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Article

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DETERMINANT FACTORS OF GREEN MARKETING ADOPTION IN THE HOSPITALITY SECTOR

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Abstract

Green marketing is falling into the category of answers provided by the business world to the requirement to combine the economic development with the preservation of natural resources which represents a pressing concern of the modern times. In this context, the hospitality sector is facing as well an increasing pressure to pay attention to environmental issues, hotel organizations are increasingly tending to use environmentally friendly products and services, and to implement programs to manage energy and water consumption and waste.

The adoption of green marketing in hospitality industry is significantly facilitated by internal and external factors. The paper focuses on the analysis of determinant internal factors: first and foremost on the pro-environmental behavior of the hotel managers and employees, and also on the already implemented green practices in the daily hotel activity. The implementation of green marketing strategies further examined being taken into account the organizational change theory, discloses a third determinant factor, namely, to what extent the process of changing is prepared.

This paper is advancing an integrated model of determinant internal factors of green marketing implementation in the hospitality sector. The proposed research model has been tested and validated after analyzing the data collected in a quantitative research conducted on 330 managers and employees from the hospitality industry in Romania. The results show that the three predictors - pro-environmental behavior, current green practices and the change readiness - are having a significant influence on the implementation of green marketing.

Keywords: green marketing, pro-environmental behavior, change readiness, hospitality industry, structural equation modeling.

JEL Classification: M31, L83, C51, C52.

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Introduction

During the recent decades, Tourism, an industry that involves complex interactions with the natural system, has been increasing concern to ensure sustainable development aiming to minimize the negative impact on the natural environment. As part of the tourism, the hospitality industry is following the same trend regarding its relationships with the natural environment. The hospitality sector is not the most important polluter and consumer of natural resources, and yet its consumption of water, energy, non-recyclable materials and its generation of solid waste are substantial. Practitioners consider that through their activities, conventional hotels contribute to environmental degradation (Han, et al., 2011), and through measures designed to limit the negative effects of this nature, hospitality industry can bring itself an important contribution to the environment's improvement. (Knowles, et al., 1999). Even if some hotel organizations continue to neglect their ecological duties, possibly because of their misunderstanding of the benefits that could be achieved or because of the lack of good practice examples (Hudson and Miller, 2005), practitioners are concerned about this issue. Thus, in the literature, the topic of the green characteristics of the hotel organizations was consistently addressed, the discussions being aimed at adopting green practices (Leonidou, et al., 2013). On the other hand, some studies show that the issue of the green marketing implementation in the hospitality sector has been insufficiently treated (El Dief and Font, 2010; Chan, 2013; Leonidou, et al., 2013).

Adopting green marketing in a hotel can be analysed through the "readiness for change" process. The long and the short of it, the readiness for change assumes a difference - of form, quality and condition- of the dimension of an entity in various points in time (Poole and Van de Ven, 2004).

This article aims to contribute to the enrichment of investigations on the adoption of green marketing in the hospitality industry. The purpose of the paper is to propose an econometric model that explains how green marketing implementation in the hotel organizations is influenced by three determinant internal factors:

- The pro-environmental behavior of the hotel staff;
- The adoption of green practices as an expression of pro-environmental behavior of the organization;
- Personnel's readiness for change.

To achieve the goal of this paper an econometric model consisting of four latent variables has been proposed and validated using structural equation modelling on the data collected by conducting a survey on a sample of 330 respondents.

1. Literature review

For a long period of time, tourism marketing has ignored the environmental issues. This was associated with a unilateral approach to social responsibility, that put a greater emphasis on maximizing shareholders' wealth rather than improving social welfare and life quality (Karna, Hansen and Juslin, 2003; El Dief and Font, 2010). Generally speaking, tourist organizations have concentrated their efforts on increasing the number of tourists by mainly using advertising techniques and price strategies (Batra, 2006). Marketing specialists' attitude and approaches have changed over the years while the concern for the natural environment has grown, allowing the concept of green marketing to affirm itself.

Green marketing encompasses marketing activities and strategies that are meant to stimulate and sustain consumers' ecological attitudes and behaviors (Chen and Chang, 2013), generating and facilitating a type of trade through which human needs are satisfied with a minimal impact on the natural environment (Polonsky, 1994). These developments reflect a general desire in today's business world, including in the hospitality sector, to ensure sustainable growth and focus on the dynamic relationship between business, society and the environment.

There are several reasons why companies' management tend to adopt green marketing initiatives. Polonsky (1994) is summarizing five of them:

- organizations perceive green marketing as being an opportunity;
- social responsibility;
- the pressure of authorities;
- the pressure of competitors;
- cost or profit considerations.

Other five reasons, somewhat similar to the ones mentioned above, appear in a study cited by Chen and Chang (2013):

- strengthen company's image;
- alignment to the ecological pressure exerted by the external environment;
- exploiting the opportunities created by green products or services;
- obtaining a competitive advantage;
- increasing the value provided to customers.

It can be noted that significant pressures are exerted both by the external environment of the organization (authorities, competition, consumers) and by internal factors and considerations (efficiency, competitive advantage). Pressures exerted by internal and external forces on hotel organizations for taking a greater environmental responsibility are forcing them to implement organizational changes, among which adopting green marketing strategies is an important one.

Green marketing adoption is a deliberate change, initiated, planned and supported by the hotel management, who takes responsibility to change the existing working practices and behaviors (Wischnovsky, Damanpour and Mendez, 2011).

The meaning of this change is, in practice, the creation of a marketing mix that won't have negative effects, to the detriment of the natural environment (Chan, 2013) and that will generate exchanges through which human needs are satisfied respecting such requirements in relation to the environment (Polonsky, 2007).

However, at a broader level, the adoption of green marketing is not limited to specific activities of a function of the organization, but it represents a paradigm shift applied to all employees of the organization; it is necessary for them to realize the relationship between their organization, environment and society (Chamorro and Bañegil, 2006).

Therefore, the effort to embrace green marketing is not a task for the marketing department only, but for the entire hospitality organization.

Adopting green marketing becomes necessary, on one hand, given the changes in the consumer's behavior, which increasingly tends to take decisions based on environmental

considerations and, on the other hand, given the role of business card that the marketing function has, this being the first that can prove to the guests that the hotel develops environmentally friendly activities, in line with their demands (Leonidou et al., 2013).

Regarding the pressure from the authorities, in most countries there is a low degree of legal regulation of environmental issues in the hospitality sector (Leonidou et al., 2013). However, many hotel companies adopt voluntary programs, practices and ecological initiatives and green marketing initiatives, fact that indicates a proactive behavior from the management (González-Benito, Lannelongue and Queiruga, 2011).

The literature highlights a number of factors likely to ensure the success of the organizational change consisting in adopting green marketing.

Firstly, such initiatives require resources and skills which are not available to all types of organizations (Chen and Chang, 2013). For this reason, the first step the hotel can do in this direction is to become "green" (Han, et al., 2011; Chan, 2013; Punitha and Rasdi, 2013). The term "green" refers to actions that reduce the negative impact of human activity on the environment. The hospitality industry provides services to their guests that involve significant consumption of water, energy and other natural resources (e.g. hot water, food, drinks, towels and bed linen, electricity, air conditioning, transport, pool). A "green hotel" is defined by the environment-friendly actions undertaken through measures such as energy saving, water conservation or solid waste management. This is how hoteliers are proving that they are committed to protecting the environment (Chan, 2013).

Adopting green marketing represents a significant change for hotels and people in the organization will not receive it passively; on the contrary, they will react in different ways to it. Faced with change, people are developing various concerns with different intensity, they are formulating hypotheses and they assess them, they are seeking meanings and are developing feelings about change (Choi and Ruona, 2011). Adopting green marketing can give rise to resistance of the employees, as it involves changing familiar behaviors and routines, because additional tasks may occur at work or for other reasons. Thus, the success of change efforts requires managers to focus on making people to be ready for change, by minimizing resistance and turning them into advocates of the change initiative (Neves, 2009). Individual readiness for change is a multifaceted construct. Holt, et al. (2007) mention four dimensions:

- individuals' belief that they have the ability to implement the planned change,
- the opportunity for change,
- the support provided by management, and
- personal benefits resulting from the change.

According to Armenakis and Harris (2002), there are five dimensions of the readiness for change:

- Discrepancy – people's belief that change is necessary;
- Efficacy – the employees' confidence of being able to implement the specific change;
- Appropriateness – people's feeling that the specific change is not only necessary, but it is the right one;
- Support – people's belief that resources are provided to implement the specific change and the commitment of the leaders is firm and constant;
- Valence – benefits the organization's members perceived from achieving the change.

Sopranot (2011) examines the crucial role of the managers as leaders of the change, because they advocate the need of change, they reveal the reasons of the proposed initiatives, they encourage debate, and they ensure reaching consensus between stakeholders. The change leaders also encourage the participation of collaborators in designing and implementing the change, which is likely to increase the commitment of the latter ones (Meyer and Stenaker, 2006). But it must not lose sight of the fact that the ability of managers and staff to implement green marketing strategies is influenced to a large extent by their environmental attitudes and behaviors.

2. Methodology

2.1. Hypotheses

- *The pro-environmental behavior of the employees:*

The green marketing adoption by hotels is the result of a change effort that it is initiated and led by the organization management and it is supported by his entire staff, regardless of the department or the sector they belong. In these circumstances the question is to what extent previous pro-environmental behavior of employees plays a role in the implementation of such initiatives. People can adopt pro-environmental behavior either deliberate or unintentional (Macovei, 2015a). Examples of such behavior are buying green products or organic foods whenever possible, the use of recyclable products, saving water, or reducing energy consumption by turning off lights when you leave the room or by setting the computer on the "sleep" mode. Some persons take the matter further, for example they watch environmental news presented in the media or take part in environmental organizations.

Certain studies are correlating directly the pro-environmental behavior with the adoption of green initiatives in the hospitality sector. Regarding managers, Rivera and de Leon (2005) show that there is a direct relationship between their education and environmental expertise and the involvement of their companies in voluntary environmental programs. The authors confirm the important role of attitude in the strategic choices that people make. Because attitude is an antecedent of the behavior, we may conclude that managers' pro-environmental behavior has a positive influence on such a strategic choice as implementing green marketing within the organization. As per employees, Chan, et al. (2014) found a direct and positive relationship between their pro-environmental behavior and the success of the implementation of environmentally friendly measures in hotel organizations.

Therefore we can formulate the following hypothesis:

Hypothesis 1: Employees' pro-environmental behavior is positively influencing the adoption of green marketing in hotel organizations.

- *Green practices in hotel organizations:*

In order to meet society demands and increase the consumer satisfaction, many hotels try to become more "green" (a shorthand for "environmental responsibility"). Thus, they implement practices and programs of saving water and energy, ecologic policies regarding the purchase of goods and materials, solid waste management and so on (Han et al., 2011).

To get a green label, a practice introduced by the European Commission since 1992, hotels in Romania should possess systems of saving drinking water, treating wastewater, collecting selectively solid waste, obtaining electricity from alternative sources; also, the unit should be well insulated, and meals should include organic products. Even if several hoteliers are using the "green hotel" label as a marketing ploy aiming to attract customers, the fact that hotels adopting green practices for a long time continue to be "green" and the fact that their number is increasing prove that we are not in front of a fleeting fashion, but a modification of the business practices in the hospitality sector (Pizam, 2009).

The green practices reinforces the ecological dimension of the organizations in the hospitality industry and they enable the development of behaviors favoring the adoption of more complex programs, such as green marketing strategies. Han et al. (2011) support the idea of the important role played by green practices for the marketing management, and Punitha and Rasdi (2013) emphasize the help provided by green practices for implementing green marketing effectively.

Therefore we can formulate the following hypothesis:

Hypothesis 2: Green practices positively influence the adoption of green marketing in hotel organizations.

- *Readiness for change:*

Readiness for change is a concept that is similar to the organization's "unfreezing" in Lewin's terminology and it consists in modifying the temporary current state of the organization. Holt et al. (2007) show that change readiness reflects the extent to which employees accept change (conceptually and emotionally) and support its implementation; the authors developed a theoretical model according to which the staff behaviors of acceptance and support are influenced by the content of the change (e.g. green marketing adoption), the process (e.g. steps of implementation), the context (e.g. the attributes of the organization's internal and external environment), and the attributes of the employees. In addition, managers must rely heavily on communication. As Armenakis, Harris and Mossholder (1993) put it, messages sent by management pursue at least two major objectives:

- clarifying the need of change;
- highlighting individual and collective capacity to implement the deliberate change.

Thus, firstly, change managers must convince employees that the adoption of green marketing is necessary and beneficial for the organization, taking into account context and circumstances, and they also must show how the state of the organization after the implementation of the program is different from the current one. Secondly, the belief must be reinforced that resources and the leadership support are effective, and the people have the ability to successfully implement the green marketing strategies. Adequate readiness removes speculation and rumors, which usually lead to various forms of resistance to change (Neves, 2009).

Readiness for change can be seen as an essential factor for ensuring the success of green marketing implementation.

Hypothesis 3: Readiness for change is directly and positively influencing the adoption of green marketing in hotel organizations.

2.2. Variables and measurements

The proposed research model in the previous section contains four latent variables, verbal surrogates for each investigated phenomenon. Latent variables are measured using items, and each item will be measured on a five-point Likert scale as it follows: 1 - Strongly disagree, 2 - Disagree, 3 - Neither agree nor disagree, 4 - Agree and 5 - Strongly agree. Further, each variable is defined at both the conceptual and operational levels.

The latent variable "*green marketing strategies*" consists of 5 items, adapted from Carmona-Moreno et al. (2004), Menon, et al. (1999) and Middleton and Clarke, 2001: GST1 – „Our hotel offers products / services in a manner that minimizes the impact on the natural environment”, GST2 – „Our hotel is trying to benefit from the cost savings resulting from the use of green practices, to offer better prices”, GST3 – „When selecting business partners (ex .: travel agencies, tour operators, airlines, suppliers), our hotel is considering the environmental issues”, GST4 – „Our hotel is informing customers about the efforts we make to protect the environment” and GST5 – „Our hotel is informing the employees about the initiatives launched to protect the environment”.

The pro-environmental behavior is narrowly defined as being any behavior that has a significant positive impact on the environment (Krajhanzl, 2010 in Macovei, 2015b) and involves carrying out actions aiming to reduce as much as possible the negative consequences on the environment (Macovei, 2015a). The variable „*pro-environment behavior*” is made up of three items adapted from Lee (2008), and: PBH1 – „When I get the chance, I use products made from recycled materials”, PBH2 – „I buy organic food whenever I can” and PBH3 – „I watch environmental news in the media”.

Hotels are making increasingly intense efforts to become "green" and the implementation of green practices in the hospitality industry supports the process of management-marketing toward the adoption of a total green hotel marketing (Han et al., 2011; Punitha and Rasdi, 2013). Thus, the latent variable „*green practices*” consists of 3 items, and it was chosen from the most common practices that hotels are implementing in their daily activities: PRA1 – „Our hotel applies energy savings practices in rooms and in common areas”

PRA2 – „Our hotel applies water-saving practices in rooms and in common areas” and PRA3 – „Our hotel applies waste management practices”.

The last latent variable proposed for the model is „*readiness for change*”, and it is a formative latent variable whose 4 items were constructed based on the four dimensions of readiness for change identified by Holt et al. (2007): (1) individual beliefs about the effectiveness of change, (2) the adequacy of change, (3) management support for change and (4) the personal benefits of change. The items were formulated as it follows: CHR 1 – „I think that the hotel would benefit from adopting green practices”, CHR2 – „I do not anticipate difficulties in adapting to the work I have to do after the adoption of green practices”, CHR3 – „Top managers are supporting the effort to implement green practices” and CHR4 – "Green practices implementation has positive effects on my work and my position in the organization".

The survey instrument was pretested on a sample of 25 people, Romanian hotels managers and employees. After small adjustments of the measurement scales, the final survey was conducted on a group of 354 managers and employees of hotels in Romania. The collected questionnaires in electronic and classic paper were centralized in a database and then a

preliminary checking of the data was performed. A total of 24 questionnaires were removed from the database due to a large number of missing answers, the remaining 330 questionnaires being further analyzed using the structural equation modeling method and the two softwares IBM SPSS Statistics v. 20 and Warp PLS 5.0 (Kock, 2015).

3. Results and discussions

Data analysis consists of measuring the reliability, internal consistency, convergent and discriminant validity of the latent variables, using structural equation modeling method based on PLS (Partial Least Squares) to test the proposed model and its hypotheses.

The reliability and internal consistency of the scales were tested using Cronbach's Alpha coefficients, composite reliability and average variance extracted coefficients (AVE), following Bagozzi and Yi (1988) recommendations.

By analyzing the results from table no. 1 we can conclude that three of the four Cronbach's Alpha coefficients related to latent variables have values above 0.7, as recommended by Nunally (1978), excepting for the coefficient associated with the latent variable „The preparation for change” which has a value of 0.627, above the minimum threshold of 0,500 accepted by Hair et al. (2009).

Moreover, all composite reliability coefficients have values higher than the recommended threshold of 0.7 (Fornell and Larcker, 1981). These coefficients are demonstrating the reliability and internal consistency of the latent variables which form the proposed research model.

Table no.1: Reliability and validity statistics

	Cronbach Alpha	Composite Reliability	AVE	VIF	1	2	3	4
1. GreenSt	0.810	0.868	0.569	1.871	0.754	0.454	0.492	0.586
2. Pro_Behav	0.733	0.850	0.655	1.294	0.454	0.809	0.224	0.382
3. Practices	0.766	0.866	0.686	1.383	0.492	0.224	0.828	0.437
4. Ch_Read	0.627	0.782	0.483	1.638	0.586	0.382	0.437	0.695

Note: The square root of AVE are shown diagonally

The measurements validity was tested by verifying the convergent and discriminant validity. The average variance extracted (AVE) square roots have higher values than any of the other correlations between the other latent variables of the model (Table 1), demonstrating a very good discriminant validity (Fornell and Larcker, 1981).

The convergent validity of the latent variables was tested through the average variance extracted analysis- AVE (Table 1) and through the exploratory factor analysis showing the combined loadings and cross-loadings of the observed variables on the corresponding factors (table no. 2). AVE values in table no. 1 are over 0.5, thus resulting, according to Fornell and Larcker (1981), a good convergent validity.

Exploratory factor analysis is showing the loadings and the cross-loadings. The loadings are Pearson correlations between latent variables or factors and items. Loadings are unrotated. Cross-loadings form the matrix in table no. 2 and are obtained through oblique rotations, which are recommended in the case structural equation modeling method based on variance, as it is the case of the partial least-squares method - PLS (Kock, 2015).

The results from table no. 2 show that items' loadings on the belonging factors have similar and higher values than the loadings on other latent variables, which demonstrates a good convergent validity (Jewell, 2011).

Table no. 2: Exploratory factor analysis

	GreenSt	Pro_Behav	Practices	Ch_Read	Type (a)	SE	P value
GST1	0.715	0.061	0.032	0.091	Formati	0.049	<0.001
GST2	0.751	-0.013	0.118	-0.054	Formati	0.049	<0.001
GST3	0.727	0.124	-0.001	-0.083	Formati	0.049	<0.001
GST4	0.759	-0.064	-0.157	-0.091	Formati	0.049	<0.001
GST5	0.817	-0.092	0.010	0.129	Formati	0.049	<0.001
PBH1	0.016	0.862	0.091	-0.067	Formati	0.048	<0.001
PBH2	-0.006	0.842	-0.024	-0.045	Formati	0.049	<0.001
PBH3	-0.013	0.715	-0.082	0.134	Formati	0.049	<0.001
PRA1	-0.141	0.048	0.868	-0.168	Formati	0.048	<0.001
PRA2	-0.038	0.004	0.898	-0.061	Formati	0.048	<0.001
PRA3	0.222	-0.065	0.705	0.284	Formati	0.050	<0.001
CHR1	-0.025	-0.033	0.153	0.798	Formati	0.049	<0.001
CHR2	-0.155	0.133	-0.000	0.643	Formati	0.052	<0.001
CHR3	0.136	-0.147	0.007	0.780	Formati	0.049	<0.001
CHR4	-0.169	0.117	-0.182	0.701	Formati	0.050	<0.001

*Note: Exploratory factor analysis shows loadings and cross-loadings

The research model based on structural equations was analyzed using the software WarpPLS 5.0, using the "bootstrap" method for resampling. This software was chosen because it is able to analyze non-linear relationships of dependency such as S or U curves between the model variables, using variance method and partial least-squares method (PLS) (Kock, 2015).

Moreover, WarPLS is able to estimate the parameters for both reflective and formative variables (Kock, 2015).

Figure no. 1 shows the estimations of β path coefficients with the associated probabilities and the determination coefficients R^2 resulting from structural equation modeling by using the variance based method and partial least-squares technique (PLS) in WarpPLS 5.0.

„The readiness for change” has the strongest influence on „Green marketing strategies” with a β path coefficient of 0.34, thus validating the 3rd hypothesis (H3).

The next variable exerting a significant influence on „Green marketing strategies” with a β of 0.29 for a probability $p < 0.01$, is „green practices”, thus validating the 2nd hypothesis (H2).

Hotel employees’ „Pro-environment behavior” also has a positive influence on the variable „Green marketing strategies”, characterized by a β path coefficient of 0.26 for $p < 0.001$, thus validating the 1st Hypothesis (H1).

To conclude, all the three proposed hypotheses have been validated (H1, H2 and H3) and the cumulative effect of the three predictors: „Pro-environment behavior”, „Green practices” and „Readiness for change” is explaining to an extent of 48% the variance of the dependent variable „Green marketing strategies”, the coefficient of determination R^2 being 0.48 (figure no. 1).

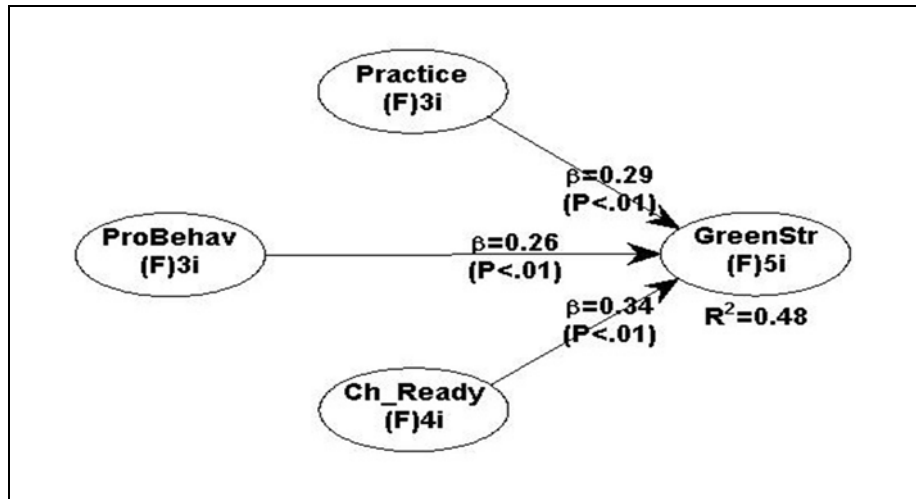


Figure no. 1: Estimated Model in WarpPLS 5.0
 Source: The study results

The specific parameters for measuring the reliability and quality of the proposed model were estimated by using structural equation modeling technique, with the software WarpPLS 5.0, through the variance method and the partial least-squares technique - PLS and are shown in table no. 3.

Table no. 3: Model fit and quality indices

Indices	Criterion
Average path coefficient (APC)= 0.300,	P<0.001
Average R-squared (ARS)= 0.478,	P<0.001
Average adjusted R-squared (AARS)= 0.473,	P<0.001
Average block VIF (AVIF)= 1.322,	acceptable if <= 5, ideally <= 3.3
Average full collinearity VIF (AFVIF)= 1.546,	acceptable if <= 5, ideally <= 3.3
Tenenhaus GoF (GoF)= 0.535,	small >= 0.1, medium >= 0.25, large >= 0.36
Sympson's paradox ratio (SPR)=1.000,	acceptable if >= 0.7, ideally = 1
R-squared contribution ratio (RSCR)=1.000,	acceptable if >= 0.9, ideally = 1
Statistical suppression ratio (SSR)=1.000,	acceptable if >= 0.7
Nonlinear bivariate causality direction ratio (NLBCDR)=1.000,	acceptable if >= 0.7

*Computed with WarpPLS 5.0

All ten models fit and quality indices are found in the recommended intervals and have probabilities with values of below 0,001. The most important indicator of measuring model fit and quality (AVIF) has a value of 1.546, that is below the recommended value of 3.3, and the following two most important metrics, ARS and APC, have excellent values of 0.478 and 0.300, with probabilities p <0.001.

To conclude, the proposed model is validated, quality and model fit indices having very good or excellent values.

Conclusions

The adoption of green marketing strategies is an organizational change that is achieved under the pressure of external and internal factors. The present research focuses on three dimensions of the framework of the green marketing implementation in the hospitality industry, namely: (1) people, (2) organization itself, and (3) organizational change. Firstly, the determinant factor associated with the human dimension is the pro-environmental behavior of employees and managers, which determined a positive influence on the adoption of green marketing in hotels. This result is consistent with findings by Chan et al. (2014).

Secondly, certain characteristics of the hotel organization itself can facilitate the implementation of green marketing strategies. The study finds that green practices play a significant role in the implementation of green marketing strategies, confirming the results of other similar studies (Punitha and Rasdi, 2013; Han et al., 2011).

Thirdly, the most significant determinant factor associated with the change process is readiness for change.

Thus, the study proposes a model based on three determinant factors with a significant impact on the hotels' decision to adopt a green marketing (figure no. 2).

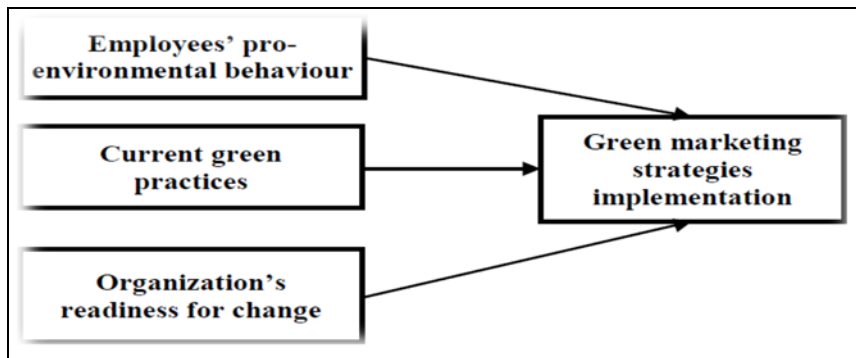


Figure no. 2: Green marketing strategies implementation model

Source: The study results

This model can be used in future studies as such or can be expanded by adding other determinants such as leadership style or the pressure of the external environment likely to increase the explanatory power of the dependent variable, the adoption of green marketing in hotels.

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