Consumption Intentions toward Green Restaurants: Application of Theory of Planned Behavior and Altruism

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Testing 429 valid questionnaires distributed in 20 green restaurants located in Taipei, Taichung, and Kaohsiung, this study explored the intentions of consumers to dine at green restaurants based on their perceptions of green restaurant attributes and their attitudes, subjective norms, and perceived behavioral control toward green restaurants. The results of this study indicated that the perceptions of green restaurant attributes positively influenced consumers' attitudes toward green restaurants, which in turn positively influenced their intentions to visit green restaurants. In addition, consumers' subjective norms and perceived behavioral control both positively influenced consumption intentions regarding green restaurants. We used altruism as the moderating variable in this study. The results indicated that altruism exhibited a strong and significant influence on the relationship between attitude and consumption intentions. In order to promote green restaurants, managers must examine how the restaurant industry, government units, and academic units can contribute to enable the dining industry to meet international standards and cater to the international trends of the "chimney-free" dining industry.

Keywords: Green restaurants, attributes perception, theory of planned behavior, altruism, consumption intentions, chimney-free dining industry

JEL: D03, M31

The effects of global warming have urged scientists to focus on issues like environmental protection, energy conservation, and carbon reduction, as well as efforts to realize these concepts. Taiwan is also playing its role on this global issue. Besides the individual efforts, industries and major corporations, Taiwan was also among the first to respond to the concepts of energy saving and carbon reduction. For example, in 2006, the general manager of China Life Insurance Company assembled an inter-sectoral collaboration focusing on "green processes" and "green actions" to perform environmental friendly industrial procedures. These events indicated that Taiwanese industry has been promoting green environmental products and environmental friendly resource sharing in recent years.

Recently, changes in the industrial structure of Taiwan have invigorated the service industry. Among the

top 10 emerging industries of Taiwan in the 21ˢᵗ century, the tourism, leisure, and dining industries have ranked top three, indicating that these industries play a central role in Taiwan's economic growth. According to Taiwan's Department of Statistics, Ministry of Economic Affairs (2014), the total sales of registered dining businesses were approximately NT$243.6 billion. Taiwanese snacks are internationally renowned, and night market culture is one of the special features of Taiwanese cuisine. Taiwan has nearly 140,000 snack shops. However, although the dining industry generates such high revenue, it also creates substantial amounts of pollution and consumes considerable amounts of energy. A study by Pacific and Electric's Food Service Technology Center indicated that restaurants are the highest energy consumers in the global retail industry. Restaurants use nearly five times more energy per square mile than any other type of commercial building does (Horovitz, 2008). According to Taiwan's The Environmental Protection Administration (EPA) of the Executive Yuan (2012), the Taiwanese dining industry uses 4.6 billion pairs of disposable chopsticks and 1 billion plastic bags, exerting an immeasurable environmental impact and resulting in resource waste. The dining industry has realized that it cannot evade the responsibility of causing environmental destruction and climate change (Kasim, 2009). Therefore, in 1990, European nations and U.S. established the Green Restaurant Association (GRA) as a form of an evaluation mechanism. The GRA 4.0 standards for the certification of green restaurants indicated that the industry may face various food service problems. The 4.0 standards were based on mature environment, health, and safety standards, such as ISO 14001. These events indicated that green restaurants have become a global topic, and such topic is at the early stage of exploration in Taiwan. Based on the aforementioned points, green restaurants are less mature in promotion and execution in Taiwan than they are in Europe and North America, and perceptions of Taiwanese consumers on green restaurant concepts are also weak. For this reason, we investigated Taiwanese consumers in this study.

In this study we used the theory of planned behavior (TPB) to investigate the consumption intentions of Taiwanese consumers in regard to green restaurants. The majority of recent studies on the TPB have examined organic food (Aertsens *et al.*, 2009; Aertsens *et al.*, 2011; Tarkiainen and Sundqvist, 2005), and few studies have addressed green restaurants. Therefore, we investigated the intention of consumers to dine

at green restaurants based on their perceptions of green restaurant attributes and their attitudes, subjective norms, and perceived behavioral control toward green restaurants.

Based on a literature review it was discovered that empirical studies on altruism have focused on a wide variety of fields including knowledge sharing (Wu, 2011b), philanthropy (Babiak and Mills, 2012), food choices and organic food (Kareklas *et al.*, 2014; Weibel *et al.*, 2014). Above mentioned studies guide us that few empirical studies have applied altruism to the TPB to investigate consumer intentions and behaviors. As an extension of previous research, this study adopted altruism as a moderating variable to determine whether altruism significantly influences the relationship between consumers' attitudes and intentions toward dining at green restaurants.

LITERATURE REVIEW

Perceptions Toward Green Restaurant Attributes and Customer Attitudes

Restaurant attributes include tangible attributes, such as mood lighting, visual effects, furnishings, seats and tables, carpets, art, and shades (Kim *et al.*, 2006), and intangible attributes, such as high-quality service, friendliness, knowledge, skill, and the attitudes of service personnel (Reich *et al.*, 2005; Kim *et al.*, 2006). A green restaurant is the integration of tangible and intangible restaurant attributes into green concepts. Among European and North American definitions of green restaurants, Lorenzini (1994) proposed a "new or reconstructed structural design" created using environmental friendly and energy-efficient methods. The GRA (2007) formulated feasible green practices for the development of environmental friendly restaurants. These practices comprised green actions that restaurants could perform (including efficient energy and water use, recycling, and green construction), green foods (organic and local), and green contributions (engaging in or contributing toward green projects). The evaluation system for star ratings for environmental and green restaurants presented by Taiwan's EPA uses legal compliance as a prerequisite. The remaining star assessment items are reducing waste, saving electricity, conserving water, and purchasing green products. Businesses that receive three or more stars are qualified as environmental friendly restaurants by the EPA. Although the systems for evaluating green restaurants used in Europe, North America, and Taiwan are not entirely the same, one commonality is that the promotion of green energy, energy saving and carbon

reduction, and food safety by the dining industry is a necessary condition. In other words, these systems aim to develop sustainable management in the dining industry.

In regard to consumers' perceptions of green restaurant attributes, earlier studies have determined that consumer perceptions of green restaurants (green energy, noise control, green ingredients, waste recycling, and employee education) positively and directly influence consumption intentions toward green restaurants (Yang, 2007). Critical factors affecting consumer selection of green restaurants are green foods and the degree to which a restaurant promotes green practices (Hu *et al.*, 2010). Therefore, businesses can use green products to strengthen their environmental safety image and to attract the attention of consumers, thus enhancing consumer satisfaction (Manaktola and Jauhari, 2007). We observe that perceptions of green restaurant attributes are unclear to Taiwanese consumers, because Taiwan has just began to develop in this field. Therefore, we proposed the following hypothesis:

H$_1$: Perceptions of green restaurant attributes positively influence attitudes toward green restaurants.

Relationship Between Theory of Planned Behavior and Consumers' Behavioral Intentions

-Theory of Planned Behavior

Ajzen (1985) proposed the TPB, which was derived from the theory of reasoned action (TRA) proposed by Fishbein and Ajzen in 1975. The TRA is used primarily to predict and understand human behavior. According to the TRA, specific behaviors of people are influenced by personal behavioral intentions. Behavioral intentions depend on personal attitudes and subjective norms regarding behaviors; research has indicated that these two factors mutually influence each other. The TRA assumes that people are in complete voluntary control of whether they engage in a specific behavior, overlooking the ethical decisions made by core users, specifically personal characteristics. Therefore, Ajzen (1985) added a third element: perceived behavioral control, forming the TPB that analyzes the formation of behavioral models in three stages:

1. Personal behavioral intentions determine behavior.

2. Behavioral intention dominates the influence exerted on all or a portion of three factors of attitudes toward behaviors, subjective norms of behaviors, and perceived behavioral control.

3. Exogenous variables influence attitudes toward behaviors, subjective norms regarding behaviors, and perceived behavioral control.

The TPB posits that the three variables i.e. attitude, subjective norms, and behavioral controls collectively determine personal behavioral intentions. Behavioral intentions determine personal behavior; when a person exhibits a positive attitude toward a specific behavior, subjective norms positively support the behavior, which strengthens perceived behavioral control, increasing the person's intentions to engage in that behavior.

-Attitude

The TRA (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 2005) proposes attitude as a critical indicator for predicting behavioral intentions. Attitude is a person's continual assessment of like or dislike of a specific object or opinion (Ajzen and Fishbein, 2000; Ajzen, 2001). Therefore, Ajzen (1991) indicated that positive attitudes result in stronger behavioral intentions. In other words, attitude is the person's positive or negative evaluation of a specific behavior. When people's attitudes toward behaviors are positive, their behavioral intentions increase, whereas negative attitudes decrease behavioral intentions.

-Subjective Norms

Ajzen (1991) indicated that the variable of subjective norms is used to measure whether people execute a behavior when they feel social pressure. Subjective norms are formed by consumer motivation. They are established on predicting what is valuable in a person's life (such as family, friends, or other critical matters) (Eagly and Chaiken, 1993; Mowen, 1993) and contemplating the performance of a specific behavior. When positive subjective norms are stronger, people are more likely to possess behavioral intentions toward engaging in a behavior.

-Perceived Behavioral Control

Ajzen (1991) indicated that the variable of perceived behavioral control measures a person's perceptions of the difficulty of a behavior. This variable reflects all aspects of a person, such as self-efficacy and various behaviors. It refers to the person's ability to control required resources and opportunities when engaging in a certain behavior. In addition to including personal desires and intentions, perceived behavioral control also involves non motivational factors that cannot be controlled by the person, such as time, money, skills,

opportunities, competence, resources, and policies, all of which are associated with individual behavioral control. Therefore, people cannot engage in desired behaviors when lacking the ability to control resources. Sparks *et al.* (1997) indicated that perceived behavioral control reflects internal control factors (such as self-efficacy) and perceived external difficulties (such as perceived barriers). According to the TPB, a person's behavioral intentions increase with perceived behavioral control.

Consumers' Behavioral Intentions

Behavioral intentions are considered to be a key factor in interpreting consumer behavior. People may strongly desire to execute a certain behavior because of a behavioral outcome. Behavioral intentions refer to a person's degree of tendency to engage in a specific behavior and the psychological strength of the person's tendency to perform an action when determining behavioral choices (Ajzen, 1991).

In this study, we investigated consumers' consumption intentions regarding green restaurants. However, numerous consumers possess an inadequate understanding of green restaurants. Therefore, we referenced Laroche *et al.* (2001), who indicated that increasing number of people are willing to spend more money on environmental friendly products. Although consumer motivation for buying sustainable products may be high, consumers consistently feel that sustainable products possess low usability, hence, decrease their consumption intentions (Vermeir and Verbeke, 2006). However, the vast majority of consumers demonstrated positive attitudes and behaviors toward purchasing organic products and implementing green practices (Saba and Messina, 2003; Manaktola and Jauhari, 2007). Because the development of green restaurants has only recently become a trend, relatively few studies have addressed this topic. Yang (2007) indicates that the environmental attitudes of consumers positively influence consumption intentions regarding green restaurants. Respondents are consistently willing to spend more money for green restaurants than for other restaurants (Schubert *et al.*, 2010). In addition, in regard to the implementation of environmental protection measures by green restaurants, Dutta *et al.* (2008) indicate that Americans are more willing to pay a high price to promote green measures in restaurants than Indians are. This reveals that European and North American countries continue to differ substantially from Asian countries in terms of consumption intentions toward green restaurants. Therefore, we proposed the following hypotheses:

H$_2$: Consumers' attitudes toward green restaurants positively influence consumption intentions regarding green restaurants.

H$_3$: Consumers' subjective norms positively influence consumption intentions regarding green restaurants.

H$_4$: Consumers' perceived behavioral control positively influences consumption intentions regarding green restaurants.

Altruism as a Moderator

Altruism refers to voluntary behavior that benefits others (Krebs, 1970; Bar-Tal, 1976). Ballinger and Rockmann (2010) define altruism as prosocial, selfless, helpful and self-sacrificing behavior that aims to maximize the outcomes of others without consideration for a person's own outcome (Smith, 1998; Lu, 2004). In other words, altruism is the desire to help others without clear benefit (Batson and Powell, 2003; Dovidio et al., 2006). People with altruistic personalities or values help other people spontaneously (Bouty, 2000).

Previous empirical studies on altruism have addressed topics such as food choices and organic food (Kareklas et al., 2014; Weibel et al., 2014); few empirical studies have applied altruism to consumer behavior, the environment, green products, or organic food. In addition, Mostafa (2007) indicated that altruism influences consumers' intentions to purchase green products. Regarding the factors linking altruism and consumer purchasing, consumers often select organic food to express their concern for the common interest, a type of prosocial and environmental behavior (Thøgersen, 2011). These findings indicate that the variable of altruistic behavior has rarely been incorporated into empirical studies on greening in recent years. Therefore, in this study, we used altruism as a moderating variable in the TPB model to extensively investigate consumption intentions regarding green restaurants. Therefore, we proposed the following hypothesis:

H$_5$: The attitudes of consumers with high altruism tend toward positive consumption intentions regarding green restaurants. By contrast, the attitudes of consumers with low altruism tend to be less clear in the consumption intentions regarding green restaurants.
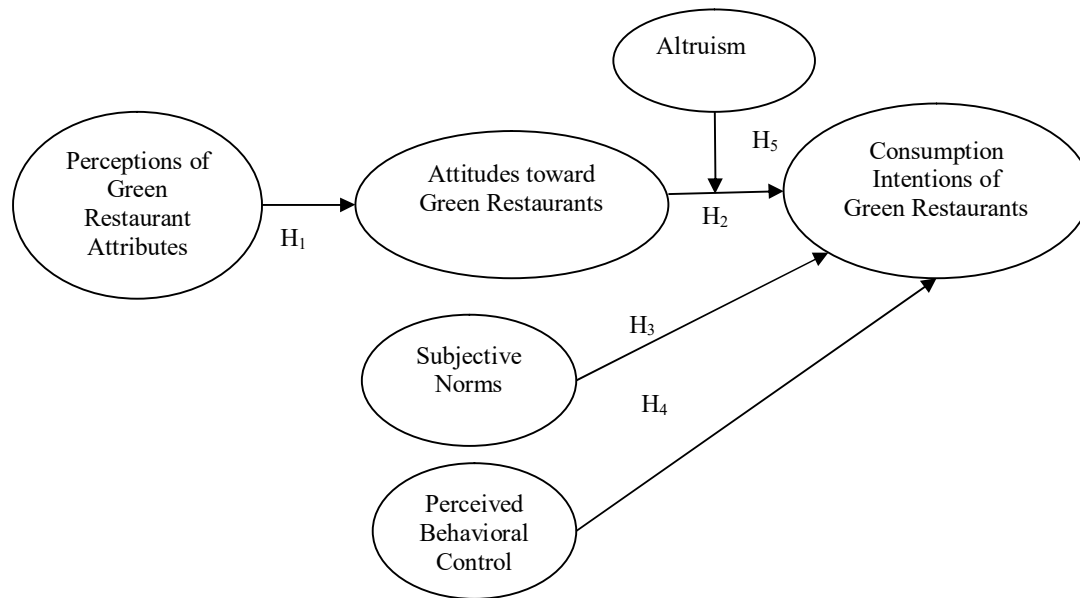
Figure 1. Conceptual Model

Source: Adapted TPB-model based on the literature related to green restaurant consumption intentions

METHODOLOGY

Sample and Data Collection

According to the end of year 2010 statistics presented by the Directorate-General of Budget, Accounting, and Statistics, the average annual income in Taiwan is NT$519,664. The survey revealed that people spend approximately NT$134,782 eating at restaurants each year, suggesting that the budget for eating at restaurants among Taiwanese people constitutes approximately one third of the annual income. These statistics indicated that Taiwanese people, the proportion of meals eaten at restaurants is high (Unilever Food Solutions, 2011). In addition, the types of restaurants in Taiwan's metropolitan areas are relatively diverse. Therefore, to select samples consistent with the goals of this study and to reduce error, the metropolitan areas of Taipei, Taichung, and Kaohsiung were selected. We used purposive sampling and distributed standard questionnaires to 20 green restaurants certified by the EPA. The collection period was 59 days, from February 1, 2014, to March 31, 2014. We distributed 30 questionnaires to each restaurant for a total of 600 questionnaires, and recovered 507 questionnaires. After excluding 78 invalid questionnaires,

the number of valid questionnaires was 429, indicating a recovery rate of 71.5 percent.

-Questionnaire Development

The content of the questionnaire comprised eight sections. The first section addressed the demographic variables of the consumers, including age, gender, education level, occupation, and, income. The second section examined consumers' perception of green restaurant attributes. The items on the scale were adapted from earlier studies (Yang, 2007; Hu and Parsa, 2008; Jang *et al.*, 2011; Choua *et al.*, 2012). The terminology of the attributes was modified slightly based on the variables in the present study. We divided the content into five dimensions: green buildings and environment (5 items), green energy (4 items), sustainable foods (8 items), education (2 items), and recycling (3 items). The scales for the third, fourth, and fifth sections tested consumers' attitudes toward green restaurants (7 items), subjective norms (4 items), and perceived behavioral control (3 items). The items on these scales were derived from a study by Chen (2007, 2008). The sixth section examined consumers' altruism, the scale items of which were derived from a study by Lin (2012). The seventh section tested consumers' consumption intentions regarding green restaurants, the scale items of which were based on a study by Chen (2007, 2008). We adopted a 7-point Likert scale for all of these variable.

-Data Analysis

In this study, we first adopted descriptive statistics, such as quantity and percentages for the demographic variables. Next, confirmatory factor analysis (CFA) was used to test the reliability and validity of the latent variables. We also adopted structural equation modeling to verify the hypotheses. The maximum likelihood (ML) method was used for fitness function estimation to test causality among the variables. Finally, we adopted a multi-group comparison of structural equation modeling to verify the moderating variable of this study (Jöreskog and Sörbom, 1996).

RESULTS

Sample Characteristics

We obtained a total of 429 valid questionnaires in this study. The majority of the respondents were men (247, 57.6%). The number of female respondents was slightly lower (182, 42.4%). The largest age group

comprised respondents between the ages of 36 and 45 (119, 27%). In descending order, the other age groups were ages 16-25 years (100, 23.3%), ages 26-35 years (87, 20.3%), ages 46-55 years (76, 17.7%), below age 15 years (28, 12.4%), and over age 56 years (19, 8.3%). The majority of the respondents were college or university graduates (238, 55.5%); 110 were high school graduates (25.6%), 41 possessed a junior high school education or lower (9.6%), and 40 respondents had earned a Master's degree or higher (9.4%). The main professions of the respondents were the financial industry (110, 25.6%) and the service industry (123, 29.4%), followed by primary industry (Agriculture, forestry, fishing, animal husbandry) (66, 15.4%) and military, civil service, and education sector (61, 14.2%), and manufacturing industry and commerce with 44 (10.3%) and 22 (5.1%) respondents, respectively. Most respondents earn an income of NT$20,000 and below (119, 27.7%). Other respondents' earning are: NT$20,001-NT$30,000 (113, 26.3%), NT$30,001-NT$40,000 (78, 18.2%), NT$40,001-NT$50,000 (39, 9.2%), NT$50,001-NT$60,000 (41, 9.6%), and NT$60,001 or more (39, 9.1%).

Confirmatory Factor Analysis

We conducted CFA on the valid questionnaires to test the reliability and validity of the latent variables. Table 1 (Appendix-I) shows the CFA results for each construct. The goodness of fit indicators for the measurement model were chi-square (χ^2) = 2,384.653, degree of freedom (df) = 934, χ^2/df = 2.553, goodness of fit index (GFI) = .800, comparative fit index (CFI) = .928, root mean square error of approximation (RMSEA) = .060, normed fit index (NFI) = .888, incremental fit index (IFI) = .928, standardized root mean square residual (SRMR) = .0388, and root mean square residual (RMR) = .059. All of the goodness of fit indicators reached acceptable levels, indicating that the combination of latent variables used in this study possessed satisfactory fit.

Composite reliability (CR) was used to test the reliability of the latent variables. An acceptable CR value must be higher than .60 (Jöreskog and Sörbom, 1989). The CR range for the latent variables tested in this study was .73 - .96. This indicates that the scales used in this study reflected favorable reliability.

We tested the convergent validity and discriminant validity of the scales; a factor loading reaching level of significance ($p < .05$) and average variance extracted (AVE) of .50 or higher indicate that the measurement model reflects good convergent validity. The factor loadings of all the variables measured in this study

reached levels of significance ($p < .05$). With the exception of the variable of green energy, the remaining latent variables all possessed an AVE of .50 or higher, implying that the variable scale used in this study exhibited acceptable convergent validity. The average variance extracted (AVE) ranged from .44 to .81, with a satisfying cut-off value of .50 (Bagozzi and Yi, 1988).

Our criterion for testing discriminant validity was that the square root of the AVE of each dimension must be greater than the correlation coefficient between that dimension and the other dimensions. At least 75 percent of the comparisons must satisfy this criterion (Hair *et al.*, 1998). In this study, the square roots of the AVE of each latent variable ranged between .67 and .88. A total of 90 comparisons were performed, of which only four did not satisfy the criterion. As shown in Table 2 (Appendix-II), the compliance rate was 95.56 percent (86/90), substantially higher than the minimum of 75 percent recommended by Hair *et al.* (1998). This indicated that the model presented in this study possessed favorable discriminant validity.

Hypothesis Testing

We used structural equation modeling for hypothesis testing. ML was used for estimation of the fitness function to test the causality between variables. The goodness of fit indicators for the overall model were χ^2 = 844.504, *df* = 245, χ^2/df = 3.447, GFI = .841, CFI = .938, RMSEA = .076, NFI = .915, IFI = .938, SRMR = .050, and RMR = .071. These results indicated that the fit between the respondent data and the hypothesized model reached an acceptable standard. All factor loadings of the latent variables in the hypothesized model were significant ($p < .05$).

In the statistical analysis of the overall structural model, restaurant attributes significantly and positively influenced consumers' attitudes toward green restaurants, yielding beta coefficient of .85 ($p < .001$). Therefore, H_1 (consumer perceptions of green restaurants attributes significantly and positively influence consumers' attitudes toward green restaurants) was supported. Attitudes significantly and positively influenced consumption intentions regarding green restaurants. The beta coefficient was .50 ($p < .001$). Therefore, H_2, consumers' attitudes toward green restaurants significantly positively influence their consumption intentions, was supported. Subjective norms significantly and positively influenced consumption intentions regarding green restaurants; the beta coefficient was .36 ($p < .001$). Therefore, H_3, consumers' subjective norms significantly and positively influence their willingness to consume at green restaurants, was

supported. Perceived behavioral control significantly and positively influenced the willingness to dine at green restaurants (β = .15; p < .05). Therefore, H₄, consumers' perceived behavioral control significantly and positively influences their willingness to dine at green restaurants, was supported.

In addition, we used the Sobel test to determine whether attitude exhibited a mediating effect on the relationship between perceptions of green restaurant attributes and consumption intentions (Sobel, 1982). When the z-value calculated using the Sobel test is higher than 1.96 or lower than -1.96, this indicates that the mediating effect reaches a statistical level of significance at .05. The analysis results indicated that z is equal to 5.95 (p < .05), implying that attitudes toward green restaurants played a significant mediating role in the relationship between perceptions of green restaurant attributes and consumption intentions.

Testing the Moderating Effects of Altruism

Testing H₅ involved examining whether altruism exerts a moderating effect on the relationship between attitudes toward green restaurants and consumption intentions. In other words, high altruism increases the relationship between consumer attitudes and consumption intentions, whereas low altruism decreases the relationship between consumer attitudes and consumption intentions. Altruism exhibits a strong moderating effect on the relationship between attitude and consumption intentions. To test this hypothesis, we used a multi-group comparison of structural equation modeling (Jöreskog and Sörbom, 1996). The k-means method was used for clustering based on the respondents' average altruism scores to divide the respondents into two groups: a low-altruism group (n = 178) and a high-altruism group (n = 251). The centroid scores of the low- and high-altruism group were 4.03 and 5.80, respectively. In addition, we also used an independent t-test to compare the high and low-altruism groups to verify that significant differences exist between the two groups. The results indicated that the average of the high-altruism group (5.8) was significantly higher than that of the low-altruism group (4.03; t = 26.634, p < .001), indicating a significant difference. Based on these results, we subsequently compared the causal relationship between attitudes toward green restaurants and consumption intentions to determine whether the high and low-altruism groups differed significantly.

Prior to testing the path invariance of the moderating effects, we were required to deter- mine whether the goodness-of-fit indicators of the high and low-altruism groups reached acceptable levels. The fit of the high-altruism group was χ^2 = 747.372, df = 245, χ^2/df = 3.050, GFI = .792, CFI = .909, NFI = .872, NNFI = .898,

IFI = .910, SRMR = .0563, and RMR = .069. The correlation coefficient between the attitudes toward green restaurants of the high-altruism group and consumption intentions was .59. The fit of the low-altruism group was χ^2 = 520.716, *df* = 245, χ^2/*df* = 2.125, GFI = .786, CFI = .924, NFI = .866, NNFI = .914, IFI = .925, SRMR = .0713, and RMR = .094. The correlation coefficient between the attitudes toward green restaurants of the low-altruism group and consumption intentions was .32. Table 3 shows related result indicating that the fit for the high and low-altruism groups was satisfactory. Therefore, we continued to the next stage, which was the path invariance test.

	Attitudes→ Intentions	χ^2/*df*	GFI	CFI	NFI	NNFI	IFI	SRMR
Overall sample	0.50	3.45	0.84	0.94	0.991	0.93	0.94	0.05
High-altruism group	0.59	3.05	0.79	0.91	0.989	0.90	0.91	0.06
Low-altruism group	0.32	2.13	0.79	0.92	0.987	0.91	0.93	0.07

Table 3. Fitness Assessment of the Overall Sample and the High- and Low-Altruism Groups

In the path invariance test, the path coefficient of the moderating effect is assumed to contain no invariance to obtain a chi-square value and its corresponding degrees of freedom value. This is known as the baseline model, which can be subsequently applied to models of various samples. A constraint is then added so that the path coefficients of the high and low groups equaled. Another χ^2 value and corresponding *df* value can be obtained by re-estimating the model. This is referred to as the moderating model. The χ^2 value of the baseline model is subtracted from the χ^2 value of the moderating model to obtain a chi-square difference value ($\Delta \chi^2$). If the $\Delta \chi^2$ results indicate a significant influence, a moderating effect can be inferred. This is primarily because when the $\Delta \chi^2$ is significant, suggesting that the hypothesis postulating equal path coefficient cannot be accepted. At varying levels of moderating variables, the path coefficients of the same path differ significantly. Therefore, a moderating effect exists (Bollen, 1989).

Table 4 shows that the χ^2 value of the baseline model in this study was 1,268.079 (*df* = 490). The χ^2 value of the moderating model was 1,280.792 (*df* = 491). The difference between the two models was 1 degree of freedom (α = .05), with a $\Delta \chi^2$ of 12.713. Therefore, the chi-square difference was significant,

implying that the baseline model and the moderating model differed significantly. Therefore, altruism significantly influenced the relationship between attitudes toward green restaurants and consumption intentions. In regard to the influence coefficient of the relationship between attitudes toward green restaurants and consumption intentions, the coefficient of the high-altruism group (β = .59) was higher than that of the overall model (β = .50), whereas, the coefficient of the low-altruism group (β = .32) was lower than that of the overall model (β = .50). Therefore, H$_5$ was supported.

	χ^2	df	$\Delta\chi^2$
Model 1: Baseline model	1268.075	490	--
Model 2: Moderating model	1280.792	491	12.713

Table 4. Path Coefficient Invariance of the High and Low Groups

DISCUSSION

In this study, we investigated how Taiwanese restaurant proprietors can implement and promote green restaurants that offer healthy food and are low in pollution and energy consumption. The green trend has become a focus of global attention. Government units, restaurant proprietors, and consumers within Taiwanese society must reach a consensus to co-create a healthy and safe dining environment. Green restaurants in Taiwan are currently in the initial stage of development. The concept of healthy and sustainable lifestyle is gradually being established; therefore, consumer perceptions are extremely crucial. Consumers are the most essential factor that restaurant proprietors must consider when implementing and promoting green restaurants; hence, understanding consumer demands and market trends is essential for restaurant owners. Marketing strategies and market segmentation are based on consumer trends. Therefore, we investigated consumption intentions regarding green restaurants based on the perceptions of green restaurant attributes and the perspective of altruism. In summary, our analysis results are as follows:

We used the TPB to conduct this study. The overall results indicate that consumers' perceptions of green restaurant attributes positively influence consumption intentions regarding green restaurants. The five green restaurant attributes (i.e., green buildings and environment, green energy, sustainable food, and recycling)

positively and significantly influence consumers' attitudes toward green restaurants, which then positively affect consumption intentions regarding green restaurants. In addition, consumers' subjective norms and perceived behavioral control positively influence consumption intentions regarding green restaurants. The results are in line with earlier research. The attitudes, subjective norms and perceptual behavior control have positive impact on consumption intentions on the organic restaurant (Chang, 2011). When the TPB has been applied on ecological behavior successfully (Kim and Han, 2010), the TPB model (attitude, subjective norm, and perceived behavioral control) has the positive relationship with intention to stay at a green hotel. In addition, the study found that the TPB model improved the variance of the intention to select green hotels (Kim and Han, 2010).

The samples of this study were divided into two groups based on the level of altruism, the moderating variable of this study. The results indicate that altruism exhibits a relatively strong significant influence on the relationship between attitudes and consumption intentions. The high-altruism group exerted a strong effect on attitudes and consumption intentions concerning green restaurants. By contrast, the coefficient of the low-altruism group was lower than that of the overall model, exerting a non-significant influence on consumption intentions.

CONCLUSION

The results of this study indicate that Taiwanese consumers are beginning to focus on whether the overall environments of green restaurants can provide green elements. Concerning consumer attitudes toward green restaurants, consumers thought that green restaurants are providing high quality, healthy, and safe food. They believed that the majority of people approve dining at green restaurants, that the decision to dine at green restaurants was personal, and that nobody was able to stop them from dining at green restaurants. These findings indicate that consumers are willing to choose green restaurants and feel that green restaurants are worthwhile. Therefore, the efforts of government and private groups to promote the concepts of green energy and environmental protection have influenced Taiwanese consumers. For example, in "a dietary Devolution in the South", Chang (2013) mentioned that the "Green-Friendly Restaurant Certification" was promoted by the Agriculture Bureau of Kaohsiung City. In the Promotion Counseling Program for Organic Agriculture in Taipei City (2013), the Department of Economic Development of Taipei ran a

successful pilot test of food and agricultural education (this program involved devising relevant plans, teacher training, visiting organic farms, and assisting in compiling educational plans). Central Daily News (2013) reported that the green food education of the Homemakers Union places particular emphasis on food safety education. The Homemakers Union also cooperated with Taichung Li-Ming Elementary School to create the pilot project for Green Food Education in elementary schools. National Central University (2010) actively promoted the green initiative program, in which the concept of green food was integrated into people's daily lives and green restaurants were promoted. These efforts suggested that both public and private agencies, organizations, and schools have devoted substantial efforts to promote green restaurants in recent years and educating consumers on the concepts of green food.

Regarding altruism, we observe that altruism exhibits a strong influence on attitudes and consumption intentions regarding green restaurants. Consumers who demonstrated altruistic behaviors conducive to protecting the global environment, such as integrating the concepts of healthful food into dining, contributing to improve global warming, assuming social responsibility, saving energy, reducing carbon emission, transmitting the ideas of green food, and motivating others to engage in greening, were more willing to dine at green restaurants. Therefore, the moderation analysis results indicated that those with high altruism were more likely to dine at green restaurants than those with low altruism.

IMPLICATIONS

This study contributes to help Taiwanese restaurant owners to gain insight into consumers' intentions to dine at green restaurants and related market dynamics and segmentation. This study also provides restaurant owners with a basis for determining whether to implement and promote green restaurants in the future. These results can help them create marketing strategies and policies that would increase the profits while balancing social responsibility, the global environment, and healthy food.

Therefore, we proposed the following managerial implications: First, when domestic restaurant owners implement and promote green restaurants, they must examine how the restaurant industry, government units, and academic units can cooperate to enable the Taiwanese dining industry to meet international standards and cater to the international trends of the "chimney-free" dining industry. Additionally, this study

can assist Taiwanese government agencies and academic institutions in implementing relevant policies, including guiding and assisting domestic restaurant owners in promoting green restaurants. For example, inclusion measures and government policies can provide restaurant owners with subsidies or low-rate loans for capital and current expenditures when investing funding in facilities. Academic institutions can propose relevant projects and obtain grants for industry– university cooperation with restaurant owners, providing education, training, guidance, and certification to staff members. Consequently, industry, government, and academia can cooperate to help restaurant owners introduce green practices. The results of this study are expected to facilitate the popularization of green restaurants in Taiwan, thereby promoting the concept of healthy living and diets to Taiwanese citizens.

LIMITATIONS AND FUTURE DIRECTIONS

The barrier to entry in the Taiwanese restaurant industry is low. The industry comprises numerous entrepreneurs, from small snack shops to large restaurant chains and theme restaurants. The amount of capital from operators also restricts investments into green facilities by restaurant proprietors. The costs of investing in the facilities for green restaurants are high for restaurant proprietors, and the sources and prices of sustainable food pose challenges for typical restaurant proprietors investing in green restaurants. For example, Chou *et al.* (2011) indicated that several aspects posed difficulties for Taiwanese restaurants to implement green measures such as the lack of knowledge about using water resources, the high costs of sewage disposal, recycling, and recycle-and-reuse monitoring systems, and low economic incentives. In addition, they identified a low level of implementation concerning the lack of understanding in sustainable food and purchase. Therefore, Taiwanese restaurant owners who wish to assume moral responsibility must also consider whether they can obtain profits. They must determine how to create win– win situations. Consequently, understanding consumers' consumption intentions regarding green restaurants is critical, because consumers are the main sources of profit for restaurant owners. Consumer dynamics reflect the willing- ness of Taiwanese restaurant owners to invest in green restaurants. Therefore, in this study, we used the TPB to investigate Taiwanese consumers' consumption intentions regarding green restaurants. Attitude, subjective norms, and perceived behavioral control were used as control variables, and altruism was used as

a moderating variable. The results indicated that these variables positively influenced consumption intentions, providing restaurant owners with a valuable reference for implementing green restaurant projects.

REFERENCES

Aertsens, J., Verbeke, W., Mondelaers, K. & Huylenbroeck, G.V. (2009). Personal determinants of organic food consumption: A review. *British Food Journal*, 111 (10):1140-1167.

Aertsens, J., Mondelaers, K., Verbeke, W., Buysse, J. & Huylenbroeck, G.V. (2011). The influence of subjective and objective knowledge on attitude, motivations and consumption of organic food. *British Food Journal*, 113 (11): 1353-1378.

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In J. Kuhl & J. Beckmann (Eds.), *Action Control: From Cognition to Behavior*. 11-39. New York: Springer-Verlag.

Ajzen, I. (1991). The theory of planned behavior. *Organization Behavior and Human Decision Processes*, 50, 179-211.

Ajzen, I. (2001). Nature and operations of attitudes. *Annual Review of Psychology*, 52, 27-58.

Ajzen, I. & Fishbein, M. (2000). Attitudes and the attitude-behavior relation: Reasoned and automatic processes. In W. Stroebe & M. Hewstone (Eds.), *European Review of Social Psychology*: 1-33., Chichester. UK: Wiley.

Ajzen, I. & Fishbein, M. (2005). The influence of attitudes on behavior. In D. Albarracín., B.T. Johnson & M.P. Zanna (Eds.), *The Handbook of Attitudes*: 173-221. Mahwah, NJ: Erlbaum.

Babiak, K. & Mills, B. (2012). An investigation into professional athlete philanthropy: Why charity is part of the game. *Journal of Sport Management*, 26, 159-176.

Ballinger, G.A. & Rockmann, K.W. (2010). Chutes versus ladders: Anchoring events and a punctuated equilibrium perspective on social exchange relationships. *Academy of Management Review*, 35(3): 373-391.

Bagozzi, R.P. & Yi, Y. (1988). On the evaluation of structural equation models. *Journal of the Academy of the Marketing Science*, 16(1): 74-94.

Bar-Tal, D. (1976). Prosocial Behavior: Theory and Research. New York: Halsted Press.

Batson, C.D. & Powell, A.A. (2003). Altruism and prosocial behavior. In T. Millon & M.J. Lerner (Eds.), *Handbook of Psychology: Personality and Social Psychology*: 463-484. Hoboken, NJ: Wiley.

Bollen, K.A. (1989). A new incremental fit index for general structural models. *Sociological Methods and Research*, 17(3): 303-316.

Bouty, I. (2000). Interpersonal and interaction influences on informal resource exchanges between R&D researchers across organizational boundaries. *Academy of Management Journal*, 43, 50-65.

Business and the Environment. (2009). ISO 14001 for Restaurants? — *The Green Restaurant 4.0 Standard (Part 1)*, 10(4): 12.

Chang, S. Y. (2011). Consumer's intentions and willingness to pay concerning organic restaurants, Master's thesis, National Kaohsiung University of Applied Sciences, Taiwan.

Chen, M.F. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. *Food Quality and Preference*, 18(7): 1008-1021.

Chen, M.F. (2008). An integrated research framework to understand consumer attitudes and purchase intentions toward genetically modified foods. *British Food Journal*, 110 (6): 559-579.

Central Daily News. (2013). Taichung homemakers united holds thanksgiving tea party to raise funds for food safety. Retrieved from http://goo.gl/DYa-Lpo. (November 2, 2013).

Chang, W.C. (2013). A dietary revolution in the south. *Agricultural Training Magazine*, 284, 36-51.

Chou, C.J., Chen, K.S., Wang, Y.Y. & Lin, S.C. (2011). The cognition and performance of Taiwan's restaurants in adopting green food measures: An importance difficulty performance analysis. *Journal of Environment and Management*, 12(1): 1-23.

Choua, C.J., Chen, K.S. & Wang, Y.Y. (2012). Green practices in the restaurant industry from an innovation adoption perspective: Evidence from Taiwan. *International Journal of Hospitality Management,* 31(3), 703-711.

Department of Statistics, Ministry of Economic Affairs. (2014). Economic statistical indicators. Retrieved from http://www.moea.gov.tw/Mns/dos/content.aspx?menu.id=9661. (September 9, 2014).

Dovidio, J.F., Piliavin, J.A., Schroeder, D.A. & Penner, L.A. (2006). *The Social Psychology of Prosocial Behavior*, Mahwah, NJ: Erlbaum.

Dutta, K., Umashankar, V., Choi, G. & Parsa, H.G. (2008). A comparative study of consumers' green practice orientation in India and the United States: A study from the restaurant industry. *Journal of Foodservice Business Research*, 11(3): 269-285.

Eagly, A.H. & Chaiken, S. (1993). *The psychology of attitudes*, Harcourt, TX: Fort Worth.

Environmental Protection Agency, Executive Yuan. (2012). Stars for environmentally friendly restaurants. Retrieved from http://greenliving.epa.gov.tw-/GreenLife/Actions/GreenRestaurant/Reason.aspx (July 10, 2014).

Fishbein, M. & Ajzen, I. (1975). Belief, attitude, intention, and behavior: An introduction to theory and research. Reading, MA: Addison-Wesley.

Green Restaurant Association. (2007). Environmental guidelines. Retrieved from http://www.-dinegreen.com/twelvesteps.asp. (October 8, 2007).

Grolleau, G., Ibanez, L. & Mzoughi, N. (2009). Too much of a good thing? Why altruism can harm the environment? *Ecological Economics*, 68, 2145-2149.

Hair, J.F., Anderson, R.E., Tatham, R.L. & Black, W.C. (1998). *Multivariate data analysis, (5th ed)*. New York: Macmillan.

Horovitz, B. (2008). Can restaurants go green, earn green? Retrieved online http://www.usatoday.com-/money/industries/environment/2008-05-15-green-restaurants eco-friendly.htm. (October 12, 2008).

Hu, H.H. & Parsa, H.G. (2008). Towards sustainable consumption consumers' willingness to patronize green restaurants. Paper presented at the International CHRIE Conference, Atlanta, Georgia.

Hu, H. H., Parsa, H.G. & Self, J. (2010). The dynamics of green restaurant patronage. *Cornell Hospitality Quarterly*, 51(3): 344-362.

Jang, Y.J., Kim, W.G. & Bonn, M.A. (2011). Generation Y consumers' selection attributes and behavioral intentions concerning green restaurants. *International Journal of Hospitality Management*, 30 (4): 803-811.

Jöreskog, K.G. & Sörbom, D. (1989). LISREL 7: A guide to the program and application. Scientific Software International, Chicago.

Jöreskog, K.G. & Sörbom, D. (1996). LISREL 8: User's reference guide. Scientific Software International, Chicago.

Kareklas, I., Carlson, J.R. & Muehling, D.D. (2014). I eat organic for my benefit and yours: Egoistic and altruistic considerations for purchasing organic food and their implications for advertising strategists. *Journal of Advertising*, 43(1): 18-32.

Kasim, A. (2009). Managerial attitudes towards environmental management among small and medium hotels in Kuala Lumpur. *Journal of Sustainable Tourism*, 17(6): 709-725.

Kim, W.G., Lee, Y.K. & Yoo, Y.J. (2006). Predictors of relationship quality and relationship outcomes in luxury restaurants. *Journal of Hospitality and Tourism Research*, 30(2): 143-169.

Kim, Y. & Han, H. (2010). Intention to pay conventional hotel prices at a green hotel – A modification of the theory of planned behavior. *Journal of Sustainable Tourism*, 18(8): 997-1014.

Krebs, D.L. (1970). Altruism - An examination of the concept and a review of the literature. *Psychological Bulletin*, 73, 258-302.

Laroche, M., Bergeron, J. & Barbaro-Forleo, G. (2001). Targeting consumers who are willing to pay more for environmentally friendly products. *Journal of Consumer Marketing*, 18(6): 503-518.

Li, Z.C. (2014). Green consumer trends toward low carbon and environmental protection. Master's thesis, National Kaohsiung University of Applied Science, Taiwan. Retrieved from http://big5.ce.cn/gate/big5/finance.ce.cn/rolling /201401/16/t201 - 40116_2136207.html. (January 16, 2014).

Lin, K.Y. (2012). Explaining tourists' intention to ecotourism in the context of the theory of planned behavior: The case study of the Taijiang National Park Black-faced Spoonbill Conservation Area. Master's thesis, National Kaohsiung University of Applied Science, Taiwan.

Lorenzini, B. (1994). The green restaurant, part II: systems and service. *Restaurant & Institutions*, 104(11): 119-136.

Lu, S.H. (2004). A study of the professional growth and teaching effectiveness of English teachers in elementary school in Pingtung County. Master's thesis, National Pingtung University, Taiwan.

Manaktola, K. & Jauhari, V. (2007). Exploring consumer attitude and behavior towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19(5): 364-377.

Mostafa, M.M. (2007).Gender differences in Egyptian consumers green purchase behavior the effects of environmental knowledge, concern and attitude. *International Journal of Consumer Studies*, 31(3): 220-229.

Mowen, J.C. (1993). Consumer behavior. (3rd ed). New York: Macmillan Publishing Company.

National Restaurant Association. (2009). Retrieved from http://www.restaurant.org/- pdfs/research/- index/200912.pdf. (May 22, 2011).

National Central University. (2010). National Central University's first "green restaurant" is revealed. Restaurant 7 becomes the first to pass certification. Retrieved from http://www.ncu.edu.tw/- ch/news/1098. (July 9, 2014).

Promotion Counseling Program for Organic Agriculture in Taipei City. (2013). Taipei organic food and agricultural education takes root in elementary school. Retrieved from http://goo.gl/PFCFCy. (June 21, 2013).

Reich, A., McCleary, K., Tepanon, Y. & Weaver, P. (2005). The impact of product and service quality on brand loyalty: an exploratory investigation of quick service restaurants. *Journal of Food Service Business Research*, 8(3): 35-53.

Saba, A. & Messina, F. (2003). Attitudes towards organic foods and risk/benefit perception associated with pesticides. *Food Quality and Preference*, 14(8): 637-645.

Schubert, F., Kandampully, J., Solnet, D. & Kralj, A. (2010). Exploring consumer perceptions of green restaurants in the US. *Tourism and Hospitality Research*, 10(4): 286-300.

Smith, B. (1998). Buyer-seller relationship: bonds, relationships management and sex type. *Canadian Journal of Administrative Sciences*, 15(1): 76-92.

Sobel, M.E. (1982). Asymptotic confidence intervals for indirect effects in structural equation models. In S. Leinhardt (ed.), Sociological Methodology. Jossey-Bass: 290-312. San Francisco.

Sparks, P. & Guthrie, C.A., Shepherd, R. (1997). The dimensional structure of the 'perceived behavioral control' construct. *Journal of Applied Psychology*, 27(5): 418-438.

Tan, B.C. & Yeap, P.F. (2012). What drives green restaurant patronage intention? *International Journal of Business and Management*, 7, 215-223.

Tarkiainen, A. & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, 107(11): 808-822.

Tang, C.Y. (2008). An investigation on the indicators for evaluating green restaurants in Taiwan. Master's thesis, National Taipei University of Nursing and Health Sciences, Taiwan.

Thøgersen, J. (2011). Green shopping: For selfish reasons or the common good. *American Behavioral Scientist*, 55(8): 1052-1076.

Unilever Food Solutions. (2011). Food survey of eating-out in Taiwan. Retrieved from http://www.- wowonews.com/2011/03/13.html. (June 23, 2014).

Vermeir, I. & Verbeke, W. (2006). Sustainable food consumption: Exploring the consumer "attitude behavioral intention" gap. *Journal of Agricultural and Environmental Ethics*, 19(2): 169-194.

Weibel, C., Messner, C. & Brugger, A. (2014). Completed egoism and intended altruism boost healthy food choices. *Appetite*, 77(1): 38-45.

Wu, F.Y. (2011a). The number of Taiwanese people eating out increases, with budgets for eating out accounting for 1/3 of income. Retrieved from http://www.wowonews.com/2011/03/13.Html. (July 2, 2014).

Wu, H.H. (2011b). A model for knowledge sharing in web-based learning environments. *International Journal of Organizational Innovation*, 3(4): 82-93.

Yang, Y.C. (2007). Identifying key factors that influence consumers' purchase intentions toward green restaurants. Master's thesis, Ming Chuan University, Taiwan.

Latent variable/ Item	Average	Factor loading	CR	AVE
Green buildings and environment			0.90	0.65
I think the overall environment of green restaurants can provide green building elements.	5.13	0.80		
I think the interiors of green restaurants comprise natural components.	5.16	0.82		
I think the interior decorating of green restaurants can create a pleasant atmosphere.	5.24	0.82		
I think green restaurants are well-soundproofed, preventing aural disturbances.	5.36	0.79		
I think servers at green restaurants whisper to reduce noise, making people feel comfortable.	5.36	0.81		
Green energy			0.73	0.46
I think green restaurants should adopt natural lighting during the day.	5.33	0.82		
I think green restaurants should reduce the use of paper towels.	4.86	0.55		
I think green restaurants should use refillable bottled sugar and creamer.	4.82	0.51		
I think green restaurants should use range hoods with muffled motors.	5.24	0.77		
Sustainable food			0.96	0.76
I think green restaurants can provide delicious food.	5.05	0.78		
I think green restaurants can provide fresh food.	5.36	0.87		
I think green restaurants can provide healthy and nutritious (e.g., low fat, vegetarian) food.	5.29	0.84		
I think green restaurants can provide food free of pesticide residue.	5.30	0.90		
I think green restaurants can provide ingredients free of chemical additives.	5.28	0.90		
I think green restaurants can provide primarily seasonal and local ingredients.	5.38	0.90		
I think green restaurants can provide primarily organic and natural ingredients.	5.28	0.90		
I think green restaurants can use green cooking methods (low in oil, low in sugar, few additives, little frying) and not destroy ingredients.	5.40	0.87		
Education			0.87	0.77
I think green restaurants can adopt nationally certified green products.	5.26	0.86		
I think green restaurants provide professional staff education.	5.32	0.90		
Recycling			0.90	0.76
I think green restaurants participating in recycling activities are making an effort to protect the environment.	5.41	0.86		
I think green restaurants avoid using toxic cleaning agents and containers.	5.45	0.89		
I think the kitchens in green restaurants should be equipped with soot filters and oil interceptors.	5.56	0.87		
Attitude toward green restaurants			0.94	0.72
I think green restaurants are healthy.	5.16	0.90		

Latent variable/ Item	Average	Factor loading	CR	AVE
I think green restaurants are high in quality.	5.13	0.92		
I think foods served in green restaurants are delicious.	4.86	0.83		
I think green restaurants are safe.	5.24	0.91		
I think green restaurants are attractive.	5.07	0.84		
I think green restaurants are fashionable.	4.94	0.75		
I think green restaurants produce no harmful effects.	5.06	0.79		
Subjective norms			0.87	0.63
The vast majority of people approve of me dining at green restaurants.	4.52	0.81		
I dine at green restaurants because of the influence or recommendations of family or friends.	4.50	0.7		
My family believes that dining at green restaurants is meaningful.	4.64	0.84		
My friends believe that dining at green restaurants is crucial.	4.45	0.74		
Perceived behavioral control			0.84	0.63
No matter what, the decision to dine at green restaurants is my own.	5.10	0.85		
Nothing can prevent me from dining at green restaurants.	4.68	0.79		
I am financially capable of dining at green restaurants.	4.69	0.74		
Consumption intentions			0.91	0.68
I am willing to choose green restaurants.	4.94	0.93		
I believe that dining at green restaurants is worthwhile.	4.96	0.95		
I am willing to choose green restaurants over typical restaurants if both types of restaurants do not differ in price.	5.28	0.81		
I am willing to pay more for a green restaurant than for a typical restaurant.	4.52	0.68		
I recommend that others dine at green restaurants.	4.83	0.75		
Altruism			0.94	0.76
I know that green restaurants advocate the concepts of healthy eating to contribute to mitigating global warming.	5.06	0.82		
I will promote dinging at green restaurants for the purpose of environmental protection and social ethics.	5.00	0.91		
I am aware that the implementation of green restaurants can enable everyone to eat more healthfully and can save energy and reduce carbon emissions.	5.14	0.94		
I know that green restaurants aim to convey the ideas of green consumption and green food.	5.15	0.88		
I know that the behavior of dining at green restaurants can exert a knock-on effect.	5.00	0.81		

Note: AVE is average variance extracted; CR is composite reliability.

Table 1. CFA Results

	1	2	3	4	5	6	7	8	9	10
1 Green Buildings and Environments	(0.80)									
2 Green Energy	0.78	(0.67)								
3 Sustainable Food	0.82	0.72	(0.87)							
4 Education	0.73	0.64	0.79	(0.88)						
5 Recycling	0.79	0.69	0.83	0.81	(0.87)					
6 Attitude Toward Green Restaurants	0.71	0.61	0.78	0.69	0.73	(0.84)				
7 Subjective Norms	0.48	0.43	0.50	0.43	0.46	0.55	(0.79)			
8 Perceived Behavioral Control	0.48	0.46	0.53	0.48	0.51	0.56	0.57	(0.79)		
9 Consumption Intentions	0.66	0.60	0.69	0.60	0.65	0.74	0.66	0.60[*]	(0.82)	
10 Altruism	0.39	0.40	0.38	0.31	0.39	0.45	0.40	0.38	0.54	(0.87)

Note: Square roots of AVE in parentheses.
*** $p < .001$ (all correlations except one), * $p < .05$.

Table 2. Correlation Coefficients and Discriminant Validity for Latent Variables