The second part is about reviews, based on the literature, related to digital transformation, tourism, and sustainable tourism. The third section discusses methods and information for obtaining data. The fourth section presents the results of the research findings along with their descriptions. The fifth section contains discussions, implications, limitations, and future research directions based on the interpretation of the results section.