

Peking duck, anyone? An analysis of international tourist food perceptions and influence factors

Abstract

Feelings about local foods are thought to affect visitor perceptions of destination images. This research used content and statistical analysis of 2,887 reviews of food posted on Tripadvisor by international tourists to Beijing. A conceptual model was constructed of the process of food perceptions. Country of origin influenced overall perceptions of food and dining in China's capital. Subsequently, international tourists from 45 countries were divided into groups based on economic levels, cultures, and geographic regions, and differences in food perceptions were further analyzed. The economic levels of countries significantly influenced taste preferences, service perceptions, and negative emotions, and cultural backgrounds affected dining reasons, flavor and restaurant location perceptions. However, it was found that the geographical regions of visitors did not significantly impact food perceptions. The research findings have reference value for destination food marketing strategies.

Keywords: Food perceptions; influencing factors; national culture; big data; content analysis; Chinese food; Beijing

1. Introduction

Food tourism is a popular topic for researchers (Ellis *et al.*, 2018; Okumus, Koseoglu and Ma, 2018a; Kuhn, 2023; Zhang, 2023) and an increasingly critical asset in attracting visitors to destinations. Encounters with local foods are an indispensable part of the travel experience (Frisvoll *et al.*, 2016), not only meeting physiological needs and providing sensory pleasure (Mak *et al.*, 2012) but also delivering engaging, novel, and memorable experiences (Badu-Baiden *et al.*, 2022; Richards, 2021; Stone, Migacz and Sthapit, 2022). Research on food activities is valuable for destination marketing and communications (Jalis *et al.*, 2014). The establishment of distinctive local food images can be part of destination brand development (Lai *et al.*, 2019; Lin, Pearson and Cai, 2011; Tsai and Wang, 2017) with the characteristics of food experiencers being applied for market segmentation and establishing competitive advantage (Knollenberg *et al.*, 2021).

Cultural factors are determinants of food preferences and perceptions (Lee, 2023). With

increasing globalization, analyzing perceptions of local cuisines from a cross-cultural perspective is becoming more necessary for differentiation. However, the research on destination food experiences and perceptions from a cross-cultural perspective is limited, although expanding recently (e.g., Adongo, Anuga and Dayour, 2015; Baah, Bondzi-Simpson and Ayeh, 2020; Çanakçı and Birdir, 2020; Chang *et al.*, 2023; Dedeoğlu, Shi and Okumus, 2022). Few previous cross-cultural food tourism studies have compared differences in food perceptions of visitors from multiple countries, regions, and cultures. Various countries have been analyzed in food studies involving international tourists, including, for example, Finland (Björk and Kauppinen-Räsänen, 2014, Mynttinen *et al.*, 2015); Ghana (Adongo *et al.*, 2015; Baah *et al.*, 2020); Spain and Slovenia (Sanchez-Cañizares and Castillo-Canalejo, 2015; South Korea (Seo, Yun, and Kim, 2017); Thailand (Chavarria and Phakdeekasorn, 2017); Turkey (Çanakçı and Birdir, 2020); Zimbabwe (Mkono *et al.*, 2013); and others. There have been several valuable studies on dining out in China (e.g., Chen and Huang, 2018; Chen and Huang, 2019; Chen, Huang and Hou, 2020; Okumus, Xiang and Hutchison, 2018n; Shen *et al.*, 2021), but they tend to have a focus on the domestic food consumption market.

Online reviews are a valuable information source for making travel decisions (Fanelli and Di, 2018; Guo and Pesonen, 2022; Hlee, Lee and Koo, 2018). Uploaded user-generated content (UGC) provides opinions from worldwide sources and much sharing of travel experiences (Bi *et al.*, 2019). This research used comments on food experiences in Beijing posted on Tripadvisor by international tourists from 45 countries and analyzed differences in food perceptions by country and region of origin. The research questions were:

1. What preferences and expectations do international tourists have for food experiences in Beijing?
2. What are the concerns of international tourists when dining in Beijing?
3. What are the overall perceptions of food in Beijing among international tourists?
4. Are the food perceptions of tourists from various countries and regions the same, and if not, how do they differ?

This research developed a conceptual model of international tourist food perceptions and identified factors influencing food perceptions. It was motivated in response to several previous calls for more research into the characteristics of food tourism (e.g., Okumus, 2021; Robinson, Getz and Dolnicar, 2018). A majority of previous studies have at most considered international visitors from a limited number of countries, while this research had

respondents from 45 countries who were visiting China.

2. Literature review

2.1. Food perceptions

Food not only meets the basic physiological needs but also is a pull motivational factor for destination marketing (Dann, 1977; Su, Johnson and O'Mahony, 2020; Yousefi and Marzuki, 2015). Previous studies demonstrate that interests and preferences for local food play a significant role in influencing destination choice (Mak *et al.*, 2012), and many places regard local cuisine as a feature worth promoting. Research has indicated that tourists consider food as an experience booster and a major motive to travel (Dawson *et al.*, 2023). Eating local foods is a peak experience attracting people and motivating destination visits (Quan and Wang, 2004). Researchers have found that the aim of some culinary tourists is to experience newness related with local food in a destination (Nazar and Nazar, 2024). Thus, accurately identifying the perceptions of local foods is essential to developing and marketing destination products (Guan and Jones, 2015). Thus, images of local foods are increasingly embedded in destination marketing (Jalis *et al.*, 2014). Local food, as a central attraction of destinations, influences the perceptions of destination image (Recuero and Arróspide, 2024). While destination image has been comprehensively studied in tourism for decades, the research on destination food perceptions is relatively new (Lai *et al.*, 2018).

Destination food perceptions are based on the local food experience. Existing studies explore the relationship between food experience and other factors, including perceived value, satisfaction, and behavioural intentions, and there is a significant link between the experience of local food and tourist intentions. The variables of perception and experience are observable. Previous research has shown that tourists are more inclined to have complete dining experiences. Food quality, service reliability, and environmental cleanliness can affect satisfaction and positive post-meal behavioural intentions (Liu and Jang, 2009). Perceived value and satisfaction affect the willingness to revisit destinations (Kim *et al.*, 2011). The consumption value of local food impacts attitudes toward the food images of destinations, recommendations, and revisit intentions (Choe and Kim, 2018). In addition, the dining atmosphere, quality attributes of food, and menus directly or indirectly affect future behavioural intentions and influence behaviour through intermediary variables, such as perceived value and satisfaction (Liu and Jang, 2009; Liu and Mattila, 2015; Fanelli and Di, 2018). Some studies take food as the primary travel purpose of tourism and research this niche

market for destinations. For example, Montella (2017) researched sustainable wine tourism in destinations.

The factors influencing food perceptions vary due to different research perspectives, case locations, and subject selection. Studies have shown that personality characteristics (Ji *et al.*, 2016), pre-trip expectations, and cultural factors significantly influence the food experience (Ammann *et al.*, 2020). Scholars have also found that participation degree and understanding of local food affect tourist perceptions of food (Arellano-Covarrubias *et al.*, 2019). The perception of local food reinforces perceived sustainability which is a determining factor of service experience (Estrada *et al.*, 2024). Lai *et al.* (2018) evaluated the perceived image of food in Australia from six dimensions, including the geographical environment and food culture. Chang *et al.* (2011) suggested that food culture and dining experience environment influence the food experience. Kim *et al.* (2009) explored the motivational, demographic, and physiological factors influencing destination food and beverage consumption. An empirical study of motivation determined the factors affecting local food consumption, including cultural experience, interpersonal relationships, excitement, health concerns, and sensory appeal (Kim *et al.*, 2013). Knowledge plays a role in local food consumption, and the knowledge of local food is an essential factor affecting perceptions of food (Frisvoll *et al.*, 2016). However, previous research considers that there is need to adopt a holistic view of the food tourism experience in destinations (Kumar, 2024).

Cultural difference is a significant variable emphasized in previous studies among the factors influencing food perceptions. Cultural factors are determinants of food preferences because culture is an integral part of a people's value systems and impacts the sensory properties of acceptable foods (Chang *et al.*, 2010). International tourists have varying food motivations based on different attitudes and interests toward local food, such as new food experiences, culture, and socialization (Gálvez *et al.*, 2017). In addition, the nationality of tourists influences perceptions of the food service in destinations (Sheldon and Fox, 1988).

Food encounters are also a part of cultural experience. Food with local characteristics helps tourists to gain more sensory and cultural experiences, improving the quality of their destination engagement (Li and Yang, 2023). With the in-depth research on food activities in tourism, a cultural turn has been experienced. Culture has gradually become the core concept in gastronomic tourism (Ellis *et al.*, 2018). Studies have found that local food consumption is related to local culture's authentic novelty experience (Mynttinen *et al.*, 2015; Özdemir and

Seyitoğlu, 2017). Cultural experiences have a significant influence on visits to destinations by gastronomic tourists (Vukolić *et al.*, 2023). Some scholars have examined food activities from a cross-cultural perspective. One study analyzed online ratings and evaluations of Chinese and U.S. customers to compare differences in food motivation and experience satisfaction (Jia, 2020). There is also research on the motivation factors of Chinese tourists' food preferences in different cultural environments and the influence of Chinese food culture on participants' food behaviours (Chang *et al.*, 2010; Seo *et al.*, 2017). Cross-cultural communication during the dining process is another focus of researchers. A previous study found cultural differences between U.S. and Japanese customers' attention preferences for waitpersons in U.S. restaurants through cross-cultural communication between customers and servers (Lee, 2015).

Studying food experiences and perceptions in a cross-cultural context is complex. The food experience in places abroad is mostly an attraction. However, some people avoid local special food activities due to the risks of doing something unfamiliar (known as food neophobia). For example, one study found that hygiene standards, health considerations, communication gaps, and limited knowledge about the local cuisine were factors to question destination food (Cohen and Avieli, 2004). Also, people have a universal attachment to familiar food and eating habits (comfort food), a factor to consider when studying food perceptions against cross-cultural backgrounds.

Previous research has generally used case studies or focused on comparing two cultural groups. A few studies have compared the differences in food perceptions among tourists from different countries on broader geographical and cultural scales.

2.2. Other perspectives on food consumption in destinations

Other aspects of food consumption in destinations apart from perceptions have been analyzed and are worthy of mention. These aspects include personal interest in sampling local foods and beverages in destinations and the willingness to try local foods rather than staying with more familiar dishes. Also, the dining style (e.g., fast vs. slow) is attractive to scholars.

It is recognized that some travelers have an above-average interest in different types of food. One such group has become known as the "foodies" (Chang *et al.*, 2021; Getz and Robinson, 2014), who are defined as "a group of tourists who are passionate about food and travel around mainly to taste food".

There is significant research on food neophilia and neophobia (e.g., Baah, Bondzi-Simpson

and Ayeh, 2020; Chang *et al.*, 2022; Okumus, Dedeoğlu and Shi, 2021) and comfort food (Spence, 2017). These constructs concern people's willingness to try new, local foods and desires to stay with familiar foods. Some tourists are more inclined to eat (and enjoy) local foods when traveling than others. Food neophilia is an attitude that "involves an interest in novel foods, showing great pleasure in eating a wide variety of foods, familiar and unfamiliar ones" (Dimitrovski and Crespi-Vallbona, 2017); it is recognized as a significant motivator for tourism. Food neophobia is the opposite of neophilia and is defined as "active avoidance of new food" (Wolff and Larsen, 2019).

Another perspective on food is whether it is fast or slow. While most know what fast food is and where to eat it, the knowledge of slow food is less widespread. According to Heitmann, Robinson and Povey (2011, p. 115), slow food "is part of a movement for change that advocates sustainable, less greedy and slow life." It is the antithesis of the food and service styles of the major global fast-food QSR (quick-service restaurant) chains.

3. Method

3.1 Data collection and pre-processing

Tripadvisor was chosen because it is an international travel platform that generates user content with global influence. Comments on Beijing tourism were obtained from the website, and those related to food were selected.

The data were pre-processed before formal analysis. The top 45 countries, each with more than five comments, were selected for analysis (Appendix). After data screening, 2,887 valid comments on perceptions of Beijing cuisine remained, comprising more than 160,000 words. Comments were collected from January 19, 2015, to November 9, 2019. Pre-pandemic data were chosen because of the impact of COVID-19 on people's perceptions. The information collected included country and city of residence, satisfaction scores, dates, and text to form the Beijing food comment database.

3.2. Research procedures

Content analysis was conducted on reviews uploaded to Tripadvisor. The reviews were manually coded, refining categories by connecting concepts and establishing substantive themes from the bottom up (Kim *et al.*, 2010). Based on the online comments about food, concepts reflecting food perceptions were extracted and condensed until a conceptual model was formed.

A conceptual model was created by analyzing a data set of comments one by one through

manual coding. First, the original text was conceptualized and categorized after extracting the original concepts of food perceptions. Second, the extracted concepts were reorganized and classified to form the initial categories of food perceptions. Then, the relationships between the initial categories were sought to establish the core categories. The theoretical saturation was tested and the results showed that the final concepts comprehensively covered the review contents. Therefore, the coding process ended, and a saturated and complete theoretical model of food perceptions was obtained.

Statistical tests were conducted on food perceptions based on origin countries to explore the conceptual model further. Background influences on food perceptions were examined by analyzing the differences between economic levels and cultural backgrounds. SPSS. 26 software was used for statistical analysis. The main categories in the model (overall food perceptions and dining feedback) were the variables. Then, the initial codes of each country were processed digitally through proportion calculation.

The 45 countries were divided into three categories through RStudio cluster analysis. Four economic indicators, GDP, GNP, GDP per capita, and GNI, were selected to compare economic levels among different country groups (see Appendix). Since the data did not pass the normality test and the variance was not uniform, the non-parametric test was used to compare group differences. Hofstede's six-dimensional theory of culture was adopted to divide the 45 countries into four groups and determine differences in the food perceptions among countries by cultural backgrounds. In addition, the impact of geographical regions on food perceptions was analyzed.

4. Results and Discussion

4.1 Content analysis of food perceptions

The text coding had three steps: Open, axial, and selective coding. Open coding was the basis for manual coding. Researchers refined and abstracted the phenomena described in the text to form theoretical concepts. The initial steps of coding further guided the definition of core concepts. The initial concepts of food perceptions were obtained by labeling each comment on Tripadvisor. Then, the words with similar meanings were summarized and sorted to obtain the initial categories.

The axial coding process refined the initial categories and established the correlations among them to form larger categories and make the concepts more directional and

conceptual. Five main categories were identified: influence factors, service perceptions, food perceptions, environment perceptions, and dining feedback.

The third step was selective coding or refining the storyline from the main category and refining and integrating the content again. The analysis of comments found that the storyline focused on the whole process of food perceptions.

Perceptions of Beijing cuisine can be divided into three parts. First, dining preferences and country of origin influenced food perceptions and experiences. Subsequently, visitors formed their perceptions of food in the process of food experience. Besides the food ingredients, dining service experiences and environments affected food perceptions. People gave post-meal feedback based on their overall food perceptions, expressing emotions and indicating future behavioural intentions. A conceptual model of the whole process of food perception based on the "influence factors -- food perceptions -- dining feedback" was constructed (Figure 1).

(Insert Figure 1 here)

Influence factors. It was determined that origin (country) affected dining preferences, and preferences influenced food perceptions. Regarding personal dining preferences, the international visitors mentioned dining reasons and taste preferences. For example, some expressed their love for different flavours, such as Asian or Indian:

"We love everything, from noodles to chicken and traditional Beijing flavour. Many locals eat here. This is real, not just for tourists."

Dining reasons reflected the interaction of social factors, and online social communities also influenced tourists. For example, it was mentioned that:

"Visiting here is recommended by a friend, having a business dinner and tasting the evening meal in this century-old house."

"We visited the restaurant and tasted the Peking duck after reading good reviews."

Food culture and price sensitivity affected subsequent food perceptions. Some said that they were vegetarian or only ate Halal food. Other respondents mentioned that they expected to taste different foods from their countries. For instance, some U.S. reviewers said they "*have been looking for food with Chinese characteristics*" in Beijing; however, others preferred to eat food similar to their food and will "*look for restaurants with the flavour of their own country*". This could be considered a search for comfort food (Chang *et al.*, 2022; Long, 2017). It was

therefore speculated that differences in food behaviour in Beijing were related to cultural backgrounds.

Food overall perceptions. The overall perceptions of food were embodied in the food itself, dining service, and dining environments. This included the look of food before consuming it and the sensory stimulation brought about by tasting the dish. For example, a reviewer said:

"The duck is perfectly grilled, a juicy part of the meat and crispy on the outside...The desserts are amazing! Real and delicate. The roast duck is absolutely authentic. The juicy meat is served with crispy skin! It was absolutely awesome."

Service and environmental (experience scape) perceptions were influential in food perceptions. Service and environmental perceptions can be divided into standard and unique. People not only require standard services such as *"fast service"* and *"hospitality"* but also want to have some unique experiences such as *"learning about Chinese food culture"*, for example:

"My family had a great time learning Chinese food culture and condiments. We learned the whole process, and then we had dinner."

"For an interesting lunch, we learned how to make Chinese dumplings and some local culture."

Dining feedback. Guests gave post-meal feedback online about overall perceptions. People expressed emotions with words such as *"happy"*, *"pleasant"*, and *"surprised"* to show positive emotions, and *"disappointed"* and *"bad"* to express adverse reactions. Also, they indicated future food behavioural intentions, including revisiting and recommending, for example:

"The food here is wonderful. The portions are generous, and the taste is amazing. We have Beijing duck as well as a beef and mutton dish. I would definitely recommend this place and look forward to eating here again."

In summary, individual or group dining preferences and the country of origin backgrounds affected the food chosen and perceived experiences. Then, food experiences were influenced by the food, dining service, and environment. In previous studies, few researchers conducted systematic content mining and analysis of food perceptions. Therefore, this research fills that gap by creating a model to assist future studies (e.g., quantitative scale development). Also, the data were from tourists from many countries, making the findings more robust.

4.2 Analysis of factors influencing food perceptions

Previous studies on food perception focus on analyzing perceived value, attitudes, satisfaction, and behavioural intentions. This research explored the factors influencing food perceptions. The analysis found that the country of origin influenced overall food perceptions and dining feedback. Three prominent characteristics of source markets were selected to analyze other differences -- economic levels, culture, and geographic region.

Economic levels. The 45 countries were divided into three categories/groupsⁱ according to hierarchical clustering. Four economic indicators, including GDP, GNP, GDP per capita, and GNI, were used to explore whether economic factors affected food perceptions from different countries. The economic level of Group 3 (namely the U.S.) is the strongest, followed by Group 2, and Group 1 is relatively weak.

The post-hoc pairwise comparison was used to analyze the specific differences in food perceptions among economic groups, and the statistical analysis results are shown in Table 1. The differences among tourists from economic groups were reflected in taste preferences, unique service, and negative emotions. This reflects the differences in personal preferences, service perception, and emotions at different economic levels.

(Insert Table 1 here)

Tourists from countries with higher economic levels paid more attention to the choice of taste and had higher requirements for taste. It was found that there were significant differences between Groups 2 and 1 in taste preferences. Tourists from Group 1 countries mentioned more about the taste of dishes than Group 2. Respondents from group 1 mentioned words such as "fresh", "greasy", and "spicy" frequently and had diversified ways of describing the taste of dishes, as a tourist from Japan mentioned:

"The beef steak recommended by the chef in the store is tender, full of juice, and very good taste. The salad is refreshing and very good. It's worth coming again."

A tourist from the U.K. mentioned, *"We couldn't finish our food because it was too spicy."* Other respondents said that the *"Ducks are greasy"* and *"Soy sauce is not my type"*.

There were differences among economic groups in special services. Tourists from countries with higher economic levels mentioned more experiential services. Special service refers to experiential service other than the typical experience, among which tourists greatly demand learning Chinese food culture. For example, a U.S. tourist mentioned, *"I come to learn*

Chinese food culture and Chinese condiments, and then we enjoy dinner". Tourists also extended their experience of regional culture through the dining experience. Some people said they were willing to learn about Beijing and Chinese cultures while tasting food. For instance, a respondent from the U.K. described the dining experience as follows:

"This is the architectural design of the courtyard house in the form of the traditional Chinese court. The attendants are dressed in traditional Qing Dynasty clothing, which has a feeling of nostalgia."

People from countries with higher economic levels had more negative comments than countries with lower levels. Words such as "disappointed", "bad," and "regret" in the comments appeared in higher proportions. The main complaints of those who wrote negative reviews were poor service, food taste, freshness, and unsanitary conditions. This shows that respondents from better economic conditions had more elevated requirements for the food experience. They not only needed to have good food in line with their expectations but also expected good service and environmental conditions.

Culture. In previous studies, culture is considered an important factor affecting the dining experience (Cunha *et al.*, 2018; Ammann *et al.*, 2020; Arellano-Covarrubias *et al.*, 2019; Jia *et al.*, 2020), and it is believed that culture determines the rules of dining. Anthropologists believe that cuisine reflects the adaptive selection of human beings to a particular environment from the perspective of Darwinian evolution. Based on Hofstede's six-dimensional theory of culture, this research classified the 45 countries into four cultural groups (see Appendix) according to their scores in six dimensions (Hofstede, 2011).

Cultural group 1 tends toward individualism and a weak power distance. Group 2 has the characteristics of uncertainty avoidance and weak indulgence culture, and Group 3 has prominent power distance and weak individualism. Group 4 has a prominent feature of uncertainty avoidance and a weak culture of indulgence.

The differences in food perceptions of cultural groups were mainly reflected in dining reasons, flavour preferences, and restaurant locations. This reflects differences in personal preferences and environmental perceptions. The results are shown in Table 2.

(Insert Table 2 here)

Groups 1 and 2, with weak power distance characteristics, made more relevant comments. The representative countries included the U.S., Australia, France, Italy, and Canada. The main reasons for dining included recommendations from friends, guidance from others,

and recommendations from reading reviews. A tourist from the U.S. mentioned, *"The delicious food, very good atmosphere and good service were recommended to me by my friends living in Beijing"*. A respondent from Germany said, *"All the comments praising it are right, this place is unbelievably good. I highly recommend eating here."*

Power distance reflects people's answers to "How to deal with the inequality between people" in different countries or regions. Countries with higher power distance are more likely to accept inequality among people. Countries with lower power distance attach more importance to equality among people. Therefore, people from groups with weak power distance are likelier to listen to and adopt opinions from others or be influenced by others when choosing a meal and give an equal position to the "recommenders".

Cultural Group 1, with prominent individualism and weak power distance, pays more attention to it and mentions preferences for cuisines. The representative countries included the U.S., the U.K., Australia, and Canada. However, tourists from cultural Group 2, where uncertainty avoidance is prominent and indulgence culture needs to be stronger, including Japan, Italy, France, and Germany, mentioned it less often.

Individualism refers to a society in which people are loosely connected. Compared with collectivism, it highlights the sense of self. Uncertainty avoidance refers to the degree of threat felt by members of a particular culture in uncertain or unknown situations. The higher the uncertainty avoidance index, the more anxious the members of a country are in the face of unknown situations. The culture of indulgence represents the tendency to allow relatively free fulfilment of the primary and natural human desires associated with the enjoyment of life and entertainment, as opposed to restraint, believing that such fulfilment of desires should be limited and regulated by strict social norms.

It was found that tourists from cultural Group 1, with prominent individualism and weak power distance, were more willing to try diversified flavours while visiting China. For example, visitors from the U.S. mentioned that they wanted to try "Sichuan cuisine", "Beijing traditional cuisine", "Thai cuisine", "Hunan cuisine", "Asian cuisine," and other flavours. In contrast, respondents from the U.K. mentioned that they wanted to try "local Chinese flavour", "Mongolian cuisine", and "Indian cuisine." Tourists from Italy were more likely to say they wanted to eat "Italian food". Therefore, it is speculated that tourists from countries with a strong influence of individualist culture are more willing to choose diversified and novel local food because of a strong sense of independent choice and adventurous spirit. People from

countries where the cultural influence of uncertainty avoidance is prominent usually avoid risks. They are unwilling to accept the uncertainty of novel local food, so they prefer to choose their domestic food.

Group 2, with prominent uncertainty avoidance, weak indulgence, strong masculinity, and a robust long-term orientation, mentioned more about the dining location, such as the restaurant position and convenience of transportation. The representative countries were Japan, Italy, France, Germany, Switzerland, and Belgium. They preferred to go to popular locations, which reflects wanting to avoid the uncertainty of choice. Tourists from countries with a strong culture of indulgence mentioned dining locations less.

Geographic region. Whether geographic origin region affected food perceptions was explored. The 45 countries were divided into six geographic regions: Americas, Europe, East Asia and the Pacific, South Asia, the Middle East, and Africa. There were no significant differences in the variables among the geographic regions. Therefore, it was inferred that geographic region did not affect food perceptions based on the data in this study. However, there is a need for further study using other tourist populations to verify this finding.

The analysis of the difference of tourists' food perception in multiple countries under the cross-cultural background can make up for the previous studies that were limited to difference comparison of a few countries or areas. The findings contribute to the cross-cultural research and they can be applied to a wide range of destination marketing practices.

5. Conclusions, implications, and limitations

5.1. Conclusions

International tourists' comments on food in Beijing were analyzed. A conceptual model of food perception based on influence factors -- food perceptions -- dining feedback was constructed. National background and personal preferences influenced food perceptions in Beijing. Then, people derive overall food perceptions during the food experience, and the food, service, and environment constituted their overall perceptions of the food. Finally, based on perceptions, individuals gave feedback after meals, expressing emotions and indicating future behavioural intentions.

Factors affecting food perception were selected from the model for quantitative analysis. The results showed that the economic level of country of origin significantly impacted taste preferences, special service perceptions, and negative emotions. Cultural backgrounds significantly affected dining reasons, flavour preferences, and restaurant location perceptions.

However, the analysis did not find that geographical factors impacted food perceptions.

5.2. *Theoretical implications*

A conceptual model was constructed of food perceptions by using the data of international tourist comments. Food perceptions have received lesser attention than overall destination images. Therefore, these findings complement the previous food perception research.

Few previous studies have compared the differences in food perceptions among different nationalities, regions, and cultures. Furthermore, more research should be done on Chinese international tourists' food activities. This research compared the differences in food perceptions among different groups and determined the influence on food perceptions based on economic, cultural, and geographic factors. The results provide additional knowledge of the cross-cultural food phenomenon and offer enlightenment for future research.

5.3. *Practical implications*

This research developed a conceptual model of the whole process of tourist food perceptions through content analysis with text coding. Then, through statistical analysis, it was determined that tourists with different backgrounds have varying food perceptions.

Destinations must pay attention to tourist dining preferences and provide a variety of cuisines that meet their desires. Dining choices are not only affected by social eating habits but also by the pursuit of food flavours. Therefore, an in-depth investigation into the food preferences of international tourists can help restaurants carry out targeted food marketing activities. Destinations should customize food service for specific tourists and encourage food operators to improve service. For example, by designing the “Beijing tourist food mini program” or other online platforms, the city can provide tourists with a one-stop service and customized food service information online.

Destinations must focus on the tourist experience to enhance overall dining perceptions. Perceptions of food are not confined to the food itself; the dining environment and service experience are also critical. Therefore, in the development process of food-related products and services, attention should be paid to the sensory stimulation brought by the food and the improvement of services and dining environments. For instance, displaying and demonstrating traditional Chinese food culture and creating unique experiencescapes will deliver superior food experiences.

Market segmentation and positioning should be carried out according to the

characteristics of tourist groups. Various factors should be considered when generating the corresponding marketing strategy for destination food. Destinations should use differentiated marketing strategies when receiving tourists from specific countries.

5.4. *Limitations and future research directions*

Differences in Beijing's food perceptions were analyzed from various countries based on a cross-cultural perspective. First, data before the outbreak were selected considering that the COVID-19 pandemic might have significantly impacted tourist perceptions and that fewer inbound tourists arrived in Beijing. In subsequent studies, the effects of the pandemic on food perceptions should be considered. Second, this analysis used online reviews as data set for studying tourist food perceptions. However, online review text has particular limitations for research because of the characteristics of virtual communities. For example, not all tourists will post online reviews of dining experiences. Therefore, further verification and discussion should be conducted to supplement these results. For example, in-depth face-to-face interviews and questionnaire surveys should supplement these findings. In addition, due to word count limitations of the length of the manuscript, the quantitative research only verified the factors affecting food perceptions in the model. Statistical analysis should be used to verify other model parts in future studies. Although the researchers recognize the importance of concepts such as food neophobia, neophilia, and comfort food, these aspects were not analyzed in this study. Future researchers should include these variables in their studies on international food tourism.

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