



## The relationships between food-related personality traits, satisfaction, and loyalty among visitors attending food events and festivals

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### ABSTRACT

This study applies the concept of food-related personality traits to hospitality and tourism and identifies relationships between personality, satisfaction, and loyalty. An on-site survey was carried out with 335 visitors attending the Gwangju Kimchi (local food) Festival in South Korea between 15th and 19th of October, 2008. The relationships between 4 latent constructs (food neophobia, food involvement satisfaction, and loyalty) and 16 indicators were measured using structural equation modelling. The findings showed that food neophobia had a negative effect on satisfaction and loyalty, food involvement had a positive relationship with loyalty, and satisfaction and loyalty showed a significant positive relationship.

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### 1. Introduction

Traditionally, foods have been recognised to be low involvement products (Beharrell and Denison, 1995). However, increasing interest in agricultural ecology, animal welfare and health aspects of eating has made food products particularly interesting for studies of involvement (Bell and Marshall, 2003). Several studies (Arvola et al., 1999; Bell and Marshall, 2003; Chen, 2007; Pliner and Hobden, 1992; Raudenbush and Frank, 1999; Ritchey et al., 2003; Tuorila et al., 1994, 2001) have identified that food-related personality traits, such as food neophobia and food involvement, are stable characteristics and that individuals who are more highly involved with food are better able to discriminate between foods. According to Pliner and Hobden (1992), food neophobia is regarded as avoidance of, and reluctance to taste, unfamiliar food, and Bell and Marshall (2003) considered food involvement as the level of importance of food in an individual's life. Several studies have emphasised that food-related personality traits can be a crucial determinant when conducting research on food habits and food intakes (Bell and Marshall, 2003; Brown et al., 2006; Cohen and Avieli, 2004).

In hospitality and tourism research, Cohen and Avieli (2004) suggested that tourists taking gastronomic tours seem to show neophilic tendencies, liking for novel food flavours, and high

food-involved individuals may be more inclined towards new food experiences. The authors further pointed out that, in order to investigate unfamiliar, foreign, and exotic food consumption at a tourist destination, it is necessary to consider the personality traits of food neophobia and food involvement, which may predict the likelihood of future food intake (Cohen and Avieli, 2004).

The concept of food has evolved from general origins in traditional hospitality into the new concept of 'food tourism' (Kivela and Crofts, 2006), and food has become increasingly important in promoting tourist destinations (Kim et al., 2009). In particular, local food can also be regarded as a key contribution to the economy of tourist destinations (Kivela and Crofts, 2006). For example, the Singapore Tourism Board (2006) reported that food and beverage spending by visitors accounted for more than S\$1 billion or about 12% of international tourists' total expenditure in 2006. It is focusing on food and beverages as one of the key aims of tourism, targeting 17 million visitors and S\$30 billion by 2015. According to statistics from the Munich Tourist Office (2007), over 6 million visitors consumed 69,406 hl of beer, 142,600 pairs of local pork sausages, and 521,872 units of local chicken in beer tents set up for the 16-day Munich Oktoberfest, Germany.

A few studies have examined food events and festivals. Food events and festivals, as a form of food tourism, can play an important role in introducing a tourist to new flavours and different traditions on their holidays (Getz, 2000; Hjalager and Corigliano, 2000; Yuan et al., 2005). According to Getz (2000), food and wine festivals present visitors with an authentic lifestyle experience in a pleasant environment. Hjalager and Corigliano (2000) found that the availability of special kinds of food, including wines, fruits, vegetables, and fish had given rise to festivals and

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other events that appealed to tourists and local residents. Yuan et al. (2005) also studied the motivations of attendees at wine festivals. Existing research on food and beverage-related events and festivals, however, is at an early stage and as such, is still establishing its basic tenets. More specifically, research from the perspective of food-related personality traits is even younger, and the integration of the two bodies of hospitality and tourism events and food choice research is almost never seen. Only a few studies on food-related personality (e.g., Cohen and Avieli, 2004; Getz and Brown, 2006; Gross and Brown, 2006, 2008; Kim et al., 2009; Sparks, 2007) have investigated attitudes and behaviours towards food-related holidays. In addition, except for the work of Brown et al. (2006) who developed a wine involvement scale (WIS), other studies have dealt with food-related personality traits as only a small element of their research.

In this respect, the purpose of this study is to identify the food-related personality traits, namely food neophobia and food involvement, of visitors attending food events and festivals and to determine relationships between visitors' food-related personality, satisfaction and loyalty. This approach is based on the study of Getz and Brown (2006), who suggested that the centrality of local beverages to an individual's leisure pursuits is likely to be a predictor of food tourism, and the work of Gross and Brown (2006), who proposed the importance of food involvement in tourism experiences.

## 2. Literature review

### 2.1. Food-related personality traits and consumer behaviours

A few studies have shown a relationship between food-related personality traits and consumer behaviours. Khan (1981) noted factors linked to the individual and to the environment in which they lived, adding that food choice, at this individual level, was a function of several interrelated aspects of personality. Ajzen (1987) mentioned that personality traits play an important role in predicting and explaining human behaviour. In other words, an individual's personal traits or interests can play a part in establishing personal choice criteria through the values held by the individual. Furst et al. (1996) reported that consumer purchase behaviours can be associated with personal traits including 'sensory perceptions', 'monetary considerations', 'health and nutrition', 'convenience', and 'quality'. The authors further added that individuals have different food-related personal traits, which can be expressed as food adventurousness (Furst et al., 1996).

One food-related personality trait that has been specifically related to food choice is food neophobia. Food neophobia is defined as the extent to which consumers are reluctant to try novel foods, including food products, dishes, and cuisines (Pliner and Hobden, 1992). Several studies have suggested that consumers may be wary of novel foods and have a fear of exotic foods. For instance, Pliner and Hobden (1992) found that food neophobia positively correlated with fear and anxiety measures and negatively correlated with foreign food familiarity and sensation seeking. On the other hand, people exhibiting food neophilia, which is the tendency to seek to taste something new, were better able to discriminate food items in relation to taste and hedonic ratings, and tended to seek something new as a means of increasing sensation and pleasure (Kim et al., 2009; Ritchey et al., 2003). That is, food neophilics seem to be more inclined towards new food experiences and are associated with possessing a different taste physiology, which enables them to experience food with more pleasure.

Pliner and Hobden (1992) firstly attempted to assess the trait of food neophobia. They concluded that food neophobia is a personality trait and an enduring part of personality in terms of

food research and suggested a 10-item food neophobia scale (FNS). Since the work of Pliner and Hobden (1992), there have been many studies using the FNS to determine a general tendency towards novel foods and analyse consumers' perceptions of a certain type of food (e.g., Arvola et al., 1999; Raudenbush and Frank, 1999; Ritchey et al., 2003; Tuorila et al., 1994, 2001). These studies have shown that the trait of food neophobia is an accurate predictor of consumers' tendency towards novel foods. More specifically, Tuorila et al. (1994) examined unfamiliar Finnish products and relatively familiar American products in terms of the neophobic tendency. Expected and actual liking for unfamiliar and familiar foods was evaluated under various conditions of sensory and verbal information with 121 people, differed in food neophobia, and they identified that neophilics rated all foods more favourably than neophobics (Tuorila et al., 1994). Arvola et al. (1999) also investigated the influence of neophobia on purchase intentions for both familiar and unfamiliar cheeses using the FNS. The authors showed that neophobic people rated attitude, expected and actual taste pleasantness, lower than neophilics. Arvola et al. (1999) further mentioned that food neophobia influenced the initial tasting of unfamiliar food, however the continuation of consumption was determined by many other factors. Raudenbush and Frank (1999) found that neophobics had different expectancies about unfamiliar food, and these expectancies influenced food and rating behaviours. Similarly, food neophobia has been extensively used to predict the willingness to try unfamiliar and also some familiar foods (Tuorila et al., 2001). Ritchey et al. (2003) conducted a cross-national comparison using the FNS. Confirmatory factor analysis (CFA) proved empirically that the FNS accurately predicted responses to novel foods across different national samples (U.S., Sweden, and Finland). The authors empirically found that the FNS accurately predicted responses to novel foods across different national samples.

Closely connected with food neophobia in relation to food-related personality traits, is food involvement. Food involvement is defined as the level of importance of food in a person's life (Bell and Marshall, 2003). Bell and Marshall (2003) also pointed out that level of food involvement was likely vary across people.

Juhl and Poulsen (2000) explored the relative importance of the different antecedents for product involvement with fish on consumer behaviour. The authors tested a representative sample of Norwegian households in relation to consuming seafood as a common family meal. Juhl and Poulsen pointed out that the utility (i.e., health-related) was key concept in explaining food involvement. Olsen (2001) developed a theoretical model of involvement based on expectancy-value theory, adding new variables, such as negative feelings, social norms and moral obligations, into the original model. Olsen found that negative feelings and moral obligation were the most significant predictors of involvement and showed that seafood involvement played a role as a mediator between the consumer's chronological age, attitudes/preferences towards eating seafood and frequent consumption of seafood. In the studies above, different approaches were used to measure the construct of involvement, and researchers incorporated several other variables related to attitudes about food (Olsen, 2001). Bell and Marshall (2003) investigated the potential effects of food involvement on various relationships between food choice motives and the consumer's behavioural intentions to purchase foods. They operationalised food involvement as the extent to which people enjoy talking about food, entertain thoughts about food during the day, and engage in food-related activities. Bell and Marshall attempted to develop a measure of the characteristic of food involvement using Goody's (1982) five phases of the life cycle of food: food acquisition, preparation, cooking, eating and disposal.

According to Goody (1982), 'acquisition' relates to buying and shopping for food and the associated decisions and responsibilities,

and 'preparation' is associated with the processes involved in preparing food including washing, cleaning, cutting, slicing and dicing food. 'Cooking' is a process, transforming the product through the application of heat, either directly or indirectly, to change the texture and palatability of the food in a way that makes it more acceptable to the consumer. 'Eating' involves ingesting the food, sharing food, and serving food. 'Disposal' is related to clearing up the remnants of meals and snacks, washing up and clearing the dishes. These steps follow on sequentially as a series of behaviours that consumers engage in, where what is acquired determines what can be prepared or cooked, which in turn determines what can be eaten (Goody, 1982). Bell and Marshall (2003) considered that level of involvement would be influenced by the extent to which people take responsibility and exercise some control over these provisioning tasks. Thus, they developed the food involvement scale (FIS), consisting of a final 12 items, associated with the 5 activities of the food lifecycle. Bell and Marshall showed that measures of food involvement were associated with discrimination and hedonic ratings for a range of foods and suggested that food involvement was a significant mediator to consider when undertaking food research regarding food choice and preference.

A few, more recent, studies have compared the FIS with other constructs to investigate food-related personality traits in relation to food choice. Marshall and Bell (2004) compared the FIS with other constructs possibly mediating sensory discrimination and food choice. For example, having assumed a relationship between food neophobia and food involvement, they attempted to prove that the FIS would negatively correlate with the FNS. Marshall and Bell found significant relationship between the FIS scores and the FNS scores ( $r = -0.273, p < 0.01$ ), and they further added that the level of food involvement was related to the eating experience and was driven by the individual's responsibility for other aspects of provisioning. Eertmans et al. (2005) investigated the relationship between food-related personality traits, specific food choice motives and food intake. The FIS and FNS were used to measure personality traits, and the food choice questionnaire (FCQ) was used to assess specific motives: the FCQ provides the opportunity to assess a broad range of dimensions, recognised as appropriate to motivations influencing food choice and contains nine motivational dimensions (health, mood, convenience, sensory appeal, natural content, price, weight control, familiarity, and ethical concern) (Steptoe et al., 1995). Eertmans et al. (2005) found that motives, such as sensory appeal and health, mediated the effect of food involvement on the intake of specific food categories. The relationship between motives and both food intake and dietary healthfulness appeared to vary with level of food involvement or food neophobia. Chen (2007) investigated the motives determining consumers' attitude to organic foods and their subsequent purchase intentions in Taiwan. The author found that the food-related personality traits of food neophobia and food involvement had significant moderating effects on the relationships between some of the food choice motives and the consumers' attitude towards organic foods. Only food involvement, however, had an effect on the consumers' intention to purchase organic foods. Table 1 summarises previous research on food-related personality traits.

Use of food-related personality traits, such as food neophobia and food involvement in hospitality and tourism research contexts is still in its early stage. In the research of Cohen and Avieli (2004) on the attraction and impediment of food and beverages in tourism, food neophobic tendencies were considered as an outstanding element, because eating involves actual bodily involvement with the intake of food and beverages. Gross and Brown (2006) used the lifestyle tourism state to assess the dimensional structure of a measure of involvement for holiday experiences. The authors found that a dimension of food and wine

involvement was an indicator of lifestyle tourism experiences. In a study examining success components for marketing of wine-based holidays, Getz and Brown (2006, p. 157) emphasised that "a consumer's level of involvement with wine, from the perspective of how central it is in one's leisure and general lifestyle, is likely to be a determinant of wine-related travel". Brown et al. (2006) therefore developed the wine involvement scale (WIS), consisting of a reliable and valid 15 items, based on past research on involvement. This study investigated whether wine involvement was accompanied by a desire to visit wine producing regions, with a sample of 161 wine consumers in Canada. Brown, Havitz, and Getz proposed that the WIS comprised three dimensions: expertise; enjoyment; and symbolic centrality. 'Expertise' included items such as knowledge about wine, advice about wine, interest in wine, and a central life interest. 'Enjoyment' pertained to items, such as pleasurable experience, learning about wine, strong interest in wine, rewarding and making me want to visit wine regions. Lastly, 'symbolic centrality' contained items such as 'I like to purchase wine to match the occasion', 'my interest in wine says a lot of about type of person I am', 'many of my friends share my interest in wine', 'deciding which wine to buy is an important decision', and 'I like to gain the health benefits associated with drinking wine'.

Sparks (2007) used the theory of planned behaviour (TPB), suggested by Ajzen (1991), to explore tourists' intention to have a wine-based holiday. Sparks found that two further factors in the TPB, attitude to past behaviour and involvement with wine activities, predicted wine tourists' intentions. The data were collected from 1089 respondents who had visited a wine region. The extended TPB model demonstrated that involvement with food and wine activities had an effect on emotional attitude, and found, directly and indirectly, effects of food and wine involvement on intentions to participate in a wine-based holiday (Sparks, 2007). Gross and Brown (2008) examined the utility of combining leisure activity involvement and place attachment to assess destination-specific tourism experiences. They found that food and wine was one of the key multidimensional constructs of leisure activity involvement, including attraction, centrality to lifestyle, and self-expression. The authors added that food and wine involvement was a positive predictor of place attachment (Gross and Brown, 2008). Kim et al. (2009) attempted to identify crucial elements influencing consumption of local food in a tourist destination, and they showed three important categories: physiological factors (i.e., food neophilia and food neophobia); motivational factors (i.e., exciting experience, escape from routine, health concern, learning knowledge, authentic experience, togetherness, prestige, sensory appeal, and physical environment); demographic factors (i.e., gender, age, and education). They especially suggested that engagement with local foods in destinations may be driven by food-related personality traits, such as food neophilia and food neophobia.

## 2.2. Satisfaction and loyalty

According to Oliver (1997), satisfaction is considered as consumer judgment about goods and services. It is the outcome of a subjective evaluation about whether the selected alternative meets or exceeds expectation. Loyalty is defined as repeating purchase behaviour and is characterised in terms of repurchase intentions, word-of-mouth-communication, and recommendations (Lee et al., 2006). Oliver and Burke (1999) showed that creating loyalty depends on achieving customer satisfaction, which is affected by expectations. Oliver and Burke further suggested that there is a significant positive correlation between consumers' satisfaction and their future intentions.

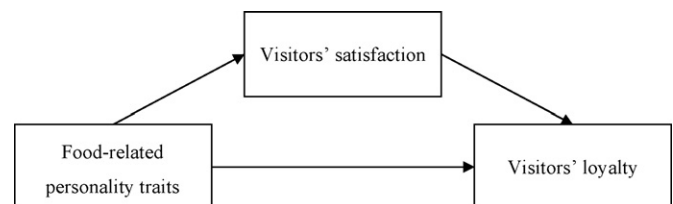
In the hospitality and tourism field, several studies have been conducted to investigate the relationship between consumer

**Table 1**  
Cases of research on food-related personality traits.

Researcher/s	Objectives	Findings
Pliner and Hobden (1992)	To develop the FNS measuring the degree of agreement or disagreement	10 items selected to represent different attitudes to new food
Tuorila et al. (1994)	To evaluate novel Finnish food and American food by using the FNS	Neophilic rated all foods more favourably Identified other environmental elements influencing consumers' attitudes
Beharrell and Denison (1995)	To understand why certain routine shopping can give rise to high involvement behaviour	Routine shopping was not low involvement and the powerful influence of involvement on purchase intentions
Arvola et al. (1999)	To examine the influence of neophobia on purchase intentions for cheeses by using the FNS	Neophobic people rated the attitudes and expected and actual taste pleasantness lower than neophilics for all cheeses
Raudenbush and Frank (1999)	To investigate the differences in intention to buy and acceptance of different types of food	The negative attitude influenced neophobic people's acceptance and intention to buy new foods
Juhl and Poulsen (2000)	To determine importance of the different antecedents for product involvement in fish and investigate the influence of involvement on behaviour	The consumers' involvement ensured that sign value and utility had effects in better enjoyment of shopping and higher frequency of usage
Candel (2001)	To conceptualize a relevant construct for understanding consumer behaviour towards foods	Involvement of food products was negatively related to the perceived convenience orientation of people
Olsen (2001)	To investigate the importance of attitude and norm in explaining seafood involvement and behaviour	Negative feelings and moral obligation were the most significant predictors of involvement
Tuorila et al. (2001)	To investigate people's willingness to try unfamiliar and familiar food in terms of food neophobia	The neophobia among men and older people were stronger The FNS is a valid instrument to measure consumers' attitudes towards novel food
Bell and Marshall (2003)	To examine the relationship between food involvement and food choice variables Construction of the FIS to develop a reliable scale measuring on a continuum an individual's level of involvement with food	Presented the FIS consisting 12 items: acquisition (items 4 and 10); preparation (items 9 and 12); cooking (items 2 and 7); eating and procurement (item 1); eating (items 3, 5 and 8); and disposal (items 6 and 11)
Ritchey et al. (2003)	To assess a validation and cross-national comparison of the FNS using confirmatory factor analysis	Using the six items derived form of the FNS was more validated rather than using the original 10 items of the FNS
Marshall and Bell (2004)	To compare the FIS measure with other constructs reflecting potential mediators of sensory discrimination and food choice	FIS and Food neophobia are significantly inter-correlated
Eertmans et al. (2005)	To determine the relationship among food-related personality traits, specific food choice motives and food intake	The relation of motives with both food intake and dietary healthfulness appeared to vary with level of food involvement or food neophobia
Chen (2007)	To investigate what motives determine the consumer's attitude and purchase intention for organic foods in Taiwan	The food-related personality traits of food neophobia and food involvement exert moderating effects on the relationships between food choice motives and consumers' attitude to organic food

satisfaction and consumer loyalty. For instance, satisfaction with a hospitality experience is a function of satisfaction with the individual attributes of all the goods and services that make up the experience, such as accommodation, weather, natural environment, and social environment (Pizam and Ellis, 1999). The possibility of revisiting the same destination in the future is positively associated with travellers' overall satisfaction level (Hui et al., 2007). Kozak and Rimmington (2000) found tourists' overall level of satisfaction with holiday experiences had the most influence on intention to revisit the destination. Satisfaction with various components of the destination (e.g., products and services such as hotels, restaurants, shops, and attractions) lead to overall satisfaction, influencing future intentions (Kozak and Rimmington, 2000). Similarly, customer overall satisfaction levels were linked with likelihood of returning to visited hotels (Choi and Chu, 2001), and a high level of traveller satisfaction resulted in a higher share of purchases and better relationship continuity in the hotel industry (Kim and Cha, 2002). The total effect of satisfaction of visitors attending a festival has been described as a useful predictor of future behavioural intentions (Baker and Crompton, 2000).

In sum, a review of previous research has suggested that the food-related personality traits of food neophobia and food involvement may have a significant relationship with customers' loyalties, such as intention to revisit and recommend to others, which are, in turn, influenced by satisfaction. Fig. 1 depicts the conceptual model for the current study, where each component of the model was selected on the basis of the literature review. This study, as an exploratory study, focuses on the effect of food-related personality traits on visitors' behaviour. It is considered that



**Fig. 1.** The conceptual model of links between food-related personality traits, satisfaction, and loyalty.



several research, pointing out that food neophobia and food involvement may predict the likelihood of future food intake (Bell and Marshall, 2003; Cohen and Avieli, 2004). Hypothetically, food-related personality traits associated with food experiences should result in significant relationships with satisfaction and loyalty, with satisfaction also having a positive effect on the loyalty of visitors. Therefore, the following hypotheses were established.

**H1.** 'Food-related personality traits' are associated with 'satisfaction'.

**H2.** 'Food-related personality traits' are associated with 'loyalty'.

**H3.** 'Satisfaction' is associated with 'loyalty'.

### 3. Methodology

#### 3.1. Research instruments

All constructs included in the model were measured using multi-item scales designed to test all relevant domains of the construct. Seventeen measures were used to capture the latent constructs. Thirteen items were developed to evaluate the two elements of food-related personality traits, two items were developed to measure visitors' satisfaction, and two items were adopted to assess visitors' loyalty.

Measures of food-related personality traits consisted of two dimensions: food neophobia and food involvement, hence the current study adopted the FNS (Pliner and Hobden, 1992; Ritchey et al., 2003) and the FIS (Bell and Marshall, 2003; Chen, 2007). More specifically, this study used the FNS constituting 6 items to measure food neophobia, based on the work of Ritchey et al. (2003), which suggested that using the 6 items derived from the FNS with responses, ranging from strongly disagree = 1 to strongly agree = 7, can be more valid than using the original 10 items of the FNS. Ritchey et al. (2003) recommended removal of the item, 'ethnic food looks too weird to eat', as it refers to a specific sensory dimension, its appearance, and does not refer directly to food familiarity or to willingness to try a food. Item 'I will eat almost anything' was considered too general, for instance vegetarians may be very willing to try new foods, but do not eat meat. They further excluded items 'I don't trust new foods' and 'I am very particular about the foods I eat'. They found that the remaining six items were sufficiently supported to enable comparison of food neophobia across three different countries, U.S., Finland, and Sweden. Therefore, the current study adopted the six items: 'I am constantly sampling new and different foods'; 'if I don't know what a food is, I won't try it'; 'I like foods from different cultures'; 'at dinner parties, I will try new foods'; 'I am afraid to eat things I have never had before'; and 'I like to try new ethnic restaurants'.

Based on Bell and Marshall's FIS, seven items including the five phases of the life cycle of food (acquisition, preparation, cooking, eating, and disposal) were used to measure the consumer's food involvement level in the current study (Bell and Marshall, 2003). In the original scale, items 'compared with other daily decisions, my food choices are not very important' and 'I do most or all of my own food shopping' relate to acquisition; items 'I do not like to mix or chop food' and 'I care whether or not a table is nicely set' relate to preparation; items 'cooking or Barbequing is not much fun' and 'I enjoy cooking for others and myself' relate to cooking; items 'I don't think much about food each day', 'talking about what I ate or am going to eat is something I like to do', 'when I travel, one of the things I anticipate most is eating the food there' and 'when I eat out, I don't think or talk much about how the food tastes' relate to eating; and items 'I do most or all of the clean up after eating' and 'I do not wash dishes or clean the table' relate to disposal. However,

this study adopted the FIS and then modified the 12 original items to revised items, considering the aims of this study in terms of food-related events and festivals. Thus, statements related to disposal and preparation were deleted. The remaining questions associated with eating, acquisition and cooking were used.

Satisfaction was measured using two items: (1) I am satisfied with the food and beverages provided at this festival and (2) I am as satisfied with this food festival as I expected to be. Measurement of the loyalty of visitors to food-related events and festivals was assessed using two questions: (1) I would visit food events and festivals again and (2) I would recommend this food festival to my friends.

The 17 items were measured on 7-point Likert-type scales where 1 = strongly disagree (extremely unlikely), 4 = neither disagree nor agree, and 7 = strongly agree (extremely likely) (see Table 3).

#### 3.2. Study site and data collection

The 15th Gwangju Kimchi Festival was held in Gwangju, South Korea, the largest city in the Honam area, in the South West of South Korea, and the fifth largest city in South Korea. It is the centre of administration, economy, culture and transportation of the Honam area (Gwangju Kimchi Festival, 2008). The 15th Gwangju Kimchi Festival attracted more than 0.5 million visitors between 15th and 19th October, 2008 (Gwangju Kimchi Festival, 2008). 'Kimchi' is a traditional Korean fermented dish, made of cabbages with varied seasonings. The Kimchi Festival largely consisted of exhibitions (e.g., 'Kimchi five-sense museum' and 'Kimchi art garden'), participation events (e.g., 'Kimchi making experience' and 'Kimchi expert academy'), and competition events (e.g., 'home made Kimchi competition', 'Muckenji fusion cooking competition' and 'traditional Kimchi making competition').

Before the main survey, two Korean professors reviewed the relevance of the instrument and problems related to translation from English into Korean. Following the expert review, a pilot test was conducted with 50 students. Based on feedback from the pilot test, minor modifications, such as questionnaire wording and question sequencing, were made and a final questionnaire was developed. The result of the pilot test showed that the Cronbach's alpha values of the four measurements (food neophobia, food involvement, satisfaction, and loyalty) were 0.93, 0.91, 0.89 and 0.86, respectively, indicating that all variables were considered to be internally consistent (Hair et al., 2006).

The main survey was conducted at the city of Gwangju, South Korea, using an on-site intercept procedure for the entire period of the 15th Gwangju Kimchi Festival from 15th to 19th October, 2008, so that the variety of events throughout this festival was available to respondents. The survey was administered by four well-trained students to a convenience sample of visitors attending the Gwangju Kimchi Festival. Visitors to this festival were asked whether they had an interest in filling out a questionnaire concerning the festival. Those who agreed to participate in the survey completed the self-completion questionnaire in the presence of research assistants. The questionnaires were immediately collected upon their completion. In total, 400 self-administered questionnaires were distributed and 335 (83.8%) usable questionnaires were finally obtained over the period of the festival.

#### 3.3. Analysis of data

The conceptual model was verified using structural equation modelling (SEM) in order to illustrate, interrelate, and explain the relationship among the dimensions (Anderson and Gerbing, 1988; Hair et al., 2006). A minimum sample size of 150 is recommended

by Anderson and Gerbing (1988), thus, the sample size of this study was sufficient to analyse the conceptual framework.

Exploratory factor analysis (EFA) with varimax rotation was undertaken to assess the underlying dimensions of the conceptual model. To determine whether a particular data set is suitable for factor analysis, inspection of the strength of the relationship among the items is necessary. Hence, in order to investigate the structure of a set of variables and to facilitate data reduction, EFA was performed (Hair et al., 2006). Confirmatory factor analysis (CFA) was used to develop a good measurement model. The CFA allows the researcher to identify on the basis of theories. (1) Whether pairs of common factors are correlated, (2) which observed variables are affected by which common factors, (3) which observed variables are affected by an error term factor, and (4) which pairs of error terms are correlated. Statistical tests can be employed to investigate whether the data confirm the substantively generated model (Anderson and Gerbing, 1988; Bohmstedt and Borgatta, 1981; Fornell and Larcker, 1981; Hair et al., 2006). CFA was applied as it allows the specification and estimation of one or several hypothesised models of factor structure, each of which suggests a set of latent variables to account for the covariance amongst a set of observed variables (Anderson and Gerbing, 1988; Hair et al., 2006).

Lastly, the hypothesised model was tested. Regression analysis can examine only a single relationship at a time, and even where multiple regression analysis is used, the dependent variable is single (Hair et al., 2006). However, SEM is a statistical modelling technique that can manage a large number of endogenous and exogenous variables, and latent (unobserved) variables specified as linear combinations (weighted averages) of the observed variables. Thus, SEM was applied as it can examine a series of dependence relationships at the same time (Hair et al., 2006).

**4. Results**

*4.1. Profile of respondents*

The demographic profile of the respondents is presented in Table 2. The sample consisted of 45.7% male and 54.3% female respondents. In terms of age, 22.4% of the respondents were under 25 years old, 30.7% were 25–34, 39.6% were 35–40, and 17.3% were 45 or older. The majority of the respondents (77.6%) were highly educated, holding at least a college degree. With regard to annual household income, 10.7% of the respondents earned less than US\$ 20,000, followed by 29.6% between \$ 20,000 and \$ 34,999, 34.6% between \$ 35,000 and \$ 49,999, and 25.1% of the respondents earned more than \$ 50,000.

**Table 2**  
Demographic characteristics of samples (N = 335).

Characteristics	Category	N	%
Sex	Male	153	45.7
	Female	182	54.3
Age	Under 25	75	22.4
	25–34	103	30.7
	35–44	99	29.6
	Above 45	58	17.3
Education	High school	75	22.4
	College	85	25.4
	Bachelor	125	37.3
	Master	50	14.9
Annual income (US\$)	Less than \$ 20,000	36	10.7
	\$ 20,000–\$ 34,999	99	29.6
	\$ 35,000–\$ 49,999	116	34.6
	\$ 50,000 or more	84	25.1

**Table 3**  
Items and their descriptive analysis.

Items	Mean (SD)
<b>Food-related personality traits</b>	
I am constantly sampling new and different foods (R)	2.35 (1.73)
If I don't know what a food is, I won't try it	2.54 (1.11)
I like foods from different cultures (R)	1.77 (0.98)
At dinner parties, I will try new foods	1.88 (0.98)
I am afraid to eat things I have never had before	1.94 (0.86)
I like to try new ethnic restaurants (R)	2.07 (1.15)
I don't think much about food each day (R)	5.66 (1.61)
Talking about what I ate or am going to eat is something I like to do	5.07 (1.57)
Compared with other daily decisions, my food choices are not very important (R)	5.01 (1.71)
When I travel, one of the things I anticipate most is eating the food there	4.89 (1.77)
When I eat out, I don't think or talk much about how the food tastes (R)	4.38 (1.71)
I do most or all of my own food shopping	4.97 (1.63)
<b>Satisfaction</b>	
I am satisfied with the food and beverage provided at this festival	5.57 (1.71)
I am as satisfied with this food festival as I expected to be	5.56 (1.27)
<b>Loyalty</b>	
I would recommend this food festival to my friends	4.49 (1.73)
I would visit food events and festivals again	4.80 (1.65)

Note: (R) denotes items requiring reverse scoring. All items were measured on a 7-point Likert scale from 1 = strongly disagree (extremely unlikely) to 7 = strongly agree (extremely likely).

This result is reasonably representative of the South Korean population (Korea National Statistical Office, 2009). In 2008, Korean males comprised around half (50.3%) of the total South Korean population (n = 48,877,252). The Korea National Statistical Office (KNSO) reported that 26% of the total South Korean population were under 19 years old, 14% were 20–29, 17% were 30–39, 17% were 40–49, 12% were 50–59, and 14% were 60 or older. This shows a similar distribution to the results of the current study. The number of average years of education of South Koreans was 11.2 years, suggesting that South Koreans are highly educated people (KNSO, 2009). In addition, past studies have noted that most tourists who are interested in cultural experiences and cultural events are from relatively higher social classes and are well educated (Kim et al., 2009; Yuan et al., 2005). In 2008, the average monthly wage of South Koreans was around 3.10 million won (KNSO, 2009), equating to an annual income of around \$ 30,000 (\$ 1 = ₩ 1250). This was similar to the largest group (\$ 35,000–\$ 49,999) and the second largest group (\$ 20,000–\$ 34,999) in the current study.

Table 3 presents mean values for items relating to participants' personality traits of food neophobia and food involvement. Table 7 also shows that the overall mean value indicated that participants were relatively more food neophilic (m = 2.10) and more highly involved (m = 4.99) with food than general food consumers, when compared to the results of previous studies (e.g., Bell and Marshall, 2003; Ritchey et al., 2003). In addition, Table 7 shows that overall satisfaction with the food festival was high (m = 5.41), and participants tended to have high loyalty to the food festival (m = 4.65).

*4.2. Factor analysis and validity and reliability of food-related personality traits*

Exploratory factor analysis (EFA) with varimax rotation was undertaken to identify underlying dimensions of food-related personality traits. Two factors were derived from the 12 items of

**Table 4**  
Results of factor analysis for food-related personality traits.

Factors and items	Factor loading (communalities)		Eigen value
	Factor 1	Factor 2	
Food neophobia (0.93 <sup>a</sup> )			5.27
At dinner parties, I will try new foods	0.917 (0.871)		
I like foods from different cultures (R)	0.893 (0.834)		
I am afraid to eat things I have never had before	0.888 (0.805)		
I am constantly sampling new and different foods (R)	0.868 (0.757)		
If I don't know what a food is, I won't try it	0.839 (0.714)		
I like to try new ethnic restaurants (R)	0.756 (0.607)		
Food involvement (0.86 <sup>a</sup> )			3.50
When I travel, one of the things I anticipate most is eating the food there		0.846 (0.763)	
Compared with other daily decisions, my food choices are not very important (R)		0.788 (0.645)	
I don't think much about food each day (R)		0.770 (0.617)	
When I eat out, I don't think or talk much about how the food tastes (R)		0.743 (0.595)	
Talking about what I ate or am going to eat is something I like to do		0.704 (0.556)	
I do most or all of my own food shopping		0.670 (0.499)	

Note: (R) denotes items requiring reverse scoring.

<sup>a</sup> Cronbach  $\alpha$ . Total explained variance = 67.80%, KMO measure of sampling adequacy = 0.848.

food-related personality traits, explaining 67.8% of the variance (see Table 2). Cutoff criteria were used to determine the number of factors derived, such as eigenvalues, percentage of variance, item communalities, and factor loadings (Bohmstedt and Borgatta, 1981; Hair et al., 2006). The latent root criterion (eigenvalue) of 1.0 was used for factor inclusion, and a factor loading of 0.40 was used as the benchmark to include items in each factor (Hair et al., 2006). Factor loadings of the variables ranged from 0.67 to 0.91, above the suggested threshold value of 0.40 for practical and statistical significance (Hair et al., 2006). The communalities of the 12 variables ranged from 0.49 to 0.87, suggesting that the variances of each original variable (from 45% to 90%) were reasonably explained by the two-factor solution.

The two factors were named 'food neophobia' and 'food involvement', based on the included items. Internal consistency was calculated using Cronbach alpha coefficients, and both constructs ranged from 0.86 to 0.93, higher than the minimum cutoff score of 0.7 (Hair et al., 2006). Bartlett's test of Sphericity (a statistical test for the presence of correlations among the variables) and the KMO (Kaiser–Meyer–Olkin) measure of sampling adequacy were measured to assess the factorability of the data. KMO value at 0.84 exceeds the acceptable minimum value which is 0.60 (Hair et al., 2006). The Bartlett's test of Sphericity was found to be significant ( $p < 0.000$ ). Thus, significant inter-correlation exists among all factors (Table 4).

Thus, food-related personality traits pertained to two dimensions (food neophobia and food involvement) that were employed as exogenous constructs in the structural equation modelling (SEM) procedures.

#### 4.3. Measurement model for personality traits and overall measurement model

Prior to testing the SEM model, a confirmatory factor analysis (CFA) was conducted in order to establish confidence in the measurement model, which specifies the posited relations of the observed variables to the underlying constructs (Fornell and Larcker, 1981; Hair et al., 2006). The measurement model for food-related personality traits was firstly tested because two underlying dimensions of food-related personality traits were identified from EFA. This process was necessary since the confirmatory measurement model should be evaluated and re-specified before the measurement and structural equation models are examined simultaneously (Anderson and Gerbing, 1988). Thus, each construct was analysed separately, and then the overall measurement model was examined.

In terms of the 'model fit test', other than adopting the  $\chi^2$  value as a reference based on studies such as those of Anderson and Gerbing (1988), Bohmstedt and Borgatta (1981) and Hair et al. (2006), a good model should also conform to the following: goodness-of-fit index (GFI), adjusted goodness-of-fit index (AGFI), normed fit index (NFI), and the comparative fit index (CFI) should be greater than 0.9 (Hair et al., 2006); root mean square error of approximation (RMSEA) should be less than 0.1 (Hair et al., 2006);  $\chi^2$  relative value to degree of freedom ( $\chi^2/df$ ) should not exceed 3 (Bohmstedt and Borgatta, 1981).

The CFA for personality traits showed that the overall fit index displayed an acceptable level of fit (see Table 6):  $\chi^2 (df) = 113.27 (48)$ , ( $\chi^2/df$ ) = 2.35, goodness-of-fit index (GFI) = 0.95, adjusted goodness-of-fit index (AGFI) = 0.92, normed fit index (NFI) = 0.96, comparative fit index (CFI) = 0.98, and root mean square error of approximation (RMSEA) = 0.06 (see Table 6). Based on the results, a total of 12 items of food-related personality traits remained and were employed to test the overall measurement model for personality traits, satisfaction and loyalty. As shown in Table 5, six items related to food neophobia, and six items related to food involvement. These 12 items of the two latent constructs were examined as the exogenous constructs in this study.

The overall measurement model, including two exogenous latent constructs (food neophobia with six items and food involvement with six items) and the two endogenous latent constructs (satisfaction with two items and loyalty with two items), was tested to see if the hypothesised model fitted the collected sample data. In this study, most of the model fit indices from CFA demonstrated a good fit with  $\chi^2 (df) = 249.48 (100)$ , ( $\chi^2/df$ ) = 2.50, GFI = 0.92, AGFI = 0.90, NFI = 0.94, CFI = 0.96, and RMSEA = 0.06 (see Table 6). Collectively, the results of CFA satisfied the recommended level of goodness-of-fit, which implies that the measurement model generally fits the sample data well (Hair et al., 2006).

Construct validity was examined by assessing convergent validity and discriminant validity (Ping, 2004). According to Fornell and Larcker (1981), convergent validity can be demonstrated by showing internal consistency, referring to the degree of interrelatedness among the observed items by using unidimensionality and average variance extracted (AVE). In this study, convergent validity was demonstrated by AVEs ranging from 0.50 to 0.82, exceeding the cutoff value of 0.50 (Fornell and Larcker, 1981) (see Table 5). Ping (2004) suggested that discriminant validity refers to the cross-construct correlations among measures of causally related variables, which should be highly inter-correlated but correlate at a lower level than that of the

**Table 5**  
Results of confirmatory factor analysis (CFA) for the measurement model.

Variables	Std. loadings	Critical ratio	AVE <sup>a</sup>	SMC <sup>b</sup>	Label
Food neophobia (Cronbach $\alpha$ = 0.93)			0.67		
At dinner parties, I will try new foods	0.983	Fixed		0.967	Neo1
I like foods from different cultures (R)	0.845	26.82		0.714	Neo2
I am afraid to eat things I have never had before	0.953	44.90		0.908	Neo3
I am constantly sampling new and different foods (R)	0.729	18.68		0.531	Neo4
If I don't know what a food is, I won't try it	0.717	18.10		0.514	Neo5
I like to try new ethnic restaurants (R)	0.642	14.86		0.412	Neo6
Food involvement (Cronbach $\alpha$ = 0.86)			0.50		
When I travel, one of the things I anticipate most is eating the food there	0.851	Fixed		0.723	Inv1
Compared with other daily decisions, my food choices are not very important (R)	0.811	20.08		0.657	Inv2
I don't think much about food each day (R)	0.736	11.27		0.542	Inv3
When I eat out, I don't think or talk much about how the food tastes (R)	0.573	9.56		0.428	Inv4
Talking about what I ate or am going to eat is something I like to do	0.683	10.56		0.467	Inv5
I do most or all of my own food shopping	0.494	8.24		0.444	Inv6
Satisfaction (Cronbach $\alpha$ = 0.87)			0.82		
I am satisfied with the food and beverage provided at this festival	0.991	Fixed		0.983	Sat1
I am as satisfied with this food festival as I expected to be	0.807	24.36		0.651	Sat2
Loyalty (Cronbach $\alpha$ = 0.87)			0.76		
I would recommend this food festival to my friends	0.992	Fixed		0.983	Loy1
I would visit food events and festivals again	0.782	22.42		0.611	Loy2

Note: (R) denotes items requiring reverse scoring.

<sup>a</sup> Average variance extracted.

<sup>b</sup> Squared multiple correlations.

within-construct correlations. Discriminant validity is evident since AVEs were greater than the squared correlation coefficients between any pairs of constructs (Ping, 2004). As seen in Table 7, squared correlation between two constructs was lower than AVE of each construct, thus a four-construct structural model was accepted as a measurement model in the current study.

Accordingly, a theoretically meaningful and statistically acceptable model was achieved. This overall measurement model described the nature of the relationships between four latent constructs and 16 indicators that measured those latent constructs.

4.4. Structural equation model

Path analysis was undertaken in order to evaluate the relationship between variables. The scale for each factor was set by fixing the factor loading to one of its indicator variables and then the Maximum Likelihood (ML) estimation method was applied. The result of the structural model tested is presented in Fig. 2, along with the estimates of standardised regression coefficients, factor loadings and residual variances and covariances. Despite the statistical significance of the path coefficients, they should be interpreted with caution due to the use of the survey response method. It should also be noted that the data are cross-sectional, so that the directions of the effects in the model are ultimately supported by the theory underpinning the linkages of the model.

Fig. 2 shows the relationship among factors and the effect of food-related personality traits in the conceptual framework of this study. In terms of model fit test, the results suggested that most structural regression coefficients presented in the model were statistically significant, however, the regression coefficient between food involvement and satisfaction was not significant. The chi-square value ( $\chi^2/d.f.$ ) = 202.30 (95),  $\chi^2$  (df) = 2.13, GFI = 0.93, AGFI = 0.90, NFI = 0.95, CFI = 0.97 and RMSEA = 0.05 indicated that the model showed good agreement with the data (see Table 6). According to Hair et al. (2006), one or more model fit indices are necessary to supplement the model evaluation because the chi-square is influenced by sample size.

Examination of the structural model determined whether the hypothesised relationships among latent constructs were accepted or rejected by showing significant coefficients.

Although the most used level of significance is 0.05, the significance level can be judgement by the researcher as to where to place the emphasis of the statistical testing (Hair et al., 2006). Also this significance level of 0.1 is adopted when the research judges that effect sizes are smaller than anticipated. In this study, thus, a significance level of 0.1 was adopted. Even though this level can be regarded as being 'less conservative', this study, as the initial stage of research on food-related personality traits in hospitality and tourism, allowed it to be less rigorous in order to find significance and used this significance level with regard to effect sizes of the study. The result showed a significant

**Table 6**  
Goodness-of-fit indexes for the measurement and structural model.

Index	Cutoff value	Observed statistics		
		Food-related personality traits	Overall measurement model	Structural model
Model $\chi^2$ (d.f.)	N/A	113.271 (48)	249.474 (100)	202.304 (95)
( $\chi^2/d.f.$ )	<3.00	2.35	2.50	2.13
p-Value	>0.05	0.00	0.00	0.00
GFI	>0.90	0.95	0.92	0.93
AGFI	>0.90	0.92	0.90	0.90
NFI	>0.90	0.96	0.94	0.95
CFI	>0.90	0.98	0.96	0.97
RMSEA	<0.05: good fit –0.08: mediocre fit	0.06	0.06	0.05

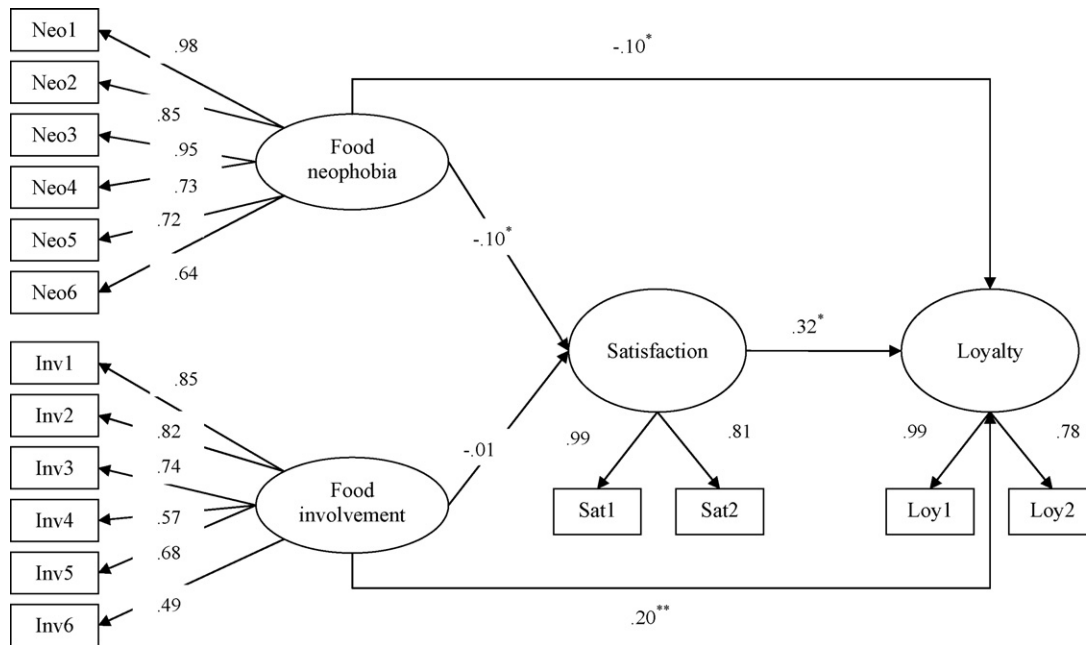
Note: GFI: goodness-of-fit index, AGFI: adjust goodness-of-fit index, NFI: normed fit index, CFI: comparative fit index, and RMSEA: root mean square error of approximation.



**Table 7**  
Construct validity of the measurement model.

	No. of items	M (SD)	1	2	3	4
1. Food neophobia	6	2.10 (0.93)	0.67			
2. Food involvement	6	4.99 (1.28)	−0.202	0.50		
3. Satisfaction	2	5.41 (1.42)	−0.110	0.022	0.82	
4. Loyalty	2	4.65 (1.60)	−0.002	0.101	0.329	0.76

Note: The scores range from 1 to 7. All correlations are significant at the 0.01 level or better.



**Fig. 2.** Results of the structural model of links between food-related personality traits, satisfaction, and loyalty ( $N = 335$ ). Note: \* $p < 0.05$ ; \*\* $p < 0.1$ , explanatory power ( $R^2$ ): SMC satisfaction, 0.31; SMC loyalty, 0.43.

negative relationship between ‘food neophobia’ and ‘satisfaction’ ( $\beta = -0.10$ ,  $p = 0.09$ ), however there was no significant relationship between ‘food involvement’ and ‘satisfaction’ ( $\beta = -0.01$ ,  $p = 0.93$ ). Thus, hypothesis 1, ‘food-related personality traits’ is associated with satisfaction’, is partly supported. ‘food neophobia’ was found to be negatively related with ‘loyalty’ ( $\beta = -0.10$ ,  $p = 0.06$ ), and ‘food involvement’ had a positive effect on ‘loyalty’ ( $\beta = 0.20$ ,  $p = 0.01$ ). Thus, hypothesis 2, ‘food-related personality traits’ is associated with loyalty’, is supported. This study also demonstrated a significant positive relationship between ‘satisfaction’ and ‘loyalty’ ( $\beta = 0.32$ ,  $p = 0.00$ ). Thus, hypothesis 3, ‘satisfaction is associated with loyalty’, is accepted.

## 5. Discussion and conclusions

The current study was undertaken in a context of a rise in consumption of food and beverages at a variety of food-related events and festivals. It approached this issue with the concept of the food-related personality traits of food neophobia and food involvement. More specifically, the study hypothesised that visitors who like to try new foods, and who consider food important in their lives, are more likely to be satisfied with the food festival experience and be more likely to return and recommend the festival to others. The study thus has significance as it integrates the two bodies of food research and hospitality and tourism research.

The objective of this study was to empirically identify whether the constructs of the food-related personality trait have a significant effect on visitors’ satisfaction, which in turn influences

loyalty, with food events and festivals. Most of the underlying dimensions of visitors’ personalities (food neophobia and food involvement) were found to have a significant effect on their satisfaction and loyalty in this study. Most paths were supported: food neophobia  $\rightarrow$  satisfaction ( $\beta = -0.10$ ,  $p = 0.09$ ); food neophobia  $\rightarrow$  loyalty ( $\beta = -0.10$ ,  $p = 0.06$ ); food involvement  $\rightarrow$  loyalty ( $\beta = 0.20$ ,  $p = 0.01$ ); satisfaction  $\rightarrow$  loyalty ( $\beta = 0.32$ ,  $p = 0.00$ ). But one was not supported: food involvement  $\rightarrow$  satisfaction ( $\beta = -0.01$ ,  $p = 0.93$ ).

The findings of this study are generally consistent with those of past research (e.g., Arvola et al., 1999; Bell and Marshall, 2003; Brown et al., 2006; Chen, 2007; Cohen and Avieli, 2004; Pliner and Hobden, 1992; Raudenbush and Frank, 1999; Ritchey et al., 2003; Tuorila et al., 1994, 2001) in that tourists taking part in food events and festivals have a tendency towards low food neophobia and are more highly involved with food. The results indicate that satisfaction and loyalty of visitors attending food-related festivals are influenced by their food-related personality traits of food neophobia and food involvement. Food neophobia was negatively associated with visitors’ satisfaction and loyalty, and food involvement had a positive effect on visitors’ loyalty. Although the current study did not identify a relationship between food involvement and satisfaction, the findings of other relationships are consistent with previous studies (Bell and Marshall, 2003; Brown et al., 2006; Cohen and Avieli, 2004), which have shown that personality traits relate to food choice and predict the likelihood of future food intake.

Even though the effect sizes of the model seem to be small, this study shows that the most important thing is that food neophobia

and food involvement can be added as one of considerable factors influencing satisfaction and loyalty in hospitality and tourism research. Many studies have found key elements, affecting tourist satisfaction with festivals and events from a variety of perspectives, such as motivations (e.g., novelty, escape, event attractions and socialisation) (Lee et al., 2004) and service quality at events (Thrane, 2002). In this respect, this study shows that food neophobia and food involvement can also influence satisfaction and loyalty. More specifically, food neophobia can influence visitor's satisfaction and can be used to predict willingness to attend food events and to try unfamiliar (foreign or exotic) food. Also, this study showed that visitors with higher food involvement personality traits were more likely to hold positive loyalty towards food events (Chen, 2007).

The relationship between satisfaction and loyalty coincided with the findings of past studies (Choi and Chu, 2001; Kim and Cha, 2002; Pizam and Ellis, 1999) that have emphasised that satisfaction is a significant direct factor influencing customers' loyalty in hospitality and tourism.

In sum, the findings of this study suggest that the food-related personality traits of food neophobia and food involvement can be predictors and determinants of customers' satisfaction and loyalty, consistent with existing literature (e.g., Arvola et al., 1999; Bell and Marshall, 2003; Brown et al., 2006; Chen, 2007; Cohen and Avieli, 2004; Pliner and Hobden, 1992; Raudenbush and Frank, 1999; Ritchey et al., 2003; Tuorila et al., 1994, 2001). Thus the empirical results from this study may be helpful for the continued development of local food and beverages as a tourist attraction and to make contributions to further research facilitating ongoing industry expansion. Based on the findings of the current study, marketers should consider food-related personality traits when organising food-related events and festivals, because food neophilic and high food-involved visitors are loyal and likely to be repeat visitors. Such loyalty to special goods and services is believed to produce more revenue and help reduce marketing costs (Choi and Chu, 2001). Marketers should also think about those with higher food neophobia personality traits and low food-involved individuals. They should, for instance, emphasise the positive aspects of food and beverages provided at food events and festivals (e.g., authentic experience, health benefits or exciting experience) to attract these people to food festivals and events.

The current study may have limitations due to its exploratory nature. While this study introduced a new research direction aimed at understanding food-related personality traits, there remains a great scope for further research exploring the influence of food-related personality traits on visitors' satisfaction and loyalty. Currently, the ability to generalise the results can be seen as limited, because this study was conducted in the setting of a single event, the Gwangju Kimchi Festival, using a sample of domestic visitors. In future research, this research could be replicated in relation to other food-related events and festivals and conducted with international tourists. Also, although the model fits and most of the relationships between the constructs are statistically significant, the effect sizes seem to be small. Thus further efforts should also be directed towards developing a more comprehensive model that can explain the relationship between FNS, FIS, satisfaction and loyalty in the hospitality and tourism fields in order to generate a more solid relationship among constructs examined. Lastly, the results from the current study suggest that future research should measure the quality of the experience at events and festivals. Presumably, if the quality of the experience was perceived to be poor, those with greater food involvement and neophilia traits might be more likely than others to be dissatisfied: they might be more critical judges. It could also be worth examining, separately, visitors who were and were not satisfied with local food provided at a food festival. Such an

application would help researchers to identify reliable indicators to measure customers' food-related personality traits, and produce a more stable model in this academic area.

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## References

- Anderson, J., Gerbing, 1988. Structural equation modeling in practice: a review and recommended two-step approach. *Psychological Bulletin* 103 (3), 411–423.
- Ajzen, I., 1991. The theory of planned behavior. *Organizational Behavior and Human Decision Processes* 50, 179–211.
- Ajzen, I., 1987. Attitudes, traits, and actions: dispositional prediction of behavior in personality and social psychology. In: Berkowitz, L. (Ed.), *Advances in Experimental Social Psychology*. Academic Press, New York, pp. 1–63.
- Arvola, A., Lähteenmäki, L., Tuorila, H., 1999. Predicting the intent to purchase unfamiliar and familiar cheeses: the effects of attitudes, expected liking and food neophobia. *Appetite* 32 (1), 113–126.
- Baker, D., Crompton, J., 2000. Quality, satisfaction and behavioral intentions. *Annals of Tourism Research* 27 (3), 785–804.
- Beharrell, B., Denison, T., 1995. Involvement in a routine food shopping context. *British Food Journal* 97, 24–29.
- Bell, R., Marshall, D., 2003. The construct of food involvement in behavioral research: scale development and validation. *Appetite* 40 (3), 235–244.
- Bohmstedt, G., Borgatta, E., 1981. *Social Measurement: Current Issues*. Sage, Beverly Hills, CA.
- Brown, G., Havitz, M., Getz, D., 2006. Relationship between wine involvement and wine-related travel. *Journal of Travel and Tourism Marketing* 21 (1), 31–46.
- Candel, M., 2001. Consumers' convenience orientation towards meal preparation. *Appetite* 36, 15–28.
- Chen, M., 2007. Consumer attitudes and purchase intentions in relation to organic foods in Taiwan. *Food Quality and Preference* 18, 1008–1021.
- Choi, T., Chu, R., 2001. Determinants of hotel guests' satisfaction and repeat patronage in the Hong Kong hotel industry. *International Journal of Hospitality Management* 20 (3), 277–297.
- Cohen, E., Avieli, N., 2004. Food in tourism: attraction and impediment. *Annals of Tourism Research* 31 (4), 755–778.
- Eertmans, A., Victor, A., Vansant, G., Van den Bergh, O., 2005. Food-related personality traits, food choice motives and food intake. *Food Quality and Preference* 16, 714–726.
- Fornell, C., Larcker, D., 1981. Evaluating structural equation models with unobservable and measurement error. *Journal of Marketing Research* 18 (1), 39–50.
- Furst, T., Connors, M., Bisogni, C., Sobal, J., Falk, L., 1996. Food choice: a conceptual model of the process. *Appetite* 26, 247–266.
- Getz, D., 2000. *Explore Wine Tourism: Management, Development and Destinations*. Cognizant Communication Corporation, New York.
- Getz, D., Brown, G., 2006. Critical success factors for wine tourism regions: a demand analysis. *Tourism Management* 27, 146–158.
- Goody, J., 1982. *Cooking, Cuisine and Class: A Study in Comparative Sociology*. Cambridge University Press, Cambridge.
- Gross, M., Brown, G., 2006. Tourism experiences in lifestyle destination setting: the roles of involvement and place attachment. *Journal of Business Research* 59 (6), 696–700.
- Gross, M., Brown, G., 2008. An empirical structural model of tourists and places: progressing involvement and place attachment into tourism. *Tourism Management* 29 (6), 1141–1151.
- Gwangju Kimchi Festival, 2008. *Festival Information*. Retrieved on December 3, 2008, from [http://www.kimchi.gwangju.kr/sub01/sub\\_01.asp](http://www.kimchi.gwangju.kr/sub01/sub_01.asp)
- Hair, J., Black, B., Babin, R., Anderson, R., Tatham, R., 2006. *Multivariate Data Analysis*, 6th ed. Prentice Hall, New York.
- Hjalager, A., Corigliano, M., 2000. Food for tourists: determinants of an image. *International Journal of Tourism Research* 2, 281–293.
- Hui, T., Wan, D., Ho, A., 2007. Tourists' satisfaction, recommendation and revisiting Singapore. *Tourism Management* 28 (4), 965–975.
- Juhl, H.J., Poulsen, C.S., 2000. Antecedents and effects of consumer involvement in fish as a product group. *Appetite* 34 (3), 261–267.
- Khan, M.A., 1981. Evaluation of food selection patterns and preferences. *CRC Critical Reviews in Food Science and Nutrition* 15, 129–153.
- Kim, W.G., Cha, Y., 2002. Antecedents and consequence of relationship quality in hotel industry. *International Journal of Hospitality Management* 21 (4), 321–338.
- Kim, Y.G., Eves, A., Scarles, C., 2009. Building a model of local food consumption on trips and holidays: a grounded theory approach. *International Journal of Hospitality Management* 28 (3), 423–431.
- Kivela, J., Crofts, J., 2006. Tourism and gastronomy: gastronomy's influence on how tourists experience a destination. *Journal of Hospitality and Tourism Research* 30 (3), 354–377.
- Korea National Statistical Office (KNSO), 2009. *Population and Housing Census*. Retrieved on May 21, 2009 from <http://www.kosis.kr/search/totalSearch2.jsp/>

- Kozak, M., Rimmington, M., 2000. Tourist satisfaction with Mallorca, Spain, as an off-season holiday destination. *Journal of Travel Research* 38 (3), 260–269.
- Lee, S., Kim, W., Kim, H., 2006. The impact of co-branding on post-purchase behaviors in family restaurants. *International Journal of Hospitality Management* 20, 245–261.
- Lee, C., Lee, Y., Wicks, B., 2004. Segmentation of festival motivation by nationality and satisfaction. *Tourism Management* 25 (1), 61–70.
- Marshall, D., Bell, R., 2004. Relating the food involvement scale to demographic variables, food choice and other constructs. *Food Quality and Preference* 15, 871–879.
- Munich Tourist Office, 2007. Munich Oktoberfest. Retrieved on December 3, 2008 from <[http://www.muenchen.de/Rathaus/tourist\\_office/oktobfest/126031/oktoberfest\\_Zahlen\\_Statistiken.html](http://www.muenchen.de/Rathaus/tourist_office/oktobfest/126031/oktoberfest_Zahlen_Statistiken.html)>
- Olsen, S., 2001. Consumer involvement in seafood as family meals in Norway: an application of the expectancy-value approach. *Appetite* 36 (2), 173–186.
- Oliver, R., 1997. *Satisfaction: A Behavioral Perspective on the Consumer*. McGraw-Hill, New York.
- Oliver, R., Burke, R., 1999. Expectation processes in satisfaction formation: a field study. *Journal of Service Research* 1 (3), 196–214.
- Ping Jr., R., 2004. On assuring valid measures for theoretical models using survey data. *Journal of Business Research* 57, 125–141.
- Pizam, A., Ellis, T., 1999. Customer satisfaction and its measurement in hospitality enterprises. *International Journal of Contemporary Hospitality Management* 11 (7), 326–339.
- Pliner, P., Hobden, K., 1992. Development of a scale to measure the trait of food neophobia in humans. *Appetite* 19, 105–120.
- Raudenbush, B., Frank, R.A., 1999. Assessing food neophobia: the role of stimulus familiarity. *Appetite* 32, 261–271.
- Ritchey, P.N., Frank, R.A., Hursti, U., Tuorila, H., 2003. Validation and cross-national comparison of the food neophobia scale (FNS) using confirmatory factor analysis. *Appetite* 40, 163–173.
- Singapore Tourism Board, 2006. Singapore Food Festival. Retrieved on March 20, 2009 from <<http://app.stb.gov.sg/asp/common/print.asp?id=7003&type=2/>>
- Sparks, B., 2007. Planning a wine tourism vacation?: factors that help to predict tourist behavioral intentions. *Tourism Management* 28, 1180–1192.
- Stepoe, A., Pollard, T.M., Wardle, J., 1995. Development of a measure of the motives underlying the selection of food: the food choice questionnaire. *Appetite* 25, 267–284.
- Thrane, C., 2002. Music quality, satisfaction, and behavioral intentions within a jazz festival context. *Event Management* 7 (3), 143–150.
- Tuorila, H., Lähtenmäki, L., Pohjalainen, L., Lotti, L., 2001. Food neophobia among the Finns and related responses to familiar and unfamiliar foods. *Food Quality and Preference* 12 (1), 29–37.
- Tuorila, H., Meiselman, H.L., Bell, R., Cardello, A.V., Johnson, W., 1994. Role of sensory and cognitive information in the enhancement of certainty and liking for novel and familiar foods. *Appetite* 23, 231–246.
- Yuan, J., Cai, L., Morrison, A., Linton, S., 2005. An analysis of wine festival attendees' motivations. *Journal of Vacation Marketing* 11 (1), 41–58.