The Penta-helix: A sustainable tourism strategy of Bali’s villages
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Abstract
The study proposes a sustainable tourism strategy in Bali’s village. This paper is qualitative research using content analysis based on secondary data and applies the Penta-helix approach. Based on the literature review and synthesis, the paper argues that integrating the academic and private sectors through research, social services, and CSR is the primary booster to accelerate sustainable village tourism in Bali, especially for recovery after the COVID-19 outbreak.

Keywords: Penta-helix; sustainable tourism; village tourism

Introduction
Bali has the most villages tourism in Indonesia. The last calculation during 2018, experienced a graph of an increase of up to 124% compared to data collection in 2014 (Bali Central Bureau of Statistics, 2018). Bali Central Bureau of Statistics also notes the number of villages with tourist objects increased by 32% in 2017-2018. The last calculation in 2018, there were 162 villages with tourism objects. Tourism development in the village has become a source of new economies while still adhering to cultural heritage and ecofriendly (Ghaderi & Henderson, 2012; Kim, 2016; Vitasurya, 2016). Based on this, village tourism in Bali can be an ideal option for welfare increasing while the economy, culture, and environment can provide synergy so that nothing is sacrificed.

The Penta-helix is model based on five stakeholder types: private sector, public administration, local residents, the knowledge sector and media. The model is very useful for multi stakeholder problem areas where stakeholders represent a range of interests on a site or problem (Halibas, Sibayan, & Maata, 2017; S Halibas, Ocier Sibayan, & Lyn Maata, 2017). Specifically, several studies in the tourism sector argued that the involvement of the five sectors is an obligation so that its economic impact is followed by sustainability (Hardianto, Sumartono, Khairul Muluk, & Wijaya, 2017; Seta Yunas, 2019; Sumarto, Sumartono, Muluk, & Nuh, 2020; Widowati, Ginaya, & Triyuni, 2019). Compared to previous studies that try to integrating five sectors, this paper emphasizes the research and social services in academics and Corporate Social

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Responsibility (CSR) by the private sector as the primary factor and three other sectors as a compliment.

This paper focuses on village tourism development with the Penta-helix approaching in Bali. We assume Bali can run the model ideally; due to the social system, and the performance of the tourism sector can supports integration between sectors in a Penta-helix perspective. What does the paper's proposal can not be implemented in other regions? The answer is, it could be implemented with the necessary adjustments. Due to the corona virus outbreak in late 2019, the tourism sector all over the world has been falling down (Sakti, 2020). The closure of numerous tourism sector in Indonesia caused social restriction to handle COVID-19 outbreak give seriously worse impact, no exception of villages tourism in Bali. Initially, this manuscript was prepared without taking into account the impact of COVID-19; however, along with the editorial process that coincides with the COVID-19 pandemic, this paper must be linked to its effect on the tourism sector and how it will recover.

**Sustainability Tourism**

Sustainable tourism is considered to be possible with such a healthy development (Buckley, 2012; Sharpley, 2000). The 21st century started in favor of these new sustainable tourism models due to changes in tourist preferences (Nikolova & Hens, 2013). The approach to developing sustainable tourism was introduced by the (United Nation World Tourism Organization, 2013) that sustainable tourism is the development of tourism activities aimed at meeting today’s needs without jeopardizing the ability of natural resources to provide for future generations (Lai & Nepal, 2006). Sustainable development requires a process of economic and ecological integration through the formulation of paradigms and policy directions that rely on partnerships and participation of development actors in managing resources optimally (Liu, 2003; Nikolova & Hens, 2013; World Tourism Organization, 2004).

**The Penta-helix Model of Bali Village Tourism**

The first sector in the Penta-helix model is academics, academics in the Penta-helix model act as drafter or conceptor. They play a role in identifying the potential as well as product certification and human resource skills that support increasing the potential of the village. The academic sector needs to prepare future leaders in the tourism industry who competence the sustainable tourism values through capacity building in human resources in order to make certified and standardized people and programs (Dangi & Jamal, 2016). Academicians have an obligation to carry out tri dharma activities (education, teaching, and service or social empowerment) that can be used as a means of developing sustainable tourism programs that can be adjusted and implemented in various sectors, one of which is a tourism village (Yuliawati, 2012).

The second sector is the private sector, a structured CSR program can be combined with local government programs, village funds, and also community self-empowerment to create various aspects ranging from physical, digital infrastructure to education and training. Many studies show that if CSR is adequately implemented, it will have a good impact on community empowerment (Arnold & Valentin, 2013; Boyd, McGarry, & Clarke, 2016; Renouard, 2011).
The third sector is community, due to various empirical evidence, community is a very valuable social capital for increasing welfare and equity (Sudibia, Yuliarmi, Sintaasih, & Marhaeni, 2017; Sundarianingsih, Ashar, & Saputra, 2018). Associating with the sustainable development of village tourism, the strength of the community can be used as a foundation, because psychologically the community has a greater "sense of belonging" than a pure investor. Several local examples based on community development has existed in Bali (Tasci, Semrad, & Yilmaz, 2013). Social communities driving tourism show that Bali has fulfilled the community elements of the Penta-helix perspective.

![The Penta-helix model in sustainable tourism in Bali villages](image)

The fourth sector is government, government must act as a regulator and act as a controller that has regulations and responsibilities in developing businesses. In this case, it involves all types of activities such as planning, implementation, monitoring, controlling, promotion, financial allocation, licensing, programs, laws, development and knowledge, public innovation policies, support for innovation networks and public-private partnerships (Yunas, 2019). The government acts as a regulator that is able to make policies, allocation of funds and stakeholders that can help advance the tourism sector, one of which is through the improvement of tourism infrastructure. Meanwhile, provincial government of Bali in an effort to strengthen the local culture of Tri Hita Karana, the life of Balinese society that build balance of the relationship between God, human, and human being such as the Pakraman Village (Wisnumurti & Rideng, 2017).

The fifth sector is media, the media sector acts as a catalyst that plays a role in the branding image of local tourism and branding awareness for Bali tourism villages through various promotional activities in all platform (both social media, mass media, and other media). However, this paper considers that the branding of Bali as a world tourist destination is robust so that the promotion aspect is no longer an obstacle.
However, it cannot be denied that good promotion, especially in social media, is still needed to strengthen the image further (Fatanti & Suyadnya, 2015; Shimp & Andrews, 2013).

If Hardianto, Sumartono, Khairul Muluk, & Wijaya (2017); Setya Yunas (2019); Sumarto, Sumartono, Muluk, & Nuh (2020); and Widowati, Ginaya, & Triyuni (2019) put the five sectors in line position, considering the existence of an active village tourism community; inclusive government program; and branding Bali as a well-established tourist destination, this paper argues a particular proposal. Because of the proper community, government, and media exposure in Bali, this paper underlines that community service in higher education must be synergized with CSR (see the model framework in Fig. 1).

The integration and collaboration of academics and the private sector will increase research and community service funding so that it is expected to generate innovations to developing sustainable village tourism, such as the concept of Buckley (2012) and Sharpley (2000). Village tourism, underpinned by the principles of sustainable development, arguably provides opportunities to realize unique, often innovative, developments or management approaches that can be very beneficial to indigenous peoples (Carr, Ruhanen, & Whitford, 2016).

Conclusions

Amid a pandemic, we can do not much. Still, the government can use the concept of sustainable tourism development with the Penta-helix approach as a master plan to accelerate the recovery of the village tourism sector in Bali. This paper proposes to develop sustainable village tourism by maximizing the role of academics and private sectors as the main force to encourage innovation.

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