

SUSTAINABLE DEVELOPMENT IN HOTEL SMES, A COMPARISON BETWEEN TAIWAN AND GREECE

Anestis K. Fotiadis

General Hospital of Katerini/Computer Science Department,
Neo Keramidi, Greece
anesfot@gmail.com

Chris A. Vassiliadis

University of Macedonia/Dept. of Business Administration
540 06 Thessaloniki, Greece
chris@uom.gr

Tzung-Cheng (T.C.) Huan

College of Management/National Chiayi University
Chiayi, Taiwan
tchuan@mail.ncyu.edu.tw

Abstract

Sustainability issues in tourism are growing exponentially. Initially referring to environmental considerations, sustainability now also encompasses social and economical responsibilities. The aim of the present study is to investigate the attitude of the small and medium hotel enterprises which operate in regions of massive tourism development towards the principles of sustainable tourism development. We formed a structured questionnaire which was distributed to sixty eight SMEs hotel enterprises in Greece and seventy hotel enterprises on Taiwan. We believe that through our research hotel companies are encouraged to review their activity in relation to the physical, economic and social environment.

Keywords: Sustainability, Tourism development, Greece, Taiwan

Introduction

The environmental aspect as a key component of development started to be taken into account only during the past few decades. In the past when someone referred to development, he was referring to economic growth. It was examined how and at what cost a specific area would take around more economic benefits. Later it became clear that it is impossible to think only of economic development and it was recognized that we must take seriously the satisfaction of human needs. Incentives to integrate environmental practices in business are one of the most debated issues among different industries during the last two decades.(Hoffman, 2000). The wide variety of research was accompanied by a mixture of different theoretical frameworks. The most well known theories that were connected to small and medium enterprises are: the theory of resources (Rangel 2000; Vazques, et al, 2001; Veliyath and Fitzgerald, 2000), institutional theory and theories of the members involved (Hoffman, 2000; Rangel, 2000) and the theory of innovation (Karagozoglu and Lindell, 2000; Robinson, 2004). Most studies are trying to determine how humans can help the environment. This study tries to explore how sustainable development can assist the operator while maintaining or improving the environment.

There are many studies on the impact of sustainable development for small and medium-sized hotel enterprises. Literature review indicated that this impacts are mainly environmental impacts (Bansal, 2005; Altham, 2007; Lee and Park, 2009; Fijal, 2006; Pimenova and Van der Vorst, 2004; Hur et al., 2004 Jackson, 2005, 2008; Burke and Gaughran, 2007; Scanlon, 2007) and social impacts (Lee and Park, 2009;Briscoe et al., 2005; Poksinska et al., 2006; Robson et al., 2007; Henderson, 2007; Jones et al., 2006; Campbell, 2007; Bansal 2005). It is important that in all of them, the main factor influencing the sustainable development is financial – economical (Van Berkel, 2005; Bansal, 2005; Ali et al, 2008; Cote et al, 2008; Cote et al, 2006; Mensah, 2006; Le at al, 2006 ; Crals and Vereeck, 2005). This is realized mainly by cost reduction, which is achieved by reducing consumption of resources. There are many other benefits from improved 'environmentally friendly' energy consumption in hotels and other tourist points, such as improving customer loyalty and enhance its public image, attracting and retaining dedicated staff, avoiding penalties by the environmental authorities, and other long-term operational benefits (ESCWA, 2003). These benefits to businesses and the environment, make energy management in hotels, a crucial prerequisite for sustainable development.

Exploring the relationship of the small hotel sector with the principles of sustainable tourism development is the purpose of this study. The main objective is to highlight the benefits expected to accrue to

the hotel industry because of sustainable tourism development of a tourist area. One of the secondary objectives of the paper is to examine the degree of awareness among owners of small hotel units on issues related to sustainable tourism development and to identify the causes and effects of this phenomenon in the present and the future of hotel industry since cognitive constraints is consider very important about the performance of sustainable practices (Basu and Palazzo, 2008; Bansal, 2005; IEA, 2004; Reddy and Painuly, 2004; Alazraque-Cherni, 2008). At the same time, we aim to understand the owners' perceptions of sustainable tourism development, which is the backbone of the tourism industry of Taiwan and Greece. We produced a structured questionnaire which was distributed to a sample of small hoteliers in Taiwan, which, after statistical processing, gave us useful information about the characteristics of the industry and the owner hotelier. It also highlighted sources of information to hoteliers in relation to sustainable tourism development. It moreover, emphasized how they conduct themselves in relation to it, as well as practical tools for the principles of sustainable tourism development, applicable to their daily activity.

Methodology

The survey aims to identify and understand the importance and meaning that respondents give to sustainable development. In order to do this you need to determine the population survey first. The population survey was all hotel companies operating in Taiwan and Pieria county, Greece. The data from the area of study was collected from April to June 2009. Respondents were initially approached by phone in order to investigate their willingness to participate in research. The questionnaire was designed after reviewing the existing literature on sustainable development and small / medium size hotels (Ali et al, 2008; Cote et al, 2008; Cote et al, 2006, a.o.) and the pilot survey. For the data collection we used the method of anonymous written questionnaire.

Results

Initially we examine the demographic characteristics of respondents and as we can see the respondents from Taiwan are 50.0% men and 50.0% women. They have a fairly high level of knowledge since 44.2% have graduated from high school 40.4% have academic knowledge and 11.5% hold a Master's or doctorate. Only 3.8% attended primary school. Respondents from Greece, rate in gender since 80.9% are male and 19.1% female. They have quite a high level of knowledge since the 35.3% have academic knowledge and 4.4% hold a graduate degree, only 5.9% are graduates of elementary and 10.3% high school graduates. The entire sample has a relatively high level of education, although the sample varies in proportion of men - women. The majority of Taiwan respondents (46.2%) are married with children while 26.9% are not married and 26.9% are married without children. As can be seen from the results, there is no divorced hotel owner. As about age, we can see that the respondents are mainly between the age of 40 and 49 (45.6%), followed by the age group of 30-39 (26.9%) and the age between of 50-59 (17.3%). There is only one hotelier under 30 and only one above 60 years. In Greek sample the majority of respondents are married with children (85.3%) and only 5.9% were unmarried and only one hotelier is divorced. Most of the hoteliers in Greece are between 50 and 59 years old (45.6%), followed by the age group of 40-49 (30.9%). There is not even one hotelier under the age of 30 and there is a rate of 7.4% which are older than 60 years old.

The level of consumption in hotels is affected by many factors, including the size and level of luxury, climatic conditions, location (remote / rural or urban), and type of services and activities. That is why we wanted to look at the profiles of hotel companies and, the majority of the questionnaire responses are from three star hotels (55.9 %) and two stars hotels (20.60%). One-star hotels have a rate of 16.2%, four stars hotel had only 7.4% and there is no five one star hotels. The European Commission defines small business as one that employs from 10 to 49 employees, while firms that employ fewer than 10 people are considered small businesses; therefore we wanted to look at how many people are employed by hoteliers to see if they belong to small and SMEs. Most of them belongs to the categories of small and medium-sized hotels Most of the hotels (54.4 %) have between 11-49 employees and 36.8% have between 1 and 10 employees. A rate of 8.8% has between 50-100 employees. More than half of the hotel owners (56.7%) of our sample come from and live in the region where they work and a big percentage of them (98.8%) are members of a chamber, union or network, which have informed them about sustainable tourism development (74.2%).

In the second part of the questionnaire we examine sustainable tourism development and how it affects the hotel business. At the beginning of the second part we examine factors which prohibit the owners of small or medium-sized hotel enterprises to applicate the sustainable development practices. As we can observe in table 1 there are several differences between Greece and Taiwan on which factors are the most important for SMEs owners to applicate sustainable development practices. In Taiwan untrained staff is the most important reason for not implementing sustainable tourism practices. Important factors are also the difficulties in implementing the changes to the company and the acceptance of changes by the workers. The least important factor for

implementing sustainable tourism practices is the return on investment and the fear of losing customers. As can be seen in the table 1 Greeks believe that high investment costs and return of investment are the most important factors which prevent the adaptation of sustainable tourism development practices. As we can observe the least important reason for not implementing sustainable tourism development practices is the fear of reducing customers.

As far as concerning the economic profits from the development of sustainable tourism development, we can observe that the hoteliers in Taiwan believe that sustainable tourism development primarily affects their comparative advantage, improves the volume of the hotel and reduces the costs. To a lesser degree, they believe that it helps find new innovative methods for managing costs, create better products and services and develop innovations. The least important factor for them is the reduction of resource consumption. Hoteliers from Greece believe that sustainable tourism development primarily affects the growth of the hotel business through the improvement of products and services, developing innovations and creating a competitive advantage for the company. To a lesser extent is believed to help in improving sales volumes and finding innovative ways of managing costs. The least important factors are the reduction of resource consumption and reduce of costs.

Table 1. Factors which implement adoption and growth of business

Factors that prevent the adoption	Taiwan	Greece
Factor	Mean*	Mean*
Untrained staff	2.6	3.87
Difficulties in implementing the changes to the company	2.4	3.74
Accept the changes by workers	2.4	3.79
High investment costs	2.1	4.44
Fear of reducing customer	2.1	2.90
Return on investment	1.9	4.40
Growth of business		
Comparative advantage	3.2	3.49
Improving the volume of hotel	2.4	3.31
Reduce costs	2.4	2.66
Finding new innovative methods for managing costs	2.3	3.24
Better products and services	2.2	3.78
Developing innovations	2.2	3.75
Improving market share of hotel	2.1	3.13
Reduction of resource consumption (electricity. water. etc)	2.1	2.91

Farther, we tried to discover the level of sustainable tourism development contribution to long-term profits for the enterprise (table 2). As we can observe sustainable development in the long term, helps the hoteliers in Taiwan by improving staff retention rates and reaction to unexpected events. It can also strengthen employee morale and customer loyalty. According to Hoteliers responses, sustainable development can not give long – term business benefits to their company. Greeks are more optimistic for the impact of sustainable development on long terms. According to them, sustainable tourism development will bring lasting benefits to the company. The adoption of sustainable practices in particular will improve the long term the company's reputation and boost employee morale, improve customer loyalty and improve employee retention rate. It will provide long term opportunities for small and medium enterprises to react promptly to events, to reap long-term business benefits to attract and retain loyal staff.

Table 2. Factor affecting long-term, environmental and social benefits

	Taiwan	Greece
Long-term benefits	Mean*	Mean*
Improve staff retention rates	3.1	3.79
Reaction to unexpected events	3.1	3.72
Strengthen employee morale	3.0	3.99
Customer loyalty	3.0	3.88
Attracting and retaining dedicated staff	2.8	3.57
Improved company reputation	2.5	4.09
Long-term business benefits	1.9	3.62
Environmental and social benefits		
Improving the tourist area	3.3	3.72
Utilization of recyclable products	2.6	3.34
Creating healthy relationships with the local community	2.5	3.01
Creating healthy relationships with government agencies	2.3	3.18
Avoiding penalties by environmental authorities	2.2	3.01

Several factors, according to Taiwanese hoteliers, are prohibiting sustainable tourism development to achieve environmental and social benefits for small and medium enterprises. It helps the environment because of the utilization of recyclable products and social relationships by creating healthy relationships with the local community and government agencies. Greeks and Taiwanese agree that sustainable development is providing environmental and social benefits mainly by improving the tourist area. In Greece utilization of recyclable products and the creation of healthy relationships with government agencies. In general in all categories Greeks have better scores than Taiwanese. Further we tried to examine why is this happening.

Analysis of the effect of sustainability constraints predictor variables on the dependent variable of nationality with the use of a logit model.

We have used a logit model, to model the dichotomous depended nationality variable of Taiwanese and Greek small and medium hoteliers. In the logit model the log odds of the outcome are modelled as a linear combination of the sustainability constraint predictor variables.

The research question.

We are interested in the sustainability constraints factors that influence whether a small and medium Taiwanese or Greek hotelier candidate perceived them as equal important factors. The outcome (response) variable is binary (0/1); Taiwanese or Greek hoteliers. The predictor variables of interest related with their perceived sustainability constraints vision are categorized in the following wider descriptive sections, A section of sustainable development constraint factors. The variables “High investment costs”; code no V11.1, “Return on investment”; V11.2, “Accept the changes by workers”; V11.3, “Difficulties in implementing the changes to the company” V11.4, “Untrained staff”; V11.5 and “Fear of reducing customer”; V11.6, are measured on a 5 point likert type scale from 1=“very important constraint factor” to 5=“not at all important constraint factor”. More specifically the binary outcome, dependent variable called “nationality”, which is equal to 1 if the individual was Taiwanese entrepreneur, and 0 otherwise i.e. Greek entrepreneur. There are 6 predictor variables serial numbering coded from V11.1 to V11.6.

The binary logit model

Our binary logit model can be expressed with the following mathematical formula [1],

$$\ln\left(\frac{\text{prob}(\text{Taiwanese})}{1 - \text{prob}(\text{Taiwanese})}\right) = \beta_0 + \beta_{V11.1}X_{V11.1} + \beta_{V11.2}X_{V11.2} + \dots + \beta_{V11.6}X_{V11.6} \quad [1]$$

The left site of this formula is the log of the odds that an event e.g. Taiwanese case of nationality, occurs. More specifically it’s the ratio of the number of people who are Taiwanese to the number of people who aren’t Taiwanese. With the $\beta_{V11.1}, \dots, \beta_{V11.6}$ coefficients of this formula, we try to explain how much the logit changes in the nationality type are based on the values of the 6 predictor variables.

Parameter Estimates and results of the analysis

The following table 3 contains the estimated coefficients of model: [1].

Table 3. Parameter analysis estimates of the ordinal binary logit model

		Estimate	Std. Error	Wald	df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[national = 1]	60,841	3952,443	,000	1	,988	-7685,805	7807,487
Location	[v11.1=1]	4.388	3.138	1.955	1	.162	-1.763	10.538
	[v11.1=2]	4.758	2.780	2.928	1	.087	-.692	10.207
	[v11.1=3]	3.336	2.488	1.798	1	.180	-1.540	8.211
	[v11.1=4]	1.538	2.320	.439	1	.507	-3.010	6.086
	[v11.1=5]	0 ^a	.	.	0	.	.	.
	[v11.2=1]	15.629	1685.427	.000	1	.993	-3287.747	3319.004
	[v11.2=2]	16.050	1685.426	.000	1	.992	-3287.324	3319.423
	[v11.2=3]	16.264	1685.426	.000	1	.992	-3287.111	3319.638

[v11.2=4]	19.265	1685.426	.000	1	.991	-3284.110	3322.639
[v11.2=5]	0 ^a	.	.	0	.	.	.
[v11.3=2]	19.687	1957.832	.000	1	.992	-3817.594	3856.967
[v11.3=3]	19.893	1957.832	.000	1	.992	-3817.388	3857.173
[v11.3=4]	22.219	1957.833	.000	1	.991	-3815.062	3859.501
[v11.3=5]	0 ^a	.	.	0	.	.	.
[v11.4=1]	-1.408	2.445	.331	1	.565	-6.201	3.385
[v11.4=2]	-6.724	2.648	6.446	1	.011	-11.914	-1.533
[v11.4=3]	-6.254	2.403	6.774	1	.009	-10.964	-1.544
[v11.4=4]	-6.868	2.521	7.420	1	.006	-11.809	-1.926
[v11.4=5]	0 ^a	.	.	0	.	.	.
[v11.5=1]	39.884	.000	.	1	.	39.884	39.884
[v11.5=2]	24.281	2991.327	.000	1	.994	-5838.612	5887.175
[v11.5=3]	20.733	2991.327	.000	1	.994	-5842.159	5883.626
[v11.5=4]	24.184	2991.327	.000	1	.994	-5838.710	5887.078
[v11.5=5]	0 ^a	.	.	0	.	.	.
[v11.6=1]	2.268	1.967	1.329	1	.249	-1.587	6.124
[v11.6=2]	5.706	2.075	7.561	1	.006	1.639	9.773
[v11.6=3]	5.493	2.014	7.443	1	.006	1.547	9.440
[v11.6=4]	3.003	2.087	2.070	1	.150	-1.088	7.094
[v11.6=5]	0 ^a	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant.

The “Location” estimates of the table are the coefficients of the values of each of the six independent predictor variables i.e. V11.1 until V11.6. The significance level of Wald’s statistic value gives a small significance level for four value categories of the variables V11.4 and V11.6, that means that we can reject the null hypothesis that the coefficients of those variables are zero ($H_0=0$). All the other variable categories and variables seems to be not related with the nationality level. So we can expect that there appears to be a relationship between only four sustainable constraints variables, the,

a. “Difficulties in implementing the changes to the company; V11.4”:

- V11.4= “important and not important constraint factor e.g., indifferent” and V11.4= “not important constraint factor”

a. “Fear of reducing customer; V11.6”:

- V11.6= “important constraint factor” and V11.6= “important and not important constraint factor e.g., indifferent”,

and the nationality levels of the hoteliers. So the constraints variables V11.4=3, V11.4=4, V11.6=2 and V11.6=3 of sustainability based on the results of the table 6 are statistical related with the nationality level.

The coefficients of the two above “Difficulties in implementing the changes to the company; V11.4” values are negative i.e., for V11.4=3 it’s -6,254 and for the V11.4=4 it’s -6,868, respectively for the two “Fear of reducing customer; V11.6” values they are positive i.e., for V11.6=2 it’s 5,706 and V11.6=3 it’s 5,493. Hoteliers that believe that “Difficulties in implementing the changes to the company; V11.4” are indifferent and not important constraint factors for the sustainable development of their business, tend to be mostly Greek than Taiwanese hoteliers. Hoteliers that believe that “Fear of reducing customer” is an important constraint and indifferent factor” tend to be Taiwanese hoteliers.

The strength of the association between the nationality dependent variable and the predictor variables are quite strong based on the Pseudo R-Square analysis results. Cox & Snell Pseudo R-Square value=0,589, Nagelkerke’s R-Square value=0,785 and McFadden R-Square value=0,641. Our model fits not well because many of the categorical predictor variables values have a high number of empty cells. The goodness of fit statistics gives a low observed significance level for our model [1], see table 4.

Table 4. Goodness of fit measures for the binary logit model

	Chi-Square	df	Sig.
Pearson	168,436	41	,000
Deviance	67,700	41	,005

Link function: Logit.

Conclusions

Sustainable tourism development, as it is viewed by the literature review (Ali et al, 2008; Cote et al, 2008; Cote et al, 2006; Lee and Park, 2009; Le et al, 2006), can result in considerable profits for the small or medium-sized enterprise. Greeks and Taiwanese have remarkable differences on how they perceive sustainable tourism development and what impact that kind of development will have on their enterprises. Greeks seems to be much more optimistic than Taiwanese. This might be happening because in both cases the hoteliers weren't educated for the importance and the benefits of sustainable tourism development. For Greeks high investment costs are the most important reason for not implementing the adoption of sustainable development cause maybe by the latest economic crisis while the biggest problem for Taiwanese hoteliers is the untrained staff.

The state through its authorities should undertake a more dynamic role, and it should provide active assistance to the small or medium-sized hotel enterprises, which are not able to have the knowledge and the means to promote their product, in order to help collectively and systematically.

In addition to the theoretical contributions described, this study has provided new insights for practical tourism management since this study was conducted from the host's perspective. In addition to contributions to the practice of sustainable development, some of the insights provided by this study are also related to the whole management of tourism development processes. The conclusions of this study have illustrated the importance of adopting a broader view of the scope of sustainable development in the context of hotel SMEs. This kind of broader view is specifically needed in relation to the kind of managerial challenges faced by a hotel operating in the tourism market. Moreover, in this kind of situation, the hotel SMEs also needs to understand and try to influence the entire market, or more importantly, the nature and progression of the tourism market process. The broadening of the scope of sustainable development from hotel internal processes towards external issues is thus an important managerial challenge for hotel SMEs.

References

- Alazraque-Cherni J. (2008). "Renewable Energy for Rural Sustainability in Developing Countries". *Bulletin of Science, Technology & Society*. Vol. 28, No. 2, pp. 105 - 114.
- Ali Y., Mairna Mustafa, Shireen Al-Mashaqbah, Kholoud Mashal and Mousa Mohsen (2008) Potential of energy savings in the hotel sector in Jordan. *Energy Conversion and Management*. Volume 49, Issue 11, pp. 3391-3397.
- Altham, W., (2007), "Benchmarking to trigger cleaner production in small businesses: dry cleaning case study", *Journal of Cleaner Production*, Vol. 15, No. (8-9), pp. 798-813.
- Bansal, P. (2005), "Evolving sustainability: A longitudinal study of corporate sustainable development", *Strategic Management Journal*, Vol. 26, No. 3, pp. 197-218.
- Basu, K., and Palazzo, G. (2008), "Corporate social responsibility: A process model of sense making", *Academy of Management Review*, Vol. 33, No. 1, pp. 122-136.
- Briscoe, J. A., Fawcett, S. E., and Todd, R. H. (2005), "The implementation and impact of ISO9000 among small manufacturing enterprises", *Journal of Small Business Management*, Vol. 43, No. 3, pp. 309-330.
- Burke, S. and Gaughran, W.F. (2007), "Developing a framework for sustainability management in engineering SMEs" [Electronic version]. *Robotics and Computer- Integrated Manufacturing*, Vol. 23, 696-703.
- Campbell, J. L. (2007), "Why would corporations behave in socially responsible ways? An institutional theory of corporate social responsibility", *Academy of Management Review*, Vol. 32, No. 3, pp. 946-967.
- Cote P. R., Lopez J., Marche S., Perron M. G. and Wright R. (2008) Influences, practices and opportunities for environmental supply chain management in Nova Scotia SMEs. *Journal of Cleaner Production*, Vol. 16, pp. 1561 - 1570.
- Cote R, Booth A. and Louis B. (2006) Eco - efficiency and SMEs in Nova Scotia, Canada. *Journal of Cleaner Production* , Vol.14, pp. 542 - 550.
- Crals, E., and Vereeck, L. (2005), "The affordability of sustainable entrepreneurship certification for SMEs", *International Journal of Sustainable Development and World Ecology*, Vol. 12, No. 2, pp. 173-184.

- Economic and Social Commission for Western Asia (2003) A guide to efficient energy management in the tourism sector, *United Nations*, New York.
- Fijal, T., (2006), "An environmental assessment method for cleaner production technologies", *Journal of Cleaner Production*, Vol. 15, No. 10, pp. 914–919.
- Henderson, J., (2007), "Corporate social responsibility and tourism: hotel companies in Phuket, Thailand, after the Indian Ocean tsunami". *International Journal of Hospitality Management*, Vol. 26, No. 1, pp. 228–239.
- Hoffman, A. (2000) Integrating Environmental and Social Issues into Corporate Practice. *Environment*, Vol. 42(5), pp. 22–33.
- Hur, T., Kim, I., and Yamamoto, R., (2004), "Measurement of green productivity and its improvement", *Journal of Cleaner Production*, Vol. 12, No. 7, pp. 673–683.
- IEA, (2004), "World Energy Outlook 2004", *International Energy Agency*, OECD Paris
- Jackson, T., (2005), "Live better by consuming less? is there a double dividend in sustainable consumption?" *Journal of Industrial Ecology*, Vol. 9, No. (1–2), pp. 19–36.
- Jackson, T., (2008), *The challenge of sustainable lifestyles*. In: Gardner, G., Prugh, T. (Eds.), *State of the World 2008*. Worldwatch Institute, Washington, DC
- Jones, P., Comfort, D., Hiller, D., (2006), "Reporting and reflecting on corporate social responsibility in the hospitality industry". *International Journal of Contemporary Hospitality Management*, Vol. 18, No. 4, pp. 329–340.
- Karagozoglu, N., and M. Lindell (2000) Environmental Management: Testing the Win-Win Model. *Journal of Environment Planning and Management*, Vol. 43, pp. 817–829.
- Le Y., Hollenhorst S., McLaughlin W., and Shook S. (2006) Environmental Management A study of Vietnamese Hotels. *Annals of Tourism Research*, Vol. 33, No. 2, pp. 545 – 567.
- Lee, S., and Park, S.Y. (2009), "Do Socially Responsible Activities Help Hotels and Casinos Achieve Their Financial Goals?" *International Journal of Hospitality Management*, Vol. 28, No. 1, pp. 105-112.
- Mensah, I. (2006). Environmental management practices among hotels in the greater Accra region. *International Journal of Hospitality Management*. Vol. 25(3), pp. 414-431.
- Pimenova P. and Van der Vost R. (2004), "The role of support programmes and policies in improving SMEs environmental performance in developed and transition economies", *Journal of Cleaner Production*, Vol 12, No. 6, pp. 549–559.
- Poksinska, B., Eklund, J. A. E., and Dahlgaard, J. J. (2006), "ISO 9001:2000 in small organizations – Lost opportunities, benefits and influencing factors", *International Journal of Quality and Reliability Management*, Vol. 23, No. 5, pp. 490–512.
- Rangel, R. (2000) Does It Pay To Be Green In The Developing World? Participation in Costa Rican Voluntary Environmental Program and Its Impact on Hotels' Competitive Advantage. PhD dissertation in environmental policy and business strategy, Duke University
- Reddy, S., and Painuly, J. P. (2004), "Diffusion of renewable energy technologies—Barriers and stakeholders' perspectives", *Renewable Energy*, Vol. 29, 1431-1447.
- Robinson, J. (2004) Squaring the Circle? Some thoughts on the idea of Sustainable Development, *Ecological Economics*, Vol. 48:4, pp. 369-384.
- Robson, L. S., Clarke, J. A., Cullen, K., Bielecky, A., Severin, C., and Bigelow, P. L., (2007), "The effectiveness of occupational health and safety management system interventions: A systematic review". *Safety Science*, Vol. 45, No. 3, pp. 329–353.
- Scanlon, N.L. (2007), "An analysis and assessment of environmental operating practices in hotel and resort properties" *International Journal of Hospitality Management*, Vol. 26, No. 6, pp.711–23.
- van Berkel, R., (2005), "Waste prevention through business innovation", *Waste and Recycle Conference 2005*. Fermantle, Australia.
- Vazques, R., M. Santos, and L. Alvarez (2001) Market Orientation, Innovation and Competitive Strategies in Industrial Firms. *Journal of Strategic Marketing*, Vol. 9, pp.69–90.
- Veliyath, R., Fitzgerald, E. (2000), "Firm capabilities, business strategies, customer preferences, and hypercompetitive arenas: the sustainability of competitive advantages with implications for firm competitiveness", *Competitiveness Review*, Vol. 10 No.1, pp.56-82.