

Journal of STI Policy and Management

Publication details, including instructions for authors and subscription information: <http://www.stipmjournal.org/>

Exploring the Transition to Eudaimonic Tourism: A Case Study of Bali

Djisman Simandjuntak¹, Alvin Desfiandi¹, Erica Lukas¹, Isti Setiawati¹, Nakita Sabrina², and Stanley Makalew³

¹ Business Economics Dept, Universitas Prasetiya Mulya, Tangerang, Indonesia

² Tourism Dept, Universitas Prasetiya Mulya, Tangerang, Indonesia

³ Software Engineering Dept, Universitas Prasetiya Mulya, Tangerang, Indonesia

Version of record first published: 15 December 2019

To cite this article: Simandjuntak, D., Desfiandi, A., Lukas, E., Setiawati, I., Sabrina, N. and Makalew, S.. (2019). Exploring the Transition to Eudaimonic Tourism: A Case Study of Bali. *Journal of STI Policy and Management*, 4(2), 77–99

To link to this article: <http://dx.doi.org/10.14203/STIPM.2019.169>

ISSN 2540-9786 (Print); ISSN 2502-5996 (online)




Accreditation Number: 21/E/KPT/2018

Full terms and conditions of use: <https://creativecommons.org/licenses/by-nc-sa/4.0/>

You are free to:

- Share : copy and redistribute the material in any medium or format
- Adapt : remix, transform, and build upon the material
- The licensor cannot revoke these freedoms as long as you follow the license terms.

Under the following terms:

-  Attribution — You must give appropriate credit, provide a link to the license, and indicate if changes were made. You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use.
-  NonCommercial — You may not use the material for commercial purposes.
-  ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original.

No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits.

Notices:

- You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation.
- No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material.
- If you copy the dataset merely to extract the uncopyrightable data elements would not need permission to do so. However, if you republish the full dataset or using the copyrightable data layers require a permission from Research Center for STIPM, Indonesian Institute of Sciences.

**JOURNAL OF SCIENCE, TECHNOLOGY AND INNOVATION
POLICY AND MANAGEMENT (STIPM JOURNAL),
Volume 04, Issue 02, December 2019**

FOREWORD by EDITOR-in-CHIEF

We are pleased to present the STIPM Journal Vol 4, No. 2, December, 2019. This issue brings together research findings related to science, technology, and innovation policy and management from Japan and Indonesia.

First article was written by **Djisman Simandjuntak et al.** entitled *Exploring the Transition to Eudaimonic Tourism: A Case Study of Bali*. This article discusses innovation in tourism focus on the dynamics of tourism grows. As tourism grows, carrying capacity is stretched or even overstretched in some places and industries. A shift toward more eudaimonic tourism is needed, and the innovative elements of eudaimonia include geographical treasure, biodiversity, and local deep culture.

Taeko Suehiro and Kumiko Miyazaki present an article entitled *Accumulation of Knowledge by Strategic Public Procurement through Public-Private-Partnership for Service Innovation in Japan*. This study focuses on how governments strategically procure public service through Public-Private Partnership (PPP)—or more specifically, Private Finance Initiative (PFI) arrangements.

Erman Aminullah presents *E-Cigarette as Disruptive Innovation: Forecasting of Conventional Cigarette Substitution in Indonesia*. This article intends to forecast conventional cigarette substitution by e-cigarette in the context of disruptive innovation. E-cigarette as disruptive innovation has been driven by technology innovation to create e-cigarette products for global market. The advancement of e-cigarette technology innovation would continue to create smart and less harmful e-cigarette as alternative tobacco products in future.

Kumiko Miyazaki, Santiago Ruiz Navas, and Ryusuke Sato present the fourth article entitled *Evolutionary Path of Development of AI and Patterns of Knowledge Convergence over the Second and Third AI Boom*. AI has been through several booms and we have currently reached the 3rd AI boom which followed the 2nd AI boom centering mainly on expert systems. The current AI boom started around 2013 and AI is beginning to affect corporate management and operations. AI has been evolving over six decades but it seems that the current boom is different from the previous booms.

The fifth article entitled *Predicting Potential Co-Authorship using Random Forest: Case of Scientific Publication in Indonesian Institute of Sciences* by **Rizka Rahmida, Asep Saefudin, and Bagus Sartono**. Co-authorship network is one of the proxies to evaluate the emerging research collaborations. Co-authorship that happens for the first time among a pair of author plays an important role as the key of success for their co-authorship in the future.

Finally, **Hiroki Idota et al.**, present an article entitled *Conducting Product Innovation by Using Social Media among Japanese Firms*. This article based on a study that attempts to conduct an empirical

analysis of how social media use promotes product innovation in Japanese firms by collaboration with consumers based on survey data from Japanese firms using probit analysis. This study finds that collaboration with consumers by using social media is important for innovation, particularly in developing concepts and devising methods of use.

The STIPM Journal is indexed by Google Scholar, ISJD, IPI, DOAJ, BASE, and OCLC World Cat. This make the journal dissemination wider. We would like to thank all the reviewers for their excellent work and the authors who kindly contributed their papers for this issue. We are also indebted to the *STIPM Journal* editorial office at P2KMI-LIPI and the publishing and production teams at LIPI Press for their assistance in preparation and publication of this issue.

We are expecting that STIPM will always provide a higher scientific platform for the authors and the readers, with a comprehensive overview of the most recent STI Policy and Management research and development at the national, regional dan international level.

Happy New Year 2020 to all of you...

Jakarta, December 2019

Editor-In-Chief

JOURNAL OF STI POLICY AND MANAGEMENT

Volume 4, Number 2, December 2019

LIST OF CONTENTS

Exploring the Transition to Eudaimonic Tourism: A Case Study of Bali Djisman Simandjuntak, Alvin Desfiandi, Erica Lukas, Isti Setiawati, Nakita Sabrina, and Stanley Makalew	77–99
Accumulation of Knowledge by Strategic Public Procurement through Public-Private Partnerships for Service Innovation in Japan Taeko Suehiro and Kumiko Miyazaki	101–112
E-Cigarette as Disruptive Innovation: Forecasting of Conventional Cigarette Substitution in Indonesia Erman Aminullah	113–124
Evolutionary Path of Development of Artificial Intelligent (AI) and Patterns of Knowledge Convergence over the Second and Third AI Booms Kumiko Miyazaki, Santiago Ruiz Navas, and Ryusuke Sato	125–142
Predicting Potential Co-Authorship using Random Forest: Case of Scientific Publications in Indonesian Institute of Sciences Rizka Rahmaida, Asep Saefuddin, and Bagus Sartono	143–152
Conducting Product Innovation by Using Social Media among Japanese Firms Hiroki Idota, Sheikh Abu Taher, Teruyuki Bunno, and Masatsugu Tsuji	153–166



Exploring the Transition to Eudaimonic Tourism: A Case Study of Bali

Djisman Simandjuntak¹, Alvin Desfiandi^{1*}, Erica Lukas^{1*}, Isti Setiawati¹, Nakita Sabrina², and Stanley Makalew³

¹ Business Economics Dept, Universitas Prasetya Mulya, Tangerang, Indonesia

² Tourism Dept, Universitas Prasetya Mulya, Tangerang, Indonesia

³ Software Engineering Dept, Universitas Prasetya Mulya, Tangerang, Indonesia

ARTICLE INFO

Article History:

Received : 01 July 2019

Revised : 13 September 2019

Accepted : 23 September 2019

Available online : 15 December 2019

Keywords:

Eudaimonic,
Tourism,
Inclusivity,
Sustainability

ABSTRACT

Growing population with rising income, advances in information, transportation technologies, preventive medicine, and moderated nationalism that translate into less restrictive border measures against people flows, had all combined to fuel a durable progressive growth in tourism—both domestic and international. As tourism grows, carrying capacity is stretched or even overstretched in some places and industries. The overcrowding of a destination in the latter's life cycle is familiar to popular tourist sites. Energy consumption, CO₂ emission, non-degradable and toxic wastes, bio and cultural diversity loss add to the downside of growing tourism. We doubt the inclusivity and sustainability of the current dominant design of tourism in developing economies such as Indonesia. A shift toward more eudaimonic tourism is needed. The innovative elements of eudaimonia include geographical treasure, biodiversity, and deep local culture. Indonesia is well endowed with peculiar geographical resources which in turn result in rich biodiversity. A long history of migration has also accumulated Indonesia's cultural diversity. Bali offers an imperfect road to eudaimonic tourism and is evidence that the shift away from exclusive and unsustainable tourism, in order to achieve a more inclusive and sustainable one, is a realistic avenue.

©2019 PAPPITEK-LIPI All rights reserved

I. INTRODUCTION

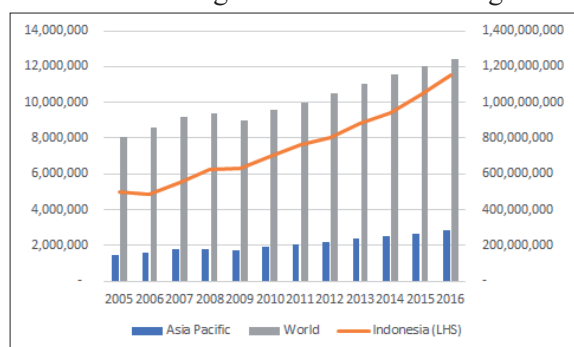
Indonesia is renowned for its beautiful sites for tourism and travel—country-sides, historical and cultural remnants, natural wonders, and metropolitan nightlife—that serve as a beacon to attract

international visitors to the country. From 2005 to 2016, international tourist arrivals for Indonesia, the Asia Pacific, and the world have been growing at a remarkable rate of 9.8%, 13.9%, and 6.9%, respectively (Figure 1). This indicated that leisure and tourism had the potential to become a source of future progressive growth. Furthermore, the

* Corresponding Author.

E-mail: alvin.desfiandi@pmbs.ac.id; erica.lukas@pmbs.ac.id

Indonesian trajectory is by no means exceptional; it is in line with regional and international growth.



Source: The World Bank (2019a)

Figure 1. International Tourist Arrivals (Indonesia, East Asia and Pacific, World)

In view of this, tourism has ascended to a prominent position in the world economy in terms of output and service trade generated, employment created, and numerous other positive impacts as cultural exchanges take place between all manner of folks from diverse backgrounds. For a number of provinces in Indonesia, tourism has served as a major growth sector, such as Bali’s tourism being its primary economic engine. Herein, decrease and increase in the region’s economic activities are highly dependent on its tourism sector (Badan Pusat Statistik [BPS], 2019a). Bali is currently the largest contributor to national tourism with 1.3 million foreign arrivals in April 2019 (Trading Economics, 2019), and is identified by the Ministry of Tourism as a potential major economic and artistic hub. However, recent recurring headlines and public concern regarding Bali’s political, social, and environmental well-being has brought into question the long-term sustainability of the island’s current rapid growth trajectory.

There must be a shift towards a less carelessly consumptive tourism industry—in line with an environmentally-friendly perspective and the Sustainable Development Goals (SDGs)—to empower the Balinese people and ensure the island’s continuity. This paper provided a brief overview of the performance of Indonesia’s tourism sector and the forces affecting it, followed by a brief summary of the framework of Bali’s regional innovation system. Furthermore, the study examined the unsustainable aspects that could be alleviated through the introduction of eudaimonia, before introducing the concept of eudaimonic tourism and presenting an early roadmap for its future developments with Bali and the SDGs as the starting line. To this end, an analysis on the transition away from the current dominant design of tourism is conducted to obtain richer contextual information of the research scope of study.

Indonesia’s international tourist arrival since 2005 has been a noteworthy development. However, seen from the perspective of value added as estimated in Tourism Satellite Account (The World Tourism Organization [UNWTO], 2008), the numbers may not be as impressive as the arrivals would suggest. The trade, hotel and restaurants sector grew from 3.95% in 2001 to 4.64% in 2017; hotel having the highest average contribution of 6.71% of total national GDP. Nevertheless, even the more modest growth rates are stronger than the average growth of Indonesia’s total GDP, as is the case with Bali (Table 1).

Based on the results of literature review and data generated from the statistical bureau, the progressive growth of Indonesia’s tourism is apparent in several major growth sectors and is

Table 1. Industrial Origin of Indonesian GDP (2001–2017)

Industrial Origin	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Ave
Trade, Hotel & Restaurants	3,95	4,27	5,45	5,70	8,30	6,42	8,93	6,87	1,28	8,69	9,24	8,16	5,89	4,64	2,86	4,23	4,64	5,85
a. Wholesale & Retail Trade	3,57	4,14	5,59	5,52	8,82	6,60	9,41	7,03	0,03	9,70	10,01	8,68	5,84	4,42	2,54	4,03	4,44	5,90
b. Hotels	7,39	4,83	6,24	7,93	6,23	5,18	5,37	4,51	6,59	6,78	10,09	9,56	8,91	8,15	5,67	5,71	4,99	6,71
c. Restaurants	5,20	4,87	4,38	6,08	5,88	5,75	7,08	6,58	7,60	3,31	4,16	4,22	5,24	4,96	3,97	5,03	5,69	5,29

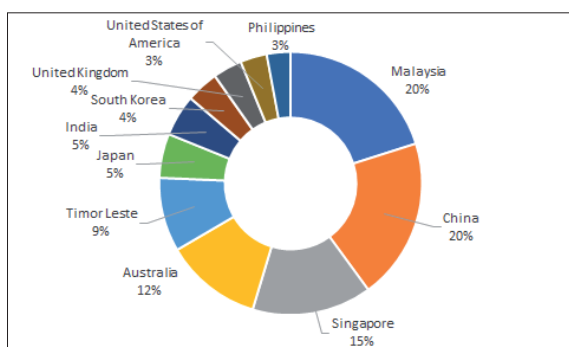
Source: processed from Bank Indonesia (2019)

propelled by dynamic interactions of supply and demand forces taking place within the industry.

A. Major Growth Sectors

Proximity to rich economies such as Australia, Japan, South Korea, Singapore, Taiwan; rapidly growing economies such as China and India; and even faraway economies such as Europe and North America, in which vast distances have been reduced to the time it takes to sit on an airplane, has inspired Indonesia to position itself as a world-class tourist destination. International tourist arrivals to Indonesia are skewed towards East Asia and Oceania, although Europeans and Americans contribute a significant number as well (Figure 2).

Aside from the aforementioned Bali, numerous other provinces with unique geographical endowments and cultural heritage—Yogyakarta, North Sumatra, South and North Sulawesi, the Sunda Islands, and Papua—have long intended to turn their natural and cultural treasures into a tourism attractor. The Ministry of Tourism Strategic Plan 2015–2019 (2015) determined 16 primary markets for growth development based on the number of domestic tourist arrivals, RGDP, and average spending of the province. Nevertheless, the selected regions had slow progress to contend with. Herein, Bali’s success could serve as a lesson in how Indonesia may be better suited to crafting success through leisure services than manufacturing.



Source: BPS (2018a)

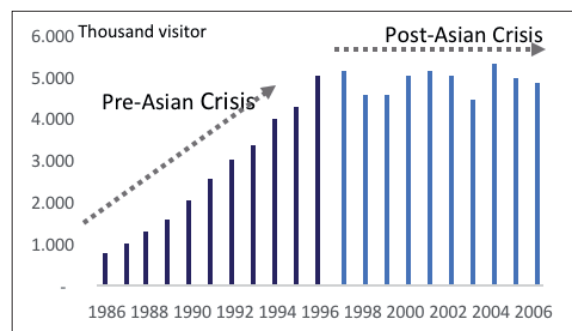
Figure 2. Arrivals in 2017 According to Country of Origin

B. Supply Side Forces

1. Political Stability and Deregulation

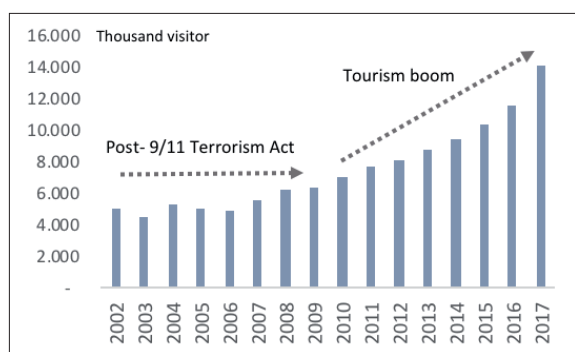
On the supply side, complex forces are at work resulting in the rapid growth of international tourist arrivals to Indonesia. First and foremost, political stability in Indonesia acts as a major determinant of tourism attractiveness, in which general improvement has occurred in recent years following decades of crises and terrorism. To give an example, there were major aberrations in 1998 as an aftermath of the Asian crisis and violent regime change of the end of Suharto’s presidency (Figure 3). Another shockwave hit in 2002 from the death of 202, and yet another in 2005 from the death of 23 people as a result of the Bali bombings (Liputan6, 2015).

The far-reaching adverse effects of financial difficulty and terrorism on tourism aren’t limited to events that occurred in Indonesia alone, but also regionally and globally. To illustrate, the 9/11 terrorist act in the USA led to flat growth of tourism in Indonesia as the country is associated with terrorist stereotypes in the US. Thereafter, however, the industry gradually increased, tourists started coming back to Indonesia in significant numbers and led to a progressive increase (Figure 3).



Source: BPS (2017a)

Figure 3. Tourist Arrival in Different Periods



Source: BPS (2017a)

Figure 4. Progressive Tourist Arrival Post-Terrorism Act

This recovery could be attributed to the decent progression of Indonesia's democratic transition, as newly strengthened democratic reputation added to the country's attractiveness as a tourism destination. Along with the growth of democracy, restrictive policies in tourism inflow is relaxed and visa-free entry is granted to most developed countries, as well as Visa on Arrival (VoA) to virtually all countries without conditional reciprocity. Since 2016, a total of 169 countries are permitted to visit Indonesia without a visa for 30 days (Directorate General of Immigration, 2015). This Open-Door Policy approach to foreign visitors was a bold step forward when considering the suspicions held by Indonesia's political elite against these parties over many decades.

Table 2.

Main Points of Entry Foreign Visitor Arrivals in Indonesia

Location	2015	2016	2017
Ngurah Rai Airport (Bali)	3,936,066	4,885,062	5,682,248
Soekarno-Hatta Airport (Jakarta)	2,368,628	2,603,195	2,749,321
Batam	1,585,719	1,510,203	1,564,717

Source: BPS (2018b)

Table 3.

2017 Global ICT Development Index

Various Statistics	World	Indonesia
Fixed-telephone subscriptions per 100 inhabitants	13.57	4.01
Mobile-cellular telephone subscriptions per 100 inhabitants	101.53	149.13
International internet bandwidth per Internet user (Bit/s)	74,464	24,946.89
Percentage of households with computer	46.6	19.1
Percentage of households with Internet access	51.5	47.2

Source: International Telecommunication Union (ITU, 2017)

2. Improved Physical Connectivity

Improved physical connectivity constitutes another major shifter of the supply of international tourism in Indonesia—many of the country's airports having been rebuilt or even reinvented to be able to accommodate international flights. In 2017, Indonesian airlines flew more than 12 million scheduled international passengers and Indonesian airports handled more than 34 million international passengers (Center for Aviation - CAPA, 2018). The three largest points of entry for foreigners are Ngurah Rai Airport (Bali), Soekarno-Hatta Airport (Jakarta), and Batam (Table 2).

Concurrently, connectivity has greatly improved between Indonesia and the rest of the world, as illustrated in Table 3. The gap that separates the country from more advanced economies has narrowed much faster in terms of digital connectivity than in other sectors. Aside from ICT, investment in tourism destinations has also risen in accordance with the number of starred hotels that grew by 52.4% on average each year between 2006 and 2016 (BPS, 2019a). Conference facilities have also expanded in Bali, Jakarta, and various other regions, bolstered by the commitment of politicians and ruling policy makers on the importance of advancing Indonesia as a tourism destination.

C. Demand Side Forces

1. Better Informedness

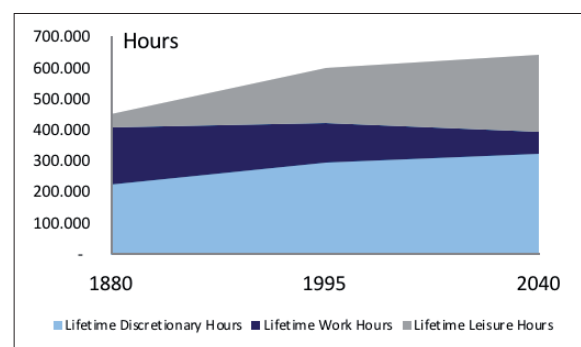
On the opposite end of the spectrum, the forces that drive the demand for Indonesian tourism are similar to the ones that drive demand for world tourism in general. One such force would be better informedness on the global stage regarding Indonesia as a tourism destination from informational travel reports by diverse agents, indirect advertisement through countless events, and direct advertisement by the Indonesian government. On this score, Bali has also been aided a great deal by foreign artists such as Miguel Covarrubias, Walter Spies, and Colin McPhee, all of whom found themselves a receptive artist community in Bali and coevolved thereafter to ensure that Bali is part of the vocabulary of occidental high societies. To illustrate, Covarrubias's *Island of Bali*, Walter Spies's *kecak* and rural landscapes, and Colin McPhee's *gamelan* music represent Bali appropriated as beauty in the eyes of Westerners (Yamashita, 2004).

Meanwhile, social scientists such as the likes of Margaret Mead and Stephen Lansing contributed to the fame of Bali as a mystifying destination that urges a visit among travelers from both nearby and faraway places. The latter wrote of the hidden structure of Bali, ranging from the profound health of the traditional Balinese rice growing practices, to the archaeology and ecological functions of Balinese water temples (Lansing, 2006). This field of work has been considered groundbreaking in shaping Western perception of Bali and constructing its allure for the mainstream audience.

2. Increase in Leisure Time

In addition, the world's trend of time spent on leisure is increasing, particularly in developed countries with high technology intensity of life. As proven by many studies (Ramey & Francis, 2009; Fogel, 2000), there is a positive relationship between work process mechanization and leisure time. Gains in leisure time results from the mechanization, automation, and algorithmisation of work processes; all of this contribute to rising demand for leisure in general and long-distance travel in particular.

Fogel (2000) estimated that total lifetime hours spent for leisure has increased from 43,800 in 1880 to 176,100 hours in 1995 and is expected to rise to 246,000 hours in 2040. The number increased significantly during the year of 2000 (Figure 5). The trend is supported by technological advancement and process mechanization that has been previously mentioned, as both factors led people to spend less time in productivity that increased due to technological advancement. As a result, optimism prevails that new jobs will crop up, many of which may come from the leisure sector which has thus far lagged behind in terms of technology intensity.



Source: Our World in Data (2016)

Figure 5. Rising Hours Spent for Leisure

3. Diversification of Purposes

Lastly, diversification of purpose may have also contributed to the rising demand for tourism in exotic locations such as Bali. The number of objects and tourist attraction in Bali in 2015 recorded 239 pieces, spread across nine counties and cities in Bali—Gianyar district having the highest number and Bangli regency having the lowest (Antara & Sumarniasih, 2017). Pleasure-seeking is the dominant motivation in visiting these attractions, mixed in an enigmatic way with a set of cultural elements that manifest through visiting temples, shrines, and other places of worship; spectating Balinese performances; and experiencing a variety of physical activities such as cycling, hiking, rafting or merely walking along the island's interconnected ravine. While being home to many temples and shrines, Bali has never originated any major religion and therein is not a major pilgrimage destination, nor is reunion

tourism a major part of international tourism in Indonesia.

Furthermore, outward migrants from Indonesia during festive seasons are few compared to inward migrants. The same picture can be seen for hybrid tourism related to health, education, and convention purposes—more Indonesians travel overseas for medical purposes than foreigners do to Indonesia, and the net flow of internationally mobile students to Indonesia amounted to -28,774 in 2012 and -39,328 in 2017 (UNESCO, 2019). It is observable that pleasure-seeking is the core of international tourism in Indonesia, particularly in Bali. Naturally, this type of tourism is more income-elastic than pilgrimage and family reunion, and benefits more strongly from the diminishing costs of tourism. All things considered, this skew of tourism in favor of pleasure indicates a wide room for diversification of purpose, particularly ones that may be designated as *eudaimonic tourism*.

II. ANALYTICAL FRAMEWORK FOR REGIONAL INNOVATION SYSTEM

A. Background Literature

Innovation is one of the most important drivers of growth, development, and competitiveness. In recent years, countries and regions have increasingly accepted that activities which stimulate innovation are major contributors to economic progress and well-being. Following this acceptance is the realization that a coordinated, coherent, “whole-of-government” approach is required to foster innovation and enhance its impact (OECD, 2007). In seeking to develop through the support of innovation, regions define and implement strategies and policy instruments to build on their respective strengths and local values—the latter of which may affect global competitiveness more than industrial massive capital (Scoville, 1986).

Nauwelaers and Reid (1995) defined Regional Innovation System (RIS) as “the set of economic, political and institutional relationships occurring in a given geographical area which generates a collective learning process leading

to the rapid diffusion of knowledge and best practice.” However, market mechanisms are insufficient in producing an appropriate, fluid, and rapid change in the development of a region (Fiore, Grisorio, & Prota, 2011), RIS might be an essential instrument in encouraging innovation for both regional and national policymakers. Decision-makers are able to not only intensify innovation as a source of competitive advantage but also develop policies that could better address issues of regional inequalities and divergence. Moreover, researchers have acknowledged the importance of location for innovation results (Pouder & John, 1996). The innovation system of the scope of this study needs to be defined at a regional level due to Bali’s divergence from the national average in terms of natural environment, quality of life, quality of work, social equality and cultural tolerance, education and training systems, industrial structure, consumption behavior, etc. Such divergences will be elaborated herewith and in *section 4.2* of this paper.

This section of the paper will identify the three features of the regional innovation system (RIS) framework and relate them to the case of Bali: the collectivity that defines the region, the so-called ‘soft’ aspects of economic activity, and the extra-local or spatial innovation system. Lastly, a relation will be drawn between unsustainable and sustainable tourism with the ‘low-road’ and ‘high-road’ regional competitiveness strategies.

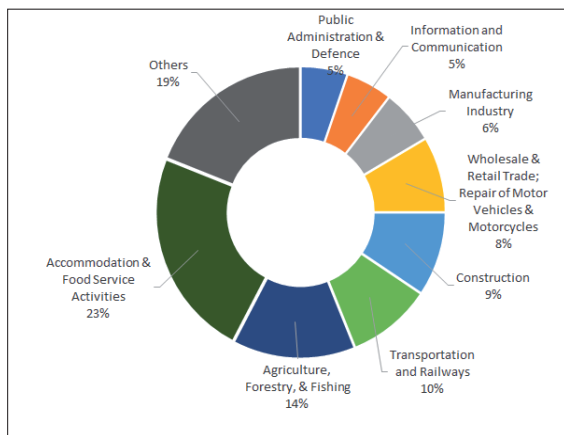
B. Features of Regional Innovation System

The three features of RIS as it relates to the current state of Bali are as follows:

1. *The collectivity that encompasses and defines a region in its entirety*

The first feature is defined as the networks formed by firms and their support industries, both within the region and externally, through which relevant information flow and interactions are enacted. Additionally, they are complemented by industrial associations, organizations, and public bodies aiming to support innovation. In the case of Bali, continued development of tourism has shifted its economic activity from primary to tertiary, with

tourism as the primary setting in which services are rendered and received. This is evident from the increasing trend of sectors that are of greatest relevance and support to tourism—such as hotels and restaurants, which provided the dominant share of Bali’s RGDP in 2018. In contrast, the sector with the second highest contribution to RGDP—agriculture, forestry, and fisheries—has been increasingly marginalized (Figure 6). As a result of tourism-related construction and housing development, there has been a decrease of acreage for rice paddies and disorder in the irrigation system (Hitchcock & Putra, 2007).



Source: BPS (2019a)

Figure 6. Percentage Distribution of RGDP of Bali Province at Current Market Prices by Industrial Origin (2018)

On the whole, economic conditions are highly centered on the subject of tourism. Even the manufacturing sector is virtually inseparable from tourism, as the local craft industry heavily favors it for providing a constant flow of new customers. The hospitality marketplace has also been growing rapidly, with Airbnb hosts in Bali welcoming over 904,600 travelers in 2017 alone, a growth of 69% from the previous year (The Jakarta Post, 2018). Other sectors of tourism spearheading the economy are accommodation and food services, which employ 12.8% of all Balinese people who are 15 years old and above. This means that tourism is strategically positioned to facilitate exchange of knowledge and learning through travel agency activities, transportation, accommodation, restaurants, arts and local culture, handicrafts, tourist guides,

entertainment and recreation, sports and international exhibitions, as well as informal ones such as street vendors (BPS, 2019a).

Communities in interesting tourism destinations are under pressure to adapt to the dominating influence of Bali’s tourism. Fortunately, many local communities realize the importance of tourism in social change, culture, environment and economic dimension, where tourism activities have had a close relationship with the locals (Beeton, 2006). The empowerment of these communities is possible through integrated education and training systems, and a design that stresses on maximum participation. Regarding Bali’s education and its workforce, the school participation rate in 2018 is 82.4% among 16 to 18 year-olds, and 30.02% among 19 to 24 year-olds (Knoema, 2019a, 2019b). Furthermore, employment is still a dynamic phenomenon in that Bali is largely accessible from anywhere, causing the region to face the inevitability of migration flows and urbanization. This results in a large number of workers and tighter competition for job opportunities not only between settlers but also with determined migrants. According to Statistics Indonesia (2019), 2,525,355 people are in the labor force—2,490,870 of which are working and 34,485 of which are in open unemployment.

Lastly, through regional autonomy and 15 years of government decentralization in Indonesia, Bali has greater authority than ever before in managing itself in terms of implementation of development and financing. The 2018 Annual Meetings of the International Monetary Fund (IMF) and the World Bank Group that took place in Bali was a chance for the region to showcase its economic and social achievements, as well as its cultural values (The World Bank, 2015). It is noteworthy that domestic direct investment (DDI) is not especially significant in Bali, amounting to IDR 133.9 billion in a total of 58 projects in the island, and placing the region 31st on the list of regional investment destinations. Foreign direct investment (FDI), on the other hand, speaks a different story. Herein, Bali ranks 10th and attracted USD \$602.9 million in 964 investment projects, with most investors originating from Singapore, Japan, China, and Hong Kong (Indonesia Investments, 2017).

2. The emphasis put on the ‘soft’ aspects of economic activity

Governance, learning capacities, and social and intellectual capital promote historical trajectories of technology and innovation that are based upon localized ‘sticky’ knowledge, as well as the attraction of appropriate ‘ubiquitous’ knowledge (Asheim & Isaksen 2002). To provide an illustration, as a result of tourism that allows for voluminous interactions between locals and foreigners, the Balinese people tend to be multilingual in that they speak Bahasa Indonesia, Balinese, and English. Hence, many of them have adapted to or are inclined towards the services sector.

Historically, various aspects of Balinese culture had long been commercialized from the process of being served to mass audiences, particularly foreign ones. As a consequence, concerns of cultural erosion and decreasing welfare of local actors were brought up to the table. The population seems to be divided between the younger generation, who cater to the tourist needs of outsiders, and the older generation, whose values and knowledge seem out of step with life in the region (Agung, 2005). The number of workers in rice agriculture continues to decline as globalization and modernization cause children and the younger generation to leave their ancestral lands for cities such as Denpasar, where they compete economically with the locals. Additionally, the region’s school system itself was brought into question regarding its conservation of Balinese culture. Although the school system provides a cogent means to spread indigenous knowledge, beliefs, and practices, it is ultimately modeled on the Western system, supplementing the contemporary scientific approach with an anthropocentric vision (The Jakarta Post, 2015). Despite such problems, members of Bali’s intelligentsia remain positive of the synergy between the indigenous knowledge of locals and the new knowledge from global tourism.

Indigenous knowledge is the particular knowledge confined to a particular culture or society, developed by communities over time in an effort to cope with their agro-ecological and socio-economic environments (Fernandez, 1994). Using UNESCO’s *Local Knowledge, Global Goals*

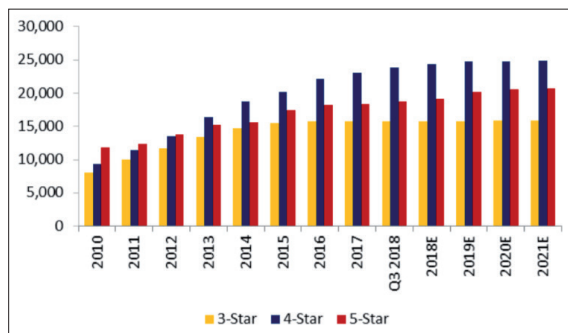
(Nakashima, Rubis, Bates, & Ávila, 2017) as the basis, the dimensions of indigenous knowledge of the Balinese people in the context of teaching and learning capacities for innovation are dynamism and adaptability, vulnerability and resilience, monitoring biodiversity loss, co-managing species and space, and co-working knowledge. First and foremost, dynamism and adaptability mean that the Balinese people have a body of wisdom that is constantly renewed and expanded for each generation; thus, they can better confront environmental variability, unpredictability, and change that are inherent to modernization. Moreover, due to their resource-based dependence on their environments for livelihood and survival, they show great resourcefulness in addressing matters such as environmental damage. Enhanced oral history and close interactions with nature allow the Balinese people to gain knowledge of changes in biodiversity and resources over many decades or even centuries.

The vastness and complexity of regional development challenges in Bali require the mobilization of in-depth indigenous knowledge that complements scientific understandings. Both of these faculties should be exercised by decision-makers in regards to addressing modern challenges in settings and communities that have existed for countless years. For example, the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) recognizes the importance of including indigenous and local knowledge in its assessments of biodiversity. UNESCO’s *Co-Producing Knowledge* reaffirms that “Where indigenous knowledge and science can work together to address a jointly defined problem, each bringing their own expertise to the table, their co-produced knowledge may lead to novel solutions.”

3. Extra-local connections

The accessibility of a region to transport, finance, scientific and technological information, and communication actors in national and international innovation systems, form the so-called ‘global pipelines’ of knowledge flow and learning (Bathelt, Malmberg, & Maskell., 2004). In view of this, Bali has 14 infrastructure

projects planned between 2020 and 2024, including the Gilimanuk-Denpasar highway, drinking water network construction, and waste processing plants. Furthermore, ongoing hotel projects in Bali should contribute to the supply of available rooms for stronger inbound tourism. By the end of 2020, there should be a total of 60,604 hotel rooms with 75% to 80% occupancy (Figure 7). However, bank regulations relating to the provision of loans, financing issues, permit issues, and the overall condition of the market all present barriers against the development of new hotels in Bali.



Source: Colliers International Indonesia (2018)

Figure 7. Cumulative Supply Hotel Rooms

The presence of hotel chains in Bali has both positive and negative impacts on the region. Ivanov and Ivanova (2016) determined that the number of hotel rooms affiliated with hotel chains has a positive relationship with a destination's competitiveness. In the context of innovation, GDSs and OTAs, hygiene standards, safety and security, sustainability programs, leadership in information and communication technologies, extensive staff training programs, partnership with local suppliers and other activities are of great benefit to regional competitiveness. On the flipside, transnational tourism entities in the region may also cause harm to the economy through the import of goods and services, use of expatriate managers, transfer of franchise or management fees, and may destroy smaller and weaker local enterprises (Dwyer, 2014; Kulsuvan & Karamustafa, 2001).

Meanwhile, air and land transport conditions have greatly improved within the last few decades. According to the Airport Authority Region IV, departing flights from Bali increased 11.1%

to 81,335 flights in 2018. Concurrently, arrival flights increased 11.1% from the previous year to 81,289 flights. Bandara Internasional Bali Utara (BIBU) plans to develop a second international airport in northern Bali, to which the Ministry of Transportation has yet to give its approval (PwC, 2019). As for land transport, Statistics Indonesia (2019) states that the sector continues to show improvement with 55.7% of all roads being in good conditions, 34.2% being in intermediate conditions, and 9.9% being in damaged conditions. These developments facilitate knowledge flow and learning through easing interactions between locals and non-locals, whether the latter are domestic or international visitors.

Lastly, trade cooperation and agreements have been part of Bali's orientation for at least the last decade. To illustrate, the Ninth Ministerial Conference of the WTO that was hosted in Bali produced the Bali Package, which is a trade agreement aimed at lowering global trade barriers and allowing countries at various stages of development to interact at the world stage (Financial Times, 2013). As a country with an open economy, trade—even foreign trade—plays an important role in both national and regional economies. In 2018, foreign exchange earnings reached 33.0% of the total export value of Bali; while imports of Bali during the year increased by a remarkable 96.7%.

C. Switching Course for Bali Tourism

As a typology of RIS, regional competitiveness strategies branch off into two directions—the 'low-road' and the 'high-road'. The former is characterized by its imitable nature, with marketing, promotion, and exposure being important actions in advancing the strategy. There is also a focus on capturing mobile investment, firms and capital (Cheshire & Gordon, 1998; Oinas & Malecki, 1999; Malecki, 2004; Hall, 2007). As for the latter, the competitive edge is based on enhanced internal and external networks. Herein, investments in superstructure and infrastructure are made for the region's continuity, knowledge is sourced beyond the geographical borders of the region, and external transport links are improved to ease this flow.

Tourism is usually seen as part of the ‘low-road’ strategy where no strengths can prevail over the long-term due to its inherently less sustainable nature (Hall & Williams, 2008), which contrasts with the innovative and knowledge-based ‘high-road’ strategy. In the ‘low-road’, intangible factors such as intellectual capital and institutional capacity are secondary to location factors and advantages which have limited carrying capacity and are at serious risk of being overstretched—this is exactly the case with Bali. To illustrate, Rusna, Nuarsa and Gunadi (2011) describe that the status of land carrying capacity in Bali is a deficit, with Denpasar having the highest deficit of the province’s six regencies. Therefore, tourism must be integrated into the ‘high-road’ strategy to genuine innovation through the development of learning regions; a course of action that might be difficult, but not impossible. Herein, policymakers in Bali could switch focus from developing commercial property in saturated areas; instead, they may foster destination sites that facilitate the transfer of knowledge between different actors in the tourism industry. There is a reason to conclude that much of the inclusivity and sustainability concerns plaguing the region is the result of hitherto failure of strategic integration.

III. ISSUES OF INCLUSIVITY AND SUSTAINABILITY

A. Inclusivity

There is much more to international tourism than naked numbers tend to suggest, and countless stories play out behind the evident statistics. As of late, analysts have taken a very critical view of pleasure-seeking tourism. It is seen as a force of exclusion and unsustainable development that is associated by some as worsening inequality. According to Ortiz (2017), “Speculation, gentrification, and touristification are creating a new geographical distribution of wealth and poverty in many of the world’s most visited cities.” Bali Tourist Board (BTB) expressed their concern about the overcrowding issues that occurred in most Bali regions (Chin, Haddock-Fraser, & Hampton, 2015). There are countless chains from international restaurants, cafes, and shops which are majority owned by foreigners;

Balinese people no longer own their land. This phenomenon actually was initiated when Ida Bagus, the former Governor of Bali, was favoring investors and conglomerates from overseas and from the capital city of Jakarta. Therefore, business opportunities were prioritized for the aforementioned parties (Hitchcock, 2000). The inequality privilege in Bali became very obvious and indicated that the unorganized development can conduct community manipulation by developers (Brohman, 1996; Wall & Long, 1996). As a countermeasure, Governor I Made Mangku Pastika decided to limit the number of new hotels, resorts and villa developments in the south to encourage expansion in place of overconcentration (Oxford Business Group, 2012).

The planning of tourism is created at local, national, and international levels (Berno & Bricker, 2001). The decision should be made inclusively with collaboration between central and local governments; sustainable tourism should be contributed evenly to all stakeholders. Unfortunately, the decision was still executed exclusively and sustainable plans were not well implemented (Wall, 2009). Although tourism development in Bali shows improvement compared to the state of the industry in the 1980s, locals experienced decreasing quality of life. In terms of employment, immigrants dominated the employment sector and a mere 40% of the Balinese people have proper careers or positions. This phenomenon can easily contribute to the widening gap of poverty in tourism, unemployment issues, and rising crime rate (Pringle, 2004). To negate this phenomenon, the government created the Bali Strategic Plan which presents medium- and long-term plans that could be adopted to further the sustainability agenda (Wayan, 2014).

B. Sustainability

1. Energy Consumption

One of the major concerns suffered by Indonesia is high energy consumption that tends to be wasteful. Generally, the electricity distribution is uneven with the higher consumption in industrialized or tourism areas, with the Java-Bali region accounting for 85.5% of total operating revenues (PLN, 2018). The national average electrification

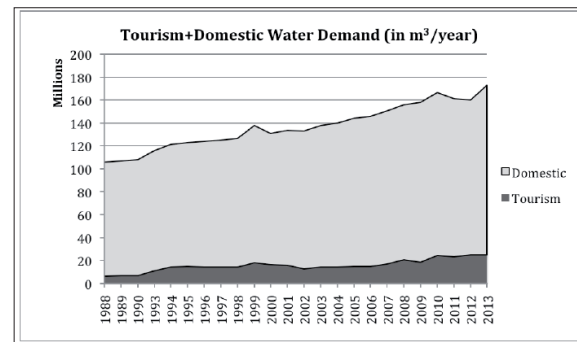
rate in 2016 was 91.2% and Bali consumption exceeds the average by reaching 92.2% (PwC, 2017). Moreover, the consumption of fossil fuel per year in Indonesia is increasing rapidly from 24 million in 2014 into more than 55 million in 2017 (BPH Migas, 2019). Indonesia shows the medium rates in the classification of greenhouse gas emissions per capita and has a lower rate from the previous year from 1.95 metric tons in 2013 to 1.82 metric tons in 2014. (Climate Transparency, 2017; The World Bank, 2019b). Electricity and natural gas are the most widely consumed in terms of the type of energy sources (Table 4). However, improvements in alternative energy are rising at a slow pace, contributing to Indonesia encountering a crisis in energy consumption (Faizah & Husaeni, 2018).

2. Water Crisis and Pollution

Bali is less vulnerable to fresh water crisis than its neighboring provinces due to its reputability for the Balinese Subak irrigation system, which includes an established water management method for agriculture. This cultural landscape was recognized by UNESCO as a World Heritage Site in 2012 due to its empowering of locals to become “prolific rice growers despite the challenges of supporting a dense population”. In the interim, plastic contamination of the environment is less severe than the rest of Indonesia and the region is set to target a 70% reduction in 2019 (The Straits Time, 2018).

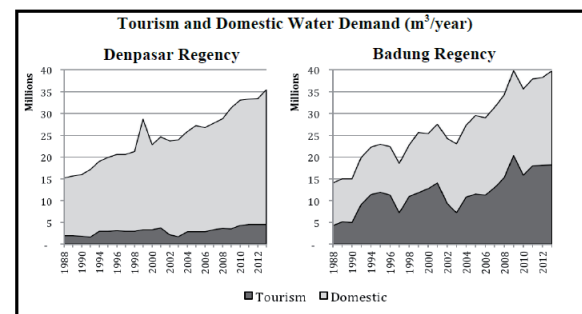
Nevertheless, in several areas in Bali, the fierce movement of tourism industry stimulates overconsumption of water which is considered as

a huge concern for the environment (The ASEAN Post, 2018). According to Siska, Sayama, & Takara (2014), “It is indicated that the regencies with the highest increase of tourism water demand have the highest increase in domestic water demand. Thus, the rapid population growth may be the result of high economic development, which was indirectly caused by the development of tourism.” (Figures 8 to 10)



Source: Siska et al. (2014)

Figure 8. Tourism and Domestic Water Demand in Bali



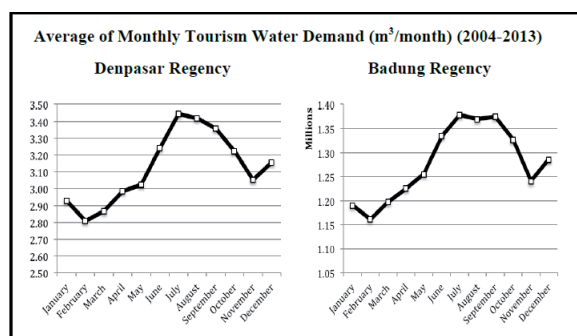
Source: Siska et al. (2014)

Figure 9. Tourism and Domestic Water Demand in Denpasar and Badung Regency, Bali

Table 4. Energy Consumption in Indonesia by Type of Source 2013–2017

Year	Coal	Natural Gas	Fuel	Biofuel*)	LPG	Electricity
2013	5.5	16.2	48.7	8.63	6.2	14.8
2014	7.0	15.8	46.0	9.23	6.6	15.4
2015	8.9	15.7	50.2	2.50	6.9	15.8
2016	8.3	13.3	43.6	9.89	7.4	17.4
2017	7.4	13.4	44.5	9.93	7.7	17.1

Source: Indonesian Ministry of Energy and Mineral Resources (2018)



Source: Siska et al. (2014)

Figure 10. Average Monthly Tourism Water Demand in Denpasar and Badung Regency, Bali

3. Deforestation

At the beginning of 2017, Indonesia lost the tree cover for 1.3 million hectares or 15% decline from 2000 (Global Forest Watch, 2018). Likewise, Bali has experienced deforestation, although not as severely as Indonesia itself. From 2001 to 2017, Bali lost 6.16 kha of tree cover, equivalent to a 1.7% decrease since 2000, and 736 kt of CO₂

emissions. Forest cover in Bali also compares quite favorably to the rest of the country, with the former having 56% and the latter having 50%. If we look closer to smaller areas in Bali, we will find variations in the data (Table 5).

One of the most threatened areas with degradation is the mangrove forests, which are also attractive locations for both developers and travelers (Ghulam Rabbany, Afrin, Rahman, Islam, & Hoque, 2013). According to the Global Forest Watch (2015), Asia has the highest loss of mangrove for over the past few decades with more than 250,000 hectares. Restoration has been conducted to the mangrove forests found in Bali's coastal areas, in which there was a significant increase in mangrove extent from 78.08 hectares in 2001 to 122.54 hectares in 2015 (Ruslisan, Kamal, & Sidik, 2018).

Based on the official website of Bali Mangrove Forum, in 2012, there are at least 19 species of mangrove tree found in 2,000Ha mangrove forest in Bali (Table 6 and 7).

Table 5. Deforestation and CO₂ Emission Conversion According to Area

Area	Timeline	Deforestation (Hectare)	CO ₂ Emission Conversion (Kilo Ton)
Bangli	2000–2017	593	74.0
Badung	2000–2017	467	51.9
Buleleng	2000–2017	1,380	173
Denpasar	2000–2017	57.3	5.47
Gianyar	2000–2017	446	52.1
Jembrana	2000–2017	1,820	220
Karangasem	2000–2017	558	74.7
Klungkung	2000–2017	190	20.3
Tabanan	2000–2017	650	80.2

Source: modified from Global Forest Watch (2019)

Table 6. Inside of Protected Forest Area

Inside of Protected Forest Area		
No.	Location	Extent (Ha)
I	Area Badung (Ngurah Rai Grand Forest Park)	753.5
II	Denpasar (Ngurah Rai Grand Forest Park)	620
III	Jembrana (West Bali National Park)	217
IV	Buleleng (West Bali National Park)	212
V	Klungkung (Nusa Lembongan Forest)	202
Total Area		2,004.5

Source: modified from Bali Mangrove Forum (2012)

Table 7.

Outside of Protected Forest Area

Outside of Protected Forest Area		
No.	Location	Extent (Ha)
I	Denpasar (Ngurah Rai Grand Forest Park)	21
II	Jembrana (West Bali National Park)	144.5
III	Buleleng (West Bali National Park)	31
IV	Klungkung (Nusa Lembongan Forest)	14.5
Total Area		211

Source: modified from Bali Mangrove Forum (2012)

With the Sustainable Development Goals (SDGs) as a conceptual framework, it can be observed that Bali presents a favorable comparison to the rest of Indonesia. There are a number of key takeaways within this observation. First, although the island is popularly dubbed the “Island of Goddesses”, Bali is an earthly place with complex features not dissimilar to the rest of the world. Hence, this research brings into question the inclusivity and sustainability of the current dominant design, particularly if Bali continues to pursue quantitative growth under its limited carrying capacity. Second, Bali’s differential features as a cultural tourism destination form a real and unique component that could serve as the key ingredient to a more inclusive and sustainable road ahead—a shift from largely hedonic tourism to largely eudaimonic tourism.

If tourism were to continue to grow at the rate it has been growing for the past 60 years, doubt is cast upon inclusivity and sustainability. Demand for growth is likely to remain strong as per capita income continues to increase in developed economies, and even stronger demand will occur in strongly performing and populous emerging economies—particularly China, India, and the emerging ASEAN. In one way or another, supply will adjust. Hence, tourism organizations will find innovative ways to respond to rising demand, especially considering that most-visited destination sites are man-made rather than natural wonders. As a result, risks of overcrowding and exhaustion will become increasingly serious as factor intensity of innovation declines slower than the growth of output, or if the growth intensifies in existing tourism centers rather than spreading to new locations. Looking to the future, a eu-

daimonic shift is imperative for Bali’s long-term continuity.

IV. THE PURSUIT OF EUDAIMONIC TOURISM

A. The Idea of Eudaimonic Well-Being

In the modern age of tourism studies, the increasing usage of terms such as “alternative tourism”, “cultural tourism”, “eco-tourism”, and “community-based tourism” have all signaled dissatisfaction regarding the current dominant patterns of consumption and hedonism present in the industry. Furthermore, it signals the wants and needs for change. A more inclusive and sustainable growth path for tourism would be eudaimonic tourism.

Admittedly, the term “eudaimonia” is nebulous at the current state of investigation; going back as far as Classical Greece and was discussed in *The Nicomachean Ethics*. Its core as an idea is closely related to happiness, welfare, and consequences of self-growth and self-actualization as a meaning-related aspect of well-being (Huta & Waterman, 2014; Ryff, 1989; Waterman, 1993). Similar ideas are found in Hinduism in that life is said to have four stages—Ashramas (studying), Grihastha (earning a living), Vanaprastha (moving out of worldly affairs) and Sanyasa (contemplation)—and the objective of leisure is said to be the discovery of an undifferentiated felicity (Spracklen, Lausha, Sharpe, & Swain, 2017).

B. The Imperfect Road to Eudaimonic Tourism

In recent times, analysts have taken a very critical view of pleasure-seeking tourism. It is seen as a force of exclusion and unsustainable development, such as worsening inequality. However, the average Balinese still lives better than the average Indonesian. Bali has yet to eradicate poverty but the average Balinese lives better than the average Indonesian. They can expect to live until 71.5 years against 71.1 years for an average Indonesian (Kompas, 2018). Furthermore, educational attainment of the working Balinese is higher than that of the average Indonesian. The percentage of graduates of vocational schooling as a fraction of the workforce is 13.4% for Bali and 11.9% for Indonesia (BPS, 2019a, 2019c). Gender-wise, Bali appears to have done better than the rest of the country; female labor force participation stood at 67.7% compared to the national average of 55.0% (BPS, 2019b). In 2016, the percentage of the female population with tertiary education in Bali is 25.9% compared to 30.0% for Indonesia (BPS, 2018c, 2019d).

In addition, the quality of work also appears to be higher in Bali than the rest of Indonesia. Full-time laborers account for 46.0% of the working Balinese compared to the national average of 39.7%; 4.2% of those numbers serve as employers with permanent workers compared to only 3.3% of working Indonesians (BPS, 2019a, 2019e). In view of the competition sector, Bali is less unequal than the rest of Indonesia as reflected with the Gini ratio of 0.377 compared to 0.389 for Indonesia (Bali Post, 2018; Sindonews, 2018). Moreover, access to piped water and/or protected sources of water is 90.9% in Bali compared to 72.0% for Indonesia—more than 90.5% of Balinese households are equipped with sanitation facility compared to 67.9% of Indonesian households (BPS, 2017b). On top of that, Balinese people also appear to be more parsimonious; being closer to homeostatic consumption than an average Indonesian. In 2017, food and tobacco respectively account for 26.5% and 11.5% of Balinese household consumption, compared to 20.1% and 11.8% of the average household in Indonesia (CNN Indonesia, 2018; Detik Finance,

2016). Therefore, it is evident that there is a wide room for diversification in favor of other forms of tourism in Bali.

C. Converging Eudaimonia and Hedonia

The discussion of hedonia and eudaimonia cannot be pursued exhaustively. The meaning of consumption of goods and services is not found in the sensual pleasure evoked, but rather in the utility—a term used extensively in standard economics. One way of explaining eudaimonia is to relate the concept with evolutionary fitness or the ability of a species to reproduce successfully, in order to contribute to the gene pool. Therefore, tourism goods or services could be classified as eudaimonic if it adds to the fitness of the people involved, and hedonic if it would eventually serve to reduce the fitness of the people involved. Furthermore, eudaimonic tourism is less material-intensive and more sustainable in a world with limited carrying capacity. It is also more difficult to misappropriate given its greater reliance on intangible capital of the producing people and communities. Needless to say, tourism is always a hedonic-eudaimonic mixture.

Using the UNWTO's classification of tourism by purpose, we gain the following classes for tourism: business and professional; holiday, leisure, and recreational; visiting friends and relatives (VFR); education and training; health and medical care; religion and pilgrimage; shopping; and transit (The World Tourism Organization [UNWTO], 2016).

Engagement of business professionals in Bali tourism for meetings, incentives, and convention is closer to eudaimonia than hedonia. On the other hand, holidays, leisure, and recreational tourism make up the bulk of the industry and is closer to hedonia than eudaimonia. However, such hedonia is moderated by the visibility of sacred rituals in Bali—there is always a sacred flavor in even the most mundane of Balinese activities. Furthermore, VFR is closer to eudaimonia than hedonia, yet it is of little importance to the international tourists in Bali. This could be attributed to the fact that tradition binds the Balinese people very strongly to one another and the diaspora outside Indonesia is hardly extant.

Hence, VFR has little meaningful potential for Bali tourism. Concurrently, although education and training are undoubtedly high in eudaimonic content, Bali has little to offer in this regard and the little it can are confined to the hospitality sector. The same could be applied to health and medical care—highly eudaimonic but basically a non-tradable service in the Balinese context.

Religion and pilgrimage could be classified as a very eudaimonic purpose in tourism, but its importance is difficult to judge. International tourists who seek out Bali for religious and pilgrimage purposes are small in number. However, it is not mere pleasure that draws thousands to Tanah Lot, Besakih, and Uluwatu on a daily basis. Holiday, leisure, and recreation in Bali are strongly flavored with Hindu spirituality and by visiting the aforementioned places a tourist’s spirituality is reawakened. The same occurs when a tourist acts as a spectator for Balinese performances. Next on the UNWTO classification is shopping, which belongs largely to hedonia through its possessive nature and appeals to instincts. However, it too is of limited importance to the larger picture of tourism in Bali. The region is simply not positioned as a site for international shopping tourism; casual observation suggests that the thousands of shops in Bali cater to normal consumption rather than tourism consumption. Lastly, the same applies to transit, which is largely neutral in terms of its relation to eudaimonia and hedonia and is barely noticeable in Bali.

Alas, the line in the sand between eudaimonia and hedonia is difficult to draw. Tourism is like chimera—there may be some elements of eudaimonia in the most hedonic forms of tourism, and vice-versa. While business in fair trade is undoubtedly eudaimonic in nature, businesses in sweatshop products are more hedonic in nature. In family reunions, eudaimonic purpose shines through the desire for a renewal of familial bonds. Nevertheless, gluttony is often times involved in VFR tourism. Furthermore, different forms of eudaimonia are involved in holiday, leisure and recreation. To illustrate, a tourist may sunbathe whilst simultaneously learning of local wisdom from reading materials. Eudaimonia and hedonia tend to coexist in every tourism design similar to how *sekala* and *niskala*, *barong* and *rangda*,

as well as *good* and *evil* coexist in Balinese belief. The challenge to tourism research and policymaking is not the elimination of hedonia, but rather a gradual shift toward a higher degree of eudaimonia.

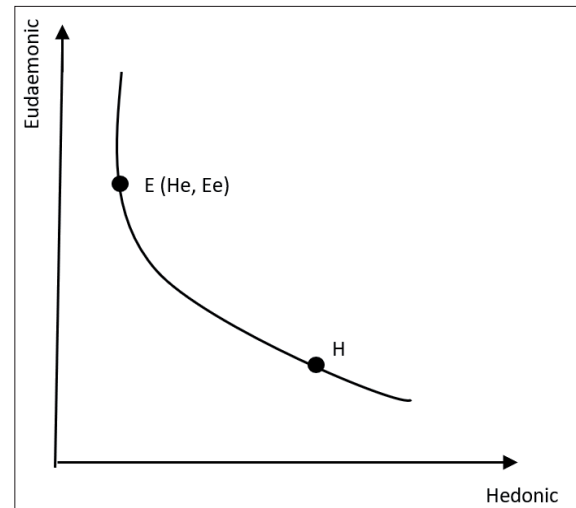


Figure 11. The Equilibrium Point for Tourism

In Figure 11, eudaimonic tourism is used as contrast to hedonic tourism. Herein, consumers rightfully belong in the equilibrium point of *E*, consuming *He* of hedonic tourism and *Ee* of eudaimonic tourism. *H* is assumed to be material-intensive—food-intensive such as bundled meals; energy and carbon-intensive for transportation, laundry, and air conditioning; produced-capital intensive such as transportation vehicles, lodging and dining facilities; and nature-intensive such as beaches, coral reefs, and the wonders of biodiversity. Eudaimonic tourism requires most of the inputs that go into hedonic tourism. However, eudaimonia aims to provide meaning rather than utility, and gluttony is avoided in favor of homeostatic consumption. Eudaimonic tourists are invested in efficient consumption as far as technology allows them to do so, reinforced by their personal beliefs of reducing energy consumption and carbon emissions. In eudaimonia, tourism attempts are made to win consumers for conservation. On the other hand, eudaimonic tourism relies more heavily on a set of intangible assets such as need-driven meals. Concurrently, the current dominant design of *H* tourism in Figure 11 is reliant on a great deal of tangible assets, and is thus carbon-intensive and less fertile for sharing.



Source: United Nations (n.d).

Figure 12. The United Nations Sustainable Development Goals (SDGs)

One can also use the SDGs as dimensions of measurement for eudaimonia and hedonia. Tourism activities with a positive impact on the attainment of zero poverty, eradication of hunger, quality health, and quality education would be classified as highly eudaimonic and could serve as a framework for analysis.

D. Translating Eudaimonia to Reality

Translating eudaimonia to practical use is at an emerging state. A time-use survey among international tourists to Bali could help improve the placing and sizing of the categories representing each of the tourism classes (Table 8).

The eight UNWTO classes—the classification can be further detailed to suit local needs—can be ordered in terms of the fraction of time spent and linked to the SDGs through a matrix, with the SDG goals on its rows and UNWTO classes of tourism on its columns. This matrix would allow us to make a statement on how far a particular class of tourism is pro-SDG 2030. To illustrate, tourism involving business professionals in MICE creates income for local workers (Goal 8), helps alleviate inequalities (Goal 10), promotes sustainable cities (Goal 11), and reallocates resources toward climate-friendly activities (Goal 13). Assuming the availability of

good data, one could fill each of the 136 cells of Table 8 to determine the relationship between the tourism classes with the attainment of the SDG 2030. One could also pick particular sub-classes of tourism and investigate their impacts on SDG 2030.

In the case of Bali, particular attention needs to be paid to international business tourists or tourists who arrive in Bali and stay for less than a year to manage their business; international convention such as the recent IMF and World Bank Annual Meeting; leisure activities such as visits to Hindu temples; and rising demand for lodging and associated conversion of rice fields. Most international tourists visit Bali for holiday, leisure, and recreational purposes. Herein, a time-use survey is very likely to confirm this a priori statement. Within this particular class of tourism, a number of sub-sectors could be singled out in terms of economic importance to Bali's tourism industry. Afterward, it could be investigated more comprehensively in relation to their eudaimonic content and impacts on the attainment of the SDG 2030. In view of this, the next question to arise would be on how the eudaimonic elements could be amplified.

There are a number of powerful mechanisms in advancement. The first of which would be informedness, similar to what has been men-

Table 8.
Tourism Classes and Their Relation to SDG 2030

	Business And Profes- sional	Holiday, Leisure, Recreational	VFR	Education And Training	Health And Med Care	Religion And Pilgrimage	Shopping	Transit
Goal 1								
Goal 2								
Goal 3								
Goal 4								
Goal 5								
Goal 6								
Goal 7								
Goal 8								
Goal 9								
Goal 10								
Goal 11								
Goal 12								
Goal 13								
Goal 14								
Goal 15								
Goal 16								
Goal 17								

Source: UNWTO (2016).

tioned earlier in this research. As the Indonesian saying goes: “knowing is loving”. Early works of literature on Bali and the staging of Balinese performances in great metropolitans—such as Paris and New York—made an invaluable contribution to the overall informedness and interest of international tourists regarding Bali. Apart from that, the internet contributes a great deal of knowledge on Bali, in addition to the generation of demand for Bali tourism throughout the world. Herein, better information concerning the unique geography, culture, and biodiversity of Bali could strengthen interest among repeat visitors as well as first-timers. Although commercial advertisements have helped disseminate such information, tourists and hosts in their multitude also require insights that only experienced researchers and practitioners could offer. Repeated exposure of Bali’s mystical and exotic flavorings will continue to impress new tourists, yet deeper insights are needed to keep interest alive among repeat visitors. In order to evoke greater impacts, such insights are best produced and disseminated collaboratively through the utilization of the digital revolution at its fullest potential to reach a much wider range of audience.

The second mechanism relates to infrastructure. Bali has built itself a new airport and has plans of building another one in the northern part of the island. However, primary bottlenecks are found in the internal infrastructure that connects the airport to lodging facilities, and the latter to the many attractions present on the island. In spite of the fact that the most crowded regions are well connected to the airport and major hotels, tourists are becoming forced to spend more and more time on the road. The bottlenecks around well-established attraction sites offer an opportunity for developing alternative locations; a less arduous connection between southern part of Bali and the rest of the island could help disperse traffic to more eudaimonic places. Having negated the inherent obstacles, visitors could spread out to places such as *Pura Pucak Penulisan* in the outskirts of Kintamani, West Bali National Park, the northern road of human settlement of Bali, and the coastal areas in the North East. All in all, the core challenges of eudaimonic tourism are capacity-building and facilitation that would allow Bali to move northwestward, however gradual.

V. SUMMARY AND CONCLUSIONS

In conclusion, the progressive quantitative growth of the tourism industry in Indonesia is signaling the need to shift towards eudaimonic tourism—a form of tourism that is inclusive, sustainable, and primarily concerned with happiness and welfare. Herein, the regional innovation system (RIS) present in Bali could provide the framework for supporting the advancement of innovation that will duly sustain eudaimonia. For this reason, relevant actors and gaps in the system must be identified and activated. Eudaimonia is identified in this research as the key to negating the persistent problems that have long plagued Bali and the Balinese people as a result of tourism. The sum of these problems boils down to energy consumption and emissions, water supply, loss of biodiversity, and the underpowered participation of local businesses in the value chain. As it stands, current growth trajectory and orientation are not compatible with the island’s limited carrying capacity, and parts of the island already have major difficulties regarding over concentration. Having solved the inherent problems of unsustainable tourism however, Indonesia stands to reap the benefits of its tourism industry becoming a source of future progressive growth and a prominent factor of the economy.

As luck would have it, Bali has the cultural uniqueness and better living standards that make eudaimonic tourism a real possibility. Hence, this research suggests Bali as the imperfect road to developing eudaimonic tourism in Indonesia. Tourism itself is always a mixture of hedonic and eudaimonic qualities—both exist at every level of behavior and are virtually inseparable. Herein, the goal is not to eliminate hedonic behavior entirely but to commence the gradual shift of Bali tourism to a mostly eudaimonic form, particularly through innovation. Furthermore, the UNWTO’s classification of tourism by purpose and the Sustainable Development Goals (SDGs) matrix could be used to determine the relation between tourism classes, investigate their impact on the SDGs, and even to amplify eudaimonic elements present. The factors needed to amplify eudaimonic elements themselves are advancement in informedness of Bali and improved infrastructure in the island itself.

ACKNOWLEDGMENT

We thank Celine Canes for excellent research assistantship.

REFERENCES

- Antara, M. & Sumarniasih, M. (2017). Role of tourism in economy of Bali and Indonesia. *Journal of Tourism and Hospitality Management*, 5(2).
- Agung, A. A. G. (2005). *Bali endangered paradise? Tri Hita Karana and the conservation of the island's biocultural diversity*. Universiteit Leiden Press: Leiden.
- Asheim, B. T. & Isaksen, A. (2002). Regional innovation systems: The integration of local “sticky” and global “ubiquitous” knowledge. *Journal of Technology Transfer*, 27, 77–86.
- Badan Pusat Statistik (2017a). *Jumlah wisatawan asing tahun 1974-2015, devisa wisman 1998-2015 dan tingkat penghunian kamar (TPK) hotel bintang dan non bintang tahun 1985-2015*. [Number of foreign arrivals 1974-2015, international tourists foreign exchange 1998-2015, and occupancy of starred and non-starred hotels 1985-2015]. Retrieved from <https://www.bps.go.id/statictable/2014/01/30/1393/jumlah-wisatawan-asing-tahun-1974---2015-devisa-wisman-1998-2015-dan-tingkat-penghunian-kamar-tpk-hotel-bintang-dan-non-bintang-tahun-1985---2015.html>, last accessed 2019/09/29.
- Badan Pusat Statistik (BPS). (2017b). *Persentase rumah tangga menurut provinsi dan memiliki akses terhadap sanitasi layak, 1993-2017*. [Percentage of households by province with access to eligible sanitation, 1993-2017]. Retrieved from <https://www.bps.go.id/statictable/2016/01/25/1900/persentase-rumah-tangga-menurut-provinsi-dan-memiliki-akses-terhadap-sanitasi-layak-1993-2017.html>, last accessed 2019/06/24.
- Badan Pusat Statistik (2018a). *Statistik kunjungan wisatawan mancanegara 2017*. [International visitor arrivals statistics 2017]. Jakarta: Badan Pusat Statistik (BPS).
- Badan Pusat Statistik (2018b). *Jumlah kedatangan wisatawan mancanegara ke Indonesia menurut pintu masuk 1997-2017*. [Number of international arrivals based on main entry points 1997-2017]. Retrieved from <https://www.bps.go.id/statictable/2009/04/14/1387/jumlah-kunjungan-wisatawan-mancanegara-ke-indonesia-menurut-pintu-masuk-1997-2017.html>, last accessed 2019/09/29.

- Badan Pusat Statistik (BPS). (2018c). *Angka Partisipasi Kasar Provinsi Bali 2000-2017*. [Gross Enrollment Rate of Bali Province 2000-2017]. Retrieved from <https://bali.bps.go.id/dynamicstable/2016/07/20/39/angka-partisipasi-kasar-apk-provinsi-bali-menurut-jenjang-pendidikan-dan-jenis-kelamin-2000-2017.html>, last accessed 2019/06/24.
- Badan Pusat Statistik (BPS). (2019). *Statistik Indonesia 2019*. BPS. Jakarta.
- Badan Pusat Statistik. (2019a). *Provinsi Bali dalam angka 2019*. [Bali Province in figure 2019]. Bali: Badan Pusat Statistik (BPS).
- Badan Pusat Statistik (BPS). (2019b). *Kondisi umum ketenagakerjaan provinsi bali menurut jenis kelamin, 1995–2018*. [General conditions of employment of bali province by sex, 1995–2018]. Retrieved from <https://bali.bps.go.id/statictable/2018/02/27/44/kondisi-umum-ketenagakerjaan-provinsi-bali-menurut-jenis-kelamin-1995-2017.html>, last accessed 2019/06/24.
- Badan Pusat Statistik (BPS). (2019c). *Penduduk berumur 15 tahun ke atas menurut pendidikan tertinggi yang ditamatkan dan jenis kegiatan selama seminggu yang lalu, 2008–2018*. [Population of 15 years-old and above according to highest education and activity done in the past week, 2008–2018]. Retrieved from <https://www.bps.go.id/statictable/2016/04/05/1909/penduduk-berumur-15-tahun-ke-atas-menurut-pendidikan-tertinggi-yang-ditamatkan-dan-jenis-kegiatan-selama-seminggu-yang-lalu-2008-2018.html>, last accessed 2019/09/29.
- Badan Pusat Statistik (BPS). (2019d). *Angka partisipasi kasar (APK) perguruan tinggi (PT) menurut jenis kelamin, 2011–2018*. [Gross enrollment rate of tertiary education based on gender, 2011–2018]. Retrieved from <https://www.bps.go.id/dynamicstable/2018/07/11/1525/angka-partisipasi-kasar-apk-perguruan-tingga-pt-menurut-jenis-kelamin-2011-2016.html>, last accessed 2019/09/29.
- Badan Pusat Statistik (BPS). (2019e). *Penduduk 15 tahun ke atas menurut status pekerjaan utama 1986–2018*. [Population of 15 years-old and above based on main employment status 1986–2018]. Retrieved from <https://www.bps.go.id/statictable/2009/04/16/971/penduduk-15-tahun-ke-atas-menurut-status-pekerjaan-utama-1986---2018.html>, last accessed 2019/09/29.
- Bali Mangrove Forum. (2012). *Mangrove in Bali*. Retrieved from <http://fpm Bali.org/en/mangrove/bali>
- Bali Post. (2018). *Pemerataan kesejahteraan di Bali makin baik*. [Improvement in welfare equality in Bali]. Retrieved from <http://www.balipost.com/news/2018/07/25/51113/Pemerataan-Kesejahteraan-di-Bali-Makin...html>
- Bank Indonesia. (2019). *Produk domestik bruto menurut lapangan usaha atas dasar harga konstan 2010*. [Gross domestic product by industrial origin at 2010 constant prices]. Retrieved from https://www.bi.go.id/seki/tabel/TABEL7_2.xls, last accessed 2019/06/24.
- Bathelt, H., Malmberg, A. & Maskell, P. (2004). Clusters and knowledge: Local buzz, global pipelines and the process of knowledge creation. *Progress in Human Geography*, 28(1), 31–56.
- Beeton, S. (2006) Sustainable tourism in practice: Trails and tourism - Critical management issues of multi-use trails. *Tourism Planning & Development*, 3(1), 47–64
- Berno, T. & Bricker, K. (2001). Sustainable tourism development: The long road from theory to practice. *International Journal of Economic Development*, 3(1), 1–18.
- BPH Migas. (2019). *Laporan kinerja BPH Migas tahun 2018*. [Performance report of BPS Migas 2018]. Retrieved from <https://www.bphmigas.go.id/pengumuman/laporan-kinerja-bph-migas-tahun-2018/>
- Brohman, J. (1996). New directions in tourism for third world development. *Annals of Tourism Research*, 23(1), 48–70.
- Centre for Aviation - CAPA. (2018). *Indonesia: international aviation. Rapid growth and strong competition*. Retrieved from: <https://centreforaviation.com/analysis/reports/indonesia-international-aviation-rapid-growth-and-strong-competition-410927>.
- Cheshire, P. C. & Gordon, I. R. (1998). Territorial competition: Some lessons for policy. *Annals of Regional Science*, 32, 321–46.
- Chin, W. L., Haddock-Fraser, J., & Hampton, M.P. (2015). Destination competitiveness: Evidence from Bali. *Current Issues in Tourism*, 20(12), 1265-89.
- Climate Transparency. (2017). *Brown to green: The G20 transition to a low-carbon economy* |

2017. Retrieved from https://www.climate-transparency.org/wp-content/uploads/2017/07/Brown-to-Green-Report-2017_web.pdf
- CNN Indonesia. (2018). *Rokok penyumbang kemiskinan terbesar kedua di Indonesia*. [Cigarette as the second largest poverty contribution in Indonesia]. Retrieved from <https://www.cnnindonesia.com/ekonomi/20180130135917-532-272607/rokok-penyumbang-kemiskinan-terbesar-kedua-di-indonesia>
- Colliers International Indonesia. (2018). *Bali hotel market*. Retrieved from <https://www.colliers.com/-/media/files/marketresearch/apac/indonesia/q3-2018-colliersquarterly-bali.pdf?la=en-GB>, last accessed 2019/09/29.
- Detik Finance. (2016). *Orang miskin banyak habiskan uang beli beras dan rokok*. [The poor are spending more on rice and cigarettes]. Retrieved from <https://finance.detik.com/berita-ekonomi-bisnis/d-3563108/orang-miskin-banyak-habiskan-uang-beli-beras-dan-rokok>
- Directorate General of Immigration. (2015). *Visit visa*. Retrieved from <http://www.imigrasi.go.id/index.php/en/public-services/visit-visa>, last accessed 2019/06/24.
- Dwyer, L. (2014). Transnational corporations and the globalization of tourism. In A. A. Lew, C. M. Hall, & A. M. Williams (Eds.), *The Wiley Blackwell companion to tourism* (pp. 197–209). Chichester: John Wiley & Sons
- Faizah, S., & Husaeni, U. (2018). Development of consumption and supplying energy in Indonesia's economy. *International Journal of Energy Economics and Policy*, 8(6), 313–21. <https://doi.org/10.32479/ijeep.6926>
- Fernandez, M.E. (1994). Gender and indigenous knowledge. *Indigenous Knowledge & Development Monitor*, 2, 6-7.
- Financial Times. (2013). *WTO approves global trade deal*. Retrieved from <https://www.ft.com/content/072486ac-5f3f-11e3-8d1d-00144feabdc0>
- Fiore, A., Grisorio, M. J., & Prota, F. (2011). Regional innovation systems: Which role for public policies and innovation agencies? Some insights from the experience of an Italian region. *European Planning Studies*, 19(8), 1399–1422. doi:10.1080/09654313.2011.586173
- Fogel, R. W. (2000). *The fourth great awakening and the future of egalitarianism*. Chicago, IL and London: University of Chicago Press.
- Ghulam Rabbany, M., Afrin, S., Rahman, A., Islam, F., & Hoque, F. (2013). Environmental Effects on Tourism. *American Journal of Environment. Energy and Power Research*, 1(7), 117–30.
- Global Forest Watch. (2015). *Satellite data reveals state of the world's mangrove forests*. Retrieved from <https://blog.globalforestwatch.org/supplychain/agriculture/satellite-data-reveals-state-of-the-worlds-mangrove-forests>, last accessed 2019/09/27.
- Global Forest Watch. (2018). *2017 was the second-worst year on record for tropical tree cover loss*. Retrieved from <https://blog.globalforestwatch.org/data/2017-was-the-second-worst-year-on-record-for-tropical-tree-cover-loss>, last accessed 2019/09/27.
- Global Forest Watch. (2019). *Country dashboard – Indonesia, Bali*. Retrieved from <https://www.globalforestwatch.org/dashboards/country/IDN/2>, last accessed 2019/09/27.
- Hall, C. & Williams, A. (2008). *Tourism and innovation*. London: Routledge.
- Hall, C. M. (2007). Tourism and regional competitiveness. In J. Tribe. (Ed.). *Tourism research: new directions, challenges and applications* (pp. 217–30). Oxford: Elsevier.
- Hitchcock, M. (2000). Ethnicity and tourism entrepreneurship in Java and Bali. *Current Issues in Tourism*, 3(3), 204–25.
- Hitchcock, M. B., & Putra, N. D. (2007). *Tourism, development and terrorism in Bali*. Ashgate Pub Co (May 28).
- Huta, V. & Waterman, A. (2014). Eudaimonia and its distinction from hedonia: Developing a classification and terminology for understanding conceptual and operational definitions. *Journal of Happiness Studies*. Springer, 15(6), 1425–56.
- Indonesia Investments. (2017). *Investment on Bali: 10th in foreign direct investment ranking*. Retrieved from <https://www.indonesia-investments.com/news/todays-headlines/investment-on-bali-10th-in-foreign-direct-investment-ranking/item8318>
- Indonesian Ministry of Energy and Mineral Resources. (2018). *Handbook of energy & economic statistics of Indonesia*. Retrieved from <https://www.esdm.go.id/assets/media/content/content-handbook-of-energy-and-economic-statistics-of-indonesia.pdf>
- Indonesian Ministry of Tourism. (2015). *Rencana Strategis 2015–2019 Kementerian Pariwisata*. [Strategic Planning 2015-2019 Ministry of Tourism]. Retrieved from <http://www.kempar.go.id/post/rencana-strategis-2015-2019-kementerian-pariwisata>.

- International Telecommunication Union. (2017). *ICT global development index 2017*. Retrieved from <https://www.itu.int/net4/ITU-D/idi/2017/index.html#idi2017comparison-tab>, last accessed 2019/06/24.
- Ivanov, S., & Ivanova, M. (2016). Do hotel chains improve destination's competitiveness? *Tourism Management Perspectives*, 19, 74–79. 10.1016/j.tmp.2016.04.007.
- Knoema. (2019a). *Bali – School participation rate among 16-18-year-olds*. Retrieved from <https://knoema.com/atlas/Indonesia/Bali/topics/Education/School-Participation-Rate/School-participation-rate-among-16-18-year-olds>, last accessed 2019/08/26.
- Knoema. (2019b). *Bali - School participation rate among 19-24-year-olds*. Retrieved from <https://knoema.com/atlas/Indonesia/Bali/topics/Education/School-Participation-Rate/School-participation-rate-among-19-24-year-olds>, last accessed 2019/08/26.
- Kompas. (2018). *Daftar negara dengan usia harapan hidup tertinggi, bagaimana Indonesia?* [List of countries with the highest life expectancy, how is Indonesia?]. Retrieved from <https://lifestyle.kompas.com/read/2018/10/19/120000920/daftar-negara-dengan-usia-harapan-hidup-tertinggi-bagaimana-indonesia>
- Kulsuvan, S., & Karamustafa, K. (2001). Multinational hotel development in developing countries: an exploratory analysis of critical policy issues. *International Journal of Tourism Research*, 3(3), 179–197.
- Lansing, J. S. (2006). *Perfect order: Recognizing complexity in Bali*. 1st ed. Princeton: Princeton University Press.
- Liputan6. (2015). *1-10-2005: Bom Bali 2 renggut 23 nyawa*. [1-10-2005: The second Bali bombing took 23 lives]. Retrieved from <https://www.liputan6.com/global/read/2329497/1-10-2005-bom-bali-2-renggut-23-nyawa>
- Malecki, E. J. (2004). Jockeying for position: What it means and why it matters to regional development policy when places compete. *Regional Studies*, 38(9), 1101–20.
- Maya, C. (2018). *Pemerataan Kesejahteraan di Bali Makin Baik*. [Equity wellness in Bali better] BALIPOST.com. Retrieved from <http://www.balipost.com/news/2018/07/25/51113/Pemerataan-Kesejahteraan-di-Bali-Makin...html>.
- Nakashima, D., Rubis, J., Bates, P., & Ávila, B. (2017). *Local knowledge, global goals*. Retrieved from <http://unesdoc.unesco.org/images/0025/002595/259599e.pdf>.
- Nauwelaers, C., & Reid, A. (1995) *Innovative regions? A comparative review of methods of evaluating regional innovation potential*. European Innovation Monitoring System (EIMS) Publication No. 21, Luxembourg: European Commission, Directorate General XIII.
- OECD. (2007). *Innovation and growth - Rationale for an innovation strategy*. Paris: OECD Publishing.
- Oinas, P., & Malecki, E. J. (1999). Spatial innovation systems. In Malecki, E.J. & Oinas, P. (Eds). *Making connections: Technological learning and regional economic change* (pp. 7–33) Aldershot: Ashgate.
- Ortiz, E. (2017). *When mass tourism drives inequality*. Retrieved from <https://inequality.org/research/mass-tourism-drives-inequality/>
- Our World in Data. (2016). *Estimated lifetime hours of work and leisure*. Retrieved from ourworldindata.org/grapher/estimated-lifetime-hours-of-work-and-leisure, last accessed 2018/09/28.
- Oxford Business Group. (2012). *I Made Mangku Pastika, Governor of Bali: Interview*. Retrieved from <https://oxfordbusinessgroup.com/interview/i-made-mangku-pastika-governor-bali-interview>
- PLN. (2018). *2017 annual report*. Retrieved from <https://www.pln.co.id/statics/uploads/2018/07/AR-PLN-2017-4Jun18.pdf>
- Pouder, R., & John, C. H. S. (1996). Hot spots and blind spots: Geographical clusters of firms and innovation. *Academy of Management Review*, 21(4), 1192–1225.
- Pringle, R. (2004). *A short history of Bali Indonesia's Hindu realm*. Australia: Allen & Unwin. Pp.213-224.
- PwC. (2017). *Power in Indonesia: Investment and taxation guide*. Retrieved from <https://www.pwc.com/id/en/energy-utilities-mining/assets/power/power-guide-2017.pdf>.
- PwC. (2019). *Regional infrastructure: Bali to have 14 projects*. Retrieved from <https://www.pwc.com/id/en/media-centre/infrastructure-news/april-2019/bali-to-have-14-projects.html>.
- Ramey, V., & Francis, N. (2009). *A century of work and leisure*. Cambridge (Mass.): National Bureau of Economic Research.
- Ruslisan, R., Kamal, M., & Sidik, F. (2018). Monitoring the restored mangrove condition at Perancak Estuary, Jembrana, Bali, Indonesia from 2001 to 2015. *IOP Conference Series: Earth and Environmental Science*, Volume 123, Conference 1. Retrieved from <https://iopscience.iop.org/article/10.1088/1755-1315/123/1/012022/pdf>.

- Rusna, W., Nuarsa, W., & Gunadi, G.A. (2011). *Perubahan penggunaan lahan dan daya dukung lingkungan: Daya dukung lahan: 65-76*. [Change of land use and the environment support: Land capacity: 65-76]. Denpasar: Udayana University Press.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069–81. <https://doi.org/10.1037/0022-3514.57.6.1069>.
- Sindonews. (2018). *Membaik, indeks gini ratio Maret 2018 0,389*. [Gini ratio of March 2018 improves to 0,389]. Retrieved from <https://ekbis.sindonews.com/read/1322191/33/membaik-indeks-gini-ratio-maret-2018-0389-1531727825>.
- Siska, E.M., Sayama, T., & Takara, K. (2014). Spatial and seasonal variabilities of water use and availability in Bali. *Journal of Japan Society of Civil Engineers*, Ser B1 (Hydraulic Engineering) 74(4), I_1333–I_1338.
- Scoville, J. G. (1986). The traditional industrial sector in developing countries: an update on its role and functioning. *The American Journal of Economics and Sociology*, 45(3), 313–328. Doi: 10.1111/j.1536-7150.1986.tb02392.x.
- Spracklen, K., Lausha, B., Sharpe, E., & Swain, S. (2017). *The Palgrave handbook of leisure theory*. United Kingdoms: Palgrave Macmillan.
- The ASEAN Post. (2018). *Losing our water to tourism*. Retrieved from <https://theaseanpost.com/article/losing-our-water-tourism>.
- The Jakarta Post. (2018). *Indonesian hosts welcome over 900,000 travelers in 2017: Airbnb*. Retrieved from <https://www.thejakartapost.com/travel/2018/01/10/indonesian-hosts-welcome-over-900000-travelers-in-2017-airbnb.html>.
- The Jakarta Post. (2015). *Overcoming eroding knowledge of Bali's food plants*. Retrieved from <https://www.thejakartapost.com/news/2015/01/31/overcoming-eroding-knowledge-bali-s-food-plants.html>.
- The Straits Times. (2018). *Bali bans single-use plastics, targets 70 per cent reduction in 2019*. Retrieved from <https://www.straitstimes.com/asia/se-asia/bali-bans-single-use-plastics-targets-70-per-cent-reduction-in-2019>.
- The World Bank. (2015). *IMF and World Bank Group to hold 2018 annual meetings in Indonesia*. Retrieved from <https://www.worldbank.org/en/news/press-release/2015/09/01/imf-world-bank-group-annual-meetings-indonesia>.
- The World Bank. (2019a). *International tourism, number of arrivals - East Asia & Pacific, Indonesia, World*. Retrieved from <https://data.worldbank.org/indicator/ST.INT.ARVL?locations=Z4-ID-1W>, last accessed 2019/09/29.
- The World Bank. (2019b). *CO₂ emissions (kg per PPP \$ of GDP)*. Retrieved from <https://data.worldbank.org/indicator/EN.ATM.CO2E.PP.GD>, last accessed 2019/06/24.
- The World Tourism Organization. (2008). *Tourism Satellite Account: Recommended Methodological Framework 2008*. 39th ed. Paris: OECD Bookshop.
- The World Tourism Organization. (2016). *Methodological notes to the tourism statistics database*. Madrid: The World Tourism Organization (UNWTO). Retrieved from http://cf.cdn.unwto.org/sites/all/files/pdf/methodological_notes_2016_en.pdf.
- Trading Economics. (2019). *Indonesia Tourist Arrivals*. Retrieved from <https://tradingeconomics.com/indonesia/tourist-arrivals>, last accessed 2019/06/24.
- UNESCO. (2019). *Education: Net flow of internationally mobile students*. Retrieved from <http://data.uis.unesco.org/Index.aspx?queryid=243#>, last accessed 2019/06/24.
- United Nations. (n.d.). *About the sustainable development goals*. [online] Retrieved from <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>, last accessed 2019/06/23.
- Wall, G., & Long, V. (1996). Balinese homestays: An indigenous response to tourism opportunities. In R. Butler & T. Hinch (Eds.), *Tourism and Indigenous Peoples* (pp. 27–48). London: ITP.
- Wall, G. (2009). Tourism and development: Towards sustainable outcomes. In L. F. Girard, & P. Nijkamp (Eds.) *Cultural Tourism and Sustainable Local Development* (pp 31–46). USA: Ashgate.
- Waterman, A. S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness (eudaimonia) and hedonic enjoyment. *Journal of Personality and Social Psychology*, 64(4), 678–91. <http://dx.doi.org/10.1037/0022-3514.64.4.678>.
- Wayan, S. (2014). Evaluation of sustainable development of tourism in Bali. *Proceeding International Conference on Tourism in Indonesia (ICoTO)*, 260–261.

Weisse, M., & Goldman, L. (2018). *2017 Was the Second-Worst Year on Record for Tropical Tree Cover Loss* | Global Forest Watch Blog. Retrieved from <https://blog.globalforestwatch.org/data-and-research/2017-was-the-second-worst-year-on-record-for-tropical-tree-cover-loss>.

Yamashita, S. (2004). *Bali and beyond: Explorations in the anthropology of tourism*. New York: Berghahn Books.