

Discussion paper

The theory of planned behavior and the norm activation model approach to consumer behavior regarding organic menus

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ABSTRACT

This study's purpose is to explore consumers' intention to choose organic menu items at restaurants and their intention to visit restaurants featuring organic menu items. The study model was developed using the theory of planned behavior and the norm activation model. With a total of 461 responses, the results from structural equation modeling indicated that attitude, subjective norm, perceived behavioral control, and personal norm are determinants of intention to choose organic menu items, which eventually lead to consumers' intention to visit restaurants featuring organic menu items. Theoretical and managerial implications of the research are discussed.

1. Introduction

Environmental and social considerations have become an important component in consumer decision-making in regards to purchasing eco-friendly products such as organic food. This development has been displayed in the significant organic products purchasing increase in recent times (Barber et al., 2010; Jang et al., 2011). Organic food is considered more environment-friendly when compared to conventional food. Organic farming includes a wide range of practices that are expected to be “socially, ecologically, and economically sustainable” (Bourn & Prescott, 2002, p.1). For example, according to the United States Department of Agriculture's (USDA) guidelines (2013), organic farmers are not allowed to use prohibited fertilizers or plant genetically modified seeds. By utilizing this practice, organic farming and processing procedures contribute to the conservation of biodiversity and maintenance, as well as the improvement of the environmental quality (USDA, 2015). Research shows that organic farming practices produce food that provides health benefits such as higher levels of nutrient content (Crinnion, 2010) and less pesticide residues for consumers, as well as increasing biodiversity (e.g., Bengtsson et al., 2005; Crowder et al., 2010).

The organic food category represents approximately 90% of the total sales in the organic product market. This category also accounts for almost 5% of the total food sales in the United States (Organic Trade Association, 2016a). According to the National Restaurant Association's (2016) survey, 64% of the professional chefs who participated in the survey picked organic produce as one of the hot trends in the restaurant industry. The remarkable increase in consumer demand for organic

food has opened up new opportunities for the restaurant industry (Filimonau and Grant, 2017). For example, restaurants could develop new customer segments, since organic food consumption is closely linked to alternative lifestyles. These lifestyles often emphasize environment, health, and/or alternative medicine (Cicia et al., 2002). However, restaurants featuring organic menu items must face persistent challenges, including the lack of availability and variety of organic ingredients (Poulston and Yiu, 2011). One method to overcome these challenges is for restaurants to change menus based on available ingredients in the given season (Chait, 2016). These challenges may then become a source of differentiation and competitive advantages for the restaurants in the market (Chait, 2016).

Previous research (e.g., Harland et al., 1999; Park and Ha, 2014) suggests that there are two main domains to predict a person's pro-environmental behavior. These include self-interest motives and pro-social motives (Han, Lee, & Hwang, 2016). The former approach is the more traditional view. This approach suggests that consumers are willing to perform a pro-environmental behavior for personal interest. For example, if a person has a favorable attitude toward an eco-friendly product, the person is more likely to buy the product. In this aspect, attitudinal theories, such as the theory of reasoned action (TRA) and the theory of planned behavior (TPB), have been widely applied to predict people's pro-environmental behavior (Han et al., 2016). The latter pro-social motives are explained by the norm activation model (NAM, Schwartz, 1977). The NAM framework has been used in previous studies to examine the role of pro-social motives in consumer's environmentally responsible decision making (Han, 2014). For instance, a consumer's sustainable consumption is predominantly affected by their

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moral consideration. Performing certain types of pro-environmental behaviors often increases one's personal costs (Harland et al., 2007). In other words, consumers may be required to spend more money if they opt for an eco-friendly item. Moreover, they may need to sacrifice convenience and put more time and effort to find the options available near them.

There have been multiple consumer studies about organic food (Arvola et al., 2008; Zanolini and Naspetti, 2002). However, studies focusing on consumers' intention to choose an organic menu item when they are eating out and intention to visit restaurants featuring organic menu items are sparse. Understanding the mechanism behind consumer's preference for organic menu items may be critical in creating effective marketing strategies for the restaurant industry. This will help the industry respond to the continuously growing consumer demand toward organic food (Hanks and Mattila, 2016). This study's purpose is to explore consumers' intention to choose organic menu items at restaurants and their intention to visit restaurants featuring organic menu items. The study model was developed using the TPB (Ajzen, 1991) and NAM (Schwartz, 1977) theories. The TPB was chosen because the theory has successfully been applied to numerous consumer research studies regarding food choice behavior (e.g., Arvola et al., 2008; O'Fallon et al., 2007; Tarkiainen and Sundqvist, 2005). Furthermore, considering moral norms are essential in understanding consumers' behavior in consuming environment-friendly products in the field of hospitality and tourism (Han et al., 2016). Although a number of researchers have claimed that personal norm should be added to the TPB model (Conner and Armitage, 1998), an integration of TPB and NAM has not occurred in predicting consumers' pro-environmental behavior related to hospitality and tourism beyond general pro-environmental behavior such as recycling and reusing (Han et al., 2016). Therefore, this study offers empirical evidence by incorporating the TPB and NAM into the study model to explain consumer's decision-making process of organic menu choice when eating out.

2. Literature review

2.1. Organic food consumption when eating out

In 2015, the U.S. organic industry hit a new sales benchmark: \$43 billion (Organic Trade Association, 2016a). Organic labeling is considered the most positive and reputable form of labeling among those of eco-friendly products (Allen and Kovach, 2000). Organic products are available in more than 75% of supermarket product categories (Organic Trade Association, 2016b). The continued growth in the U.S. organic industry is triggered by the development and implementation of the USDA's regulatory program (Dimitri and Greene, 2002). The USDA certifies organic food that has been "grown and processed according to federal guidelines addressing, such factors as, soil quality, animal raising practices, pest and weed control and use of additives" (USDA, 2012).

The restaurant industry has responded to the growing popularity of organic products (Hanks and Mattila, 2016). For example, the Organic Coup, the first USDA certified fast food restaurant in the U.S., opened their first location as recently as 2015 and has expanded to nine locations as of 2017. The restaurant aims to serve major markets in California and uses 100% organic ingredients for their menu offerings (The Organic Coup, n.d.). Chain restaurants such as Chipotle Mexican Grill as well as some independent restaurants are trying to replace existing ingredients with organic options (Chipotle, n.d.; Poulston and Yiu, 2011). Restaurants featuring organic ingredients in their menu offerings are expected to achieve better sales performance since consumers are willing to pay a premium for organic menu items and are more likely to patronize restaurants incorporating green practices (Hu et al., 2010; Jang et al., 2011; Poulston and Yiu, 2011). Consumers' interest in restaurants serving organic food items is expected to grow (USDA, 2017) and thus consumer behavior research is needed in this context.

Additional research will aid restaurant operators in developing market-based strategies and to perform better by fulfilling consumers' menu choice preferences.

Consumers are willing to purchase organic food items due to the benefit it gives to themselves and others (Hwang, 2016). Primary motivations for purchasing organic food include health consideration, better quality, and environmental concern (Bonn et al., 2016; Rahman et al., 2014). Organic food production foregoes the usage of chemicals that may be harmful to one's long-term health (Hughner et al., 2007). Consumers expect better quality and taste when purchasing organic produce. This expectation is due to organic producer's safer production methods when compared to conventional food and the premium price they must pay (Hill and Lynchehaun, 2002; Hwang, 2016).

According to Nielsen's (2010) study, environmental and social considerations prompt general North American consumers to choose organic produce. Fifty-nine percent of the respondents in the study were willing to buy organic produce to promote environment-friendly organic farms while 38% believed it was the right thing to do. Honkanen et al. (2006) also found that ecological motives that concern environmental and animal welfare had a strong impact on attitude toward consuming organic food. While previous studies demonstrated mixed results in comparing organic food with conventionally grown food in terms of its nutritional value and environmental impact, there is a general perception that organic food is a healthier and more environmentally friendly option (Bourn and Prescott, 2002). People's food choices are also closely related to the self-image they wish to portray in social settings (Petrescu and Petrescu-Mag, 2015). Due to the influence of media, people tend to consider purchasing organic food as trendy and fashionable in some regions (Petrescu and Petrescu-Mag, 2015). Hwang (2016) also found that older consumers are motivated to purchase organic food for the positive self-image it gives in addition to food safety concern. That is, they want to build or manage self-image in social settings by utilizing shared meaning of organic food consumption among members in the society.

Conversely, consumers face several barriers if they wish to consume organic food. For example, the higher price for organic food items is one of the major obstacles for consuming organic food. This high price hinders consumers from repeat purchases (Marian et al., 2014). Lack of availability of organic food items, mainly due to geographical locations (e.g., rural communities) or insufficient variety of organic food ingredients available in stores, is another primary barrier (Hamzaoui Essoussi and Zahaf, 2008; Tarkiainen and Sundqvist, 2005). Yet another barrier is a lack of education on the benefits of organic food. If a consumer does not have enough knowledge about organic food, that consumer is less likely to eat organic food (Aertsens et al., 2011). Skepticism about organic producers, labeling, and the certification process may also hinder organic food consumptions (Aertsens et al., 2009; Hamzaoui Essoussi and Zahaf, 2008).

2.2. Norm activation model

The norm activation model (NAM; Schwartz, 1977) has been widely used to predict people's altruistic and pro-social behavior (De Groot and Steg, 2009). Pro-social behavior refers to a person's action that is intended to help other people and consists of a broad range of helping, sharing, and cooperating behaviors (De Groot and Steg, 2009; Zhang et al., 2013). It is closely associated with a person's morality. Thus, the intensity of a person's morality determines the degree of their pro-social behavior (Schwartz, 1977). Pro-environmental behavior is often considered as one type of pro-social behavior given that pro-environmental behavior involves positive consequences to others (Steg and De Groot, 2010). Pro-environmental behavior includes any types of behaviors that mitigate the harmful impact of one's actions on the environment (Kollmuss and Agyeman, 2002). In the hospitality and tourism research, pro-environmental behaviors include patronizing green restaurant/hotel (Hu et al., 2010; Han et al., 2010), eating locally sourced food at

restaurants (Shin et al., 2017), and saving water and electricity by re-using towels (Cvelbar et al., 2016; Kiattakawin and Han, 2017).

According to the NAM (Schwartz, 1977), a person's pro-environmental behavior is predicted by three core components: awareness of consequences (AC), ascription of responsibility (AR), and personal norm (PN). AC indicates "whether someone is aware of the negative consequences for others or for other things one values when not acting pro-socially" (De Groot & Steg, 2009, p. 426). AC triggers initial norm activation because when people consider the negative consequences of their behavior to others, they are more likely to produce feelings of obligations caused by the norms (Schwartz, 1977). AR refers to "feelings of responsibility for the negative consequences of not acting pro-socially" (De Groot & Steg, 2009, p. 426). For example, a hotel guest may feel responsible for the detrimental effect to the environment if they do not reuse towels during their hotel stay. PN is defined as a person's feeling of a "moral obligation to perform or refrain from specific actions" (Schwartz & Howard, 1981, p. 191). The original model posits that when people are aware of negative consequences for others, they tend to assign responsibility for the consequences to themselves. Ascribed responsibility then activates personal norm, which determines if they should perform a certain behavior to mitigate negative consequences (Gao et al., 2016; Han, 2014). Thus, personal norm is a major focus of the model in predicting people's pro-environmental behavior (Han et al., 2016).

There are conflicting views among researchers on the relationships between variables of the NAM (De Groot and Steg, 2009). One such viewpoint describes the sequential influence of AC, AR, and PN on pro-social intentions as the original NAM (Steg and De Groot, 2010). Other studies have supported the model with empirical evidence (Han, 2014; Han et al., 2015). The second viewpoint suggests that both AC and AR directly influence PN. This ultimately, results in pro-social intentions and behavior (Steg and De Groot, 2010). A third viewpoint postulates that AC and AR moderate the relationships between PN and pro-social intentions. That is, the effect of personal norm on pro-social intention becomes stronger in a group of people with a higher level of AC and AR (Gao et al., 2016). Previous studies have presented inconclusive findings due to the confusion among different approaches (Han et al., 2016). However, De Groot and Steg (2009) found the support for the mediation model through a series of studies. They found that **PN significantly influences intention (INT) to perform a pro-environmental behavior and plays a role of the mediator on the relationship between AR and INT.** Moreover, **AR mediates the relationship between AC and PN.** On the other hand, the moderation model showed a marginal effect even though the moderating effects of AC and AR were statistically significant on the relationship between PN and INT (De Groot and Steg, 2009). Accordingly, the mediation model was used to build this study's proposed research model. In addition to the original premises of the NAM, the influence of AC on PN was integrated from the second stream of research into the proposed research model. Steg and De Groot (2010) found that both AC and AR affect PN since AC initially activates a person's moral obligation.

NAM was extended by incorporating emotional components in explaining pro-environment behavior. Onwezen et al. (2013) found that personal norm directly and indirectly influences people's pro-environmental behavior. Specifically, personal norm evokes anticipated guilt and anticipated pride of failing or achieving pro-environmental action. These anticipated emotions lead to actual behavior. Therefore, the influence of personal norm on the intention is partially explained by the role of anticipated guilt and pride.

NAM frequently predicts travelers' pro-environmental behavior and environmentally responsible decision-making in various contexts in the field of hospitality and tourism, such as, the natural heritage tourism sites (Gao et al., 2016), environmentally responsible conventions (Han, 2014), cruise tourism (Han et al., 2016), and lodging (Han et al., 2015). Understanding how AC, AR, and PN are associated with pro-environmental behavioral intentions is noteworthy because such intentions

directly lead to the promotion of the behaviors (De Groot and Steg, 2009).

2.3. Theory of planned behavior

The theory of planned behavior (TPB; Ajzen, 1985, 1991), as an extension of the theory of reasoned action (TRA; Ajzen and Fishbein, 1980) by adding perceived behavioral control, has been widely applied to predict various types of human behavior with numerous empirical support (Conner and Armitage, 1998). People with stronger intentions tend to engage in a certain behavior since the motivation factors exist in performing the behavior (Ajzen, 1991). The theory proposes three determinants that explain a person's behavioral intention: attitude, subjective norm, and perceived behavior control (Ajzen, 1991). Attitude is "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question" (Ajzen, 1991, p. 188). Subjective norm represents social influence in the theory and is defined as "the perceived social pressure to perform or not to perform the behavior" (Ajzen, 1991, p. 188). In other words, it is "a person's beliefs about whether significant others think he or she should engage in the behavior" (Conner & Armitage, 1998, p. 1431). Perceived behavioral control refers to "the perceived ease or difficulty of performing the behavior" (Ajzen, 1991, p. 188) and thus it is a reflection of previous experience and anticipated barriers (Ajzen, 1991). Therefore, the theory postulates that a person with a more favorable attitude, greater subjective norm related to a behavior, and higher perceived behavioral control is more likely to display a stronger intention to perform the behavior (Ajzen, 1991).

The TPB has successfully predicted pro-environmental behavior in the field of hospitality and tourism, such as hotel guests' intention to visit a green hotel (Han et al., 2010; Teng et al., 2015), patronizing eco-friendly restaurants (Kim et al., 2013), and engaging in bicycle tourism (Han et al., 2017). However, the TBP has also been applied in a variety of context beyond hospitality and tourism such as predicting purchasing intentions of genetically modified foods in consumer grocery shopping (O'Fallon et al., 2007). Relationships among constructs and relative importance of the determinants, nevertheless, vary across behaviors and contexts (Ajzen, 1991).

2.4. Proposed research model and hypotheses

The proposed research model (Fig. 1) is anticipated to offer a more comprehensive understanding of consumers' intention to choose organic menu items and to visit a restaurant featuring organic menu by integrating TPB and NAM. In the proposed research model, personal norm is activated by awareness of consequences and ascribed responsibility. Consequence awareness is also posited to be an antecedent of ascribed responsibility. People are likely to feel responsibility for the negative consequences when they are aware of negative consequences of not performing certain behaviors (Zhang et al., 2013). A person's intention to choose an organic menu is formulated by attitude, subjective norm, perceived behavioral control, and personal norm. Consumers' intention to choose an organic menu is expected to positively influence their intention to visit a restaurant featuring organic menu items. Thus, hypothesis 1 (H1) through hypothesis 8 (H8) are as follows:

H1. Awareness of consequences is positively related to personal norm.

H2. Awareness of consequences is positively related to ascription of responsibility.

H3. Ascription of responsibility is positively related to personal norm.

H4. Personal norm is positively related to intention to choose organic menu items.

H5. Attitude is positively related to intention to choose organic menu items.

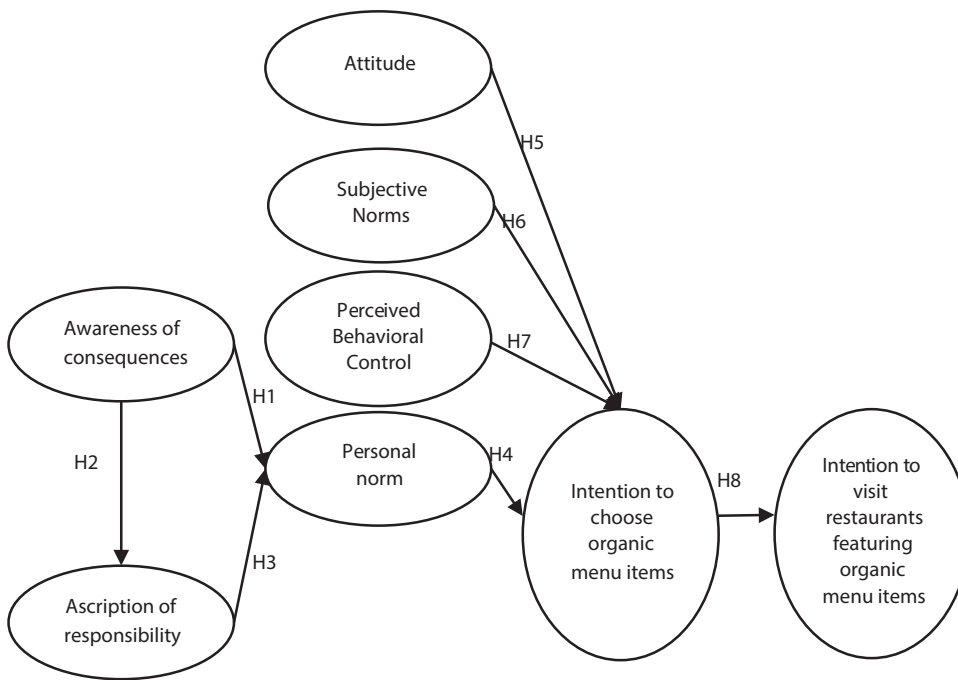


Fig. 1. Hypothesized model.

H6. Subjective norm is positively related to intention to choose organic menu items.

H7. Perceived behavioral control is positively related to intention to choose organic menu items.

H8. Intention to choose organic menu items is positively related to intention to visit restaurants featuring organic menu items.

3. Methods

3.1. Participants and data collection

This study's target population is actual and potential restaurant consumers in the U.S. who are 18 years of age or older. Amazon Mechanical Turk (MTurk) was utilized as a sampling frame with convenience sampling technique for the data collection of the study. MTurk is an Internet market place for human intelligence works and is known as a valid and reliable data source for social science research (Buhrmester et al., 2011; Hauser and Schwarz, 2016). People who are registered as 'workers' can browse among existing tasks called Human Intelligence Tasks (HITs) and voluntarily participate in a survey. In this study, only workers who had a HIT approval rate, which is the proportion of approved assignment by previous requestors based on work quality out of total submitted assignments, of 95% or higher were qualified to join the survey to ensure the quality of responses (Peer et al., 2014).

A brief survey invitation that explained study purpose, voluntary nature of the participation, and valid survey link was shared through the MTurk platform. When a potential respondent clicked the survey link, the full content of participant information was provided. Only those who agreed to participate in the survey were able to proceed, whereas their counterparts were guided to the end of the survey.

A brief explanation about USDA certified organic food (USDA, 2007) and an organic menu item was given to participants before proceeding to the main survey. This explanation defined and clarified organic food standards for the participants. For example, this explanation described organic food as "food being produced without the use of conventional pesticides, petroleum-based fertilizers, sewage-sludge-based fertilizers, herbicides, pesticides, genetic engineering

(biotechnology), antibiotics, growth hormones, or irradiation. Animals raised on an organic operation must meet animal health and welfare standards, not be fed antibiotics or growth hormones, be fed 100-percent organic feed, and must be provided access to the outdoors" (USDA, 2007, p.1). An organic menu item referred to menu items made with certified organic ingredients partially or exclusively. Each participant response was evaluated in terms of missing value and unengaged response by the authors, and a small monetary incentive was offered for those who successfully completed the survey. Out of 500 responses, a total of 461 responses were used for analyses after eliminating missing values and outliers.

3.2. Measurements

The survey instrument in this research consisted of nine sections to examine the following; awareness of consequences, ascription of responsibility, personal norm, attitude, subjective norm, perceived behavioral control, intention to choose an organic menu item, intention to visit a restaurant featuring organic menu items, and the demographic characteristics of participants. In order to test the hypotheses, previously verified valid and reliable structured questionnaires were used. For example, composite reliability values for awareness of consequences, ascription of responsibility, and personal norm measures were between 0.89 and 0.93 in previous studies (Han et al., 2016; Shin and Hancer, 2016), exceeding the minimum threshold of 0.70 recommended by Fornell and Larcker (1981). The TPB measures adapted in this study (e.g., attitude, subjective norm, perceived behavioral control, intention to choose an organic menu item, and intention to visit a restaurant featuring organic menu items) also had sufficient composite reliability values between 0.79 and 0.95 in the previous literature, suggesting the instruments had acceptable level of internal consistency (Han et al., 2016; Perugini and Bagozzi, 2001). Furthermore, adequate convergent and discriminant validity for the measurement items were established in the previous research (Han et al., 2016; Perugini and Bagozzi, 2001; Shin and Hancer, 2016). Regarding the TPB measures, belief-based items were not included since the focus of the current study is to predict customers' intention to choose organic menu items rather than identifying factors shaping customers' beliefs in the context of organic dining that ultimately influences TPB variables (Ajzen, 2016). The final questionnaire was slightly modified to be suitable for this

study and carefully reviewed by academic experts before proceeding to data collection. All measurement items (Table 2) were answered on a seven-point Likert-type scale (1 = strongly disagree to 7 = strongly agree).

3.3. Statistical analyses

Statistical Package for Social Science 23.0 and Mplus 7 were used as statistical software. Before proceeding to the main analyses, z-scores (Cutoff = $|3.0|$) and Mahalanobis D^2 test values (Cutoff = $p < .0001$) were examined to detect univariate and multivariate outliers that are not members of the studied population. Normality for each variable in the proposed model was also checked to determine if the data met the normality assumption for the maximum likelihood estimation. The normality was evaluated by examining the skewness and kurtosis of each variable and the results indicated that all values were within the acceptable range (skewness = -1.06 to $0.23 < |3|$ and kurtosis = -1.21 to $0.96 < |10|$) (Kline, 2011). Main statistical analyses were conducted in two stages, as suggested by Anderson and Gerbing (1988). First, confirmatory factor analysis was conducted to verify if all measurement variables properly reflect their latent variables and if the measurement model has acceptable model fit to the data. After assessing the measurement model, structural equation modeling (SEM) was performed to simultaneously test the causal relationships among the latent variables.

4. Results

4.1. Demographic information

Demographic information is presented in Table 1. Out of 461 responses, approximately 49% of the participants were male and 51% were female. The age groups of 25–34 (41%) and 35–44 (22%) were the largest groups. Most respondents were White/Caucasian (78%). The data were collected in all U.S. states, with the exception of Rhode Island, Vermont, Wyoming, Alaska, and Hawaii. No responses were collected from U.S. territories.

4.2. Reliability and validity

A confirmatory factor analysis (CFA) using the maximum likelihood method was employed to assess the internal consistency, convergent validity, and discriminant validity. In order to check internal consistency, the composite reliability values were checked. The values were between 0.87 and 0.98, exceeding the minimum suggested value of 0.70 (Table 2; Fornell and Larcker, 1981). As shown in Table 2, all standardized factor loadings of the measurement model were between

0.68 and 0.99, indicating preliminary evidence for the convergence of the indicators with the appropriate latent variables (Hair et al., 2006).

Fornell and Larcker (1981) mentioned that the average variance extracted from each dimension should exceed 0.50 in order to establish convergent validity. In addition, Hair et al. (2006) suggested that average variance extracted in each dimension should be larger than maximum-shared variance and average shared variance to establish discriminant validity. As indicated in Table 3, all dimensions reached acceptable level in both convergent and discriminant validity. Multicollinearity was checked with the variance inflation factor values which found them all below 10 (O'Brien, 2007). Overall, the results of CFA on the measurement items showed a good fit to the data (Table 4).

4.3. Structural equation modeling (SEM)

The results of SEM with the maximum likelihood estimation indicate that the hypothesized model fits the data well (Table 5). As shown in Fig. 2, awareness of consequences had a positive impact on both personal norm ($\gamma = 0.15$, $p < .001$), and ascription of responsibility ($\gamma = 0.26$, $p < .001$), supporting H1 and H2. H3 was also supported since the path from ascription of responsibility to personal norm was statistically significant ($\beta = 0.50$, $p < .001$). A positive direct impact of personal norm on intention to choose organic menu items was found, supporting H4 ($\beta = 0.26$, $p < .001$). The original TPB variables, which are attitude ($\beta = 0.49$, $p < .001$), subjective norm ($\beta = 0.29$, $p < .001$), and perceived behavioral control ($\beta = 0.12$, $p < .001$), were all significant predictors of intention to choose organic menu items. Thus, H5, H6, and H7 were supported. Finally, the path from intention to choose organic menu items to intention to visit restaurants featuring organic menu items was statistically significant, supporting H8 ($\beta = 0.89$, $p < .001$). The squared multiple correlations (SMC) for intention to choose organic menu items and intention to visit restaurants featuring organic menu items were 0.71 and 0.80. In other words, all research variables adequately accounted for the total variance in intention to choose organic menu items and intention to visit restaurants featuring organic menu items. In summary, all hypotheses from H1 to H8 were supported.

5. Discussion

Due to the dearth of research in organic food consumption in a restaurant setting, this study was conducted to provide a comprehensive understanding of consumers' intention to choose organic menu items in restaurants and intention to visit restaurants featuring organic menu items by integrating TPB (Ajzen, 1991) and NAM (Schwartz, 1977). The study found that both self-interest motive and pro-social motive play significant roles in an individual's intention formation of choosing organic menu items when dining out, which was consistent with the previous studies (Han et al., 2015; Han et al., 2017). The salience of each motive, however, was different depending on study contexts. In the context of visiting green hotels, moral norm exerted the greater influence on revisit intention to green hotels, while attitude and subjective norms had marginal effects on revisit intention (Han et al., 2015). Conversely, Han et al. (2017) found that personal norm is a less significant factor influencing behavioral intention to participate in bicycle tourism compared to other self-interests, such as attitude, subjective norm, and perceived behavioral control. The current study found that self-interest motives such as attitude and subjective norm, with an exception of perceived behavioral control, are more dominant factors influencing intention to choose organic menu items over pro-social motives.

As expected in H4, H5, H6, and H7, the study findings indicated that attitude, subjective norm, perceived behavioral control, and personal norm are determinants of intention to choose organic menu items. That is, those who have a favorable attitude, perceived social pressure, resources and capabilities, and moral obligation toward choosing organic

Table 1
Demographic Characteristics of the Respondents (N = 461).

Characteristics		%
Gender	Male	49.20
	Female	50.80
Age	18–24	12.20
	25–34	41.40
	35–44	21.60
	45–54	12.60
	55–64	8.40
	Age 65 or older	3.80
Ethnicity	White/Caucasian	77.60
	African American	7.00
	Native American	0.80
	Hispanic or Latino	6.80
	Asian	7.00
	Other	0.80

Table 2
Measurement Items.

Variable	Item	Standardized factor loading	Composite reliability
Awareness of consequences	The restaurant industry can cause ocean pollution, climate change, and exhaustion of natural resources	0.94	0.95
	The restaurant industry can possibly have huge environmental impacts on the ocean and wider environment	0.93	
	The restaurant industry can cause environmental deteriorations (e.g., wastes from rooms, dining, and other ship facilities, excessive use of energy/water/fuel)	0.95	
	An environmentally responsible restaurant practicing energy/water/fuel conservation, waste reduction, and diverse green activities helps to minimize environmental degradations	0.79	
Ascription of responsibility	I believe that every restaurant customer is partly responsible for environmental problems caused by the restaurant industry	0.97	0.97
	I feel that every restaurant customer is jointly responsible for the environmental deteriorations caused by the restaurant industry	0.98	
	Every restaurant customer must take responsibility for the environmental problems caused by the restaurant industry	0.94	
Personal norm	I believe I have a moral obligation to choose an organic menu when eating out.	0.94	0.96
	Choosing an organic menu when eating out is consistent with my moral principles.	0.88	
	My personal values encourage me to choose an organic menu when eating out.	0.89	
	I have a moral responsibility to choose an organic menu when eating out.	0.96	
Attitude	Disadvantageous:Advantageous	0.88	0.95
	Foolish:Wise	0.91	
	Unpleasant:Pleasant	0.94	
	Unattractive:Attractive	0.93	
Subjective Norm	Most people who are important to me think I should choose an organic menu item when eating out.	0.95	0.97
	Most people who are important to me would want me to choose an organic menu item when eating out.	0.97	
	People whose opinions I value would prefer me to choose an organic menu item when eating out.	0.95	
Perceived Behavioral Control	I am confident that if I want, I can choose an organic menu item when eating out.	0.85	0.87
	I am capable of choosing an organic menu item when eating out.	0.85	
	I have enough resources (money) to choose an organic menu item when eating out.	0.68	
	I have enough time to choose an organic menu item when eating out.	0.78	
Intention to choose	I am planning to choose an organic menu item when eating out in the future.	0.98	0.98
	I intend to choose an organic menu item when eating out in the future.	0.99	
	I will expend effort on choosing an organic menu item when eating out in the future.	0.94	
Intention to visit	I am planning to visit a restaurant featuring organic menus in the future.	0.97	0.98
	I intend to visit a restaurant featuring organic menus in the future.	0.98	
	I will expend effort on visiting a restaurant featuring organic menus in the future.	0.94	

Table 3
Results of validity analyses.

	AVE	MSV	ASV
Awareness of consequences	0.82	0.30	0.14
Ascription of responsibility	0.92	0.35	0.17
Personal norm	0.84	0.52	0.35
Attitude	0.84	0.65	0.36
Subjective Norm	0.92	0.51	0.28
Perceived Behavioral Control	0.63	0.20	0.10
Intention to eat	0.94	0.82	0.42
Intention to visit	0.93	0.82	0.39

Note. AVE = Average Variance Extracted, MSV = Maximum Shared Variance, ASV = Average Shared Variance.

Table 4
Model Fit Indices for Measurement Model.

	χ^2	df	χ^2/df	RMSEA	CFI	TLI
Measurement model	1139.84	322	3.54	0.07	0.95	0.95

Note. χ^2 = Chi-square, df = degree of freedom, RMSEA = Root Mean Square Error of Approximation, CFI = Comparative Fit Index, TLI = Tucker-Lewis Index.

menu items are more likely to choose an organic menu item. The results are consistent from those of previous studies in other types of pro-environmental behavior (e.g., Han et al., 2017; Park and Ha, 2014). For

Table 5
Model Fit Indices for Hypothesized Model.

	χ^2	df	χ^2/df	RMSEA	CFI	TLI
Hypothesized model	1434.52	336	4.27	0.08	0.94	0.93

Note. χ^2 = Chi-square, df = degree of freedom, RMSEA = Root Mean Square Error of Approximation, CFI = Comparative Fit Index, TLI = Tucker-Lewis Index.

example, Han et al. (2017) discussed that travelers' intention to engage in bike traveling are predicted by attitude, subjective norm, perceived behavioral control, and personal norm. However, the relative importance of constructs is different from these studies. In the current study, attitude is the strongest factor while perceived behavioral control exerted a marginal effect. This result is consistent with Ajzen's (2015) findings, which revealed that attitude was generally the strongest predictor of various food consumption intentions. Interestingly, subjective norm and personal norm presented similar size of effect while the effect of subjective norm was slightly stronger. This is somewhat different from previous studies that reported personal norm has a stronger impact on the intention than subjective social norms (Thøgersen, 2009). The finding indicates that the pro-environmental behavior of organic dining is mainly driven by one's personal value system as well as expectations of significant others (Klößner and Matthies, 2004).

Personal norm is affected by both awareness of consequences and ascription of responsibility, as hypothesized in H1 and H3. Ascription of responsibility exerts a greater effect on personal norm than that of

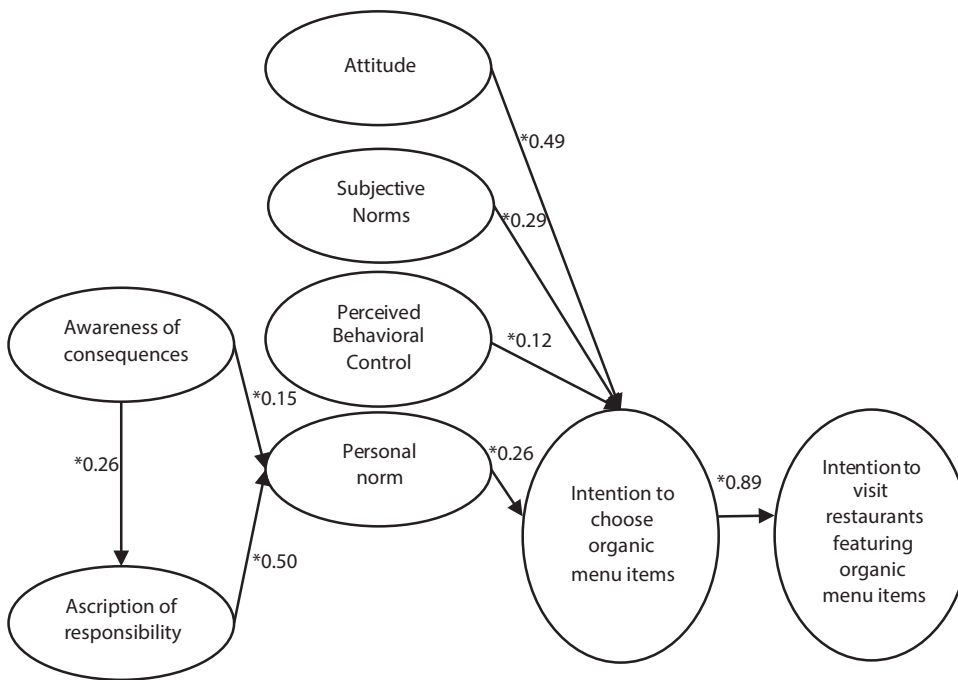


Fig. 2. Hypothesized model with path estimates (Standard path coefficient).

awareness of consequences. In addition, as anticipated in H2, awareness of consequences positively influences ascription of responsibility. This can be interpreted that ascription of responsibility partially mediates the relationship between awareness of consequences and personal norm, rather than fully mediating the relationship as suggested from the original NAM model with empirical evidence (Schwartz and Howard, 1981; Han et al., 2016). Therefore, people's moral norm can be activated by recognizing negative consequences as well as through feeling responsibility for the negative consequences. In addition, as hypothesized in H8, the more consumers intend to choose organic menu items, the more they want to visit restaurants featuring organic menu items.

6. Conclusion

It is critical to examine people's pro-environmental behavior in different settings due to the significant contextual influence on their behavioral patterns (Miao and Wei, 2013). To the best of our knowledge, there has been no study to build and test the integrative model to predict a person's intention to choose an organic menu item at a restaurant, as well as intention to visit a restaurant featuring organic menu items. The proposed research model was an endeavor to provide a more comprehensive understanding of restaurant customers' intentions of organic dining. By integrating the TPB and NAM, this study demonstrated that the proposed model is applicable to predict consumers' intention to choose organic menu items and to visit restaurants featuring organic menu items.

NAM was widely discussed in various contexts to predict a person's pro-social behavior including pro-environmental behavior. The findings have not been consistent from previous studies (Han, 2014). As opposed to the original model of NAM, this study found that the awareness of consequences directly influences personal norm. The original model posits that the ascription of responsibility fully mediates the relationship between awareness of consequences and personal norm (De Groot and Steg, 2009; Schwartz and Howard, 1981). In a similar sense, previous studies in other hospitality contexts presented that the awareness of consequences influences personal norm through ascription of responsibility (e.g., Han, 2014; Han et al., 2016). For example, Han (2014) discussed that awareness of consequence does not directly influence personal norm which, in turn, influences behavioral intention to

attend an environmentally responsible convention. Rather, it influences through ascription of responsibility, which plays a role of a full mediator. However, the findings of this study unveiled that the direct effect of consequences exerts more than a half of the total effect on the personal norm.

From a practical standpoint, identifying the influential factors on consumers' intentions to choose an organic menu item is beneficial for restaurants featuring organic menu items, particularly with regard to developing marketing strategies. Restaurateurs who aim to attract customers with their organic menu items might want to carefully examine their potential customers' characteristics such as; attitude, social influences, and moral norms. This study revealed that attitude was a salient factor in choosing an organic menu item. Therefore, if restaurateurs prioritize the creation of consumers' favorable attitudes toward choosing an organic menu item, it may increase intentions to choose organic menu items and thus directly influence restaurants' performance. Therefore, it is recommended that marketing managers strive to identify what shapes a consumer's favorable attitude toward choosing an organic menu item and position their marketing efforts to promote a consumer's favorable attitude.

The subjective norm positively influences consumers' intentions to choose an organic menu item. Therefore, restaurant marketers would benefit more from actively engaging not only potential customers, but also their reference groups in their marketing strategies. In addition to the social influence from significant others, consumers' personal value systems (i.e., personal norm) toward their environments significantly affects their intentions. It is recommended that the marketing managers and restaurant owners emphasize the environmental benefits of organic menu items through their marketing communication channels geared toward customers. Sharing the anticipated negative consequences of consuming non-organic products on the environment can be also effective. It may evoke consumers' feelings toward the negative consequences of not choosing an organic menu item and influences personal norm directly and indirectly through ascribed responsibility.

6.1. Limitation and direction for future research

This study is not free of limitations. The study findings should be interpreted and applied to other contexts with a caution because the data was collected from a single online platform with the use of

convenience sampling. People's values and motivations of eating organic food may vary based on cultural contexts, because people are likely to hold different perceptions and needs influenced by their culture (Baker et al., 2004; Seegebarth et al., 2016; Thøgersen et al., 2015). For example, Baker et al. (2004) found that Germans put more value in pro-social motives such as environment factors while people in the UK focus on self-interest motives such as health-related factors. Although the target population of the study was limited to the U.S., a future study could test the proposed research model in different cultural background settings and compare the results with the current study's findings. The validity of the model can also be improved by testing the model in the various contexts of consumers' pro-environmental behavior.

Recent studies acknowledged other self-interest motives such as self-representation or self-identity in consuming organic product (Costa et al., 2014; Hwang, 2016). Thus, future studies may include these variables as antecedents of consumers' intention to choose organic menu items at restaurants. This study revealed that attitude has a salient impact on intention to choose organic menu items. Future research can address triggers of favorable attitude toward choosing organic menu items. This will be helpful in establishing effective marketing strategies, which will ultimately generate additional revenue while meeting consumer preferences. Finally, in this research, a specific timeframe was not defined when measuring consumers' intention. According to Han et al. (2010), respondents may tend to answer positively on questions associated with intention if there is no timeframe specified. Therefore, it might be meaningful if future study examines target populations' dining-out frequency and then, measure intention relevant to the specific time frame. The use of specific occasion (e.g., "on my next dining-out") instead of timeframe could also be considered (Han et al., 2010).

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