

Integrating Green Marketing Issues in Water Sport Recreation Activities

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Abstract

The aim of the present study was to examine participants' environmental awareness in water sport recreational activities. In particular, participants' environmental awareness was evaluated by means of information, knowledge and attitudes towards environment, taking into consideration their demographic characteristics. In addition, the relationships of these three environmental issues to participants' involvement in real green actions were examined. Participants were 435 adults who completed the following scales: a) information, b) knowledge, c) attitudes towards environmental issues (Kouthouris & Kontogianni, 2013), and d) involvement in real green actions (Kyle, Graefe, Manning, & Bacon, 2004). Results revealed statistically significant differences between participants' demographic groups (age and marital status) and environmental awareness. Regression analysis supported strong relationships between the three environmental variables as independent variables with participants' involvement in real green actions as the dependent variable. The present study identified an important relationship between the environmental friendly behaviour, and the participation in water based sport recreational activities. Findings enhance innovative managerial implications by policymakers, stakeholders and marketing managers in the sector of leisure, recreation and sports.

Keywords: management, consumer, involvement, environmentally friendly policy.

1. Introduction

Green marketers in order to satisfy environmentally friendly consumers are interested in finding the determinants of consumers' environmentally friendly behavior, and developing effective marketing strategies to ensure the green purchase commitments (Sharma, Sonwalkar, & Kapse, 2013; Zhang, Xiao, Zheng, Xue, Guo, & Wu, 2020). Researchers have attempted to identify the determinants of environmentally friendly behavior, according to different demographics (Barge, More, & Bholra, 2014; Samarasinghe, 2012a) as many studies have supported an important relationship between a demographic variable and relatively environmentally friendly behaviors (Chekima, Wafa, Igau, Chekima, & Sondoh Jr, 2016; Müderrişođlu & Altanlar, 2011). Also, the focus has moved to psychological factors, such as attitudes (Mondéjar-Jiménez, Mondéjar-Jiménez, Vargas-Vargas, & Gázquez-Abad, 2012), involvement in real green actions (Abbas & Singh, 2014; Cheng, 2020; Grimmer, & Woolley, 2014) and other factors such as consumers' information about environmental issues (Sharma et al., 2013).

Kouthouris, Panagiotidou, Kontogianni, Zafeiroudi and Alexandris (2014) investigated potential differences regarding students 'predisposition in order to adopt environmentally friendly habits' according to their participation or non-participation in exercise activities during leisure time. The sample consisted of 300 Greek university students. Results indicated statistically significant differences between student subgroups, with those who exercised in higher levels scoring higher in 'predisposition for adoption environmentally friendly habits', than students who did not participate in exercise activities.

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Little and Needham, (2011) and Wilson and Millington (2020), have claimed that the green marketing has strongly penetrated into leisure, sport and recreation industry. In addition a number of studies have investigated the relationship between environmentally friendly behavior and physical exercise or participation in sport or recreational activities (Larson, Farr, Stoeckl, Chacon, & Esparon, 2014; Larson, Whiting, & Green, 2011; Thapa & Graefe, 2003). Other studies supported that physical exercise and active participation at sport recreational activities have a significant effect on environmental concern and awareness (Zafeiroudi & Hatzigeorgiadis, 2012; Zafeiroudi & Hatzigeorgiadis, 2014). Present study investigated environmental awareness of citizens that participate at water based sport recreational activities with involvement in real green actions

2. Theoretical Background

2.1 Information about environmental issues

Although the terms ‘information’ and ‘knowledge’ are often used interchangeably, there is a clear distinction between perceived information and knowledge. Information is a flow of messages, while knowledge is created and organized by a flow of information, anchored in the commitment and beliefs of its holder. Getzner and Grabner-Kräuter (2004) support the necessary role of information in the knowledge of green consumers. Results of a survey carried out in Canada involving 1.664 people indicated that 60.2% of the survey participants believed that their environmentally friendly behavior was limited by a lack of knowledge or information on the environment (Kennedy, Beckley, McFarlane, & Nadeau, 2009). The lack of information on environmentally friendly products can be regarded as an important constraint of the purchase and consumption of these type of products.

In another recent study Kouthouris, Zafeiroudi, Chortiatinos and Kontogianni (2016) investigated differences between attitudes and perceived information towards environmental protection issues regarding participants and non-participants in exercise activities during leisure time. Three hundred university students took part in the specific study. The results indicated that students who participated in exercise activities scored higher in both scales related to environmental protection than those who did not participate.

Several surveys suggest that information campaigns, especially those aimed at providing direct or specific rather than general information, can lead individuals to a change in attitudes and make them adopt environmentally friendly behaviors (Mills & Schleich, 2012). Sharma and colleagues (2013) argued that the information on a green product directly influence consumer’s green purchase behavior. Considering all the above, more research is required in order to have a clearer view regarding the relationship between environmental information provision and environmentally friendly behavior in the context of sport and recreation.

2.2 Knowledge about environmental issues

Environmental knowledge defined as “a general knowledge of facts, concepts, and relationships concerning the natural environment and its major ecosystems”. Kanchanapibul, Lacka, Wang and Chan (2014) examined the influence of ecological knowledge on the green purchasing behavior of young consumers and supported that ecological knowledge was crucial in determining young consumers' green involvement as well as their actual purchase.

Fraj and Martinez (2007) argued that despite people being knowledgeable and very concerned about environmental problems, they are still less involved regarding their shopping habits and daily customs. Similarly, a study carried out by Finisterra Paco and Raposo (2009) in Portugal showed that although consumers understand the environmental challenges, support policies to improve the environment, their concerns do not modify their everyday habits.

In contrast, Oguz, Cakci and Kavas (2010) argued that people with higher knowledge of environmental problems are more prone to behave in an environmentally friendly way. Apart from that Mobley and colleagues (2010) concluded that the level of knowledge of the most important environmental issues influences the eco-friendly behavior to a great extent. Almassawi (2014) investigated the relationship between environmental knowledge and green purchase behavior. Results showed that respondents had poor knowledge about the environment but were positively associated with green buying behavior. Nevertheless, there is currently a considerable need in research focusing on recreational, sport and active leisure participants’ knowledge about environmental protection and the resultant behavior.

2.3 Attitudes towards environmental issues

Research indicated that consumers have a positive attitude towards environmental protection (Cheng, Wu, Wang, & Wu, 2019; Liu, Wang, Shishime, & Fujitsuka, 2012). Another study investigated the attitude of Egyptian consumers towards the environment in general i.e. consumers' concern about the quality of the environment (Tantawi, O'Shaughnessy, Gad & Ragheb, 2009). Findings indicated that Egyptian consumer's exhibit positive attitude (from medium to high levels of concern) towards the environment. Specifically, the majority of the respondents (67.21%) have a positive attitude towards the environment, indicating a high level of concern about the quality of the environment.

Empirical studies have shown that environmental attitudes have a positive impact on the environmentally responsible behavior of individuals (Corral-Verdugo, Bechtel, & Fraijo-Sing, 2003). Fielding, McDonald and Louis (2008) supported that people with a more positive attitude towards environmental actions had higher intentions of demonstrating eco-friendly behavior.

Mondéjar-Jiménez and colleagues (2012) investigated the relationship between environmental attitudes and environmental actions. Results showed that environmental attitudes have a positive influence on environmental actions (e.g., choose products that are closer to the environment, recycle, reduce water consumption). Sharma and colleagues (2013) argued that there is a significant and positive relationship between environmental attitude and consumer purchase behavior for green products. Almossawi (2014) supported a positive relationship between environmental attitudes and green purchase behavior, while respondents had positive attitudes towards the environment.

Conflicting results have published with regards to the relationship that currently exists between attitude towards the environment and the resultant behavior (Kotchen & Reiling, 2000) as several studies reported that environmental attitudes were not significantly associated with either green purchase behavior or general environmental behavior (Samarasinghe, 2012b). Although, hundreds of studies have done, no definite answers have given yet (Kollmus & Agyeman, 2002).

2.4 Involvement in real green actions

According to Kyle, Absher and Norman (2007) involvement is a reflection of individual self-concept, needs and values. Many studies have investigated the relationship between environmental involvement and several factors such as environmental knowledge, attitudes, etc. Abbas and Singh (2014) investigated university students' level of knowledge and awareness of environment, their attitudes towards the environment as well as their level of participation and involvement towards environmental protection and environmental conservation. Results revealed high level of environmental knowledge and positive attitudes towards the environment among the students, as well as low level of participation and involvement towards environmental protection activities. This implies that despite the fact that students are aware of the environment and the environmentally related problems, this alone does not make them participate actively in the protection and improvement of the environment.

Barber, Taylor and Deale (2010) pointed out that the degree of tourists' involvement with the environment influences their environmental behavior. Chiu, Lee and Chen (2014) examined whether the level of environmentally responsible behavior can really change as a result of the experience of a trip to an eco-friendly destination. A survey conducted in Australia showed that consumers with a higher level of environmental involvement were more likely to buy products from environmentally responsible companies than consumers with a low level of environmental involvement (Grimmer & Woolley, 2014).

Recently, sustainability were evaluated according to the pre- and post-development perceptions of tourism sustainability, and significantly different results were obtained (Lee & Jan, 2019). Research regarding involvement in green actions in the field of sport recreation is under further investigation (Wilson, & Millington, 2020).

2.5 Demographic Characteristics and Green Marketing Issues

A number of studies have examined gender differences in a variety of environmental and behavioral variables. Zelezny, Chua and Aldrich (2000) investigated gender differences across fourteen countries and found significant gender differences in environmental attitudes and behavioral patterns within countries, with women being consistently more pro-environmental than men. Other authors conclude that men have more knowledge about environmental issues than women (Diamantopoulos, Schlegelmilch, Sinkovics, & Bohlen, 2003). Similar results were obtained by Abdul-Wahab and [Abdo](#) (2010) where males were found to have a higher level of knowledge about environmental issues and were also more environmentally concerned and tended to be engaged in more environmental behaviors than females.

In another survey conducted in India, no significant differences were found between male and female regarding their attitudes towards the environment and eco-products (Ramankumar, Manojkrishnan, & Suma, 2012). Similar results were found in a relevant survey (Wadhwa & Vashisht, 2013), where there were no significant differences between males and females in relation to their attitudes towards the environment, green products and green purchasing behavior.

The study of Almossawi (2014) which was conducted in Bahrain with a sample of 243 undergraduate students, aged from 19 to 23, examined the impact of environmental knowledge and environmental attitudes on shaping and boosting green purchase behavior. The findings of this study revealed that the youths in Bahrain have poor knowledge but quite positive attitudes towards the environment.

Additionally, Aday and Phelan (2013) who have adopted eco-friendly practices in their everyday lives found with American tourists that younger people (18-25 years old) were not in favor of recycling efforts considering the cost of recycling as an important deterrent on top of that. On the contrary, people aged 46 years and over have expressed their willingness to participate in recycling programs and were not affected by the fact that recycling would potentially be costly. Besides, regarding the choice of their travel destination, they were affected by the provision or non-provision of environmentally friendly services. As far as age subgroups is concerned, Musa, Seng, Thirumoorthi and Abessi (2011) argued that in recreational diving older people are the ones that indicate environmentally friendly behavior regarding marine environment when compared to the younger ones (19-29 years old).

Researchers suggest that more highly educated individuals are more concerned about environmental quality and are more motivated to get engaged in environmentally responsible behavior since they are better aware of the potential damage (Lozano, 2006; Olli, Grendstad & Wollebaek, 2001). In a more recent study being conducted in Malaysia with a sample of 319 respondents, results have revealed a significant correlation between education and ecological consumer conscious behavior (Ramly, Hashim, Yahya, & Mohamad, 2012).

Abdul-Wahab and [Abdo](#) (2010) explored the role of demographic factors in determining the environmental awareness of the Omani public and its willingness to protect the environment. Four hundred and twenty-five people took part in the survey. The results revealed that the younger and more educated respondents tended to be more knowledgeable and concerned about the environment than older and less educated respondents.

Several studies argued that marital status has a significant effect on environmentally friendly behavior (Gan, Wee, Ozanne, & Kao, 2008), while other studies supported a non-significant effect (Samarasinghe, 2012a). Also, contradictory findings arise as to whether married or singles are the ones with a higher degree of environmental friendliness (Andereck, 2007).

Andereck (2007) argued that singles are the ones who adopted environmentally friendly practices and are considered very important by the various agencies. Opposite results were obtained in a survey which was conducted in New Zealand and was found that marital status has a significant effect on the green purchasing intention with married people being more likely to buy green products than the single ones (Gan et al., 2008). A different view is expressed in the survey of Kheiry and Nakhaei (2012) in which no significant differences were found in consumers' ecological purchase decision regarding their marital status.

Zafeiroudi and Hatzigeorgiadis (2014) investigated differences in responsible environmental behaviour as a function of demographic characteristics, and participation in outdoor activities. Results revealed significant effects for gender, with men scoring higher compared to women, for age groups with the 35-54 sub-group displaying higher scores than the 18-34 and the 55-68 sub-groups, and education level with individuals with elementary education scoring lower compared to those with secondary and higher education.

In the context of recreational swimming, Kouthouris and Kontogianni (2013) investigated to what extent can information, knowledge, and attitudes towards environmental protection predict swimmer's intention of visiting environmentally friendly services. The results indicated that information, knowledge and attitudes towards the environmental protection predicted a significant amount of variance in swimmers' intention of visiting environmentally friendly sport centers. The present study attempted to achieve a further investigation of the relationship between recreation exercise and environmentally friendly behavior. In particular, to evaluate participants' environmental awareness by means of information, knowledge and attitudes towards environment issues, taking into consideration demographic characteristics and involvement in real green actions.

4. Method

4.1 Participants

Four hundred and thirty-five (N=435) individuals took part in this study, as participants in recreational water sports as scuba diving and water skiing (19,7%), users in recreational swimming pools (45,7%) and sea side swimmers (34.6%) in Northern Greece. Five hundred questionnaires were distributed and four hundred and thirty-five were returned, achieving a response rate of 87 %. According to demographic characteristics 57.2% were male and 42.8% were female. In terms of the age groups, the younger participants were 18 and the oldest were 67 years old (table 1).

Table 1. Demographic characteristics

Participants	Gender	Age Subgroups
Water sports: 86 (19.8%)	Males: 249, (57.2%)	1 st group (18<28): 129 (29.7%)
Sea side swimmers: 150 (34.5%)	Females: 186, (42.8%)	2 nd group (29<38): 153 (35.2%)
Swimming pool users: 199 (45.7%)		3 rd group (39< 67): 153 (35.2%)
Marital Status	Education Level	Time Exercise
Married 198 (45.5%)	Middle level 159 (38.9%)	Low rates 86 (19.8%)
Single 237 (54.5%)	University level 266 (61.1%)	Middle rates 83 (19.1%) High rates 266 (61.1%)

4.2 Research Instruments

4.2.1 'Information' scale.

The scale was adjusted to evaluate participants' interest to inform about environmental issues and refers to the

extent an individual is motivated to gather information from leaflets, media, journals for environmental issues. The scale consisted of 4 items (e.g., "How much attention do you give in information about environmental issues ", "I am very interested in reading about environmental issues". Answers were given to a 7-point Likert scale (from 1=very strongly disagree to 7=very strongly agree).

4.2.2 'Knowledge' scale

The scale was adjusted to evaluate participants' knowledge about environmental issues and is assessed by knowledge listings, quiz, and self-reports of knowledge and abilities about environmental issues. The scale consisted of 4 items: "How informed do you think you are on environmental issues?", "If I asked you to write anything you know about the protection of environment, how many things would you write down?). Answers were given to a 7-point Likert scale (from 1=very strongly disagree to 7=very strongly agree).

4.2.3 'Attitudes' towards environmental issues scale

Attitudes (affective and cognitive) towards environmental issues were assessed with the question: "I believe that participation in actions about environment issues and protection is ..." and responses were given to six bipolar adjectives (e.g., good-bad, clever-foolish, healthy-unhealthy, attractive-not attractive, pleasant-unpleasant, risky -not risky) on a 7-point Likert scale.

4.2.4 'Involvement' in real green actions scale

The tri-dimensional involvement model of Kyle, Graefe, Manning, and Bacon, (2004) has been successfully tested in a variety of leisure contexts. The subscales of centrality and self-expression were measured with 3 items each, while the third subscale attraction was measured with 4 items. Answers were given to a 7-point Likert scale (from 1=very strongly disagree to 7=very strongly agree).

Demographic Information. At the last part of the instrument, respondents were asked to provide demographic information on gender, age, marital status and educational level.

5. Results

5.1 Descriptive Statistics

In terms of descriptive statistics reported high scores at ‘attitudes’ (M=6.08, SD=.82) relatively high scores at ‘information’ (M=5.02, SD=1.24) and ‘knowledge’ variables (M=4.42, SD=1.09) and rather low scores at the ‘involvement in green real actions’ variable (M=3.58, SD=1.17) (Table 2).

Table 2. Descriptive Statistics and Reliability

	N-items	MIN	MAX	M	SD	Cronbach's α
Information	4	1	7	5.02	1.24	.87
Knowledge	4	1	7	4.42	1.09	.81
Attitudes	7	1.4	7	6.08	0.82	.81
Involvement	12	1.17	5	3.58	0.77	.92

5.2 Demographic Differences

5.2.1 Gender

An independent sample *t*-test was conducted aiming to investigate differences in the environmental issues between male and female participants. No statistically significant difference was found in terms of any variable.

5.2.2. Marital Status

An independent sample *t*-test was conducted aiming to investigate differences between single and married participants. Statistically significant differences were found in ‘information’, ($t_{(435)} = -4.85, p < .001$), ‘knowledge’, ($t_{(435)} = -3.84, p < .001$), ‘attitudes’, ($t_{(435)} = -1.97, p < .001$). Married participants scored significantly higher than single ones in all the above variables (Table 3).

Table 3. Differences in Marital Status

	Information	Knowledge	Attitudes
	M (\pm SD)	M (\pm SD)	M (\pm SD)
Singles	4.76 (\pm 1.16)*	4.24 (\pm .98) *	6.01 (\pm .87) *
Married	5.33 (\pm 1.28)*	4.64 (\pm 1.17) *	6.17 (\pm .75) *
t	-4.85	-3.84	-1.97
p	p<.001	p<.001	P<.001

Note. *p < .001

5.2.3 Educational Level

An independent sample *t* test was conducted between middle and high educational level. No statistically significant differences were found.

5.2.4 Age

An analysis of variance was conducted between the three age subgroups (18-28, 29-38 and 39< years old). The analysis revealed significant effects for ‘information’ ($F_{(2,432)} = 17.33, p < .001$), ‘knowledge’ ($F_{(2,432)} = 7.66, p < .001$), and ‘attitudes’ ($F_{(2,432)} = 5.64, p < .01$) variables. Post-hoc analysis (Sheffe's) revealed that the 2nd age subgroup (29-38 years old) and 3rd age subgroup (39< years old) scored significantly higher than the 1st age subgroup (18-28 years old). ANOVA's analysis scores are presented in Table 4.

Table 4. Age Subgroups differences

Age Subgroups	Information	Knowledge	Attitudes
	M (\pm SD)	M (\pm SD)	M (\pm SD)
1 st group (18-28)	4.56 (\pm 1.15)	4.13 (\pm .98)	5.89 (\pm .97)
2 nd group (29-38)	5.03 (\pm 1.15)	4.46 (\pm 1.08)	6.22 (\pm .68))
3 rd group (39<)	5.41 (\pm 1.29)	4.63 (\pm 1.13)	6.11 (\pm .82)
F	17.33	7.66	5.65
p	p<.001	p<.001	p<.01
	1-2,3* & 2-3*	1-2,3*	1-2,3**

Note. *p < .001, **p < .01

5.4 Relationships between Involvement and environmental issues

A regression analysis was conducted to investigate the degree to which environmental variables could predict involvement in green actions (Table 5). Involvement was set as the dependent variable and the environmental issues were set as the three independent variables. The regression model was significantly ($F = 152$, $p < .001$), predicted the 51% of variance. More detailed 'information' variable was the strongest contributor ($b = .37$, $p < .001$), followed by 'attitudes' ($b = .33$, $p < .001$) and 'knowledge' ($b = .21$, $p < .001$).

Table 5. Regression Analysis

Study's Variables	<u>B</u>	<u>b</u>	<u>t</u>	<u>p</u>
Information	.234	.37	8.16	.001
Knowledge	.153	.21	4.62	.001
Attitudes	.312	.33	9.32	.001

$F=152, p<.001, \text{Adjusted } R^2= .51$

6. Discussion

The aim of the present study was to select data according to the environmental awareness or environmental responsibility and of course the level of conscious participation in actions that help nature to recover or protect natural resources. Over the past few decades, environmental problems and issues have been extensively recognized and discussed. Various factors that influence citizens' environmentally friendly behavior have been examined already (Landon, Woosnam, & Boley, 2018). but their relationships are still unclear. Present study examined the environmental awareness level of participants in water based sport recreational activities, through a) information, b) knowledge and c) attitudes towards environmental issues and tested differences in terms of demographic characteristics. Furthermore, the study evaluated the relationship between the three environmental variables and participants' involvement in green actions.

In particular, participants in water based sport recreation activities reported high scores in 'attitudes' and relatively high scores in 'information'. Lower scores were noted in the other variables of 'knowledge' and 'involvement' issues. It is worthwhile to note that while participants reported high scores in attitudes and information, they simultaneously reported low scores in involvement and knowledge, respectively. This might be due to the fact that little educational opportunities for participation in environmental events, actions, programs have been given to Greek citizens either by educational institutions or relative environmental oriented organizations. Probably Greek citizens are more self-driven by their personal environmental values or previous positive experiences about environmental protection. Similar findings were obtained by previous studies conducted in recreation ski centers and winter leisure areas (Holden, 2000; Hudson & Ritchie, 2001; Kontogianni, Kouthouris, & Zafeiroudi, 2014).

Furthermore, statistically significant differences were revealed at 'information' and 'knowledge', with the married citizens scoring significantly higher than the single ones. These results are in line with previous studies which supported the same findings (Gan et al., 2008). In contrast, Kheiry and Nakhaei (2012) supported that no significant differences existed regarding the marital status of consumers forming their ecological purchasing decisions. The results of the present study also revealed statistically significant differences regarding age subgroups. The older participants scored significantly higher than the younger ones in all environmental variables. Tonglet, Phillips and Bates, (2004) supported that older individuals are more environmentally aware than younger ones because they have more access to environmental information and knowledge. The present findings supported Aday and Phelan's (2013) study which revealed that older individuals tend to indicate higher levels of environmentally friendly behavior than younger ones. However, the findings of the Abdul-Wahab and [Abdo's](#) (2010) study supported that younger people were more knowledgeable about the environment than the older ones.

Regarding gender and education, no statistically significant differences were found in all variables of the study. Similar results were found in previous research (Ramankumar et al., 2012; Wadhwa, & Vashisht, 2013) regarding gender, whereas regarding education the results were in contrast with previous research, which supported a significant effect (Abdul-Wahab & [Abdo](#), 2010; Ramly et al., 2012). Finally, the regression model tested successfully the predictive ability of the three environmental issues variables towards 'involvement in real green actions'. Also, the above model applied to the constructive validity of the three environmental issues. It should be noted that all the selected variables were significant contributors in predicting 'involvement in real green actions'.

The present findings are in contrast with previous research findings (Abbas & Singh, 2014; Fraj & Martinez, 2007) which supported a non-significant effect on environmental knowledge and environmental attitudes towards involvement in environmental protection actions. The present study identified an important relationship between environmental friendly behaviour, and the participation in water based sport recreational activities. High rate exercisers and participants in sport recreational activities can be regarded as an important market segment. They are aware of the nature and the conditions in outdoor environment. Thus for the green marketers it is worthwhile to target on the above market segment in order to provide environmentally friendly services.

In conclusion, the three environmentally issue scales predicted successfully the issue of involvement in real environmental actions. By integrating the environmental variables such as information and knowledge about nature protection and environmental friendly habits every day in the public education, present study enhances citizens' attitude towards an actual involvement in real green actions that help the conservation of our planet and create a sustainable national policy.

Future researchers should investigate the relationship between participation in different types of outdoor sport recreational activities (e.g. climbing, mountaineering, mountain biking, canoeing, sailing etc.) and other environmental issues (e.g. environmental awareness, general everyday environmental behaviour, etc.).

7. Conclusion-Managerial Implications

The results of the present study are challenging and interesting. Findings could produce innovative managerial implications by government policymakers and marketing managers in the area of leisure, recreation and sports. New green strategies could change citizens' attitudes and beliefs towards nature and enhance their environmentally friendly behavior. As a promising result, planet earth could be cleaner and safer, and also the sport recreational industry can act towards a more sustainable development and practice.

It is believed that demographics can contribute to a successful identification of different environmentally friendly consumer groups. Managers and marketers should use demographics in order to identify possible green customers' groups, as demographic variables are easier and better indicators than other psychographic variables. An effective market segmentation will help managers and marketers provide more specific green services in order individuals get more involved in environmentally friendly issues and recreational activities. In any case, individuals who are involved in leisure and sport recreational activities indicated higher scores in environmentally friendly issues. Taking that notion into consideration the promotion of recreational or sport facilities and programs could be regarded as an effective component of environmental global protection strategy.

The results confirmed that information seeking environmental issues and nature protection variables supported directly additional citizens' involvement in real green actions. This means that organizations and media involved in green philosophy are required to give more emphasis on the amount and the type of environmental friendly information and involvement opportunities that they promote. The strategy and the logo, which these organizations use to communicate with citizens, should be challenging and innovating in order to enhance participation in environmental friendly recreation activities and sports. In particular, an integrated information promotion strategy is required to build a high level of trust and expand citizens' participation in environmental friendly recreation activities.

Knowledge as a component can be regarded as a significant factor that contributes and increases the involvement of citizens in environmental real time actions and behaviours. Considering this specific relationship between knowledge and participation, government as well as relative public and private policy organizations, should create strategies to increase individuals' knowledge about environmental issues by promoting environmental lifelong learning education programs to all citizens. Furthermore, creating environmental attitudes influence citizens' involvement in real green actions. By building positive beliefs and positive attitudes in everyday life, it creates a promising environmental friendly behaviour. Therefore, organizations should make conscious efforts to promote environmentally friendly services by developing and running green education campaigns and programs. Participation in exercise courses, active recreation services and outdoor activities were indicated as crucial factors that influence and enhance environmentally friendly behaviours. Thus, managers and marketers in sport recreational services ought to create adequate and appropriate conditions in order to offer public exercise opportunities in public parks or open-air exercise areas helping citizens to participate in exercise and sports more frequently and start an active green everyday life.

As a conclusion, sport and recreational stakeholders should pay attention to consumers' involvement in sport and recreation. Sport and recreational managers claimed that businesses which are concerned about their consumers' involvement with green actions, can acquire a competitive advantage in other words to be considered as highly innovative businesses and thus make it easier to penetrate to new markets and gain a new group of green customers.

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