

ANALYSIS OF THE CONCEPT OF SUSTAINABLE TOURISM IN MARATUA ISLAND, BERAU REGENCY, EAST KALIMANTAN PROVINCE

Luki Adiati Pratomo, Yandi Rama Krisna

Faculty of Master of Management Sustainability, Universitas Trisakti, Indonesia
Luki.adiati@trisakti.ac.id, yandi122012006051@std.trisakti.ac.id

ABSTRACT

Sustainable tourism based on marine tourism on maratua island, berau regency, east Kalimantan province, Indonesia has challenges and perspectives from the side of tourists and tourists. PT. X and PT. Y was chosen as the object of research because it has CHSE certification from the Indonesian Ministry of Tourism and Creative Economy. The implementation of sustainable tourism has challenges in the accessibility sector where the high price of airfares to berau districts. The ISO 26000 approach to the core subject environment is the basis for tourism actors to carry out the concept of sustainable tourism. The relevance to the SDGs for this research will focus on SDGs No. 8 on economic improvement and SDGs No. 14 on marine ecosystems. Tourists who have visited PT. X and PT. Y 97% stated that they would return to maratua to re-enjoy the beauty of maratua island. As many as 47% of tourists feel very satisfied with the services carried out by PT. X and PT. Y.

Keywords: *Sustainable Tourism, Tourists, ISO 26000, SDGs No 8 & 14*

This article is licensed under [CC BY-SA 4.0](https://creativecommons.org/licenses/by-sa/4.0/) 

INTRODUCTION

According to Khan et al (2021), sustainable tourism is defined as a positive approach to reducing tension and friction created by the complex interactions between the tourism industry, visitors, the environment, and the communities that host tourists. The existence of the tourism business turns out to have a direct impact on environmental management. In China, according to (Wang & Huang, 2018), tourism actors continue to seek economic benefits but ignore environmental management which results in damage to environmental resources. In addition, Wang & Huang (2018) also conveyed the phenomenon of waste pollution with the behavior of throwing garbage is not a positive behavior from tourists.

The tourism business is of course closely related to the hospitality business. According to Burnett et al (2018), in their research entitled *Sustainable Hospitality and Revisit Intention in Tourism Service*, it was concluded that: *Hospitality* is significantly influenced by the comfort and empathy of tourist actors. Hospitality significantly affects satisfaction and satisfaction affects travellers' intention to revisit. Hospitality will drive customer satisfaction.

PT X and PT Y are companies engaged in tourism and *hospitality* on Maratua Island. PT X and PT Y are companies that currently have CHSE ([Cleanliness, Health, Safety and Environment](#)) certificates from the Indonesian Ministry of Tourism and Creative Economy (Kemenparekraf). As a company that is active in one of Indonesia's outer islands, namely Maratua Island which is located in Berau Regency, East Kalimantan Province and is a beach tourism location as well as being the frontline on the border between Indonesia and Malaysia, it is hoped that it can help the government maintain state sovereignty by paying special attention to the outer island area which is the main responsibility of the government and the Indonesian people by creating and realizing the concept of sustainable tourism in the location.

METHOD

This research uses a case study method Prihayati & Veriasa (2021) where this method allows researchers to understand contextual conditions with in-depth analysis and compare the conditions for implementing sustainable tourism between 2 research objects, namely PT. X and PT.Y. Meanwhile, to see the perception of tourists, a questionnaire method with descriptive statistical analysis is used. This study will use 5 variables, namely; Hotel Management's Perception (Internal and External Factors) towards sustainable tourism, ISO 26000 Core Subject Environment, SDGs No 8 & 14, Tourist Satisfaction and Percentage of Return to Visit PT X and PT Y.

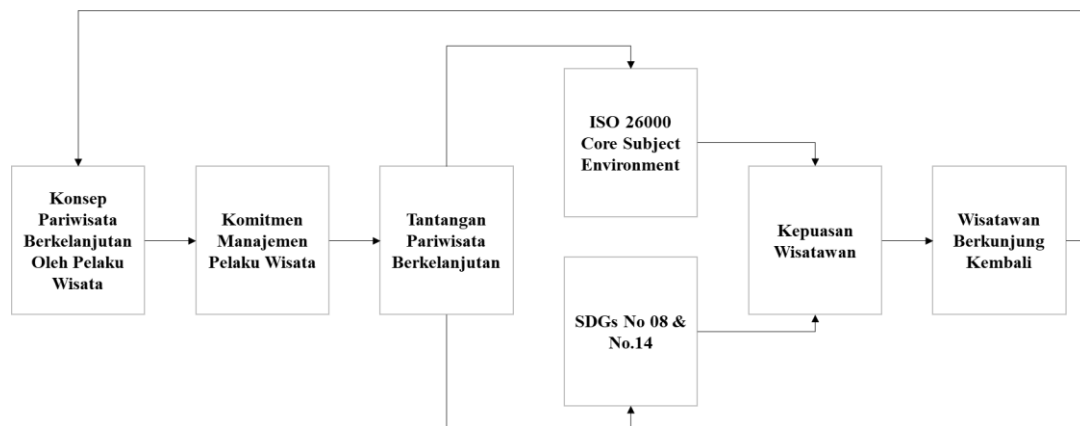


Figure 1. Conceptual Framework

RESULTS AND DISCUSSION

The Challenges of Sustainable Tourism for Tourists

You know, Lho et al (2022) argues that accessibility is an important part of positive economic influence, this has a positive correlation to the challenges faced by PT. X and PT. Y PT. X stated that the biggest challenge in the sustainable tourism business on the outer island is the Berau-Balikpapan ticket price and or vice versa which reaches Rp.1.6 million. This value reaches 1-2 times when compared to the price of Balikpapan-Jakarta flight tickets (1 million - 1.4 million) or Balikpapan-Surabaya flight tickets (700-900 thousand). You know, Lho et al (2022) in the research conducted expressed the opinion of tourists that easy transportation access will increase tourists' interest in going to tourist locations. With the high ticket price, PT. X must adjust by prioritizing excellence and promos to potential tourists. In addition, for PT. X challenges to unpredictable extreme weather are also things that need to be addressed. PT. X uses a technological approach such as the "Windy" application that displays weather forecast updates around tourist sites. The weather update became a reference for the PT. X to convey to prospective tourists who want to visit Maratua Island.

Meanwhile, according to PT. Y the biggest challenge in the development of sustainable tourism is the human resource capacity of employees working in PT. Y said. Employees, most of whom are people domiciled on Maratua Island, have less enthusiasm and motivation in absorbing new knowledge or information related to increasing tourism. English language learning programs have been sought to be carried out especially if there are tourists in the group such as welcome, self-introduction, general briefings on tourist information.

Internal Factors for the Implementation of Sustainable Tourism for Tourism Actors

The application of sustainable tourism also depends on how the management concept is applied by company management. These factors are called internal factors. The dimensions of these factors include building capacity, management policies, SOPs, CHSE certification, SOP monitoring and evaluation, *eco-friendly* programs. KONTOTGEORGIS et al (2022), stated that the completeness of accommodation such as the number of rooms, supporting facilities is a consideration for tourists to choose a hotel. PT. X and PT. Y, has quite complete accommodation facilities. Number of rooms and facilities of PT. X less than PT. Y, but rate-wise the price of PT. X is more economical.

According to Talib et al (2022), the operational hotel will directly produce considerable waste. PT. X and PT. Y control the amount and treatment of waste to minimize the potential for environmental pollution from room activities. Both hotels built rooms not above the sea but on the coastal land side. The standard facilities owned by the two hotels are; a pier, resort beach, dive centre and hall. Meanwhile, PT. Y has a freshwater swimming pool. Halls are used for meetings or events of hotel guests the capacity of each hall reaches 200 people.

In carrying out operations, both resorts have *Standard Operational Procedures* (SOPs). SOPs include housekeeping activities, food supply and minimum in restaurants, and diving. Both resorts did not wish for their SOPs to be documented. PT. X stores its SOPs in the form of soft file pocketbooks with limited access. Meanwhile, PT. Y saves his SOP on google drive with limited access as well. The soft file method carried out is an effort of PT. X and PT. Y to minimize the use of paper. Even if the printout process is carried out from the SOP, they use ReUse paper.

External Factors for the Implementation of Sustainable Tourism for Tourism Actors

In addition to internal factors, external factors are also very influential on the operation of implementing sustainable tourism. There are 2 main indicators in the external factors studied, namely, how the impact on education to tourists and how resorts are trying to maintain harmonious relations with relevant stakeholders.

KONTOTGEORGIS et al (2022), explained that there is disharmonious behavior between the government in the Meditarian area and tourist actors, where the control function of environmental management is not running, thus impacting environmental sustainability on the island. Meanwhile, on Maratua Island, the role of the government as a key stakeholder is very closely influential in creating sustainable environmental management. Through policies, permits and structured supervision, tourism actors make maximum efforts to manage the environment. One of the things that is done is to conduct an environmental management campaign to tourists.

PT. X educates tourists in almost every operational activity of the company. The education carried out includes; Maintaining coral reefs by not trampling or damaging them, invitations to save electricity and water, and not being allowed to fish around the resort. Meanwhile, PT. Y is only in the context of the prohibition of littering and saving electricity and water.

PT. X and PT. Y also cooperates and efforts to maintain the harmonization of stakeholders. The stakeholders of these two resorts include; police, TNI, sub-district apparatus, NGOs, non-governmental organizations, dance studios, and MSMEs around Maratua island. Both resorts are actively involved in programs or events carried out by the sub-district, including; village

mutual aid, beach cleaning, greening, events commemorating big days, and several other social activities.

Management's Perception of the Implementation of Sustainable Tourism for Tourism Actors

Management's perception of sustainable tourism will affect the company's strategic plans to be able to implement sustainable tourism management governance from economic, social and environmental aspects.

According to Talib et al (2022), the International Facilities Management Associations (IFMA) as a commitment to hospitality in a sustainable business consisting of hierarchical aspects in hospitality organizations, namely, policy strategies (Top Level), awareness improvement plans (Mid-Level) and implementation to make continuous improvements. The perception of hotel management strongly determines the direction of the implementation of sustainable tourism in the hotel.

PT. X has an understanding and perception of sustainable tourism which is the company's effort to run a tourism business continuously and pay attention to the environment. Economic, social and environmental proximity is translated as the company's efforts to be able to increase the number of visitors by displaying the values of environmental sustainability, empowerment of local communities. PT. X is currently still supported by management as a family business that also has a coal mining service business. So the target to get a large profit margin has not been a priority.

Meanwhile, PT. Y which is also a family business where there are other businesses in other locations such as hospitality makes Maratua a family priority business. Thus, focusing on marketing to bring in tourists is the main activity of the company. PT. Y also has a commitment to as much as possible to maintain the tropical environment around the resort.

The Relevance of Tourism Actors' Behavior to ISO 26000 Core Subject Environment

In the 6th ISO 26000 Core Subject on the environment, there are 5 sub-clauses that have relevance to the behavior of tourism actors in applying the concept of sustainable tourism. Sub-clause 6.5.1 describes the obligation of tourist actors to have environmental permits in their operations. PT. X and PT. Y has complete licenses to run its operations including; Environmental permits, UKL UPL, Building permits on the sea, and IMB for buildings in land areas.

Meanwhile, in sub-clause 6.5.3, companies are required to be able to carry out efforts to control water pollution in coastal and marine areas. PT. X has activities that have the potential for environmental pollution in the form of restaurants that stand on the sea. Sources of pollutants include washing activities in the kitchen and toilet areas. To prevent pollution of the PT. X made several processing controls, namely in the form of Grease Traps and Biofilters. As for solid waste in the form of plastic bottles which is currently a global issue because it causes the death of several marine animals that were found dead with stomach contents in the form of plastic, the company applies zero plastic bottles where in each room gallons of refillable drinking water are provided and or the provision of tumblers or drinking bottles for tourists can refill drinking water independently.

In sub clause 6.5.4, it regulates how the company attempts to be able to use renewable natural resources. PT. X and PT. Y reuse rainwater with a rainwater storage system. Rainwater storage capacity at PT. X reaches 62,400 liters and PT. Y by 52,000 liters. Before being used, the two resorts drained rainwater through rainwater treatment using a fast sand filter system so that the water used was suitable for clean water. In addition, periodically the rainwater that is reused is taken water samples to check the quality of clean water in certified laboratories. In addition to this, PT. X also uses lighting using a solar panel system. For sub clause 6.5.6 governing the protection of ecosystems, both companies have coral reef transplantation programs.

Relevance of Tourism Actors' Behavior to SDGs No. 8 (Economic Improvement) & SDGs No. 14 (Marine Ecosystems)

In SDGs No.8 for economic improvement, PT. X and PT. Y applies the concept of community empowerment to company operations. Both companies employ local workers in the context of Maratua District ID cards. As for the number of local workers of PT. X as many as 27 people out of 32 workers or 84% of the total workforce. Meanwhile, PT. Y employs a local workforce of 19 people out of a total of 24 workers or 79% of the total workforce. Efforts to increase labor capacity are also carried out by management, including; English language courses, *tour guide* training, *housekeeping* governance, occupational safety and health (K3) systems, and environmental management in the form of organic waste processing.

In addition to the absorption of local labor, both companies contribute greatly to moving the wheels of the community's economy, through the optimization of local spending. The maratua community, the majority of whom work as fishermen, get market certainty from the operation of restaurants and hotels in both companies. One of the favorite commodities absorbed by the company is sea fish and lobster. The competitive price of lobster (reaching Rp.500.000,- per kg) makes fishermen compete to provide lobsters for the company.

The company also opens up economic opportunities in the arts sector as well as an effort to preserve local culture, namely the Daling Dance which is a typical dance of the Bajau Tribe on Maratua Island. This Daling dance is usually performed during the welcoming of tourists or government officials. In addition, local MSME products in the form of snacks such as chips, fish amplang, shrimp paste are also a choice of company souvenirs that can be purchased by tourists.

As for SDGs No. 14 on marine ecosystems, as explained in the previous sub-chapter, both companies are focusing on coral reef transplantation programs.

Tourist Analysis of the Concept of Sustainable Tourism *Tourist Satisfaction with Environmental Management*

Based on the results of a questionnaire to travellers about satisfaction with environmental management, 50% of travelers said they were very satisfied, 33% said they were very satisfied and 15% said they were satisfied. This can be seen from the opinions of tourists regarding the existence of trash cans that have been separated between organic and inorganic waste, not using bottled plastic bottles for drinking water, maintaining trees and biota around the resort, cleanliness of the resort, the existence of garbage cleaning activities every morning, and the preservation of coral reefs around the resort.

Level of Tourist Satisfaction with Resort Services

Tourists' perception of resort waiters is that 48% are very satisfied, 37% are very satisfied and 13% are satisfied. Tourists argue that the resort staff is friendly, quick response, communicative, cheap smile and warm to tourists, good security and quality of service like in a 5 star hotel. Tourists also provide feedback so that cellphone signal boosters are held so that they can stay connected to tourists' social media. Meanwhile, 2% of tourists are dissatisfied, because in PT. Y no nightlife.

Level of Tourist Satisfaction with the Ease of Transportation to Tourist Locations

Maratua Island, which is one of the outer islands in Indonesia, has 2 accesses to the tourist location, namely using planes and water transportation (Speedboat). The tourist respondents in this study all used water transportation access to pt. X and PT.Y. 48% of tourists were very satisfied, 28% said they were very satisfied and 11% said they were satisfied with the ease of transportation to the locations of the two resorts.

Level of Tourist Satisfaction with Resort Infrastructure

PT. X and PT. Y has built a good infrastructure with the output of satisfaction from visiting tourists. From the results of the questionnaire collected by researchers, 48% of tourists felt very satisfied, 39% were very satisfied, 9% were satisfied with the infrastructure in the two resorts. Tourists think the view from the resort is very beautiful, the cleanliness and neatness of the rooms are maintained, have a private beach so that tourists feel exclusive when swimming around the beach, and there are restaurants that when eating can directly enjoy the view of the sea and the biota around it.

Meanwhile, 4% of tourists are dissatisfied because there is no nightlife on site and the internet network signal is not good. Tourists also provide feedback on the management of resort infrastructure such as; room paint updates that look fading, docks that need to be renovated, room locations away from the beach, the electricity that often goes out, there are no designated smoking areas, and prices that should be more affordable.

The level of satisfaction of tourists with the food and drinks served

Food and drinks served by PT. X and PT. Y is one of the attractions for tourists to come to the resort. In general, all traveler respondents were very satisfied (46%), very satisfied (41%), and satisfied (13%). Some of the positive feedback submitted by tourists include; There needs to be a variety of menus every day, breakfast menus that are still standing and better the resort also provides local specialties.

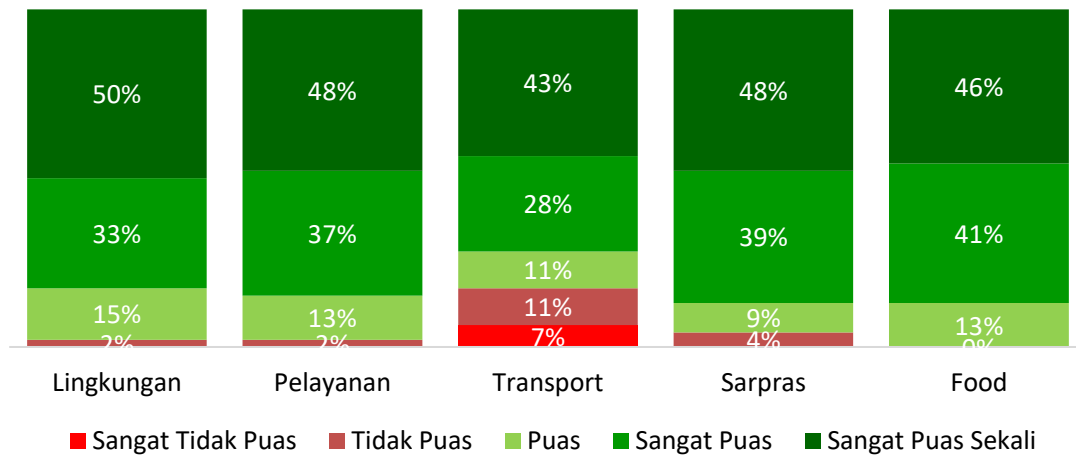


Figure 2. Level of Tourist Satisfaction with Sustainable Tourism on Maratua Island

Traveller Return Arrivals Percentage Rate

As many as 72% of tourists are eager to visit PT. X and PT. Y, 22% felt very willing, 2% wanted, 2% did not want to and 2% strongly did not want. The reasons for tourists who want to come back from these two locations include; exclusivity of the inn, very beautiful natural scenery, power on the island, beauty when diving and snorkling, environmental management carried out by resorts and complete infrastructure.

98% of travelers said they were willing to make recommendations to visit and promote both resorts.

CONCLUSION

The conclusions of this study on the implementation of sustainable tourism are:

The implementation of sustainable tourism is seen from the perception of hotel management for internal and external factors in PT. X has been very well done, starting from management policies, implementation in the environmental management sector, company SOPs, and education for tourists. As for PT. Y is good enough and needs to be improved for management efforts in conducting environmental management education to tourists. The biggest challenges of implementing sustainable tourism faced by both resorts are expensive transportation costs and poor internet networks in tourist locations. Efforts to be made by displaying the added value of tourism programs in terms of coral reef protection and conservation that can segment tourists who focus on coastal and marine management.

The suitability of the implementation of sustainable tourism in the two hotels uses the ISO 26000 Core Subject Environment approach, which meets all the required sub-clauses ranging from the aspects of licensing, environmental pollution control programs, coral reef protection programs, water conservation and environmental programs for the surrounding community. Meanwhile, based on SDGs No. 08 on improving the economy, the two resorts have actively involved local communities and carried out local shopping which is positively correlated to the main livelihood of the community by buying fishery products that local communities produce. For SDGs No. 14 concerning Marine Ecosystems, the two resorts play an active role in carrying out coral reef transportation efforts in order to preserve the coral reefs around the resort area. The level of tourist satisfaction with the implementation of sustainable tourism in

the two hotels from the aspects of environmental management, infrastructure, food and beverages, transportation and hotel management services is 1% very dissatisfied, 4% dissatisfied, 12% satisfied, 36% very satisfied and 47% very satisfied. The percentage of tourist return visits at the two hotels reached 96%.

REFERENCES

- Alyaa Afifah, A. T., Nor Rima, M. A., Hasim, M. S., & Mohd, H. H. (2022). Sustainable facilities management (SFM) initiatives in malaysia hotel industry: Reliability and validity analysis using smart-PLS. *IOP Conference Series. Earth and Environmental Science*, 1067(1), 012079. doi:<https://doi.org/10.1088/1755-1315/1067/1/012079>
- Burnett, J., Bengtsson, A., Niepce, D., & Bylander, J. (2018). Noise and loss of superconducting aluminium resonators at single photon energies. *Journal of Physics: Conference Series*, 969(1), 012131.
- Khan, M. R., Khan, H. U. R., Lim, C. K., Tan, K. L., & Ahmed, M. F. (2021). Sustainable Tourism Policy, Destination Management and Sustainable Tourism Development: A Moderated-Mediation Model. *Sustainability*, 13(21), 12156.
- KONTOGEOGRIS, G., LIVAS, C., & KARALI, N. (2022). Strategic Analysis of Mediterranean Island Destinations: The Case of Corfu. *Journal of Environmental Management and Tourism*, 13(6), 1525–1533.
- López, & González-Reverté, F. (2020). Smart tourism sustainability narratives in mature beach destinations. contrasting the collective imaginary with reality. *Sustainability*, 12(12), 5083. doi:<http://dx.doi.org/10.3390/su12125083>
- Lho, L. H., Quan, W., Yu, J., & Han, H. (2022). The sharing economy in the hospitality sector: The role of social interaction, social presence, and reciprocity in eliciting satisfaction and continuance behavior. *Humanities and Social Sciences Communications*, 9(1), 1–12.
- Mondini, G. (2019). Sustainability assessment: From brundtland report to sustainable development goals. *Valori e Valutazioni*, (23) Retrieved from <https://www.proquest.com/scholarly-journals/sustainability-assessment-brundtland-report/docview/2531519616/se-2>
- Mustafa, R. K., Khan, H. U. R., Chen, K. L., Kian, L. T., & Minhaz, F. A. (2021). Sustainable tourism policy, destination management and sustainable tourism development: A moderated-mediation model. *Sustainability*, 13(21), 12156. doi:<http://dx.doi.org/10.3390/su132112156>
- Nugroho, I., Hanafie, R., Rahayu, Y. I., Sudiyono, Suprihana, Yuniar, H. R., . . . Hasanah, R. (2021). Sustainable hospitality and revisit intention in tourism services. *Journal of Physics: Conference Series*, 1908(1) doi:<http://dx.doi.org/10.1088/1742-6596/1908/1/012004>
- Prihayati, Y., & Veriasa, T. O. (2021). Developing green tourism to create the sustainable landscape: evidence from Community-based Coffee Tourism (CbCT) in Puncak, Bogor, Indonesia. *IOP Conference Series: Earth and Environmental Science*, 879(1), 012027.
- Purvis, B., Mao, Y., & Robinson, D. (2019). Three pillars of sustainability: In search of conceptual origins. *Sustainability Science*, 14(3), 681-695. doi:<http://dx.doi.org/10.1007/s11625-018-0627-5>
- Sepehr, H., & Morteza, B. (2020). Development of sustainability index using 0RW1S34RfeSDcfkexd09rT2Z1RW1S34RfeSDcfkexd09rT2-numbers: A new possibilistic hierarchical model in the context of 0RW1S34RfeSDcfkexd09rT2Z1RW1S34RfeSDcfkexd09rT2-information. *Environment, Development and Sustainability*, 22(7), 6077-6109. doi:<http://dx.doi.org/10.1007/s10668-019-00464-8>

- Sumarmi, Bachri, S., Irawan, L. Y., Sholeha, A. W., & Aliman, M. (2021). Ecotourism development strategies of pulau merah beach, banyuwangi, indonesia. *IOP Conference Series. Earth and Environmental Science*, 747(1) doi:<http://dx.doi.org/10.1088/1755-1315/747/1/012006>
- Talib, A. A. A., Ariff, N. R. M., Hasim, M. S., & Hanafiah, M. H. (2022). Sustainable Facilities Management (SFM) initiatives in Malaysia hotel industry: reliability and validity analysis using Smart-PLS. *IOP Conference Series: Earth and Environmental Science*, 1067(1), 012079.
- Wang, R., & Huang, Y. (2018). Communicating corporate social responsibility (CSR) on social media: How do message source and types of CSR messages influence stakeholders' perceptions? *Corporate Communications: An International Journal*.
- Wang, R., & Huang, Y. (2018). Communicating corporate social responsibility (CSR) on social media: How do message source and types of CSR messages influence stakeholders' perceptions? *Corporate Communications*, 23(3), 326-341. doi:<http://dx.doi.org/10.1108/CCIJ-07-2017-0067>
- Zhao, L., Lee, J., & Moon, S. (2019). Employee response to CSR in china: The moderating effect of collectivism. *Personnel Review*, 48(3), 839-863. doi:<http://dx.doi.org/10.1108/PR-05-2017-0146>