

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

**GREEN APPROACHES AND BARRIERS OF GREEN HOTELS AND
RESORTS IN PENINSULAR MALAYSIA**

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ABSTRACT

Tourism is one of the biggest industries in the world. It is growing faster than other notable industries in the world such as manufacturing, retail and financial industry. Tourism industry provides direct contribution to the world economy. Even though this industry does not directly pollute the environment, its cumulative negative impacts on the environment are notable. This industry is a resource consumptive industry. It consumes water and energy and produce various waste such as solid and liquid waste. The negative impacts of this industry are numerous. The impacts are directly and indirectly on the environment. This study is focusing on the direct negative caused by tourism industry on the natural environment. Resorts and hotels are some example of the tourism accommodation component. Hotels and resort operation consumes a lot of resources and produce a lot of waste and emission. Consequently, it is vital for the resorts and hotel operator to adopt some green approaches in their operation in order to reduce their operational negative impacts. Currently there are only 12 green resorts and hotels, which are recognized in Malaysia. Studies have shown that there are limited numbers of studies are conducted regarding the green approaches of green hotels and resorts in Malaysia. Therefore, this study is conducted to fulfill the gap in the literature. The main aim of this research is to identify the green approaches and barriers of green resorts and hotels in Malaysia. There are two objectives of this research. The first objective is to determine the area of green approaches and the rate of participation of Malaysia green operators. The second objective is to determine the barriers faced by Malaysian green operators. The research techniques adopted for this study are in-depth interviews, structure observations and document analysis. Five resorts and hotels were selected as case studies. ASEAN Tourism Standard (ATS) awarded all the case studies as green hotels and resorts in 2012 until 2014. The finding shows that the areas with the greenest participation are in the area of energy, waste and water because these areas reduce operational cost. The areas of less participation are in the indoor air quality and sustainable site management because these of the areas have less impact on the operational costs. Participation in new technology areas such as renewable energy (solar panel) and a rainwater harvesting system is also less due to the higher cost and system availability. The findings also show that different operators have

adopted different green approaches in the operations. The reasons are the management policy, cost, availability, surrounding context and land size. Three types of barriers were identified in this study. The barriers were identified are significant barriers, less-significant barriers and non-significant barriers. The non-significant barriers are the barriers that did not affect to become green operators. Where else significant barriers mean that the barriers that affect to become green operators. The example of significant barriers is a lack of green experts, lack of resources in-term of manpower, green equipment and difficulty in balancing the quality of service with environmental performance. Whereas, the example of less-significant barriers is high implementation cost, high maintenance cost and lack of government support. The example of non-significant barriers is lack of green information and knowledge, uncertainty of green outcome, lack of support from the owner and management, lack of consumer supports and lack of green supplier networking. Finally, the study has shown that the green operators only need to confront several barriers to become a green operator in Malaysia. This is due to the good support from the parent company and guests, no uncertainty of green business, have adequate green knowledge and have good supplier contact. This study also has identified the several common green approaches of the green operators in Malaysia. The findings of this study, add a knowledge or gap in the existing field of green approaches to literature. The limitation of the study is small numbers of case studies, which required further studies to be conducted in future. In conclusion, this study did answer the research questions and had achieved the objectives.

Key words: *Green approaches; Green hotels and resort; Barriers; Green theories; Rate of participation; Significance level*

1) BACKGROUND

Currently the environmental issues become interest of all the countries due to the deterioration of the natural physical environment. Environmental pressures affect all the industrial system, including process, inputs and operation (Elkington, J., & Hailes, 1992). Therefore, sustainable management practices become a vital approach to managing the industries (Claver-Cortés, E., Molina-Azorín, J.F., Pereira-Moliner, J. & López-Gamero, 2007). Many studies have shown that the integration of environmental management system can reduce the negative impacts of the operation on the environment (Bonilla Priego & Aviles Palacios, 2008; Chan, 2009).

Tourism and natural environment have a very strong relationship. According to Mathieson & Wall (1982) natural environment is a core feature of tourism products. He informed that, tourism and natural environment symbiosis relationship need to be maintained using the concept of sustainability or sustainable management practices. The World Commission on Environment and Development (WCED) (1987) provides a definition of sustainability as *“development that meets the needs of the present without compromising the ability of future generations in order to meet their own needs”*(Zbigniew, 2009). This definition equally significant for the tourism industry, which is operating in the natural environment using significant amounts of natural resources (Nancy Loman Scanlon, 2007). The excessive use of natural resources will lead to the depletion of resources in the future. According to Bohdanowicz (2005) the tourism industry is a more environmentally harmful industry which are producing vast amounts of non-durable goods, wastewater, and energy and carbon emission. Tourism industry is causing degradation of the natural environment due to the several reasons such as the excessive use of natural resources, high numbers of tourist arrivals and over development of tourism facilities (Robinot & Giannelloni, 2010). The extreme impact of tourism is global climate change due to the carbon emission from accommodation sectors. Study by Su, Y-P. & Hall (2013) informed that Asia-Pacific region predicted to have the highest rate of accommodation emission growth, which increased from 29% in 2005 and will increase up to 40% in 2035. Climate change can cause global catastrophes such as tropical typhoon, extreme weathers, heat waves, sea level rise, coral bleaching, flash floods and many more.

Adhering to the negative impacts above, the hotel and resort operators are taking further steps to become green operators. Several driving factors to become green operators were identified by several studies. The driving factors are financial benefits,

studied by Molina-Azorín, Claver-Cortés, Lopez-Gamero, Tarí, & López-Gamero (2009), ecological responsibility, competitiveness and legitimation studies by Bansal & Roth (2000) and the emergence of green consumers studied by Vikneswaran Nair & Anantharajah (2012). Studies of the driving factors had confirmed that financial benefits and legitimation is the main driving factors that are triggering hoteliers to become green operator (Imran Rahman 2012).

Even though there are a lot of benefits of “going green”. The lodging industry in Malaysia is taking a slow progress. According to Knowles. T (1999) *“after two decades of such effort, however, this ‘greening’ does not seem to be successful as originally hoped”*. This occurs due to the studies in the area of green approaches in Malaysia are inadequate. The key area of this study is green operational practices and the barriers of green operation.

Consequently, the first objective of this study is to determine the green approaches of Peninsular Malaysia green hotels and resorts. The second objective of this study is to determine the area of green approaches of the green hotels and resorts. Whereas, the third objective is to determine the barriers of green hotels and resorts in Peninsular Malaysia and the last objective are to identify significant, non-significant and less significant barriers.

Therefore, this study is conducted to help Malaysia lodging operators understand the importance of green approaches and the area of participation. At the same time, help them to aware about the barriers. Therefore, this study fills the gap of knowledge in the area of green approaches.

2) OBJECTIVES

The aim of this study is to understand the green operation management and barriers of green hotels and resorts in Peninsular Malaysia. In order to achieve the research aim, there are four research objectives outlined below:

1. To determine the green approaches of Peninsular Malaysia green hotels and resorts.
2. To determine the area and rate of participation of green hotels and resorts.
3. To determine the barriers of green hotels and resorts in Peninsular Malaysia.
4. To identify significant, non-significant and less significant barriers.

3) RESEARCH QUESTIONS

In order to achieve the four objectives several research questions have been formulated in order to guide the study process. The questions are:

1. What are the green practices of the green lodging industry in Malaysia?
2. What are the most important areas and rate of participation of Malaysia green hotels and resorts?
3. What are the green operation barriers in Malaysia?
4. Which barriers are significant, non significant and less significant?

4) METHODOLOGY

In stage I, the researcher, derived the issues after reading quite numbers of tourism and hospitality journals. The researcher found limited numbers of studies were written regarding green approaches of green hotels and resorts in Malaysia. Then, the study was further developed to identify the aim, objectives, research questions and related literature

In stage II, methodology for the study was determined. A qualitative and quantitative study was adopted by using several techniques such as case studies, in-depth interviews, and structured observations and questionnaire. In-depth interview questions were prepared based on the several green hotel certifications, which will be explained in detail in the main report.

In stage III, major fieldwork is conducted. In part 1- Interview date is fixed with the environmental managers. In-depth interview conducted for around one hour. After finishing the interview session permission to take photographs and looking the green

approaches was requested. Basically, the environmental manager shows all the green approaches by accompany the tour. As for Part 2, questionnaires were send by hand to the selected managers.

In stage IV, the data collected for Part 1 and Part 2 was analyzed using qualitative methods. Data from Part 1 was analyzed one by one based on the green approaches, criteria, which was, determined in the interview questions. The findings and results can be seen in the chapter 6 and 7.

In stage V, the full report presented with two papers published in Journal of Procedia of Social and Behavioral Science. The full papers can be referred at the appendix section.

Research Framework

Table 1.1 : Research Framework of the study

KEY ISSUE	RESEARCH QUESTION	RESEARCH OBJECTIVE	RESEARCH METHOD
Area of green approaches Lack of understanding regarding the area of green approaches of green hotels and resorts in Peninsular Malaysia	What are the green approaches of the Malaysia green hotels and resorts?	To determine the green approaches of Malaysia green hotels and resorts	Document analysis In-depth Interview with the environmental managers
	What are the most important areas and rate of participation of Malaysia green hotels and resorts?	To determine the area and rate of participation of green hotels and resorts.	In-depth Interview with the environmental managers Structured observation of the green operation initiatives
Barriers of green operation Lack of understanding of barriers faced by operators in adopting green	What is the green operation barriers faced by the green operators in Malaysia?	To determine the barriers of green hotels and resorts in Peninsular Malaysia	Document analysis of previous studies Questionnaire to the green operators

approaches in their operation	Which barriers are significant, non significant and less significant?	To determine the significant, Non significant and less significant barriers	Document analysis and indepth analysis of the questionnaires
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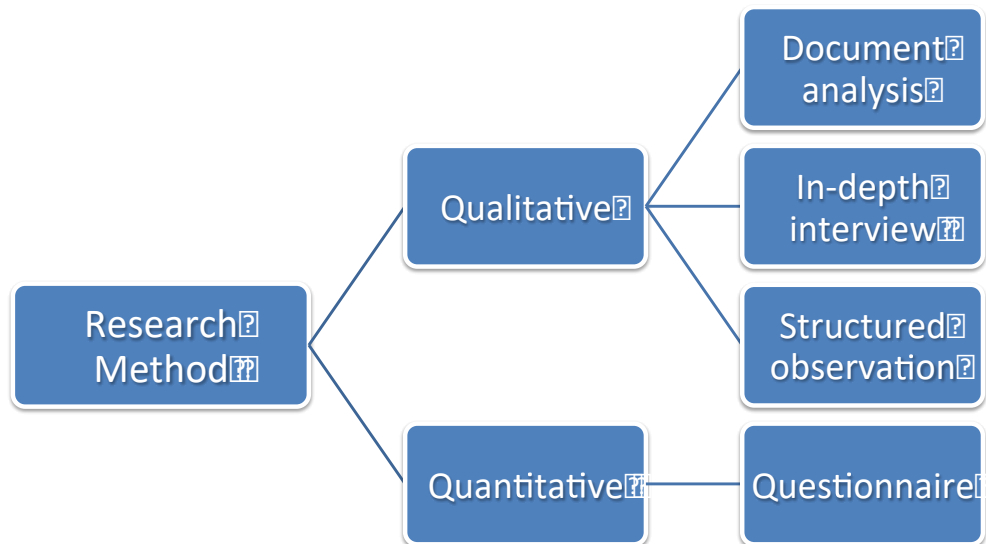


Figure 1.1: Research method and techniques applied in the research

5) FINDINGS

FINDING FOR PART 1

Table1.2 : Green approaches of the case studies

<i>No</i>	<i>Green approaches</i>	<i>Hotel Melia KL</i>	<i>Hotel Shangri -La KL</i>	<i>Resort Golden Palm Tree- Sepang</i>	<i>Resort Andaman Langkawi</i>	<i>% Of partici pation</i>
1	Green products and materials					
1	Use recycled materials and products	No	No	Yes	Yes	50%
2	Use local products from the community	Yes	Yes	Yes	Yes	100%
3	Buy products from green vendor	Yes	Yes	Yes	Yes	100%
4	Used green chemical products	Yes	Yes	Yes	Yes	100%
2	Waste reduction management					
5	Waste separation program 3R	Yes	Yes	Yes	Yes	100%
6	Composting- food and waste from garden	Yes	Yes	No	Yes	75%
7	Refill soap dispenser in the guest room	No	No	Yes	Yes	50%
8	Paperless technology	Yes	Yes	Yes	Yes	100%
9	Reuse printed paper, refill cartridge	Yes	Yes	Yes	Yes	100%
10	Waste monitoring by the officer	Yes	Yes	Yes	Yes	100%
11	Recycle cooking oil	Yes	Yes	Yes	Yes	100%
12	Permanent dishware	Yes	Yes	Yes	Yes	100%
13	No Newspaper service for guest in room	Yes	Yes	No	No	50%
14	Used biodegradable plastic bag	Yes	Yes	No	Yes	50%
3	Energy management					
15	Sub metering	Yes	Yes	Yes	Yes	100%
16	Percentage of energy reduction	2.5%	2.5%	1.5%	3%	100%
17	Renewable energy-solar panel	No	No	No	No	0%
18	Install occupancy-based room unit controllers	Yes	Yes	Yes	Yes	100%
19	Air Cond set to 23 to 24 degrees	Yes	Yes	Yes	Yes	100%

20	Regular maintenance of air Cond system	Yes	Yes	Yes	Yes	100%
21	Use of energy saving equipment in the guest room	Yes	Yes	Yes	Yes	100%
22	Use of energy saving equipment in the office	Yes	Yes	Yes	Yes	100%
23	Using LED lighting	Yes	Yes	Yes	Yes	100%
24	Using energy saving bulbs	Yes	Yes	Yes	Yes	100%
25	Lighting of Exit Signage change to LED	Yes	No	No	Yes	50%
26	Use automatic system to avoid direct sunlight	No	No	No	No	0%
27	Officer in charge for monitoring	Yes	Yes	Yes	Yes	100%
28	Provide auto sensor controlled lighting (dimmer)	Yes	Yes	Yes	Yes	100%
29	During day and late night switch off lighting at unusable space	Yes	Yes	Yes	Yes	100%
30	Apply bioclimatic design more daylight penetration	Yes	No	Yes	Yes	75%
4	Water management and conservation					
31	Low flow toilets and showerheads	Yes	Yes	No	Yes	75%
32	Rainwater harvesting	No	No	No	Yes	25%
33	Use grey water for irrigation	No	No	No	Yes	25%
34	Regularly check and repair leaks	Yes	Yes	Yes	Yes	100%
35	Encourage guests to re-use towels	Yes	Yes	Yes	Yes	100%
36	Encourage guests to save water	Yes	Yes	Yes	Yes	100%
37	Laundry on-site	No	No	No	No	0%
38	Officer in charge and documentation	Yes	Yes	Yes	Yes	100%
5	Community involvement					
39	Conduct a program of environmental management involve the community	Yes	Yes	Yes	Yes	100%
40	Programs that promote the traditional culture of community	Yes	Yes	Yes	Yes	100%
6	Indoor environmental quality					
41	Designated smoking room	Yes	No	No	No	25%
42	Used of low VOC paints and coatings	Yes	Yes	Yes	Yes	100%
43	Indoor air quality meets the requirement	Yes	Yes	Yes	Yes	100%
44	Mold measure	Yes	Yes	Yes	Yes	100%

7	Sustainable site planning and management					
45	Use of green roof	Yes	Yes	No	No	50%
46	Herbs Garden	Yes	No	No	Yes	50%
47	Green transportation strategies	Yes	Yes	Yes	Yes	100%
48	Organic fertilizer	Yes	Yes	Yes	Yes	100%
49	Consideration of natural surroundings in the design	No	No	Yes	Yes	50%
50	Use of green material for building envelop	No	Yes	No	No	25%
	Rate of participation	82%	74%	70%	84%	

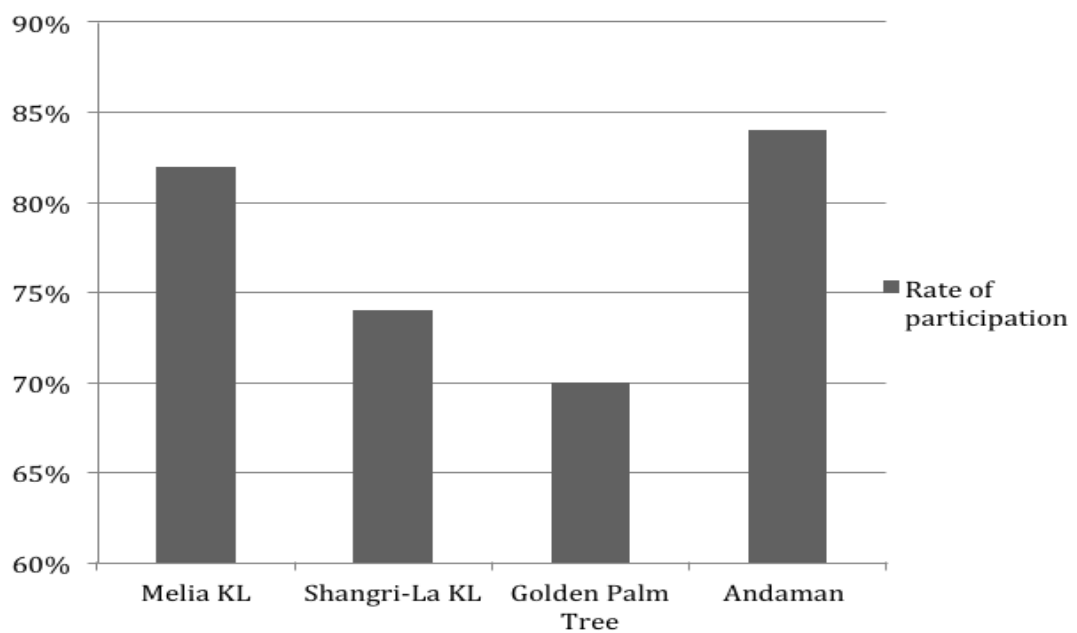


Figure: Shows the rate of participation of the operators in green approaches

FINDINGS PART 2

Table: Barriers and level of significance of the case studies

<i>Barriers</i>	<i>Hotel A</i>	<i>Hotel B</i>	<i>Hotel C</i>	<i>Resort A</i>	<i>Resort B</i>	<i>Level of significance</i>
High implementation cost	No	No	No	Yes	Yes	Less significant
Lack of green information and knowledge	No	No	No	No	No	Non significant
Lack of green experts	Yes	Yes	Yes	Yes	Yes	Significant
Uncertainty of green outcome	No	No	No	No	No	Non significant
Lack of resources such as manpower and equipment	Yes	Yes	Yes	Yes	Yes	Significant
Lack of support from owner and management	No	No	No	No	No	Non significant
Lack of government regulation and enforcement	No	No	Yes	Yes	No	Less significant
High maintenance cost	No	No	No	No	No	Non significant
Difficulty in balancing the quality of service with environmental performance	Yes	Yes	Yes	Yes	Yes	Significant
Lack of consumer supports	No	No	No	No	No	Non significant
Lack of networking with green suppliers	No	No	No	Yes	No	Non significant
Difficulty in managing and training staffs	No	Yes	Yes	No	Yes	Less significant

6) CONCLUSION

The green wave in the hospitality industry in Malaysia is something new. There are only few hoteliers claiming their self as green operators. The findings, to Part 1 show that all the green hotels and resorts in Malaysia are chain affiliated. They have the support and financial funding from their parent company to become green operators. From the findings the areas with the most participation are energy, waste and water.

These areas save costs and limited resources such as energy and water. The areas of less participation are indoor air quality and sustainable management of the site. These areas have less impact on the operational costs. Participation in new technology area such as renewable energy (solar panel) and a rainwater harvesting system is also less due to the cost and system availability.

The findings also show that different operators have adopted different green approaches in the operations. The reasons are the management aims, cost, and availability, surrounding context and land size. Later, a new research can be focused on the green approaches of small, medium chalets operators in Malaysia.

As for the barriers research (Part 2) there are three barriers, which are significant for green operation in Malaysia. The Significant barriers are lack of green experts and lack of resources in term of manpower, green equipment and difficulty in balancing the quality of service with environmental performance. Where else, there are three less significant barriers. The less significant barriers are high implementation and maintenance cost and lack of government support and incentives.

Where else, there are five not significant barriers for green operation in Malaysia. The barriers are lack of green information and knowledge, uncertainty of green outcome, lack of support from the owner and management, lack of consumer supports and lack of networking with green suppliers. Not significant barriers mean the green operators do not have that challenge in running their green operation. Where else significant barriers mean that the green operators are facing that challenge in running their operation. Generally, green operators in Malaysia have fewer barriers to face to become green operators. Recommendation for the next study is to determine barriers from an organizational point of view and find the solution for each barrier. In conclusion, Malaysia green hotels and resort industry is growing and hope there is a bright future for this industry.

7) FUTURE PLAN OF THE RESEARCH

1. To extent the research to other green hotels and resort in Malaysia
2. To conduct green barriers and green approaches studies for Small and Medium Chalets operators.

8) REFERENCES

- Andersson, T. D., & Lundberg, E. (2013). Commensurability and sustainability: Triple impact assessments of a tourism event. *Tourism Management*, 37, 99–109. doi:10.1016/j.tourman.2012.12.015
- Ayala, H. (1995). Ecoresort : Industry Hana Ayala a “green” masterplan for the international resort industry. *International Journal of Hospitality Management*, 14(3), 351–374.
- Ayotte, A. L. (2009). *Ecotourism as a form of sustainable development in South Africa*. Kingston Ontario Canada.
- Bansal, P., & Roth, K. (2000). Why companies go green: a model of ecological responsiveness. *Academy of Management Journal*, 43(4), 717–736
- Baysan, S. (2001). Perceptions of the environmental impacts of tourism: A comparative study of the attitudes of German, Russian and Turkish tourists in Kemer, Antalya. *Tourism Geographies*, 3(2), 218–235. doi:10.1080/14616680010030284
- Bhavan, Y., & Marg, S. (2007). *Islands, Coral reefs, mangroves & wetlands in environment & forest: For the eleventh five year plan (2007-2012)* (pp. 1–103).
- Bohdanowicz, P. (2005). European Hoteliers environmental attitudes greening the business. *Cornell Hotel and Restaurant Administration Quarterly*, 46, 188–204. doi:10.1177/0010880404273891
- Briguglio, L., & Brigugloi, M. (1996). Sustainable tourism in Small Islands: The case of Malta.
- Bhd, M. H. & R. S. (2014). Philea Resort & Spa. Retrieved from <https://www.phileahotel.com.my/>
- Brodie, J., & Waterhouse, J. (2012). A critical review of environmental management of the “not so Great” Barrier Reef. *Estuarine, Coastal and Shelf Science*, 104-105, 1–22. doi:10.1016/j.ecss.2012.03.012
- Budeanu, A. (2005). Impacts and responsibilities for sustainable tourism: a tour operator’s perspective. *Journal of Cleaner Production*, 13(2), 89–97. doi:10.1016/j.jclepro.2003.12.024
- Budowski, G. (1976). Tourism and environmental conservation : Conflict,coexistence, or symbiosis. In S. Becken (Ed.), *Tourism and Environment* (Vol. 3, pp. 27–32). UK: An Elgar Research Collection.
- Bonilla Priego, M. J., & Aviles Palacios, C. (2008). Analysis of Environmental Statements Issued by EMAS-Certified Spanish Hotels. *Cornell Hospitality Quarterly*, 49(4), 381–394. doi:10.1177/0010880407307766
- Cater, E. (1995). Environmental contradictions in sustainable tourism. In S. Becken (Ed.), *Tourism and the environment* (pp. 21–28). UK.

- Chan, W. W. (2009). Environmental measures for hotels environmental management systems ISO 14001. *International Journal of Contemporary Hospitality Management*, 21(5), 542–560. doi:10.1108/09596110910967791
- Claver-Cortés, E., Molina-Azorín, J.F., Pereira-Moliner, J. & López-Gamero, M. D. (2007). Environmental strategies and their impact on hotel performance. *Journal of Sustainable Tourism*, 15, 663–679.
- Claude, D., & Zaccour, G. (2009). Investment in Tourism Market and Reputation. *Journal of Public Economic Theory*, 11(5), 797–817.
- Cohen, E. (1978). The impact of tourism on the physical environment. *Annals of Tourism Research*, V(2), 215–237.
- Ceballos -Lascurain, H., Bann, C., & George, M. National Ecotourism Plan Malaysia (1995).
- Chan, W. W., & Ho, K. (2006). Hotels environmental management systems (ISO 14001): Creative financing strategy. *International Journal of Contemporary Hospitality Management*, 18(4), 302–316. doi:10.1108/09596110610665311
- Dolnicar, S. (2003). Which Hotel attributes Matter ? A review of previous and a framework for future research, 176–188.
- D., W., & M., O. (2000). *Tourism management*. John Wiley & Sons Australia, Ltd.Brisbane.
- DMPM. (2012). *Environmental Best Practice Booklet* (pp. 1–56).
- Elkington, J., & Hailes, J. (1992). *Holidays That Don't Cost the Earth*. (L. V. Gollancz., Ed.). London: Kent: Mackays of Chatham.
- ENZ, C., & SIGUAW, J. (1999). Best hotel environmental practices. *The Cornell Hotel and Restaurant Administration Quarterly*, 40(5), 72–5. doi:10.1016/S0010-8804(99)80235-3
- Erdogan, N., & Baris, E. (2007). Environmental protection programs and conservation practices of hotels in Ankara , Turkey. *Tourism Management*, 28, 604–614. doi:10.1016/j.tourman.2006.07.003
- GBS. (2014). *Non-Residential New Construction (NRNC): Hotel* (pp. 1–20). Kuala Lumpur.
- Gunn, & C.A. (1998). *Vacationscapes: Designing tourist regions*. (Van Nostrand Reinhold, Ed.). New York.
- Hernández-Delgado, E. A., Ramos-scharrón, C. E., Guerrero-pérez, C. R., Lucking, M. A., Laureano, R., Mendez- Lazaro, P. A., & Melendez- Diaz, J. O. (2012). Long-Term Impacts of Non-Sustainable Tourism and Urban Development in Small Tropical Islands Coastal Habitats in a Changing Climate : Lessons Learned from Puerto Rico. In *Visions for Global Tourism Industry-creating and sustaining competitive strategies* (pp. 358–398).
- Holden, A. (2000). *Environment and Tourism*. West 35th Street, New York, NY.: Routledge Publishing.

- Hsieh, Y. (2012). Hotel companies, environmental policies and practices: A content analysis of their web pages. *International Journal of Contemporary Hospitality Management*, 24(1), 97–121. doi:10.1108/095961112
- Inskip, E. (1987). Environmental planning for tourism. *Annals of Tourism Research*, 14(1), 118–135. doi:10.1016/0160-7383(87)90051-X.
- Jamaludin, M. (2004). *Sustainable architecture in tropical hotel developments: Approaches to the design of Malaysian coastal resorts*. University of Manchester.
- Jackson, L. A. (2010). Toward a framework for the components of green lodging. *Journal of Retail & Leisure Property*, 9(3), 211–230. doi:10.1057/rlp.2010.6
- Jamaludin, M., & Yusof, Z. B. (2013). Best Practice of Green Island Resorts. *Procedia - Social and Behavioral Sciences*, 105, 20–29. doi:10.1016/j.sbspro.2013.11.003
- JAS. (2011). *Pelan Strategik Jabatan Alam Sekitar 2011- 2020* (pp. 1–56).
- Jeremy, B. (1979). The impact of tourism on a dependent island: Gozo Malta. *Annals of Tourism Research*, 76–90.
- KamalulAriffin, N. S., Khalid, S. N. A., & Wahid, N. A. (2013). The barriers to the adoption of environmental management practices in the hotel industry: A study of Malaysian hotels. *Business Strategy Series*, 14(4), 106–117. doi:10.1108/BSS-06-2012-0028
- Kasim, A. (2004). Socio-Environmentally Responsible Hotel Business: Do Tourists to Penang Island, Malaysia Care? *Journal of Hospitality & Leisure Marketing*. doi:10.1300/J150v11n04_02
- Kester, J. G. . C. (2014). 2013 International Tourism Results and Prospects for 2014, (January), 1–14.
- Kirk, D. (1998). Attitudes to environmental management held by a group of hotel managers in Edinburgh. *International Hospitality Management*, 17, 33–47.
- Kreidler, N. B., & Joseph-mathews, S. (2009). How green should you go ? Understanding the role of green atmospherics in service environment evaluations. *International Journal of Culture, Tourism and Hospitality Research*, 3(3), 228–245. doi:10.1108/17506180910995414
- Kreag, G. (2001). *The Impacts of Tourism* (pp. 1–20). Minnesota. Retrieved from www.seagrant.umn.edu
- Lamorski, T., & Dabrowski, P. (2002). *The case study of Babia Gora National Park/ Biosphere Reserve Poland: Tourism and its impacts on biodiversity* (pp. 1–31). Germany.
- Li, G., Yang, X., Liu, Q., & Zheng, F. (2014). Destination island effects: A theoretical framework for the environmental impact assessment of human tourism activities. *Tourism Management Perspectives*, 10, 11–18. doi:10.1016/j.tmp.2013.12.001
- Libreros, M. (2009). *Basic concepts and definitions: travel and tourism* (pp. 1–8). Vientiane.

- Lim, C., & McAleer, M. (2005). Ecologically sustainable tourism management. *Environmental Modelling & Software*, 20(11), 1431–1438. doi:10.1016/j.envsoft.2004.09.023
- Liu, J. C., Sheldon, P. J., & Var, T. (1987). Resident perception of the environmental impacts of tourism. *Annals of Tourism Research*, 14, 17–37. doi:10.1016/0160-7383(87)90045-4
- Liu, J., & Var, T. (1986). Resident attitudes toward tourism impacts in Hawaii. *Annals of Tourism Research*, 13, 193–214.
- Lumpur, S. H. K. (2013). *Facts and information* (pp. 1–8).
- Manaktola, K., & Jauhari, V. (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19(5), 364–378. doi:10.1108/09596110710757534
- Margaret, H. (2000). *Resort Design: Planning, architecture and interiors*. (S. S. Wendy Lochner, Stephen M. Smith, Ed.) (pp. 1–315). New York: McGraw- Hill.
- Millar, M., & Baloglu, S. (2011). Hotel Guest's preferences for green room attributes. *Cornell Hospitality Quarterly*, 52(3), 302–311. doi:10.1177/1938965511409031
- Miller, G., Rathouse, K., Scarles, C., Holmes, K., & Tribe, J. (2010). Public understanding of sustainable tourism. *Annals of Tourism Research*, 37(3), 627–645. doi:10.1016/j.annals.2009.12.002
- Mandarin Oriental Hotel Group. (2014). Mandarin Oriental KL. Retrieved from <http://www.mandarinoriental.com/kualalumpur/>
- Malaysia, K. P. (2012). Tourism and Sustainable Energy. *Buletin MoTour*, 1–20.
- Mandal, M., Dandapath, P. K., Shukla, J., & Kanti Dandapath, P. (2013). Emerging dimension of coastal eco tourism resources along the coast of west Bengal, India. *International Journal of Advanced Research in Management and Social Sciences*, 2(1), 58–73.
- Mason, P. (2011a). An introduction to tourism impacts: Chapter 3. In *Tourism Impacts, Planning and Management* (pp. 27–33). doi:10.1016/B978-0-7506-5970-3.50007-5
- Mason, P. (2011b). Environmental impacts of tourism. In *Tourism Impacts Planning and Management* (pp. 69–84). doi:DOI: 10.1016/B978-0-7506-5970-3.50010-5
- Mason, P. (2011c). Environmental impacts of Tourism: Chapter 6. In *Tourism Impacts Planning and Management* (pp. 69–84).
- Mathieson, A., & Wall, G. (1982). *Tourism: Economic, Physical and Social Impacts*. (S. F. McCool, Ed.) (pp. 1–208). New York: Longman.
- Mbaiwa, J. E. (2003). The socio-economic and environmental impacts of tourism development on the Okavango Delta, North-Western Botswana. *Journal of Arid Environments*, 54, 447–467. doi:10.1006/jare.2002.1101

- McKercher, B. (1993). Some fundamental truths about tourism: understanding tourism's social, and environmental impacts. *Journal of Sustainable Tourism*, 1, 6–16.
- Melia.Com. (2014). Melia KL. Retrieved from <http://www.melia.com/en/hotels/malaysia/kuala-lumpur/melia-kuala-lumpur/index.html>
- Mensah, I. (2007). Environmental management and sustainable tourism development: The case of hotels in Greater Accra Region (GAR) of Ghana. *Journal of Retail and Leisure Property*, 6, 15–22. doi:10.1057/palgrave.rlp.5100039
- Mohamed, B. (2000). The Psychographic Analysis of Malaysian Domestic Travellers.
- Mohamed, J., Yasin, Z., & Lee Abdullah, A. (2009). Impact of coastal and marine Tourism: Application of Limits of Acceptable Change. In B. Mohamed & M. Sirat (Eds.), *Theories & Application: 2nd National Symposium on Tourism* (pp. 35–42). Penang: Universiti Sains Malaysia Penang.
- Moyle, B., Croy, G., & Weiler, B. (2010). Tourism interaction on islands: The community and visitor social exchange. *International Journal of Culture, Tourism and Hospitality Research*, 4(2), 96–107. doi:10.1108/17506181011045172
- Mundi, I. (2014). *Malaysia Demographics profile 2013. CIA World Factbook*.
- Mathieson, A., & Wall, G. (1982). *Tourism: Economic, Physical and Social Impacts*. (S. F. McCool, Ed.) (pp. 1–208). New York: Longman.
- Ministry of science, T. and T. E. M. Dasar Kepelbagaian Biologi Kebangsaan National Policy on Biological Diversity (1998).
- Molina-Azorín, J. F., Claver-Cortés, E., Lopez-Gamero, M. D., Tarí, J. J., & López-Gamero, M. D. (2009). Green management and financial performance: a literature review. *Management Decision*, 47(7), 1080–1100. doi:10.1108/00251740910978313
- Nabiha, A. k. siti, R.A, G., Wahid, N. A., Amran, A., I.Abustan, & R.Mahadi. (2011). A Field Survey of Environmental Initiatives at Selected Resorts in Malaysia. *World Applied Science Journal*, 12(Special issue of Tourism & Hospitality), 56–63.
- Nicholls, S., & Kang, S. (2012). Green initiatives in the lodging sector : Are properties putting their principles into practice ? *International Journal of Hospitality Management*, 31, 609–611. doi:10.1016/j.ijhm.2011.10.010
- Okeiyi, S. I., Okrah, A. M., Okeiyi, E. C., & Bryant, B. A. (2005). Operators ' Attitudes Toward Sustainable Tourism Development Concept in Ghana. *Journal of African Business*, 6(1/2), 33–52. doi:10.1300/J156v06n01
- Peršić-Živadinov, I. (2009). The environmental and economic impact of sustainable hotels. *Ekonomika Istrazivanja*, 22, 98–110. Retrieved from <http://www.scopus.com/inward/record.url?eid=2-s2.0-70149083492&partnerID=40&md5=08d35ca0c2d5a9ab34cd918fd2744f0f>
- Persic-Zivadinov, I., & Blazevic, B. (2010). Sustainable Hotels: Sustainable Life Cycle Practice In Croatian Hotels. In *Tourism & Hospitality Management 2010, Conference Proceedings* (pp. 161–177).

- Rahman, I., Reynolds, D., & Svaren, S. (2012). How “green” are North American hotels ? An exploration of low-cost adoption practices. *International Hospitality Management*, 31, 720–727. doi:10.1016/j.ijhm.2011.09.008
- Nancy Loman Scanlon. (2007). An analysis and assessment of environmental operating practices in hotel and resort properties. *International Journal of Hospitality Management*, 26, 711–723. doi:10.1016/j.ijhm.2006.07.003
- Nair, V., Daud, M., & Bardaie, M. Z. (2003). An Active Server Pages (ASP) Approach in Ecotourism Rating Expert System. *Pertanika Journal of Science & Technology*, 11(1), 119–133.
- Pratt, S. (2011). Economic linkages and impacts across the TALC. *Annals of Tourism Research*, 38(2), 630–650. doi:10.1016/j.annals.2010.11.014
- Prunier, E. ., Sweeney, A. ., & Geen, A. . (1993). Case study Tourism and the environment : The case of Zakynthos. *Tourism Management*, (April), 137–141.
- Robinot, E., & Giannelloni, J.-L. (2010). Do hotels’ “green” attributes contribute to customer satisfaction? *Journal of Services Marketing*, 24(2), 157–169. doi:10.1108/08876041011031127
- Sarantakos, S. (2005). *Social research* (3rd ed., pp. 1–457). New York: Palgrave Macmillan.
- Seetanah, B. (2011). Assessing the dynamic economic impact of tourism for island economies. *Annals of Tourism Research*, 38(1), 291–308. Do: 10.1016/j. annals. 2010.08.009
- Scheyvens, M. (2008). Tourism and poverty reduction: Issue for small island states. *Tourism Geographies*, 10(1), 22–41.
- Siti Nabiha, A. ., Abdul Wahid, N., Amran, A., Che Haat, H., & Abustan, I. (1998). Towards a sustainable tourism management in Malaysia.
- Song, H., Dwyer, L., Li, G., & Cao, Z. (2012). Tourism economics research: A review and assessment. *Annals of Tourism Research*, 39(3), 1653–1682. doi:10.1016/j.annals.2012.05.023
- Strauss, A. ., & Corbin, J. (1998). *Basic of Qualitative Research: Grounded theory, procedures and techniques* (2nd Ed.). Thousand Oaks, California: Sage Publication.
- Su, Y-P. & Hall, C. M. (2013). Climate Change and Tourism in Asia: A Review. In *In UNWTO, Responding to Climate Change: An Examination of Tourism Related Initiatives in Asia and the Pacific* (pp. 1–30). , ed. L. Ruhanen, in press.
- Sunlu, U. (2003). Environmental impacts of tourism. In D. Camarda & L. Grassini (Eds.), *Local resources and global trades: Environments and agriculture in the Mediterranean region* (Vol. 270, pp. 263–270). Turkey: CIHEAM.
- Tooman, H., Sloan, P., Legrand, W., & Fendt, J. (2009). Case studies of best practices in sustainability in German and Estonian Hotels.
- UNWTO. (2013a). *UNWTO Tourism Highlights 2013 Edition* (pp. 1–16).

- UNWTO. (2013b). *UNWTO tourism highlights* (pp. 1–16).
- Vikneswaran Nair, & Anantharajah, S. (2012). A green makeover for our Hotels? *Quartely DOE Update on Environment, Development & Sustainability*, (2), 10–12.
- Walmsley, D. J. (2004). Behavioral approaches in tourism research. In A. A. Lew, C. M. Hall, & A. . Williams (Eds.), *A companion To Tourism* (pp. 49–61). Australia: Blackwell.
- Wong, P. (1990). The Geomorphological Basis of Beach Resort Sites- Some Malaysian Examples. *Ocean and Shoreline Management*, 13, 127–147.
- Wong, P. P. (1998). Coastal tourism development in Southeast Asia : relevance and lessons for coastal zone management. *Ocean & Coastal Management*, 38, 89–109.
- WTO. (1994). *Recommendations on Tourism Statistics in Madrid*.
- WWF. (2001). *Tourism threats in the Mediterranean*. WWF background information. Retrieved from www.monachus-guardian.org/library/wwftou01.pdf
- Yen, L., Hollenhorst, S., Charles, H., McLaughlin, W., Shook, S., Le, Y., & Harris, C. (2006). Environmental Management : A Study of Vietnamese Hotels. *Annals of Tourism Research*, 33(2), 545–567. doi:10.1016/j.annals.2006.01.002
- Yusof, Z. B., & Jamaludin, M. (2014). Barriers of Malaysian Green Hotels and Resorts. *Procedia - Social and Behavioral Sciences*, 00, 1–11.
- Yusof, Z. B., & Jamaludin, M. (2013). Green Approaches of Malaysian Green Hotels and Resorts. *Procedia - Social and Behavioral Sciences*, 85, 421–431. doi:10.1016/j.sbspro.2013.08.371
- Zbigniew, B. (2009). *Eco resorts: Planning and design for the tropics* (1st ed., pp. 1–229). UK: Architectural Press.
- Zhong, L., Deng, J., Song, Z., & Ding, P. (2011). Research on environmental impacts of tourism in China: Progress and prospect. *Journal of Environmental Management*, 92, 2972–2983. doi:10.1016/j.jenvman.2011.07.011