



Research Paper

Open Access

Promotion of Education for Sustainable Development among Hospitality and Tourism Students: Results and Challenges during COVID-19



Siew-Wei Yeong^{a,b*}; Mukvinder Kaur Sandhu^{a,c}; Agnes Mary Toner^{a,d}; Sherrymina Anak Kichin^{a,e}; Adlin Baizura Ariffin^{a,e}; Ida Anak Ingko^{a,e}

^aRegional Centre of Expertise on Education for Sustainable Development Kuching, Malaysia; ^bFaculty of Pharmaceutical Sciences, UCSI University, Malaysia; ^cOffice of COO, Sarawak Campus, UCSI University, Malaysia; ^dCentre for Pre-University Studies, Sarawak Campus, UCSI University, Malaysia; ^eFaculty of Hospitality and Tourism Management, Sarawak Campus, UCSI University, Malaysia

*Correspondence: swyeong@ucsiuniversity.edu.my

Received 23 December 2020; Revised 11 January 2021; Accepted 14 January 2021

ABSTRACT: This paper reports the initial results and challenges of implementing education for sustainable development (ESD) in a tertiary education centre with a majority of students studying hospitality and tourism, amid the unexpected COVID-19 pandemic. A youth-led sustainable development workshop was conducted by the youth ambassadors of the Regional Center of Expertise (RCE) in ESD, Kuching. The workshop participants were university students who were enrolled in the Faculty of Hospitality and Tourism Management. Overall, the participants of the workshop showed a clear understanding of the level of skills and commitment needed to be involved as youth leaders in sustainable education. The resultant model of RCE-university collaboration to affect attainment of sustainable development goals among university students could potentially bring positive outcomes in the hospitality and tourism industry.

KEYWORDS: responsible tourism; education for sustainable development; perception; awareness; knowledge

Introduction

The global tourism industry has been growing over the years and has affected not only individual cities or countries, but also the world. The latest UNWTO World Tourism Barometer has also shown the tenth consecutive year of growth based on the first comprehensive report on global tourism numbers and trends of the new decade.¹ There has been a growing number of international tourist arrivals as stated by UNWTO (2020), with a 6% increase in 2018 which was recorded as 1.4 billion tourist arrivals. In the following year, the upsurge continued with 1.5 billion international tourist arrivals being recorded in 2019, globally. In fact, all global regions showed a rise in international arrivals in 2019.

The Asia and the Pacific Region also showed above-average growth with the increase of 5% international tourist arrivals. In Malaysia, there was an increase of 1% of tourist arrivals in

2019 with 26.1 million tourist arrivals recorded (Tourism Malaysia, 2019), bringing the tourist total expenditure of RM103.2 billion in 2019 compared with RM92.6 billion expenditure in 2018.2 Before the COVID-19 pandemic had hit the world, UNWTO had forecasted a global increase of 4% of international tourist arrivals for 2020 confirming that tourism was expected to continue being a leading and resilient economic sector.

Responsible tourism is mainly defined by the orientation of preserving the natural environment and minimizing the negative impacts of tourist activities on the environment, along with education, knowledge, information, promotion of local cultures, and ethical behaviour (State & Bulin, 2016). Many countries have started initiatives of responsible tourism in its tourism operations. Arabian Travel Market (ATM) has adopted responsible tourism including current sustainable travel trends that aim to unite travel companies, organizations and key players from the hospitality and tourism industry in spreading sustainable practices and ethical methods within the travel industry (Hotelier MiddleEast.com., 2018). Hoteliers and other stakeholders have embraced the various programmes and projects that have been disseminating knowledge and education regarding responsible practices (Farmaki, Constanti, Yiasemi, & Karis, 2014).

Responsible tourism plays a vital role in the hospitality and tourism industry (Hanafiah, Azman, Jamaluddin, & Aminuddin, 2016). In view of the industry's vulnerability to risks such as the COVID-19 pandemic, it is important for industry players to acknowledge responsible tourism as a sustainable development tool in the industry (Musavengane, 2019; Pulido-Fernández & López-Sánchez, 2016). According to a Sustainable Travel Report released by Booking.com, over 87 percent of travelers preferred to travel sustainably and 68% intended to stay in an eco-accommodation (Newsdesk, 2018). In addition, 78% of the survey respondents considered themselves to be more ethically conscious travelers than they were before (CREST, 2017).

It is the intention of this paper to explore the awareness and knowledge of youth in a tertiary academic environment on Sustainable Development Goals (SDGs). As hospitality and tourism students interact with the community through the service industry, their confidence in handling an SDG-related community project is investigated.

Theoretical Background

Education for Sustainable Development Goals

In view of the growing concerns over responsible tourism, numerous hospitality and tourism education institutions have started to incorporate SDGs in the curriculum (Lund-Durlacher, 2015). Education for Sustainable Development (ESD) is an important part of quality education, empowering learners to take informed actions for the sustainability of our environments for present and future generations (UNESCO, 2017). Sustainable issues such as climate change and biodiversity are incorporated into teaching and learning through a transformative educational process which is not just about instilling knowledge but rather inspiring actions through mindset shifts in whole communities. ESD should be seen as a framework or enabler of the UN's SDGs, in particular for the advancement of SDG 4 – Education 2030 and Target 4.7, which aims that by 2030, “... *all learners acquire the knowledge and skills needed to promote sustainable development, including, among others,*

through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.” (United Nations, 2020)

ESD pays particular attention to an individual's transformative learning process, encompassing the acquisition of knowledge, becoming aware of certain realities through experiential exposure, and finally connecting empathically to these realities which are relevant to one's life (UNESCO, 2018). ESD should not be conducted through formal education only, but also by incorporating non-formal and informal educational processes.

Universities play an important role in mainstreaming ESD and are moving gradually beyond the traditional functions of content delivery and research to achieve impact on societies (El-Jardali, Ataya, & Fadlallah, 2018). One such endeavor of a collaborative governance model is the setup of Regional Centres of Expertise (RCEs) on ESD by the United Nations University Institute for the Advanced Study for Sustainability, UNU-IAS. UNU-IAS launched the ESD Projects in 2003 to contribute to the UN DESD (Decade of Education for Sustainable Development spanning from 2005 – 2014). Following the completion of the DESD, the Global Action Programme or GAP spanning from 2015-2019 has given way to the new ESD for 2030, and the projects under UNU-IAS continue to disseminate ESD principles through the promotion of RCEs (Sleurs, 2008).

Although ESD is a transformative learning process that enhances the cognitive, social, emotional & behavioral learning aspects, a study conducted by UNESCO recently has found that ESD, in most cases, is associated with the teaching of scientific knowledge only, with a lack of emphasis on the other learning aspects (UNESCO, 2019). Various challenges are faced by educators in ESD, including the extent to which SDG should be integrated into university courses. It is a continuous academic development to incorporate SDGs into the planning, implementation and assessment processes of the formal courses.

Given the holistic approach which ESD requires, the COVID-19 pandemic may also cause setbacks in the achievement of the social, emotional and behavioral aspects of learning since physical contact has been severely restricted. Although the common trend has been to shift to digital platforms and other innovative methods, there is the challenge of maintaining coordinated communication with the local authorities whose focus has gone into containing the social and economic effects of the pandemic as a result of the closures of borders all over the world. Another major gap is the lack of digital infrastructure in rural areas and remote settings, regressing the progress we may have made in ESD.

ESD for 2030 sets out to detail priority action areas which are key to mainstreaming ESD in UNESCO's member states; and these priority action areas are indeed a way for universities to formulate robust strategies involving two equally important processes (UNESCO, 2020). A top-down process from the top management and a bottom-up process from all educators, students and the entire community (Holmberg & Samuelsson, 2005). Commitment from the whole institution is important to contribute to a sustainable future. This 'whole institution approach' ensures that all levels of the institution are 'living what they learn'(UNESCO, 2020). Indeed, student organizations can be strong advocates and voices to promote education for sustainable development (Holmberg & Samuelsson, 2005). As set out in ESD for 2030

priority action area 1, unless ESD is integrated in global, regional and local policies, not much progress can be made and there will always only be piecemeal approaches to ESD.

Formal educational institutions such as universities and schools should prioritize building the capacities of its educators with the right knowledge, skills, values and attitudes needed to successfully re-orient whole curriculum to include sustainability. These institutions are also well placed to work with key actors, such as youth, in addressing sustainability challenges (UNESCO, 2020). Student organizations are strong advocates and voices to promote ESD (Holmberg & Samuelsson, 2005). It is also important to recognize that students' involvement in community-based actions will bring about deeper learning of the issues and challenges faced by communities. Through these instances of communicative learning, students participate in discussions, formulate their own arguments, and consider others' perspectives too. This pluralistic approach to learning implies that sustainable development is always at the forefront of all matters discussed rather than only a topic on its own.

Making digital and remote ESD programmes more engaging and action-oriented is important for ESD during the pandemic. Education needs to be transformed urgently to empower students to take responsibility of their present and future generations by actively contributing to transformation in whole communities. It is time to seriously employ interactive, project-based and learner-centred pedagogy in all kinds of learning and integrate sustainability issues particularly those brought to attention in the SDGs (UNESCO, 2020).

RCE Kuching

RCEs work to connect a network of individuals, organisations, and experts committed to developing innovative approaches for action and education, serving as drivers to translate global objectives such as the UN's SDGs and UNESCO's ESD for 2030 (El-Jardali et al., 2018). There are 175 RCEs listed in the world which are spread across Africa & the Middle East, Asia-Pacific, Europe, and the Americas.

RCE Kuching, the first in East Malaysia, Borneo, under the Asia-Pacific RCE Community, has been set-up by UCSI University Sarawak Campus to engage with all sectors in society, especially the youth, in sustainability education. The scope of RCE Kuching constitutes the urban community as well as the rural communities spread around the Sarawak River, which is the main source of water to Kuching city and its suburbs. RCE Kuching has employed a two-pronged approach to raise the sustainability literacy of the rural communities along with the urban communities of Kuching, Sarawak.

RCE Kuching is uniquely placed at UCSI University Sarawak Campus allowing it access to hospitality and tourism students, the main student population of the campus. Students of the Faculty of Hospitality and Tourism Management have the added enhanced learning environment of training at the UCSI Hotel in which the campus operates. Through the university-hotel integration framework, students are offered opportunities to enhance their skills by working and training in real-life settings at the hotel, guided by the faculty and hotel managers. The perception of the hospitality and tourism students about SDGs gives a forward view of future leaders in the industry.

Methods

Various reports and studies have indicated that youth leadership leads to positive change within organizations and communities (Eva & Sendjaya, 2013; Krauss et al., 2020; Redmond & Dolan, 2016). Knowing the importance of youth involvement in issues pertaining to the environment, RCE Kuching initiated the Youth Ambassador Programme among the students at a branch campus of UCSI University. An inaugural SDG workshop for youth was organized in conjunction with the Youth Ambassador Programme. Forums and talks by experts in SDGs were included in the workshop programme.

A preliminary questionnaire was conducted to gauge the impact of a youth workshop programme in SDGs in terms of the awareness and knowledge of participants on SDGs and their commitment in contributing towards SDGs at the local communities. Pre and post workshop surveys in the form of self-administered questionnaires were used. Participants completed the pre-workshop questionnaire before the workshop and post-workshop questionnaire at the end of the workshop.

The data was coded and analyzed using the Statistical Package for the Social Sciences (SPSS) software version 20. Descriptive data was expressed as frequency and percentage. The Wilcoxon signed-rank test was used to compare variables between pre-post data in the survey. A *p*-value of less than .05 was set as the significant level in the data analysis.

Results

Table 1 summarizes the demographics of the workshop participants and the academic programmes in which they are enrolled. Participants had a mean age of 22.3 and 2.15 years old, with most of them being enrolled in hospitality related programmes.

Table 1: Demographics of workshop participants

Demographics (n = 15)	
1. Age (years-old), mean (SD)	22.3 (2.15)
2. Gender	
Male, n (%)	7 (46.7)
Female, n (%)	8 (53.3)
3. Programme of studies, n (%)	
BA (Hons) Event and Tourism Management	4 (26.7)
BA (Hons) Hospitality Management	8 (53.3)
BA (Hons) Commerce	2 (13.3)
Diploma in Leisure Management	1 (0.07)

Table 2 annotates the knowledge level of the workshop participants on the SDGs and their confidence level in handling SDG-related community programmes before and after the youth workshop. A five-point Likert scale was used in the questionnaires, where 1 indicates the lowest level and 5 the highest level of the parameters asked. Participants were more knowledgeable about the SDGs after the workshop ($z = -2.889, p < .05$). Participants reported

high levels of confidence in conducting SDG-related community programmes both before, and after the workshop ($z = -1.811$, $p > .05$).

In addition to the two Likert-scale questions, participants stated that skills in communication, leadership, teamwork, problem solving and critical thinking, along with commitment and passion towards solving issues related to the environment were needed to handle community projects for the SDGs.

Table 2: Knowledge and confidence before and after the SDG youth workshop

	Pre-workshop		Post-workshop		Wilcoxon-signed tank	
	n (%)	median	n (%)	median	z	p
<i>Question: Please rate your knowledge on sustainable development goals</i>						
Likert-scale 1 (least)	0 (0)	3.00	0 (0)	4.00	-2.889	.004*
Likert-scale 2	2 (13.3)		0 (0)			
Likert-scale 3	8 (53.4)		1			
Likert-scale 4	5 (33.3)		11			
Likert-scale 5 (most)	0 (0)		3			
<i>Question: How confident are you in dealing with the community as the SDG youth ambassador?</i>						
Likert-scale 1 (least)	0 (0)	4.00	0 (0)	4.00	-1.811	.070
Likert-scale 2	0 (0)		0 (0)			
Likert-scale 3	6 (40.0)		1 (6.7)			
Likert-scale 4	7 (46.7)		10 (66.6)			
Likert-scale 5 (most)	2 (13.3)		4 (26.7)			

* $p < 0.05$

Discussions

Our preliminary results show that the model of SDG collaboration between the university and RCE Kuching reported positive influence on the hospitality and tourism students. The results indicated that the students in the workshop have clear ideas and passion towards issues pertaining to the environment. The workshop was successful in increasing the knowledge of the youth in issues related to the environment. Although the number of participants in the workshop was limited and may only reflect youth who were ready to get involved, it does indicate that the youth were aware of the environmental issues and passionate to lead efforts at the community level.

RCE Kuching understands and endorses youth-led initiatives pertaining to the environment in local communities. This understanding arises from a strong national belief in youth in the country of Malaysia. In fact, the Malaysian youth policy encompasses a shared belief to empower youth, inclusive of organizations and youth associations (Krauss et al., 2020). Exemplifying the triple-helix and the quadruple-helix model of university-industry-government-civil society present a strong partnership offering benefits to community projects while ensuring personal growth to youth with the advantages of building social capacity and garnering support of adults and other peers in the process (Nordberg, Mariussen, & Virkkala, 2020; Yoda & Kuwashima, 2020). The incorporation of community of experts within a university, such as RCE Kuching, facilitates the platform for education in SDG. It is suggested that future research investigates other efficient models of incorporating education on sustainability into the training of hospitality and tourism students.

Since the early months of 2020, the unanticipated COVID-19 pandemic has affected the education industry in countries across the globe. School closures in over 180 countries resulted in inequalities in education, deficiencies in remote learning, the cost of the digital applications, as well as the realization of the important role schools play in student health and wellbeing (UNESCO International Institute for Educational Planning, 2020). While the pandemic could prove to be overwhelming, efforts to uphold SDGs with the communities are encouraged to be continued. Locally, through the experience of the pandemic we have come to understand that a collaboration model of community engagement between the university, RCE Kuching and the youth on campus is crucial to sustain SDG education among the hospitality and tourism students.

Conclusion

Tertiary education in hospitality and tourism should incorporate elements of education for sustainable development in the curriculum to educate the next generation of leaders in the industry. A model of RCE-university collaboration to affect education on sustainable development goals among university students could benefit the hospitality and tourism industry. One lesson from the COVID-19 pandemic is that such initiatives and collaborations need to remain adaptive and innovative.

References

- Bowen, G. A. (2006). Grounded Theory and Sensitizing Concepts. *International Journal of Qualitative Methods*, 5(3), 12–23. <https://doi.org/10.1177/160940690600500304>.
- CREST. (2017). The Case for Responsible Travel: Trends & Statistics 2017. Retrieved from <https://www.responsibletravel.org>.
- Dolezal, C., & Novelli, M. (2020). Power in community-based tourism: Empowerment and partnership in Bali. *Journal of Sustainable Tourism*, 0(0), 1–19. <https://doi.org/10.1080/09669582.2020.1838527>.
- El-Jardali, F., Ataya, N., & Fadlallah, R. (2018). Changing roles of universities in the era of SDGs: Rising up to the global challenge through institutionalising partnerships with governments and communities. *Health Res Policy Sys*, 16(38).
- Esfehani, M. H., & Walters, T. (2018). Lost in translation? Cross-language thematic analysis in tourism and hospitality research. *International Journal of Contemporary Hospitality Management*, 30(11), 3158–3174. <https://doi.org/10.1108/IJCHM-10-2017-0701>.
- Eva, N., & Sendjaya, S. (2013). Creating future leaders: An examination of youth leadership development in Australia. *Education and Training*, 55(6), 584–598. <https://doi.org/10.1108/ET-08-2012-0082>.
- Farmaki, A., Constanti, P., Yiasemi, I., & Karis, P. (2014). Responsible tourism in Cyprus: The rhetoric and the reality. *Worldwide Hospitality and Tourism Themes*, 6(1), 10–26. <https://doi.org/10.1108/WHATT-10-2013-0041>.
- Hanafiah, M. H., Azman, I., Jamaluddin, M. R., & Aminuddin, N. (2016). Responsible Tourism Practices and Quality of Life: Perspective of Langkawi Island communities.

- Procedia - Social and Behavioral Sciences*, 222, 406–413. <https://doi.org/10.1016/j.sbspro.2016.05.194>.
- Holmberg, E. J., & Samuelsson, B. E. (2005). *Drivers and Barriers for Implementing Sustainable Development in Higher Education* (p. 115). France: UNESCO.
- Hotelier MiddleEasr.com. (2018). Shaping responsible tourism. Retrieved from https://search.proquest.com/docview/2028976866?accountid=29104%0Ahttps://openu rl.wu.ac.at/resolve?url_ver=Z39.88-2004&rft_val_fmt=info:ofi/fmt:kev:mtx:journal&genre=unknown&sid=ProQ:ProQ%3Aabitrade&atitle=Shaping+responsible+tourism&title=HotelierMiddleEa.
- Krauss, S. E., Zeldin, S., Abdullah, H., Ortega, A., Ali, Z., Ismail, I. A., & Ariffin, Z. (2020). Malaysian youth associations as places for empowerment and engagement. *Children and Youth Services Review*, 112(January). <https://doi.org/10.1016/j.chilyouth.2020.104939>.
- Lama, P. D., & Becker, P. (2019). Conflicts in adaptation: Case studies from Nepal and the Maldives. *Disaster Prevention and Management: An International Journal*, 28(3), 304–318. <https://doi.org/10.1108/DPM-12-2018-0393>.
- Lekaota, L. (2015). The importance of rural communities' participation in the management of tourism management: A case study from Lesotho. *Worldwide Hospitality and Tourism Themes*, 7(5), 453–462. <https://doi.org/10.1108/WHATT-06-2015-0029>.
- Lonn, P., Mizoue, N., Ota, T., Kajisa, T., & Yoshida, S. (2018). Evaluating the Contribution of Community-based Ecotourism (CBET) to Household Income and Livelihood Changes: A Case Study of the Chambok CBET Program in Cambodia. *Ecological Economics*, 151(March), 62–69. <https://doi.org/10.1016/j.ecolecon.2018.04.036>.
- Lund-Durlacher, D. (2015). *Sustainable Tourism Education: An Institutional Approach*. 93–100. https://doi.org/10.1007/978-3-662-47470-9_6.
- Musavengane, R. (2019). Small hotels and responsible tourism practice: Hoteliers' perspectives. *Journal of Cleaner Production*, 220, 786–799. <https://doi.org/10.1016/j.jclepro.2019.02.143>.
- Nair, V., Hussain, K., Lo, M. C., & Ragavan, N. A. (2015). Benchmarking innovations and new practices in rural tourism development: How do we develop a more sustainable and responsible rural tourism in Asia? *Worldwide Hospitality and Tourism Themes*, 7(5), 530–534. <https://doi.org/10.1108/WHATT-06-2015-0030>.
- Newsdesk. (2018). Stats: 87% of Travelers Want to Travel Sustainably | Travel Agent Central. Retrieved from Travel Agent Central website: <https://www.travelagentcentral.com/running-your-business/stats-87-travelers-want-to-travel-sustainably>.
- Nordberg, K., Mariussen, Å., & Virkkala, S. (2020). Community-driven social innovation and quadruple helix coordination in rural development. Case study on LEADER group Aktion Österbotten. *Journal of Rural Studies*, 79(April), 157–168. <https://doi.org/10.1016/j.jrurstud.2020.08.001>.
- Picard, M. (2006). Bali and Beyond. Explorations in the Anthropology of Tourism, Shinji Yamashita. *Moussons*, (9–10), 376–377. <https://doi.org/10.4000/moussons.1947>.

- Plichta, J. (2019). The co-management and stakeholders theory as a useful approach to manage the problem of overtourism in historical cities – illustrated with an example of Krakow. *International Journal of Tourism Cities*, 5(4), 685–699. <https://doi.org/10.1108/IJTC-12-2018-0107>.
- Pulido-Fernández, J. I., & López-Sánchez, Y. (2016). Are tourists really willing to pay more for sustainable destinations? *Sustainability (Switzerland)*, 8(12). <https://doi.org/10.3390/su8121240>.
- Rana, M. H., & Malik, M. S. (2016). Human resource management from an Islamic perspective: A contemporary literature review. *International Journal of Islamic and Middle Eastern Finance and Management*, 9(1), 109–124. <https://doi.org/10.1108/IMEFM-01-2015-0002>.
- Redmond, S., & Dolan, P. (2016). Towards a conceptual model of youth leadership development. *Child and Family Social Work*, 21(3), 261–271. <https://doi.org/10.1111/cfs.12146>.
- Sleurs, W. (2008). *Competencies for ESD (Education for Sustainable Development) Teachers*.
- Sotiriadis, M. (2017). Pairing intangible cultural heritage with tourism: The case of Mediterranean diet. *EuroMed Journal of Business*, 12(3), 269–284. <https://doi.org/10.1108/EMJB-07-2016-0019>.
- State, O., & Bulin, D. (2016). Aspects of responsible tourism — A quantitative approach. *Amfiteatru Economic*, 18(Specialissue10), 781–797.
- Stone, M. T. (2015). Community-based ecotourism: A collaborative partnerships perspective. *Journal of Ecotourism*, 14(2–3), 166–184. <https://doi.org/10.1080/14724049.2015.1023309>.
- Tolkach, D., & King, B. (2015). Strengthening Community-Based Tourism in a new resource-based island nation: Why and how? *Tourism Management*, 48, 386–398. <https://doi.org/10.1016/j.tourman.2014.12.013>.
- Tourism Malaysia. (2019). Malaysia Tourism Statistics in Brief. Retrieved from <https://www.tourism.gov.my/statistics>.
- UNESCO. (2017). *Education for Sustainable Development Goals Learning Objectives*. Paris: UNESCO.
- UNESCO. (2018). Education for Sustainable Development and the SDGs: Learning to Act, Learning to Achieve. [Advancing ESD Policy]. Retrieved from Policy Brief website: https://en.unesco.org/sites/default/files/gap_pn1_-_esd_and_the_sdgs_policy_brief_4_page_version.pdf.
- UNESCO. (2019). Education Content Up Close: Examining the learning dimensions of education for sustainable development and global citizenship education. Retrieved from <https://www.oneplanetnetwork.org/resource/educational-content-close-examining-learning-dimensions-education-sustainable-developmen>.
- UNESCO. (2020). *Education for Sustainable Development: A Roadmap*. <https://unesdoc.unesco.org/ark:/48223/pf0000374802>.
- UNESCO International Institute for Educational Planning. (2020). Build back better: Education must change after COVID-19 to meet the climate crisis. Retrieved from

18.06.2020 website: <https://en.unesco.org/news/build-back-better-education-must-change-after-covid-19-meet-climate-crisis>.

United Nations. (2020). Annex: Global indicator framework for the Sustainable Development Goals and targets of the 2030 Agenda for Sustainable Development. *Work of the Statistical Commission Pertaining to the 2030 Agenda for Sustainable Development*, 1–21.

UNWTO. (2020). *INTERNATIONAL TOURISM GROWTH CONTINUES TO OUTPACE THE GLOBAL ECONOMY*. Retrieved from <https://www.unwto.org/international-tourism-growth-continues-to-outpace-the-economy>.

Yoda, N., & Kuwashima, K. (2020). Triple Helix of University–Industry–Government Relations in Japan: Transitions of Collaborations and Interactions. *Journal of the Knowledge Economy*, 11(3), 1120–1144. <https://doi.org/10.1007/s13132-019-00595-3>.



All papers are published under the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0). For more details, visit <https://creativecommons.org/licenses/by-nc/4.0/>.