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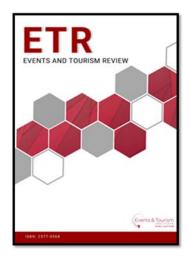
Male vs. Female Sustainable Technology Usage in the Lodging Industry

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Abstract

Although sustainability applications/technology are a key focus in the lodging industry, this area of study is relatively new and requires more investigation. The current study examined whether there are gender differences in the perceptions of sustainable practices and technology in the hotel industry. An online survey asked participants' opinions about sustainable practices and technology such as eco-friendly heating and energy, waste reduction technology, sustainable laundry, lighting technology, paperless transactions, and hotel specific sustainable apps. The result indicated that ease of use is perceived differently by females and males.

Keywords: Sustainable Practices, Sustainable Technology, Gender, Lodging Industry, Assessment

Introduction

Although previous studies indicate that both males and females believe that sustainable practices and technology are an effective solution to preserve the environment, these two groups have different approaches to environmental issues (Arora-Jonsson, 2011). Arora-Jonsson (2011) found that females are more affected by environmental changes than males, which raised the question of how differently these two groups evaluate sustainable practices and technology in hotels. Sustainable practices and technology are being implemented from a fundamental level such as recycling waste (Berezan, Millar, & Raab, 2014) to an advanced level such as reducing energy and water use, replacing fossil fuels with renewable energy systems, and controlling food waste.

Considering the importance of service personalization in customer satisfaction (Ball, Coelho, & Vilares, 2006), understanding the differing mindsets of male and female travelers and the way they view sustainable practices and technology in the hotel is essential. This understanding has two advantages: first, it benefits hotel managers to adopt sustainable practices and technology that meet both genders' needs and desires. Second, it helps sustainable equipment inventors and developers to design more user-friendly technology for both genders.

Literature Review

The study conducted by Miller, Rathouse, Scarles, Holmes, and Tribe (2010) highlighted the importance of research on the effects of tourism and hospitality on the environment of the destination. The study emphasized a gap between destination communities' eco-friendly approaches and travelers' behavior. For instance, saving energy or water is not considered an essential practice by travelers, while it is important for destination communities. However, the travelers' growing desire to travel changed their perspective on the significant impact of traveling on the destination's environment.

Besides the well-recognized importance of environmental considerations and sustainability to enhance the effectiveness and efficiency of the hospitality and tourism industry

(Miller et al., 2010), understanding gender preferences is a key factor in developing successful marketing strategies (Suki, 2014). Service or product providers must understand females' and males' perceptions and desires in order to meet their needs (Arora-Jonsson, 2011). According to the study by Sánchez-Hernández, Martínez-Tur, Peiró, and Moliner (2010), females and males evaluate service quality differently.

In this study, two important factors were highlighted to evaluate service quality, the functionality of the service, and the quality of personalized service. While the functionality of the offered service is more appreciated by males, females identified the quality of personalized service to be more important. These findings can be utilized to not only enhance guest satisfaction but also to increase loyalty to the service provider's brand. Sánchez-Hernández et al.'s (2010) study support the importance of the current study's purpose to understand how different genders perceive sustainable practices and technology in the hotel and how these practices and technology can be improved to satisfy males' and females' different preferences.

Methodology

The study was based on the Technology Acceptance Model (TAM), developed by Davis (1989). In this model, Davis introduced four fundamental factors associated with the degree to which a technology is accepted, Perceived Usefulness, Behavior Intention, and Perceived Convenience (Davis, 1989). We employed an online survey to evaluate gender differences in the assessment of sustainable technology in the hotel industry. The survey was focused on four different topics, behavioral beliefs on sustainable technology in hotels, opinions on ease of use of sustainable technology in the hotel, the usefulness of sustainable technology, and intention to employ sustainable technology. The response for each survey question was on a 5-point Likert scale with 1, representing "Strongly Disagree", and 5, representing "Strongly Agree" with the statement. The survey was completed by 209 respondents on Qualtrics and recruited via Qualtrics.

The inclusion criteria for respondents were: at least 18 years of age, familiar with sustainable technology such as energy-saving mobile apps, stayed in a US hotel within the last year, and utilized the hotel's sustainable practices during their stay.
SPSS 25 was used for computation of two-sample t-tests comparing the responses of females and males, and for Pearson's correlations between responses to pairs of questions. Reverse coding was applied for negatively worded questions before scale scores were calculated for the following four constructs; the responses to relevant questions were summed to compute scale scores on Behavioral Belief, Ease of Use, Usefulness, and Intention to Utilize.

Results and Discussion

Sixty-five percent of respondents were female, and 35% were male, and more than 70% of respondents used sustainable technology during hotel stays. Female and male participants equally agree that utilizing sustainable technology affects the quality of the hotel service (p = 0.933). All participants perceive these practices and technology to be environmentally responsible, and female and male participants are equally satisfied if the hotel uses sustainable technology (p = 0.277).

Males and females do not differ in their evaluation of the usefulness of sustainable technology (p = 0.554), the impact of sustainable technology on human health (p = 0.599), that sustainable hotels protect the environments (p = 0.557), and the belief that sustainable hotels reduce energy, water, and paper consumption (p = 0.178). They are both willing to continue to use sustainable technology. Ease of use, on the other hand, was perceived differently by females and males (p = 0.005). Females report greater ease of use of sustainable technology, indicating that they find sustainable applications to be more user-friendly and less complicated than males do.

All pairwise correlations between the scale scores for Behavioral Belief, Usefulness, and Intention to Use were statistically significant and positive for females and males (p ≤ 0.05). The correlations between Ease of Use and the other variables, however, were not statistically significant (p > 0.05) (Table 1).

Table 1: Independent Samples Test

	Sig. (2-tailed)	Mean Difference	Std. Error Difference
My evaluation of the hotel's service quality will be impacted if the hotel uses sustainable technology.	.933	-.016	.185
I will be more satisfied with my hotel experience if I use sustainable technology at the hotel.	.277	-.186	.170
Sustainable technology in the hotel has a significant impact on protecting the environment.	.557	-.092	.156
Using sustainable technology in the hotel will significantly reduce energy, water, and paper consumption.	.178	-.216	.159
Using sustainable technology in the hotel will directly impact human health.	.599	-.088	.167
Behavioral Belief	.429	-.467	.590
Usefulness	.554	-.401	.677
Intention To Utilize	.405	-.438	.524
Ease Of Use	.003	-2.755	.922

For male participants, the evaluation of the service quality of the hotel was positively correlated with the use of sustainable technology at the hotel (r = 0.809), and satisfaction with service quality was linked to the degree to which they practice environmental responsibility (r = 0.812). Since being satisfied with the hotel typically increases the chance that the hotel is booked, utilizing sustainable technology can be advantageous to the hotel (r = 0.818), (Table 2).

Table 2: Correlations for Male

Service quality of the hotel was positively correlated with the use of sustainable technology at the hotel.	Pearson Correlation		.809**
	Sig. (2-tailed)	.000	.000
	N	73	73
Satisfaction with service quality was linked to the degree to which they practice environmental responsibility.	Pearson Correlation		.812**
	Sig. (2-tailed)	.000	.000
	N	73	73
Hotels with sustainable technology have a greater chance of being booked.	Pearson Correlation		.818**
	Sig. (2-tailed)	.000	.000
	N	73	73

**Correlation is significant at the 0.01 level (2-tailed).

For female participants, the perceived reliability of sustainable technology is positively correlated with the ease of use of the application ($r = 0.709$). For females, the intention to use sustainable technology is positively correlated with the feeling of satisfaction with the hotel experience when using sustainable technology ($r = 0.687$), the belief that sustainable technology has an impact on protecting the environment ($r = 0.815$), and what the technology is used for ($r = 0.699$), (Table 3).

Table 3: Correlations for Female

Ease of use of the application	Pearson Correlation		.709**
	Sig. (2-tailed)	.000	.000
	N	136	136
Feeling of satisfaction with the hotel experience when using sustainable applications.	Pearson Correlation		.687**
	Sig. (2-tailed)	.000	.000
	N	136	136
Sustainable applications have an impact on protecting the environment.	Pearson Correlation		.815**
	Sig. (2-tailed)	.000	.000
	N	136	136
What the technology is used for.	Pearson Correlation		.699**
	Sig. (2-tailed)	.000	.000
	N	136	136

**Correlation is significant at the 0.01 level (2-tailed)

Conclusion and Implications

According to the results of the current study, both males and females believe that sustainable practices and technology are environmentally responsible and are associated with satisfaction with the hotel experience. The positive correlations between Behavioral Belief,

Usefulness, and Intention to Use for both genders provide valuable insights for hoteliers. Beliefs are related to guests' behavior and the use of sustainable technology is related to intention to use for both male and female guests. This means that there is a promising potential acceptance of sustainable practices and technology in the hotel industry.

Males and females agree on the usefulness and various impacts of sustainable practices and report their intention to continue using sustainable technology. However, females report greater usability of sustainable technology than males do. For females, the type of application that is being used is important as well. This study's findings differ from the study conducted by Venkatesh and Morris (2000), which found that males' technology usage decisions can be affected by the usefulness of the technology or equipment, while females are influenced by the ease of use of the technology.

Since competition in the lodging industry is intense, it becomes more essential for hoteliers to differentiate themselves from other service providers. Knowing the guests' perceptions of the hotel's personalized and customized technology/applications captures guests' attention, which consequently leads to loyalty.

Knowledge of males' and females' perceptions of sustainable practices and technology could help service providers to customize these technologies to be more user-friendly and support the needs of different genders. Therefore, it is essential for service providers to evaluate hotel guests' opinions to assure the effectiveness of the technology and any necessary modifications. As a result, guests' engagement, satisfaction, and loyalty will be enhanced.

Reference

Arora-Jonsson, S. (2011). Virtue and vulnerability: Discourses on women, gender and climate change. *Global environmental change*, *21*(2), 744-751.

Ball, D., Coelho, P. S., & Vilares, M. J. (2006). Service personalization and loyalty. *Journal of services marketing*, *20*(6), 391-403.

Berezan, O., Millar, M., & Raab, C. (2014). Sustainable hotel practices and guest satisfaction levels. *International Journal of Hospitality & Tourism Administration*, *15*(1), 1-18.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319-340.

Miller, G., Rathouse, K., Scarles, C., Holmes, K., & Tribe, J. (2010). Public understanding of sustainable tourism. *Annals of tourism research*, *37*(3), 627-645.

Sánchez-Hernández, R. M., Martínez-Tur, V., Peiró, J. M., & Moliner, C. (2010). Linking functional and relational service quality to customer satisfaction and loyalty: differences between men and women. *Psychological Reports*, *106*(2), 598-610.

Suki, N. M. (2014). Moderating role of gender in the relationship between hotel service quality dimensions and tourist satisfaction. *Journal of Quality Assurance in Hospitality & Tourism*, *15*(1), 44-62.

Venkatesh, V., & Morris, M. G. (2000). Why don't men ever stop to ask for directions? Gender, social influence, and their role in technology acceptance and usage behavior. *MIS quarterly*, 115-139.