

摘要

隨著消費者環境保護意識的抬頭，企業的行銷活動亦更重視環保訴求。但有關綠色餐廳的相關研究，仍多為探討餐飲業及消費者對綠色餐廳的認知、消費者對綠色餐廳之消費意願與願付價格、消費者生活型態與綠色餐廳之消費態度及意願調查；然對於消費者本身的個人價值、環境關切、選擇綠色餐廳的態度及行為意圖之間的關係研究，卻付之闕如。因此本計畫將針對消費者本身的個人價值、環境關切及選擇綠色餐廳行為進行研究。

本研究計畫主要以價值-態度-意圖(value-attitude-intention)模式為基礎，並結合環境關切，建構出消費者選擇綠色餐廳的行為模式，期望能對消費者選擇綠色餐廳之行為進行更深入的分析。本問卷採便利抽樣詢問有關消費者對於選擇綠色餐廳行為意圖，總計得到254份有效問卷。研究發現本研究所建構之因果模式是適配的，消費者價值、態度對消費者到綠色餐廳消費的行為意圖有顯著正面影響，且消費者價值可經由態度變項進而對消費者到綠色餐廳消費的行為意圖產生顯著正面影響。

關鍵字：綠色餐廳、個人價值、環境關切、價值-態度-意圖模式

Abstract

With the rising of consumers' awareness on environment protection, more and more corporations also pay more attention to environmental protection on their marketing activities. The increased environmental awareness is poised to have a significant influence on green restaurants. Although, in the green restaurants, previous studies have dealt with the restaurant managers' as well as the consumers' perception of green restaurants, consumers willingness to pay for green restaurant, investigate the relationships of consumers' life style, consumers attitude and purchase intention toward green restaurant. However, to our knowledge, few researchers have shed light focused on restaurant customers' decision-making processes when visiting a green restaurant. In addition, the relationships between personal values, environmental concerns, attitude and intention towards green restaurant have not yet been examined.

Structural equation modeling was employed to test the proposed model in our study. Data collected from 254 face-to-face surveys confirmed the hypotheses of the present study and the findings of the current literature on this wider topic. The results revealed that our proposed model (value-attitude-intention) has a good fit to the data. We developed our model based on theoretical support and suggested modification indices. A structural equation analysis of our research model showed that personal values and attitudes positively affected intention to visit a green restaurant. We also found that consumers' attitudes partially mediate the influence of the personal value of green restaurants on the visit intention toward green restaurants.

Key words: green restaurant, personal values, environmental concern, value-attitude-intention

報告內容

Introduction

The past decades have witnessed rapid economic growth through increasing consumer consumption worldwide. Such growth has also made human life more convenient and comfortable. This, in turn, has also caused environmental deterioration through over-consumption and use of natural resources. For better or for worse, human behavior has a large influence on the global ecology (Hirsh, 2010). Our environment faces direct degradation from global warming; depletion of the stratospheric ozone layer; pollution of our seas, rivers, and air; pollution from noise and light; and destruction caused by acid rain and desertification (Ramlogan, 1997; Chen & Chai, 2010). As a result, the issue of environmental protection has become highly relevant. Environmental awareness has grown from 1969's ecology movement focusing on pollution and energy conservation, to the recent effects of humans' growing carbon footprint (Brosdahl & Carpenter, 2010). Even companies across all sectors are working to develop products and practices that minimize environmental effects as part of socially responsible practices. Such efforts also help companies establish a new niche for consumers with environmental concerns (Franziska Schubert, 2008). This is also true for the hospitality and tourism industry, where businesses often rely on the integrity of the environment. Restaurants, however, are often less dependent to such environmental factors and have therefore shown less care for these issues. In addition, the issue of environment protection is facing new challenges with regard to the effect of food consumption on the health of consumers (Franziska Schubert, 2008).

On the one hand, global environmental problems that now challenge the way people live has resulted in an increase in environmental consciousness, with consumers integrating environmental considerations into their lifestyle choices (Barber, Taylor & Strick, 2009). These choices also impact consumer purchasing decisions on how well products satisfy their needs, yet still reduce the negative impact on the environment. In some cases, consumers are willing to pay a premium for environmentally friendly products (e.g., Bazoche, Deola & Soler, 2008; Loureiro, 2003). In addition, Hu et al. (2010) demonstrated that hospitality businesses affect the sustainability of the natural environment in which they operate by their consumption of significant amounts of natural resources. Along with the increasing environment consciousness of consumers and businesses, there has been a growing trend toward green restaurants. However, the concept of green restaurant is just blooming in Taiwan, within this global green trend, being a green restaurant can provide a basis for marketing strategies in that its environmental friendly practices may help position it differently in the competitive arena.

What is a Green Restaurant? It is the restaurant with an new or renovated structures designed,

constructed, operated, and demolished in an environmentally friendly and energy-efficient manner (Lorenzini 1994, p.119). According to the Spell Out Here (GRA) Web site, the certification of Green Restaurant[®] 4.0 provides a comprehensive and user-friendly method of rewarding existing restaurants and food service operations, new builds, and events with points in each of the GRA's seven environmental categories. The guidelines for certification of a Green Restaurant[®] 4.0 are the following: (1) water efficiency; (2) waste reduction and recycling; (3) sustainable furnishing and building materials; (4) sustainable food; that is, the restaurant purchases sustainable organic food from local family farms; (5) energy; that is, using more energy-efficient equipment, offsetting energy usage, and generating on-site renewable clean sources of energy; (6) disposables in that restaurants should use products that are made from bio-based materials or materials that have been previously recycled and made into new products; and (7) chemical and pollution reduction.

Among a wider range of theoretical models in explaining the consumer behavior, Value-Attitude-Behavior (VAB) model is one of the popular models (Homer and Kahle, 1988). In the literature the model has widely used to investigate the role of personal values and value orientation in consumer behavior related to various issues. VAB approach also has proven to be a useful framework for investigating a wider range of consumer behaviors such as choice of leisure activities (Beatty et al., 1985), mall shopping (Shim & Eastlick, 1998), wild/farm fish consumption behavior intention (Nelka Rajani, 2010). In this study, VAB model applied to understand the relationship between underlying values, attitude and intention to consume of the green restaurant among the Taiwanese consumers.

According to the concept of marketing, the consumers' perception is the core element for promoting a green restaurant. Numerous research studies have focused on green consumer purchases toward sustainable food, such as green, organic, and eco-friendly food (Bazoche et al., 2008; Davies, Titterington, & Cochrane, 1997; Lin, 2006; Loureiro, 2003). Along with the increasing environmental awareness of consumers and businesses, there has been a growing trend towards environmental concern. As consumers are better able to acquire information via today's advanced communication networks, we get better able to make more informed the consumers' environment concern of their perception. Environment concern often used as a measure of the importance of the environment and its protection and is cited as an indicator of the greening of consumption (Alwitt & Pitts 1996). Several studies have indicated that a positive relationship exists between consumers' environmental concern and environmentally friendly behavior (Ellen et al., 1991; Hu et al, 2010; Laroche et al., 2001).

Although there are some studies have focused on ecological initiatives within the hospitality industry (Rodriguez and Cruz 2007; Scanlon 2007, Wu & Teng, 2011; Tzschentke et al., 2008), virtually, only a few present the environmental management issues in the restaurant industry (Hu et

al.,2010), especially for the investigation of consumers' perspectives on green restaurants. To our knowledge, however, the relationships between values, attitudes and environmental concern toward green restaurants have not yet been examined. To fill this gap, we will focus on the consumers' value, attitudes, environmental concern and intentions to dine at a green restaurant that will provide insight into a substantial future target market for green restaurants. We expect this study will have implications in the hospitality industry for restaurant marketing in future directions for academic and industry practitioners. Furthermore, we also hope this proposal's findings will contribute new knowledge to the theoretical understanding of consumers' perceptions on green practices in the hospitality industry.

Literature Review

Value-attitude-behavior model

According to Nelka Rajani(2010), the values are the most abstract of the social cognitions, and from these abstractions attitudes and behaviors are manufactured. Homer and Kahle (1988) asserted the values are similar to attitudes and both are emerging continuously from assimilating, accommodating, organizing, and integrating environmental information to promote interchanges with the environment that are favorable to preserving optimal functioning. Vaske and Donnelly (1999) also proposed that the individual's view of the environment in which he/she lives can be organized into a cognitive hierarchy consisting of values, value orientations, attitudes, behavioral intentions, and behaviors, with each of these elements building on one another. The values beacon consumers' behaviors by affect flowing from abstract values to midrange attitudes to specific behaviors. The way of sequence can be called the value-attitude-behavior hierarchy. The VAB approach has proven to be a useful framework for investigating a wider range of consumer behaviors from previous literatures, such as choice of buying organic foods (Grunert and Juhl, 1995); e-shopping (Jayawardhena, 2004); consumer behavior intention toward functional foods (Tudoran et al., 2009).

The Effects of the VAB model on visiting a green restaurant

Vaske and Donnelly (1999) declared that the influence of personal values on attitudes and behavior occurs indirectly via domain-specific values and those domain-specific values help strengthen and give meaning to personal values. According Yang (2007), personal values influence individuals' dining intentions toward green restaurants. Vermeir and Verbeke (2008) showed that consumers' values (particularly universalism values) had a significant positive impact the intent to engage in sustainable behavior. Similarly, high benevolence consumers or kind-hearted consumers consider social norms in addition to their own beliefs to motivate sustainable behavioral intention. Recently, Nelka Rajani (2010) investigated the relationship between values, attitudes, and intention

to consume wild versus farmed fish by applying the VAB model. They showed that personal and domain-specific values were highly associated with attitude toward wild fish consumption. Attitude toward wild fish had a direct influence on intention to consume wild fish. Furthermore, the domain-specific values and attitude toward wild fish had a mediating role in the VAB model.

Consistent empirical evidence has supported a positive association between environmental attitude and behavior (Kaiser et al., 1999). We also found some studies that show evidence that attitude is positively related to willingness to purchase. Such studies indicated that stronger attitudes toward environmental issues can influence consumer purchase behavior (Chan et al., 2010; Barber et al., 2009.). Ajzen (1991) defined an attitude is a learned predisposition toward some object or an action. These studies indicate that stronger attitudes toward environmental issues can influence consumers' purchase behavioral intention.

On the one hand, the behavior intention is taken as a proxy measure of likely behavior (for example, Sparks & Pan, 2009; Nonis & Swift, 2010; Philips & Jang, 2012; Wang & Ritchie, 2012a,b). Volitional behaviors are influenced by behavior intention, which is the likelihood to act (Fishbein & Ajzen, 1975). Intention to act in a certain way is the immediate determinant of a behavior (Ajzen, 2005). This means that researchers need an accurate measurement of behavior intention to fully understand behavior. The antecedents of intentions are better understood than the antecedents of behavior (Philips & Jang, 2012), so in this present study, we use the consumers' intention to patronage green restaurant is taken as a proxy measure of likely behavior per se in the accommodation sector. The limitation of this measurement is discussed in the Conclusions and Limitations section. Based on the clarification of this feature of the TPB, some relationships to be tested in this study are presented below.

Based on the previous research, the following hypotheses were postulated and tested:

H1: Personal values have a significant positive effect on attitudes toward consumption in green restaurants.

H2: Consumers' attitudes have a significantly positive impact on behavioral intention to visit green restaurants.

H3: Personal values have a significant positive effect on behavioral intention to visit green restaurants.

Environmental Concern

Lee (2008) defined environmental concern as the degree of emotional involvement in environmental issues. Environment concern refers to the belief, stance and degree of concern an individual holds toward the environment (Said et al., 2003). Some scholars have posited that environmental concern denotes that an individual's concern level regarding environmental issue has been found to be a useful predictor of environmentally conscious behavior (Ottman, 1992; Kim

&Choi, 2005). Environmental issues in studying the dynamics of green restaurant patronage indicate that environmental concern is a construct frequently used as a measure of the importance of environment (Hu et al., 2010). In summary, environment concerns involve emotionality toward issues related to the environment. Actually, environmental concern is a variable that is often used as a measure of the importance of the environment and its protection and is cited as an indicator of the greening of consumption (Alwitt & Pitts 1996).

The relationship among environmental concern, values, attitude and behavior intention

Schwartz et al. (2000) showed that personal values (particularly universalism) correlated positively with macro-level environmental concerns. Schultz et al. (2005) demonstrated that self-transcendent values (personal value) and environment concerns (particularly altruistic and biospheric concerns) had a positive correlation. Kilbourne and Pickett (2008) demonstrated that personal values (particularly materialism) had a negative influence on environmental beliefs, and that these beliefs positively affect environmental concern and environmentally responsible behaviors. Nelka Rajani (2010) identified that personal values (particularly universalism) had a significant positive impact on environmental concern. In other words, consumers with stronger emphasis on personal values are more likely to have a stronger emphasis on environmental concerns. Based on the above-mentioned relevant literature, the following hypotheses are postulated and tested in the present study:

H4: Personal values have a significant positive effect on environmental concern.

On the one hand, the relationship between environmental concern and behavior has been explored in a variety of contexts. Several studies have found a significant relationship between consumers' environmental concern and environmentally friendly behavior (e.g., Ellen et al., 1991; Laroche et al., 2001). also found that environmental concern has a positive influence on environmentally friendly consumption behavior. Several prior studies have proven a positive correlation between environmental concern and green behavior (e.g., Roberts & Bacon, 1997; Kim & Choi, 2005; Brodahl & Carpenter, 2010). Kilbourne and Pickett (2008) suggested that the paths from environmental concern to both direct and indirect behaviors would be positive. Lee (2008) found a significant relationship between environmental concern and green purchasing behavior among Hong Kong's adolescent consumers. Nabsiah et al. (2011) showed that a positive and significant relationship existed between environmental concern and green purchase behavior among Penang green volunteers. More recently, Hu et al. (2010) found that the relationship between environmental concern and patronage intentions to green restaurants was statistically significant. This means the higher the consumer's environmental concern, the higher are their patronage intentions. Besides, Smith (2009) suggested that the more concerned a consumer is for the environment, the more positive attitudes they have of organic produce. Hirsh (2010) found that

environmental concern has a significant positive impact on attitudes toward wild fish consumption. In the same vein, it is found that environmental concern was positively related to consumers' intention to purchase green products in a survey of Egyptian consumers (Mostafa ,2006). Many studies also confirmed that environmental concern positively affects proenvironmental intention and behavior (e.g., Pierce, Dalton, and Zaitsev 1999; Stern et al., 1993).

Based on these relevant studies that support the effect of environmental concern to consumers' attitude and behavioral intention in the green consume behavior, we will grant that environmental concern will be the prominent predictable construct to our study of patronage green restaurant. In view of the foregoing, we formulate the following hypothesis:

H5: Environmental concern has a significant positive impact on attitudes toward visiting green restaurants.

H6: There will be positively and significant relationship between environmental concern and behavioral intention to visit a green restaurant.

Method

Sample and Data Collection

The population for this research included customers older than 20 years who were willing to patronize a green restaurant in Taiwan. Questionnaires were sent to 500 randomly selected potential customers, although a face-to-face survey was used to collect data. Face-to-face surveys were conducted by trained interviewers in a variety of locations, including train stations, supermarkets, department stores, shopping malls, and adult education classes to obtain data from a representative demographic profile. A total of 254 usable responses were received from participants during the month-long survey period (Jan. 15—Feb. 14, 2011). Most of the respondents in the final sample were female ($n = 139$, 54.7%). In terms of the distribution of ages, 90 subjects were aged 21 to 30 years (35.4%) and 56 subjects were aged 31 to 40 years (22%). In terms of educational background, 132 subjects (52%) were university graduates, and 108 (42.5%) had completed their formal education as far as senior high school level. There are 114 respondents (44.9%) indicated that their individual incomes were TWD 20,000 to 40,000 per month.

Instrument Development

The questionnaire consisted of five major sections incorporating demographics. Scales measuring personal value, environmental concern, general attitudes, and behavioral intentions referenced previous studies. Personal value was measured using two dimensions of universalism and benevolence adapted from Nelka Rajai's (2010) scales. An example of a universalism item is "The importance of protecting the environment." An example of a benevolence item is "Responsible (dependable and reliable)." Environmental concern was measured using three dimensions: balance of

nature, and limits to growth, all of which were adapted from the environmental paradigm scale developed by Dunlap and Van Liere (1978). General attitudes in this study were measured in terms of two factors: health and environment, modified from Gil et al. (2000) and Torjusen et al. (2001). The intention to visit a green restaurant was measured using six questions developed by Wu and Teng (2011) and Hu et al. (2010). The scales used a 7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. The expressions of the items were adjusted, where appropriate, to the content of green restaurants.

RESULTS AND ANALYSIS

Prior to path analysis in SEM, confirmatory factor analysis (CFA) was conducted to test the scale validation of the full measurement model, which consisted of 41 items (personal values: 10 items of universalism, 7 items of benevolence; environmental concern: balance of nature, limits to growth, and humans over nature with 4 items each; general attitudes: 2 items of attitude toward health, 4 items of attitude toward the environment; and 6 items of intention to visit a green restaurant). Model modification procedures were used to identify observed variables that had low factor loadings, significant cross-loadings, and large residuals. As the minimum cutoff, items with high modification index values due to correlated error terms and low standardized factor loadings (< 0.50) were deleted (Byrne, 1998). As a result, two items were deleted from the intention construct and four items each were deleted from the humans over nature construct. After deleting six observed items, a revised overall measurement model showed a significant improvement in fit.

Evaluating reliability, constructs validity, and discriminate validity

Reliability can reflect the internal consistency of the indicators measuring a given latent variable. Cronbach's α and/or composite reliability (CR) should be 0.7 or higher to be judged reliable according to Fornell and Larcker (1981), Bagozzi and Yi (1988), Nunnally and Bernstein (1994), and Hair et al. (2006). Table 1 shows that the Cronbach's α of each item was between 0.832 and 0.896, which was above the threshold level of 0.70. The CR of each construct was between 0.81 and 0.87, which was above the threshold level of 0.70, confirming that the research variables were acceptable in terms of their reliability.

In addition, from Table 1, we see the observed variables specified to measure each of the constructs all had relatively high loadings (statistically significant at $p < 0.01$), ranging from 0.633 to 0.935, which supports evidence of convergent validity (Anderson & Gerbing, 1988). Alternatively, from Table 1, the AVE of the constructs ranged between 0.53 and 0.72 and were all therefore higher than the suggested threshold level of 0.5 recommended by Fornell and Larcker (1981). This thereby confirms that the measurement model had good convergent validity. The

measurement model used in the present study was thus shown to be reliable and meaningful for testing the structural relationships among the four constructs under consideration.

Table 1: Analysis of the reliability and validity of each measurable variable

Construct	Items	Standardized factor loading	<i>t</i> value	CR	AVE	Cronbach's α
Personal Value	Universalism Dimension	0.912	---	0.90	0.81	0.896
	Benevolence Dimension	0.891	16.079***			
Environmental Concern	Balance of Nature	0.928	---	0.84	0.73	0.832
	Limits to Growth	0.771	11.778***			
Attitude	Environment Attitude	0.633	---	0.69	0.53	0.834
	Healthy Attitude	0.807	7.618***			
Behavioral intention	I am willing to patronize	0.695	---	0.87	0.62	0.859
	Considerable chance to patronize	0.935	13.072***			
	Predominantly patronize	0.813	11.955***			
	Recommend others to patronize	0.690	10.262***			

Note: *** $p < 0.001$

Fornell and Larcker (1981) indicated that discriminant validity exists when the proportion of variance extracted in each construct exceeds the square of the coefficient representing its correlation with other constructs. As shown in Table 2, all AVE values were greater than the squared correlations between constructs, hence, the discriminant validity is satisfactory for all the constructs.

Table 2: Discriminates validity for the measurement model

Construct	PV	EC	AT	BI
PV	0.81			
EC	0.358**	0.73		
AT	0.138**	0.141**	0.53	
BI	0.127**	0.107**	0.279**	0.62

Notes:

** $p < 0.01$; PV = Personal Value; EC = Environmental Concern; AT = Attitude; BI = behavioral intention.

. The values on diagonal (in boldface) represent the average variance extracted for each construct (AVE) whereas the variables below the diagonal represent the squared correlations between each pair of latent constructs.

After testing the reliability and validity of the measurement model, we next determined the goodness-of-fit of the structural model using the program AMOS 7.0 (Arbuckle, 2006) to test the hypotheses H1 through H8. According to Gefen et al. (2000), between 100 and 150 responses are needed to carry out structural equation modeling. The 254 responses of the present study implies that the size of the sample was sufficiently large. Table 3 shows that all seven goodness-of-fit indices yielded values that were above the recommended values. Consequently, the goodness-of-fit between the proposed model and the observed data in the present study was deemed acceptable (Gefen et al., 2000).

Table 3: The recommended and actual values of fit indices

Fit index	χ^2 / df	GFI	AGFI	CFI	NFI	NNFI	RMSEA
Recommended value	<3	>0.90	>0.80	>0.90	>0.90	>0.90	<0.08
Actual value	2.489	0.945	0.895	0.968	0.948	0.950	0.077

Notes: χ^2 / df is the ratio between chi-squared and the number of degrees of freedom; GFI = Goodness of Fit Index; AGFI = Adjusted Goodness of Fit Index; CFI = Comparative Fit Index; NFI = Normed Fit Index; NNFI = Non-Normed Fit Index; RMSEA = Root Mean Square Error of Approximation.

Hypothesized Relationships

Path coefficients estimated by SEM and hypothesis testing results are presented in Table 4 and Figure 2. Hypothesis 1 proposed that personal value (PV) positively influence general attitude (AT). The path coefficient from PV to AT (beta = 0.236, $p < 0.01$) was statistically significant at 0.01 level, indicating positive effect of PV on AT. Thus, Hypothesis 1 was supported.

Hypotheses 2, 3, and 6 proposed that personal value (PV), general attitude (AT) and environmental concern (EC) positively influence behavioral intention (BI) to patronize a green restaurant. Whereas the path coefficient from PV to BI (beta = 0.187, $p < 0.01$) and from AT to BI (beta = 0.607, $p < 0.001$) were statistically significant at the 0.01 level, indicating positively effects of PV and AT on BI. The path coefficient from EC to BI (beta = -0.034, $p > 0.05$) was not statistically significant at the 0.05 level. Thus, only Hypotheses 2 and 3 were supported, but Hypothesis 6 was not supported. According to the size of the beta values, the magnitude from AT to BI was larger than the magnitude from PV to BI. The magnitude from AT to BI (beta = 0.607, $p < 0.001$) was larger than the magnitude from PV to BI (beta = 0.187, $p < 0.01$).

Hypotheses 4 proposed that personal value (PV) positively influences environmental concern (EC). The path coefficients from PV to EC (beta = 0.697, $p < 0.001$) were statistically significant at the 0.001 level, indicating positive effects of PV on EC. Thus, Hypotheses 4 was supported. Hypotheses 5 proposed environmental concern (EC) positively influenced general attitude (AT). The path coefficients from EC to AT (beta = 0.281, $p < 0.01$) were statistically significant at the 0.01 level, indicating positively effects of EC on AT. Thus, Hypotheses 5 was supported.

Table 4: Results from hypothesis testing

Hypothesis	Path	Path coefficient	t value	Results
H1	PV→AT	0.236	2.063**	Supported
H2	AT→BI	0.607	5.817***	supported
H3	PV→BI	0.187	2.011**	supported
H4	PV→EC	0.697	11.352***	Supported
H5	EC→AT	0.281	2.392**	supported
H6	EC→BI	-0.034	-0.363	Not supported

Notes: ** $p < 0.01$; *** $p < 0.001$

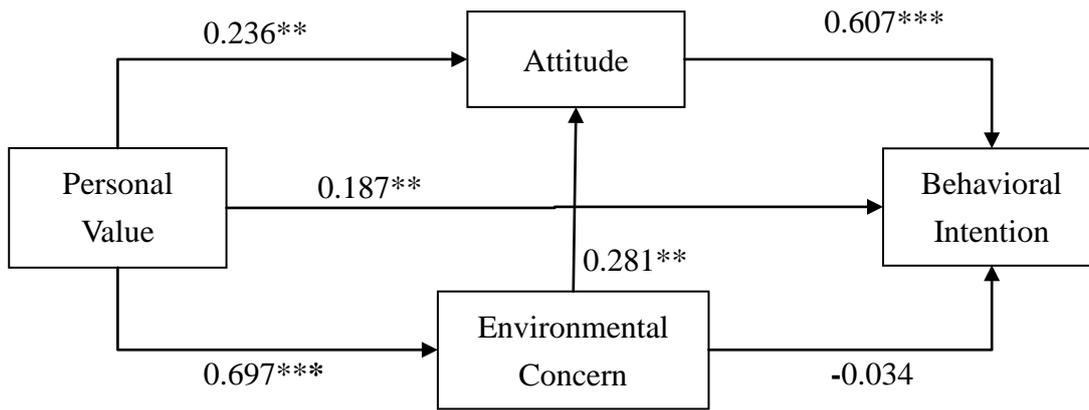


Figure 1: The Hypothesized Model

** $p < 0.01$; *** $p < 0.001$

Evaluating direct, indirect, and total effects on behavior intention

In this study, researchers did not focus only on the direct effects between variables but also addressed the indirect effects between variables. With the aid of both direct and indirect effects, the researchers were better able to explain relationships between variables. Table 5 demonstrates the direct, indirect, and total effects on general attitude (AT) (standardized estimate = 0.196, $p < 0.01$) and behavior intention (BI) (standard estimate = 0.143, $p < 0.01$), and environment concern also had a significant indirect effect on BI (standard estimate = 0.171, $p < 0.01$). From the data, it reveals that the total effect is higher than direct effect that means the effect of values on behavioral intention is fully mediated by attitude. Additionally, although the direct path from environmental concern to behavioral intentions is not statistically significant, we still found that consumers' environment concern to patronize a green restaurants exist indirect effect by the consumers' attitude. The effect of environment concern on behavioral intention to patronage green restaurant is fully mediated by the attitude.

Table 5: Direct and indirect effect

Variables	Environment Concern			General Attitude			Behavior Intention		
	Direct	Indirect	Total	Direct	Indirect	Total	Direct	Indirect	Total
Personal Value	0.697	---	0.697	0.236	0.196	0.432	0.187	0.143	0.330
Environment Concern	---	---	---	0.281	---	0.281	---	0.171	0.171
General Attitude	---	---	---	---	---	---	0.607	---	0.607

CONCLUSIONS AND LIMITATIONS

The objectives of this study were to investigate how the consumers' value, attitude, environmental concern and intention to patronage green restaurants in Taiwan. The present study has demonstrated that the proposed model fits the data quite well, and the findings have enabled it to draw the following conclusions.

First, hypotheses H1, H3, and H4 were supported revealing that personal value significantly influenced consumers' environmental concern, attitudes, and the probability of choosing a green restaurant. In this research, personal value included universalism values and benevolence values. Our supported hypotheses reveal that these values were very important to the consumers' intention to choose a green restaurant. As support for H1 shows, personal value has a significant effect on consumers' attitudes. This means personal values guide the consumers' criterion of action and develop attitudes toward relevant objects and situations. This result is consistent with previous studies by Dreezens et al. (2005). Further, several studies have revealed similar results, including a study by Nelka Rajani (2010), which identified that personal values (particularly universalism) had a significant positive impact on environmental concern. Consumers who have universalism values consider the consequences that behavior has for the environment (Vermier et al., 2008). This demonstrates that those who possess more universalism values will have more environmental concern. This result is similar to our support for H4. As we discussed, we cannot omit the role of personal value on predicting the dynamic of patronizing green restaurants.

Second, among the constructs tested, attitude toward intention to choose a green restaurant is the prominent variable in our model. This finding was in accordance to the environment sustainability attitude, which causes more behavioral intention toward choosing a green restaurant. Thus, the effect of one favoring a healthy and sustainability attitude should not be ignored in future research. Marketers of green restaurants should actively find ways to promote green campaigns and healthy diets that potentially contribute to building the consumers' favorable attitude toward eating in a green restaurant.

Third, our research discusses both the direct and indirect effects among variables. The effects of these constructs help explain relationship among these variables. The results of the present study verified consumers' attitudes partially mediate the influence of personal value on the intent to visit a green restaurant. In this regard, our findings imply that the values of universalism and benevolence are salient referents that are likely to help individuals positively evaluate the consequences of the behavior to eat in a green restaurant. Thus, for green restaurant managers, to enhance individuals' levels of attitudes is critical to maximizing the influence of personal value on visit intention.

Lastly, the construct of environmental concern did not have a significant relationship with the intent to visit green restaurants according to H6 in the present study. Furthermore, consumers'

environmental concern did not mediate the effect of the personal value on visit intention toward green restaurants. This result shows this construct is not the obvious variable to predict intent toward visiting a green restaurant that means consumers may have a concern for the environment, but this concern may not follow through with their behavior.

The management implication of this study from based on this finding, consumers' attitude plays an important role to promote consumer patronage of green restaurants. Green restaurants marketers must develop effective strategies to improve visiting intention; thus, they must target potential visitors who are environment attitude and healthy attitude, such as members of non-profit organizations (sustainability associations or healthy associations). Green restaurant managers should promote the differences of their sustainable practices and the benefit of the green food to those of traditional restaurants for the members of non-profit organizations. This type of marketing strategy attracts consumers with environment attitude and healthy attitude who believe that patronizing a green restaurant will benefit the global environment significantly and persuades the consumers to believe that patronizing green restaurant is a behavioral trait that minimizes negative effects on the natural environment but also good for the healthy.

Beside that, we will suggest adding universalism value and benevolence values view in the ethic course in the college and university education. Cultivating the mind of universalism and benevolence values when consumers still are the students will develop their universalism and benevolence values views. When they get chances to dine out with their family or friends, they will get favor intention to choose green restaurant. Further more, after they graduate from school, as the higher universalism and benevolence values mind, they will get more behavior intention patronage green restaurants. We also hope the relative government agency can promote the policy to encourage the civil patronage a green restaurant that is a benevolence and healthy behavior. Patronage a green restaurant is not only a kind of sustainable behavior but also help ourselves healthy.

As with all studies, this study has some limitations. First, we confined our sample to major cities in Taiwan that may have a similar level awareness of the environment based on the similar profile of respondents. Future research should be conducted with consumers who have different levels of environmental knowledge of green restaurants. The sample should also be diversified in terms of the culture of the respondents, such as sampling respondents from other countries. Also, additional attention must be devoted to examining the effects of consumers' environmental involvement in future studies toward green restaurants. Moreover, studies should focus not only on the intent to visit, but also on actual patronage behavior. It is fair to say that intention may not translate into actual behavior in this case, even though a large body of evidence suggests that intention represents the most powerful single predictor of behavior (e.g., Conner & Abraham, 2001).

Therefore, future studies should account for consumers' actual patronage of green restaurants. Whereas the contribution of this research is that it increases our understanding of the factors influencing consumers' visiting intentions to green restaurants, the results derived should be considered through follow up research.

References

- Alwitt, L and Pitts, R (1996). Predicting purchase intentions for an environmentally sensitive product. *Journal of Consumer Psychology*, 5(1), 49-64.
- Ajzen I (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179-211.
- Anderson, J. and Gerbing, D. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Arbuckle JL (2006). AMOS (Version 7.0) [Computer Program]. Chicago: SPSS.
- Bagozzi, R. (1981), Attitudes, intentions and behaviour: Atest of some key hypotheses. *Journal of Personality & Social Psychology*. 41 (4), 607-627.
- Bagozzi, R. and Yi, Y. (1988). The Degree of Intention Formation as a Moderator of the Attitude-Behavior Relationship, *Social Psychology Quarterly*, 52 (4), 266-279.
- Barber, N., Taylor, D. C. and Strick, S. (2009). Environmental knowledge and attitudes: influencing the purchase decisions of wine consumers, 2009 ICHRIE Conference 1-11.
- Bazoche, P., Deola, C. and Soler, L. (2008). *An experimental study of wine consumers' willingness to pay for environmental characteristics*. 12th Congress of the European Association of Agriculture Economists. Retrieved from <http://www.legrenelle-environment.fr/grenelle-environment>.
- Beatty, S. E., Kahle, L.R., Homer, P.M and Misra, S. (1985). Alternative Measurement Approaches to Consumer Values: The List of Values and the Rokeach Value Survey. *Psychology and Marketing*, 2(3), 181-200.
- Blackwell, R., Miniard, P. and Engel, J. (2006). *Consumer Behavior* (10th ed.). Thomson Southwestern: Mason, OH.
- Brosdahl, D. C. and Carpenter, J. M. (2010). Consumer knowledge of the environmental impacts of textile and apparel production, concern for the environment, and environmentally friendly consumption behavior, *Journal of Textile and Apparel Technology and Management*, 6(4), 1-9.
- Byrne Barbara M. (1998). *Structural Equation Modeling with Lisrel, Prelis, and Simples : Basic Concepts, Applications, Programming*.
- Chen, T. B. and Chai, L. T. (2010). Attitude towards the environment and green products, *Management Science and Engineering*, 4(2), 27-39.

- Christinal Tobler, Vivianne H. M. Visschers, and Michael Slegrist (2011). Eating green: Consumers' willingness to adopt ecological food consumption behaviors. *Appetite*, 57(3), 674-682.
- Chyong, H.T, Phang, G, Hasan, H. and Buncha, M.R. (2006). Going green: A study of consumers' willingness to pay for green products in Kota Kinabalu. *International Journal of Business and Society*, 7(2), 40-54.
- Conner M, and Abraham C (2001). Conscientiousness and the Theory of Planned Behavior: Toward a More Complete Model of the Antecedents of Intentions and Behavior. *Personality and Social Psychology Bulletin* 27 (11):1547–1561.
- Davies A., Titterington J. A. and Cochrane C. (1995). Who buys organic food? *British Food Journal*, 97(10), 17-23.
- Dreezens, E., Martijn, C., Tenbult, P., Kok, G., and de Vries, N. (2005). Food and values: an examination of values underlying attitudes toward genetically modified-and organically grown food products. *Appetite*, 44, 115–122.
- Dunlap, R. & Jones, R. (2002). Environmental concern: Conceptual and measurement issues. In *Handbook of environmental sociology*, R. Dunlap and W. Michelson. London: Greenwood.
- Dunlap, R. E., and K. D. Van Liere. 1978. New environmental paradigm: A proposed measuring instrument and preliminary results. *Journal of Environmental Education* 9, 10-19.
- Ellen, P. S., Wiener, J. L. and Cobb-Walgren, C. (1991). The role of perceived consumer effectiveness in motivating environmentally conscious behaviors. *Journal of Public Policy & Marketing* 10, 102-17.
- Fishbein, M. (1963). An Investigation of the relations between beliefs about an object and the attitude toward that Object. *Human Relations* 16, 233-239.
- Fornell, C. and Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1),39.
- Franziska Schubert (2008). *Exploring and predicting consumers' attitudes and behaviors towards green restaurants*. Unpublished master thesis, College of Education and Human Ecology, Graduate School of The Ohio State University.
- Gefen D, Straub DW, and Boudreau MC (2000). Structural Equation Modeling and Regression: Guidelines for Research Practice. *Communications of the Association for Information Systems* 4(7), 1–70.
- Gil, JM, Gracia, A., and Sanchez, M. (2000). Market segmentation and willingness to pay for organic products in Spain, *International Food and Agribusiness Management Review*, 3, 207-226.
- GRA (2010). <http://www.dinegreen.com/restaurants/standards.asp>
- Grunert, S., and Juhl, H. (1995). Values, environmental attitudes, and buying of organic foods.

Journal of Economic Psychology, 16, 39–62.

- Hair JF, Black WC, Babin BJ, Anderson RE, and Tatham RL (2006). *Multivariate Data Analysis*, 6th Edition. NJ: Prentice-Hall International.
- Hirsh, J. B. (2010). Personality and environment concern, *Journal of Environmental Psychology*, 20, 245-248.
- Homer, P. M., and Kahle, L. R. (1988). A structural equation test of the value–attitude– behaviour hierarchy. *Journal of Personality and Social Psychology*, 54, 638–646.
- Honkanen P. and Verplanken B. (2004). Understanding attitudes towards genetically modified food: the role of values and attitude strength. *Journal of Consumer Policy*, 27, 401–420.
- Honkanen, P., Verplanken, B., and Olsen, S. O. (2006). Ethical values and motives driving organic food choice. *Journal of Consumer Behaviour*, 5, 420–430.
- Hu, Hsin-Hui, Parsa, H. G. and John Self (2010). The Dynamics of green restaurant patronage, *Cornell Hospitality Quarterly*, 51(3), 344-362.
- Johannessen (1997). Aspects of ethics in systemic thinking, *Kybernetes*, 26(9), 983-1000.
- Kaiser F.G., Wölfling, S., and Fuhrer, U. (1999). Environmental attitude and ecological behavior. *Journal of Environmental Psychology*, 19(1), 1-19.
- Kilbourne, W. and Pickett, G. (2008). How materialism affects environmental beliefs, concern, and environmentally responsible behavior. *Journal of Business Research*, 61, 885-893.
- Kim, Y. and Choi, S. M. (2005). Antecedents of green purchase behavior: an examination of collectivism, environmental concern, and PCE. *Advances in Consumer Research*, 32, 592-599.
- Laroche, M., Bergero J. and Barbarot-Forleo G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18, 503-520.
- Lea, E. and Worsley, T. (2005). Australians' organic food beliefs, demographics and values, *British Food Journal*, 107, 855-869.
- Lee, K. (2008). Opportunities for green marketing: Young consumers. *Marketing Intelligence and Planning*, 26, 573-586.
- Lin, H. (2006). *Key values influence consumer behavior towards green food in China-A consumer survey on Green Food in Fuzhou*, Master of Art in International Retailer Management.
- Lippa, R. A. (1990). *Introduction to Social Psychology*. Wadsworth Publishing Company: USA.
- Lorenzini, B (1994). The green restaurant, part II: Systems and service. *Restaurant & Institutions* 104(11), 119-36.
- Loureiro, M. (2003). Rethinking new wines: implications of local and environmentally friendly labels. *Food Policy*, 28, 547-560.
- Mostafa, M. (2006). Antecedents of Egyptian consumers' green purchase intentions: A hierarchical multivariate regression model. *Journal of International Consumer Marketing* 19(2), 97-126.

- Nabsiah, A. W., Elham R. and Tan, S. S. (2011). Factors influencing the green purchase behavior of Penang environmental Volunteers, *International Business Management*, 5(1), 38-49.
- Nelka Rajani, (2010), *Values, attitudes and intention to consume wild fish versus farmed fish in Nha Trang*, Master Thesis in Fisheries and Aquaculture, Nha Trang University, Vietnam.
- Nunnally JC, and Bernstein IH (1994). *Psychometric Theory*, 3rd Edition, McGraw-Hill, New York.
- Olson, J.M., and Zanna, M.P. (1993). Attitudes and attitude change, *Annual Review of Psychology*, 44, 117-154.
- Ottman, Jacquelyn (1992). Industry's response to green consumerism, *Journal of Business Strategy*, 13 (July/August), 3-7.
- Ramlogan, R. (1997). Environment and human health: A threat to all. *Environmental Management and Health*, 8, 51-66.
- Roberts, J.A. and Bacon, D.R. (1997). Exploring the subtle relationships between environmental concern and ecologically conscious consumer behavior. *Journal of Business Research*, 40, 79-89.
- Roddy, G., Cowan, C.A. and Hutchinson G. (1996). Consumer attitudes and behavior to organic foods in Ireland. *Journal of International Consumer Marketing* 9(2), 41-63.
- Rokeach, M. (1973). *The Nature of Human Values*, The Free Press, New York, NY,
- Said, A.M., Ahmadun, F.R., Paim L.H and Masud, J. (2003). Environmental concerns, knowledge and practices gap among Malaysian teachers. *International Journal of Sustainability Higher Education*, 4, 305-313.
- Samantha Smith (2009). Eating clean & green? Investigating consumer motivations towards the purchase of organic food. *ANZMAC*, 1-8.
- Schulitz, P. W., Gouveia, V., Cameron, L. D., Tankha, G., Schmuck, P., and Franek, M. (2005), Values and their Relationship to Environmental Concern and Conservation Behavior, *Journal of Cross-Cultural Psychology* 36, 457-475
- Schwartz, S.H. and Blisky, W. (1990). Toward a theory of the universal content and structure of values: Extensions and cross-cultural replications. *Journal of Personality and Social Psychology*, 58, 878-891.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theory and empirical tests in 20 countries. In M. Zanna (Eds.), *Advances in experimental social psychology* (25, 1-65). NewYork: Academic Press.
- Schwartz, S. H., Sagiv, L., and Boehnke, K. (2000). Worries and values. *Journal of Personality*, 68, 309-346.
- Shim, S. and Eastlick, M.A. (1998). The hierarchical influence of personal values on mall shopping attitude and behaviour, *Journal of Retailing*, 74, 139-152.

- Takacs-Santa, A. (2007). Panels: Consumer slow to go green. *Retailing Today*, 46 (17), 24.
- Torjusen, H., Lieblein, G., Wandel, M., and Francis, C. A. (2001). Food system orientation and quality perception among consumers and producers of organic foods in Hedmark County, Norway. *Food Quality and Preference*, 12, 207–216.
- Tudoran Alina, Olsen Svein Ottar, and Dopico Domingo C.(2009). The effects of health benefit information on consumers health value, attitudes and intentions. *Appetite*, 52(3), 568-579,
- Tuu, H.H, Olsen, S.O, Thao, D.T and Anh, N. T. K (2008). The role of norms in explaining attitudes, intention and consumption of a common food (fish) in Vietnam. *Appetite*, 51, 546–551.
- Vaske, J. J., and Donnelly, M. P. (1999). A value–attitude–behavior model predicting Wild land preservation voting intentions, *Society and Natural Resources*, 12, 523–537.
- Verbeke, W. and Vackier I. (2005). Individual determinants of fish consumption: application of the theory of planned behaviour, *Appetite*, 44, 67–82.
- Vermeir, I. and Verbeke, W. (2008). Sustainable food consumption among young adults in Belgium: Theory of planned behaviour and the role of confidence and values. *Ecological Economics*, 64(3), 542-553.
- Worner F., Meier-Ploeger A. (1999). What the consumer says: ecology and farming. *IVOAM 20*, January-April, 14-15.
- Wu, K. S. and Teng Y. M. (2011). Applying the extended theory of planned behavior to predict the intention of visiting a green hotel. *African Journal of Business Management*. 5(17), 7579-7587.
- Yang, Y. C (2007). *Identifying key factors that influence consumers' purchase intentions toward green restaurant*. Master of Graduate School of Tourism, Ming Chuan University.