

## THE ROLE OF CULINARY TOURISM NOSTALGIA ON THE TOURIST SATISFACTION MODEL: THE STIMULUS-ORGANISM-RESPONSE APPROACH

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### ABSTRACT

Tourist satisfaction and tourism destinations create a value for tourists. The value of specific tourism destinations leads to individual emotional attachments, which are a manifestation of a sense of nostalgia. This study aims to investigate the role of nostalgia on the tourist satisfaction at culinary tourism destinations. Food quality, destination environment, and services all contribute to the nostalgia. The data was collected through LimeSurvey from a total of 300 respondents from Central Java and Yogyakarta and was analyzed using PLS-SEM. The results show that the food quality, destination environment, and services positively affect the nostalgia. Further, the nostalgia also has a strong significant influence on the tourist satisfaction. These findings imply that managers of culinary tourism must be able to provide positive values (impressions) to the tourists by offering unique service, quality, or destination environment compared to other destinations. It is expected that the tourists have a positive memorability which simultaneously create a revisit intention, which is in line with the tourists satisfaction.

**JEL:** D91, D90, Z32.

**Keywords:** *nostalgia, food quality, service, value, memorability.*

### 1. INTRODUCTION

Tourism nostalgia has received a great attention and is growing in recent years (Shi, Bettache, Zhang, & Xue, 2021; Lu, Lai, Liu, & Wang, 2022), either in relation to food / culinary tourism (Renko & Bucar, 2014; Han, Kim, Lee, & Kim, 2018), sports tourism (Cho, Joo, Moore, & Norman, 2019; Cho & Chiu, 2020), heritage tourism (Gao, Lin, & Zhang, 2020; Ali, 2015); educational tourism (Rahman, Osmangani, Hassan, Anwar, & Fattah, 2016), as well as natural / cultural tourism (Xu, Le, Kwek, & Wang, 2022). The tourism nostalgia has a close relationship with individual emotions, which influences tourists' revisit intention. The nostalgia can be defined as a sense of longing and a desire for experiences, products, and service enjoyed in the past. This 'real' nostalgia emphasizes the willingness to revisit previously visited tourism destinations and seeks to evoke personal past experiences. It is also highly related to tourist satisfaction, which influences the creation of extraordinary enthusiasm to revisit these tourism destinations. Further, the tourism nostalgia is divided into two categories: natural nostalgia and personal nostalgia. Cultural experience and source of experience are the main difference between the two (Zhou, Xiang, Cheng, & Yang, 2021). The term natural nostalgia refers to a desire to visit previously unseen tourism destinations based on the information from other parties, or collective memory passed down by groups. Meanwhile, the personal nostalgia refers to a desire to recall previous memories from personal memory. In its development, a third category emerged, namely the root nostalgia. Individuals attempt to revisit the environment that has been told through stories in the family or other people. It is a cultural environment for people of all ages (Pelliccia, Lemme,

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Maestrini, Di Paolo, Picicchio, Di Gioia, & Caselli, 2018; Eark & Hall, 2023). Researches on the real and root nostalgia are still very limited (Earl & Hall, 2023). For this reason, this present study investigates the real and root nostalgia for the experiences of specific tourism destinations they have visited, causing a sense of longing and satisfaction.

Previous studies found that tourism has unique characteristics such as rituals, traditions, cultural differences, atmosphere, social interaction, and objects specific to each tourism destination, such as the environment, facilities, and food. These factors have the potential to cause a nostalgia, which can change the behavior intention. This sense of nostalgia and the tourists' emotional attachment further motivate the tourists to seek similar experiences in the future. The nostalgia is a critical predictor of individual behavior (Cho, Khoo, & Lee, 2019; Cho & Chiu, 2020). The tourism nostalgia affects individuals' recreational experience (Leong et al., 2015), as well as their follow-up behavior (Hwang & Hyun, 2013). When the tourists recall the past experiences of certain destinations and feel nostalgic, they may develop an attachment with the destinations. Further, intrinsic or extrinsic factors, such as personality and culture, can cause the nostalgia. The intrinsic factors include the tourists' emotions (subjective), resulting in both bitter and sweet memories for the tourists. In other words, the intrinsic factors refer to the characteristics that make a tourism destination worth visiting for its value. Meanwhile, the extrinsic factors of a tourism destination depend on the type of destination value that functions as a catalyst or driver in the tourism.

Several studies have shown that the food/culinary quality is an essential factor of the tourism experience triggering the tourists' nostalgia (Renko & Bucar, 2014). In addition, the destination environment and its services (Nilnoppakun & Ampavat, 2015) are also factors influencing the tourism nostalgia, which simultaneously creating close relationships with the tourists (Dai, 2017). This present study attempts to answer the following research questions: (1) How does the tourism nostalgia influence the tourist satisfaction?; and (2) How do the food quality, destination environment, and services influence the tourism nostalgia? This study employed the Stimulus-Organism-Response (SOR) Framework. The results of this study are expected to contribute to a more comprehensive understanding of the psychological impact of nostalgic construction and, subsequently, how it can be applied in developing nostalgic destinations, especially in Indonesia, which is rich in beautiful tourism destinations.

## **2. THEORETICAL FRAMEWORK AND EMPIRICAL STUDIES**

The SOR model was introduced by environmental psychologists, Mehrabian & Russell (1974), which evaluates user behavior in various fields. It explains that environmental signal (stimulus) can activate an individual's internal evaluation state (organism), which in turn results in positive or negative behavior (response) (Mehrabian & Russell, 1974). The stimulus refers to an external environment factor influencing an organism's mental and cognitive state. After a series of psychological or cognitive activities, the organism will respond to the environmental stimuli with internal or external behavioral responses. Individuals attitudes represent the internal responses, while individual specific behavior represents the external responses (Lorenzo-Romero, Alarcón-del-Amo, & Gómez-Borja, 2016). In addition, an organism's behavior is an active response to the external stimuli rather than the passive one. It is a process in which various environmental stimuli influence the individual's cognitive or emotional experience. Subsequently, it develops a

behavioral response to the stimuli after a series of internal psychological activities (Benlian, 2015; Lorenzo-Romero *et al.*, 2016).

Furthermore, the SOR model has also been investigated in the tourism context, conceptualizing information and interactive experiences obtained from virtual platforms as the environmental stimuli (Hwa, Ting, Cham, & Memon, 2019; Kim, Lee, & Jung, 2020). The organism is further conceptualized as the users' emotional intermediary state, representing a process that facilitates the users' response to a stimulus (Zhang, Lu, Gupta, & Zhao, 2014). The responses are conceptualized as the outcomes reflected by the users' positive behavioral intentions, including the intentions to recommend, customer loyalty, and purchase and repurchase intentions (Hwa *et al.*, 2019). Thus, the stimuli represent the features of the virtual environment that facilitate the information acquisition and interactive experiences (Islam & Rahman, 2017; Zhang *et al.*, 2014). In addition, the organism represents the users' emotional state and combines all previous engagement experiences, as reflected in the users' emotions caused by the tourism experience (Kim *et al.*, 2020; Zhang *et al.*, 2014). These responses demonstrate the results of users' satisfaction and loyalty, as reflected by the users' intentions to recreate the memory and revisit a particular destination (Hwa *et al.*, 2019; Kim *et al.*, 2020; Rahman *et al.*, 2016). In this study, the SOR model integrate the environmental stimulus, services and food quality as the stimulus (S); the tourists' nostalgia as the organism (O); and the consumer satisfaction as the response (R).

### **2.1. Nostalgic Tourism**

The nostalgia was initially used in the medical world. It is associated with pain. It is a psychological term that explains the psychological characteristics of individuals who have a sentimental longing for the past (Hwang & Hyun, 2013). It is also related with extreme depression and homesickness. In the perspective of a psychiatry, the nostalgia involves more than just a desire to share an intention. It is a desired craving for the memory that has a clear impression consisting of many different memories. The social aspect of nostalgia involves recalling memories of family, friends, or other people met. Most people have a natural nostalgia of happy memories associated with activities, like family gatherings and holidays (Renko & Bucar, 2014).

Many academics agreed the importance of nostalgia in explaining the consumer behavior. When the consumers have nostalgic experiences, they tend to feel positive emotions, such as warmth and joy. Hwang & Hyun (2013) noted the impact of nostalgia on revisit intentions in restaurants and revealed that a momentary pause plays a significant moderator role in the relationship between nostalgia and customers' positive responses. The nostalgia is a personal emotion caused by the consumers' life experiences influencing their current product/service choices (Hwang & Hyun, 2013). It stimulates their memory and encourages actions, such as repurchasing and revisiting, because people often feel nostalgic about the happy memories from their past.

All nostalgia factors are involved in recalling the happy past memories and emotions, which are considered a vital nostalgia trigger. However, it is unknown whether the food quality, destination environment, and service results in a sense of nostalgia in the tourism destinations. Several previous studies showed that these factors have a direct impact on the tourist satisfaction. Therefore, this present study attempts to identify specific factors causing the tourists' nostalgia.

## 2.2. Food Quality on Nostalgia

Nostalgia consumption can help people cope with stress, loneliness, anxiety, and discomfort in everyday life (Zhou, Xiao, Liu, Yang, Wang, Nie, Zhou, Li, & Zhao, 2013). The tourists form the emotional attachment as a result of unique flavors of the food at the tourism destinations. This stimulus causes the tourists to return to a state of peace and relax. In addition, external stimuli can also passively generate a sense of nostalgia, such as from scents and audio. For example, the tourists may feel nostalgic when eating the famous *Sate Klatak* of Yogyakarta. The food's aroma and the restaurant's atmosphere psychologically stimulate the memory, causing the tourists to recall *Sate Klatak* as experienced through the senses.

Positive experiences of eating fresh, healthy, and delicious food make people so pleased that if not controlled, they may develop hedonism (Kastenholz, Fernández-Ferrín, & Rodrigues, 2021). The stimulus in this sensory dimension, including the food taste, quality, and consistency, generate positive memories for the experiences, which become the drivers of nostalgia. Therefore, the first hypothesis that can be proposed is as follows:

**H1:** Food quality positively influences the nostalgia at the culinary tourism destinations.

## 2.3. Destination Environment on Nostalgia

Attractive tourism destination environment creates a destination image and attachment for the tourists. It is also a factor in the revisit intention. The attachment to the tourism destination environment includes positive emotions, attitudes, and behavior of the tourists. Considering that the nostalgia is highly related to the positive emotions as results of positive memories, the tourists' perception towards the destination environment is important to be unique and meaningful (Cho, 2021; Cho *et al.*, 2019). Further, the destination image consists of rational aspect (cognitive image) and emotional aspect (affective image). The rational aspect emphasizes characteristics of tourist destinations, while the emotional aspect refers to one's feelings towards the tourism destinations. This study sheds light on the emotional aspect, where the experiences offered at the tourism destinations can stimulate the tourists' sensory and memory from the previous visits.

Rural or natural tourism destinations are seen as beautiful places picturizing the life in the past days, which is in harmony with nature, at a slower pace, and the community is friendly and has a high tolerance (Kersten, Cox, & Van Enkevort, 2016; Kim & Kim, 2018). Currently, the village or nature-based tourism destinations in Indonesia are becoming more popular. It is in line with the development of tourism villages (*Desa Wisata*), which is relatively fast. The tourism villages offer various experiences in the nature developed in such a way according to traditions in each region. Based on the data from the Coordinating Ministry for Economic Affairs of the Republic of Indonesia, there were only 1,831 tourism villages at the beginning of 2021 and increased to a total of 3,419 tourism villages in October 2022. This demonstrates that the nature-based tourism has attracted many tourists and created a revisit intention. This rural tourism can also drive the nostalgia for natural life, the past days, or places where the tourists were born and raised (Frisvoll, 2013). Therefore, the second hypothesis that can be proposed is as follows:

**H2:** Destination environment positively influences the nostalgia at the culinary tourism destinations.

## **2.4. Services on Nostalgia**

In the tourism nostalgia, the nostalgia is not only formed by historical experiences and various products offered, but also by the excellent service provided at the tourism destinations (Chang, Lin, & Wu, 2022; Renko & Bucar, 2014). In addition, the nostalgia is not only associated with the object and is sensory, but also the cause of the interaction between particular experiences with people and objects in the tourism destinations. The presence of facilities and interpersonal interactions generate positive stimuli for previously visited tourism destinations. Tangible services, such as pleasure and excitement, are enhanced by the physical environment (Earl & Hall, 2023). The tourists who perceive service quality as favorable report higher levels of stimulation. As an 'organism', the *Sate Klatak* in Yogyakarta offers a variety of physical facilities, including wash basins and hand sanitizers, masks, clean and scented bathrooms, spacious and accessible parking spots, live music, speed of service, hygiene, friendliness, and delivery services. All of these provide the customers with sensory stimulation as well as individual emotions.

The tourists' service perception influences their emotions and behavioral intentions. In addition, the qualities of the physical environment affect the tourists' enjoyment level. The provision of welcoming service, active involvement in certain (traditional) activities, and casual talks make the tourists nostalgic for comparable experiences in former years. Other natural drivers of nostalgia, such as old object views and images, and traditional food (Christou, Farmaki, & Evangelou, 2018), are still influential. Therefore, the third hypothesis that can be proposed is as follows:

**H3:** Services positively influence the nostalgia at the culinary tourism destinations.

## **2.5. Nostalgia on Tourist Satisfaction**

The nostalgia tourism has a close relationship with the tourist satisfaction. The tourists who associate their experiences with the previously visited tourism destinations tend to be more satisfied. The positive stimulation towards specific tourism destinations shows that they have a reasonable emotional connection; hence, it is imprinted in their memory, both in the cast of joy and happiness. In addition, the tourist satisfaction is also closely related to an individual's emotional level. The emotions have a crucial role in establishing the satisfaction, in which affective attributes (post-consumption emotion) have formed part of the conceptualization of satisfaction (Gao *et al.*, 2020). The tourist satisfaction and positive perceived value are increased when the positive experiences are confirmed and the tourists' expectations are met. In this study, the tourist satisfaction is defined as how pleasant experiences and emotions, or the cognitive and affective nature can be obtained. Therefore, the fourth hypothesis that can be proposed is as follows:

**H4:** Nostalgia positively influences the tourist satisfaction at the culinary tourism destinations.

## **3. RESEARCH METHODS**

This study investigates the tourism nostalgia in the context of tourist satisfaction and employed mixed methods which combined netnography and questionnaires. The netnographic approach generated a large amount of data in a short period of time, as it was all recorded in digital media accessible via the internet. Kozinets (2020) mentioned that one of the benefits of netnography was the ability of researchers to return to the original qualitative data at a particular time. The netnography was designed for social communication media that delivered real-world

experience, participation, and the collective voice of community members. Netnographic researches allowed the researchers with the atmosphere and details needed to understand social phenomena through the organization of structured data. The netnography study data was analyzed using thematic analysis to create a nostalgic draft model in the tourism sector. The thorough literature review with hypothesis development analysis are strengths of the netnographic studies. The final result was the construction of model, which served as the basis for the nostalgia research model. Further, this study developed the research instrument consisting of items on research variables based on the model on 84 papers indexed in the Journal of Tourism in Q1 or Q2. This approach was carried out by comparing research instruments and evaluating their compatibility with the nostalgia model developed. The resulting model was then tested using a questionnaire to determine its strength of external validity, which was analyzed using the Partial Least Square – Structural Equation Modeling (PLS-SEM).

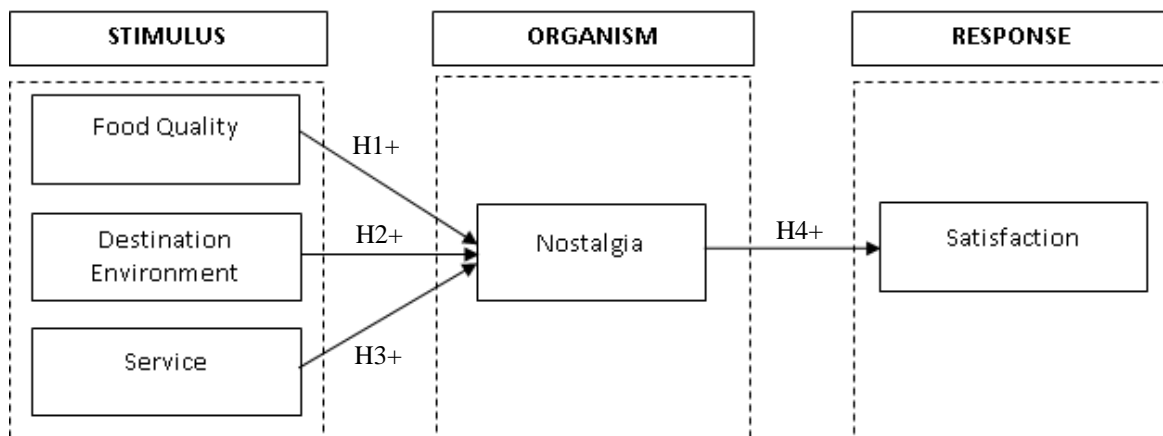
### 3.1. Instruments and Data Analysis

Data agglomeration made advantage of research collaboration tools, specifically the ‘Watase’ website (<https://www.watase.web.id>), which was established by the author in 2018 and is constantly being improved. There was a total of five variables developed into questionnaire items, including the food quality, destination environment, service, and nostalgia and satisfaction. In this study, there was a total of 300 respondents participated, consisting of the tourists who had visited the culinary tourism destinations in Central Java and Yogyakarta. These two provinces were chosen as the research settings as they were recognized as culinary centers, according to Tripadvisor in 2022.

This study employed the Stimulus-Organism-Response (S-O-R) model, which explained that the perceived stimulus from the environment could cause a person’s (organism’s) internal assessment state to change, resulting in a positive or negative response to the stimulus (Mehrabian & Russell, 1974). The stimulus referred to an external factor that could affect the mental and cognitive state of the organism. After a series of psychological or cognitive activities, the organism would respond to the external stimuli with an internal or external behavioral response. Meanwhile, the internal responses were manifested as individual attitudes, while the external responses formed individual-specific behaviors (Lorenzo *et al.*, 2016). The behavior of organisms was an active response to the external stimuli, rather than a passive process of stimulus to the response. It was a process in which different environmental stimuli affected an individual’s cognitive or emotional experiences and resulted in a behavioral response to the stimuli following a series of internal psychological activities.

The information conceptualization and interactive experiences were obtained from virtual platforms serving as the environmental stimuli (Hwa *et al.*, 2019; Islam & Rahman, 2017; Kim *et al.*, 2020), while the organism was conceptualized as the users’ emotional intermediate state, reflecting the process that allowed the users to respond to the stimulus (Vieira, 2013). The responses were conceptualized as the outcomes reflected by the users’ positive behavioral intentions, including the intentions to recommend, customer loyalty, and purchase and repurchase intentions. Further, the stimulus represented a feature of the virtual environment that facilitated the acquisition of information and interactive experiences (Islam & Rahman, 2017). Meanwhile, the organism represented the users’ emotional state and combined all past engagement experiences, as reflected in the users’ emotions caused by the tourist experiences (Kim *et al.*, 2020; Vieira, 2013).

These responses represented the results of users' attitude and loyalty, as reflected in the users' intention to recreate the memory and revisit specific destinations (Hwa *et al.*, 2019; Kim *et al.*, 2020). The following Figure 1 presents the conceptual research framework of nostalgia tourism.



**Figure 1. Conceptual Research Framework of Nostalgia Tourism**

The hypotheses developed in this study were analyzed using the PLS-SEM in SmartPLS 3.3.2 software. This method was selected as it could solve multiple dependent and independent variables (Hair, Hult, Ringle, & Sarstedt, 2022). The PLS-SEM analysis was divided into two stages. The first stage evaluated the measurement model by conducting internal consistency reliability, convergent validity, and discriminant validity tests. A valid construct must have a factor loading value of higher than 0.5 (Hair *et al.*, 2022) and the average variance extracted (AVE) value of higher than 0.5 to pass the convergent validity test. Further, the discriminant validity was evaluated using the Fornell-Larcker criterion, and a valid construct was determined by the square root of each AVE construct which must have a higher correlation value compared to others. Meanwhile, the second stage evaluated the structural model to examine the direct and indirect effects of the model. This study used a significance level of 5%, with a limited value of 1.96.

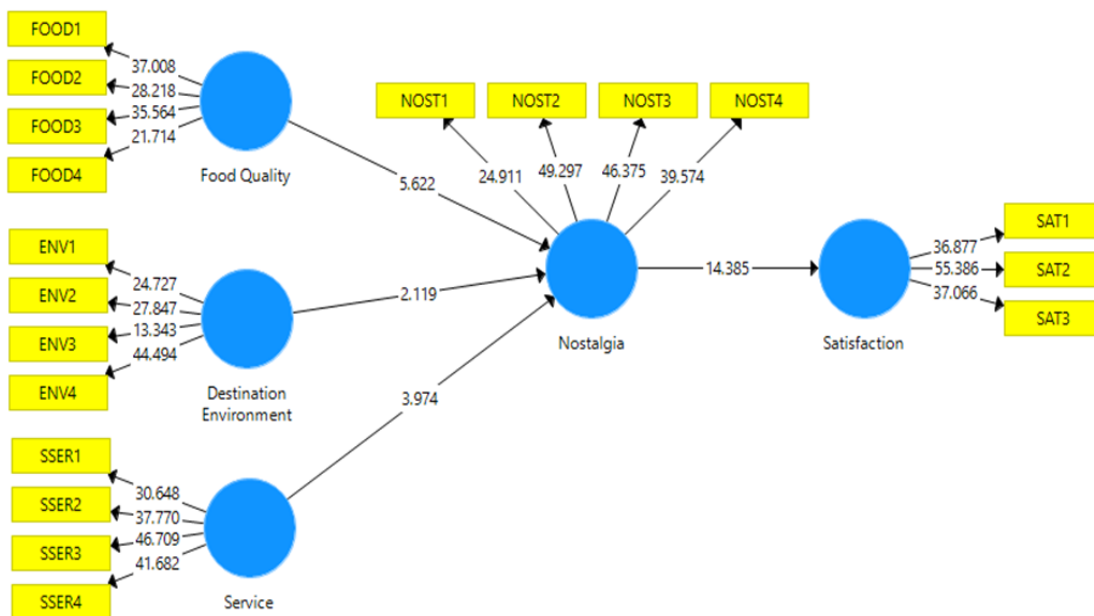
#### 4. DATA ANALYSIS AND DISCUSSIONS

Results of the internal consistency reliability test were determined by the Cronbach's Alpha value. The reliability value must be higher than 0.7 (Hair *et al.*, 2022). The results of this study reveal that all variables have met the requirement of internal consistency reliability test. In comparison, the results of convergent validity test were determined by the outer loading and AVE value. Hair *et al.* (2022) stated that the outer loading and AVE value must be higher than 0.7 and 0.5, respectively. The following Table 1 confirms that all questionnaire items have a high accuracy as predictors.

**Table 1. Results of Internal Consistency Reliability and Convergent Validity Test**

Variable	Item	Loading Factors	Composite Reliability	AVE	Cronbach's Alpha
Destination Environment	ENV1	0.761	0.849	0.586	0.763
	ENV2	0.782			
	ENV3	0.686			
	ENV4	0.825			
Food Quality	FOOD1	0.803	0.861	0.609	0.785
	FOOD2	0.782			
	FOOD3	0.819			
	FOOD4	0.714			
Nostalgia	NOST1	0.715	0.893	0.677	0.839
	NOST2	0.869			
	NOST3	0.857			
	NOST4	0.840			
Satisfaction	SAT1	0.851	0.895	0.740	0.824
	SAT2	0.876			
	SAT3	0.853			
Service	SSER1	0.807	0.906	0.707	0.862
	SSER2	0.840			
	SSER3	0.859			
	SSER4	0.857			

Following the measurement model evaluation, the structural model was analyzed to test the proposed hypotheses. This analysis was carried out by examining the direct and indirect effects between variables. The following Figure 2 presents the results of structural model testing.



**Figure 2. Results of Structural Model Testing**

The structural model was estimated using the maximum likelihood estimation approach. The four paths are estimated, representing H1, H2, H3, and H4. The one-tailed test was recommended if the model's assumptions had varying directions (+ or -) for each hypothesis (Gao *et al.*, 2020). Considering that the hypotheses are all positive, this study employed the two-tailed



test for each exogenous variable (H1, H2, and H3) and endogenous variable (H4). Table 2 shows that all hypotheses can be supported empirically (positive effect).

The first hypothesis proposes that the food quality positively influences the nostalgia at the culinary tourism destinations. The results show that it has a t-value of 5.622 and a p-value of 1.96, supporting the first hypothesis empirically. This finding confirms that the food quality in the culinary tourism destinations, including the traditional food taste, smell, hygiene, and uniqueness, created sensory stimulation for the tourists. The tourists preferred the culinary tourism destinations offering unique features and views over other culinary places in general. The external attributes of tourism destinations had created individual emotions for the tourists, thus creating a sense of satisfaction, both the cognitive and affective aspects, with the various food consumed. This finding is in line with a previous study by Kastenholtz, Cunha, Cunha, Barroco, Pereira, Carneiro, & Lane (2021), stating that the food quality would result in the personal motivation or self-benefit. In addition, the food's appealing and unique presentation would leave the visitors with a positive (addictive) impression, such as the food served using banana or teak leaves instead of plates. It gave the impression of re-living in a more traditional and natural era. This sensation created the nostalgia and satisfaction for the tourists, causing them to establish the revisit intention. However, over the time, the tourists would forget about the attractive presentation of food, flavorful menu items, and other food-related stimuli that the culinary tourism destinations provided. When they were reminded of food-related memories, they would respond positively (Hwang & Hyun, 2013).

**Table 2. Results of Hypothesis Testing**

Hypothesis	Estimate	Conclusion
H1: Food Quality → Nostalgia	5.622***	Supported
H2: Destination Environment → Nostalgia	2.119*	Supported
H3: Service → Nostalgia	3.974***	Supported
H4: Nostalgia → Satisfaction	14.385***	Supported

Note: \*) significant at 5%; \*\*\*) significant at 0%.

Further, the second hypothesis proposes that the destination environment positively influences the nostalgia at the culinary tourism destinations. The results show that it has a t-value of 2.119, and a p-value of 0.035 ( $< 0.05$ ), confirming that the second hypothesis can be supported empirically. The destination environment was one of the considerations for the visitors to visit. Passing on a place reminded them of the experience and emotions to recall the happy memories. The nostalgia connected the experiences, memories, and places. Therefore, when the tourists were feeling nostalgic about them, they would be satisfied with the tourism destinations. Positive memorable destinations were supported by various existing ecosystems in the tourism destinations for brand image shaping. In addition, this study found that the tourists preferred the rural or nature-based tourism destinations that offered a more lovely and relaxing setting away from the hustle and bustle of urban life. Design and spatial improvements in the culinary tourism destinations increased the value for tourists and made several locations a favorite destination to revisit. This finding is supported by previous studies on the rural tourism by Kastenholtz *et al.* (2021) and Kim & Kim (2018). The rural tourism offered the tourists with a unique experience, which shaped the destination image and added value for the community.

Furthermore, the third hypothesis proposes that the service positively influences the nostalgia at the culinary tourism destinations. The results show that it has a t-value of 3,974 and a p-value of 0.000, confirming that the third hypothesis can be supported empirically. The tourism destinations' service tremendously influenced the tourists' emotions, which resulted in the

satisfaction. Physical services in the form of tourism facilities supported these positive emotions. Chen, Huang, & Zhang (2020) argued that tangible services affected the tourists' emotional responses to the tourism destinations. The tangible services referred to the physical services, such as the availability of existing facilities or rides. Meanwhile, the intangible services were represented by non-physical services, such as the employees' friendliness, kindness and willingness to help; service speed; and etc. This finding is similar to the one by Hwang & Hyun (2013) who proposed that the social elements (people, friends, service, etc.), sensory input (environment), and activities at the tourism destinations were determining factors for nostalgia. Both of the tangible and intangible services generated happiness and joy at the tourism destinations. The tourists were more impressed when they received services beyond their expectations. This created a happy memory and was 'stored' as the driver of nostalgia.

Finally, the fourth hypothesis proposes that the nostalgia positively influences the tourist satisfaction at the culinary tourism destinations. The results show that it has a t-value of 14.385 and a p-value of 0.00 ( $< 0.05$ ). This study finds that the nostalgia is the strongest predictor of tourist satisfaction, reflected in the most significant t-test coefficient value compared to the exogenous variables. The tourist satisfaction referred to the results of the tourists' emotional experience based on the contradiction of expectations generated from comparisons between the expectations before and after the experience. In other words, the satisfaction was the end result of the emotional or affective response (Gao *et al.*, 2020; Leong, Yeh, Hsiao, & Huan, 2015; Renko & Bucar, 2014; Zhou *et al.*, 2021). The tourist satisfaction was influenced by the happiness in the past experiences. This study found that most of the respondents would evaluate the past tourism experiences before they decided to visit a tourism destination. This finding was supported by a previous study which concluded that the positive experience at the previously visited tourism destination would increase the level of satisfaction (Zhou *et al.*, 2021). Further, Gao *et al.* (2020) confirmed that there was an impact of nostalgia on the tourist satisfaction in heritage tourism destinations. The results of this present study demonstrated the importance of establishing a nostalgic environment for the tourists. This nostalgic could be developed through multisensory channels involving relevant stakeholders. In addition to achieving the tourist satisfaction, it could also influence the post-travel behavioral intentions.

## 5. CONCLUSIONS, SUGGESTIONS, AND LIMITATIONS

In general, this study highlights that the stimulus consisting of the food quality, destination environment and services have a strong influence on the nostalgia at the culinary tourism destinations. The food quality is also found to have the strongest influence. Further, this study also finds that there is a strong influence of nostalgia on the tourist satisfaction, making it a predictor of tourist satisfaction.

Based on the results of this study, there are several managerial implications. *First*, managers of the culinary tourism destinations are suggested to continuously innovate to provide values (positive emotions, such as happiness) for the tourists. The traditional food at the culinary tourism destination was an interesting discovery of this study, which represented the entity from the respected region that became a tourism destination. The presentation of this culture-based food menu must kept traditional and natural. The managers must develop menus that are simple to memorize while also providing an extraordinary experience for the tourists. *Second*, the tourism

industry must establish a distinct and iconic environment, including the tourism villages. The tourism villages were one of the drivers of nostalgia tourism. A clean environment, elegant interior/exterior design, and a beautiful atmosphere could create a nostalgic atmosphere, making the tourists feel comfortable and peace with the new and enjoyable experiences. Further, the managers must design the arrangement and appearance in such a way as to be attractive for the tourists, such as establishing an open and natural space which reminded them of the good old days. *Finally*, the tourism destinations could be distinguished by their tangible and intangible services. The better the services, the more positive the response and stimulation it would leave to the tourists. For this reason, in terms of intangible services, the managers must be able to manage and train their employees properly, so that they would be equipped with excellent skills in the field of culinary tourism. The managers must also ensure that their employees have a welcoming and friendly attitude, empathy and sympathy, and be responsive when dealing with the tourists. On the other hand, in terms of tangible services, the owners of tourism destinations must provide various facilities and services that exceed the tourists' expectations. The tourism destinations are suggested to focus on offering relaxing and pleasant environment for the tourists. The higher the services, the higher the tourist satisfaction.

This study has several limitations. *First*, the respondents consisted of only tourists who had visited the culinary tourism destinations in Central Java and Yogyakarta. This makes the results of this study cannot be generalized, considering that they were cross-cultural respondents. Therefore, further researches are suggested to focus more on the cross-cultural characteristics of the respondents to obtain a more thorough understanding of the role of nostalgia on the tourist satisfaction in a more complex manner. In addition, differences in the cross-cultural characteristics implicitly contribute to and broaden the understanding of the theory and hypotheses. *Second*, the research model focuses solely on the exogenous variables, such as the emotions or engagement, affecting the nostalgia, and the role of nostalgia on the tourist satisfaction. Future researches are suggested to investigate the other direction, which is the effect of satisfaction on nostalgia to contribute further to the literature. *Finally*, this study only developed the research model which ended on the tourist satisfaction. Further researches are suggested to re-investigate whether after achieving the satisfaction, the tourists have a higher possibility of revisit intention. In addition, studies on the role of nostalgia in relation to the culinary tourism are limited. Therefore, it provides unlimited possibilities for future researches to investigate this topic further.

## REFERENCES

- Ali, F. (2015). Heritage tourist experience, nostalgia, and behavioural intentions. *Anatolia*, 26(3), 472–475. <https://doi.org/10.1080/13032917.2015.1013477>
- Benlian, A. (2015). It feature use over time and its impact on individual task performance. *Journal of the Association for Information Systems*, 16(3), 144–173. <https://doi.org/10.17705/1jais.00391>
- Chang, J., Lin, S. H.-H., & Wu, L.-S. (2022). Searching memories of pleasures in local cuisine: How nostalgia and hedonic values affect tourists' behavior at hot spring destinations? *British Food Journal*, 124(2), 493–513. <https://doi.org/10.1108/BFJ-04-2021-0387>
- Chen, Q., Huang, R., & Zhang, A. (2020). A bite of nostalgia: The influence of nostalgia in consumers' loyalty intentions at traditional restaurants. *Journal of Hospitality and Tourism Management*, 45, 604–614. <https://doi.org/10.1016/j.jhtm.2020.10.016>

- Cho, H. (2021). How nostalgia forges place attachment and revisit intention: A moderated mediation model. *Marketing Intelligence & Planning, ahead-of-p.* <https://doi.org/10.1108/MIP-01-2021-0012>
- Cho, H., & Chiu, W. (2020). Sport nostalgia builds customer equity and future behavior. *Marketing Intelligence and Planning, 39*(2), 315–328. <https://doi.org/10.1108/MIP-03-2020-0106>
- Cho, H., Joo, D., Moore, D. W., & Norman, W. C. (2019). Sport tourists' nostalgia and its effect on attitude and intentions: A multilevel approach. *Tourism Management Perspectives, 32*(August), 100563. <https://doi.org/10.1016/j.tmp.2019.100563>
- Cho, H., Khoo, E. C., & Lee, H.-W. (2019). Nostalgia, motivation, and intention for international football stadium tourism. *Asia Pacific Journal of Tourism Research, 24*(9), 912–923. <https://doi.org/10.1080/10941665.2019.1653339>
- Christou, P., Farmaki, A., & Evangelou, G. (2018). Nurturing nostalgia?: A response from rural tourism stakeholders. *Tourism Management, 69*, 42–51. <https://doi.org/10.1016/j.tourman.2018.05.010>
- Dai, Y. D. (2017). Do you want LOHAS? From the viewpoint of recreationist environment fit and place attachment. *Journal of Outdoor Recreation and Tourism, 30*(2), 53–.
- Earl, A., & Hall, C. M. (2023). Nostalgia and tourism. *Journal of Heritage Tourism, 18*(3), 307–317. <https://doi.org/10.1080/1743873X.2023.2192875>
- Frisvoll, S. (2013). Conceptualising authentication of ruralness. *Annals of Tourism Research, 43*, 272–296. <https://doi.org/10.1016/j.annals.2013.07.006>
- Gao, J., Lin, S. (Sonia), & Zhang, C. (2020). Authenticity, involvement, and nostalgia: Understanding visitor satisfaction with an adaptive reuse heritage site in urban China. *Journal of Destination Marketing and Management, 15*(January), 100404. <https://doi.org/10.1016/j.jdmm.2019.100404>
- Hair, J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2022). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. <https://doi.org/10.1007/978-3-030-80519-7>
- Han, H., Kim, W., Lee, S., & Kim, H. R. (2018). How image congruity and satisfaction impact customer retention at luxury restaurants: A moderated mediation framework. *Social Behavior and Personality, 46*(6), 891–904. <https://doi.org/10.2224/sbp.6767>
- Hwa, C., Ting, H., Cham, T.-H., & Memon, M. (2019). The Effect of Selfie Promotion and Celebrity Endorsed Advertisement on Decision-Making Processes: A Model Comparison. *Internet Research. https://doi.org/10.1108/IntR-12-2017-0530*
- Hwang, J., & Hyun, S. S. (2013). The impact of nostalgia triggers on emotional responses and revisit intentions in luxury restaurants: The moderating role of hiatus. *International Journal of Hospitality Management, 33*(1), 250–262. <https://doi.org/10.1016/j.ijhm.2012.09.001>
- Islam, J., & Rahman, Z. (2017). The Impact of Online Brand Community Characteristics on Customer Engagement: An Application of Stimulus-Organism-Response Paradigm. *Telematics and Informatics, 34*. <https://doi.org/10.1016/j.tele.2017.01.004>
- Kastenholz, E., Cunha, D., Cunha, C., Barroco, C., PEREIRA, A., Carneiro, M., & LANE, B. (2021). COVID-19, Wine Routes, Crisis Management and Resilience Amongst Rural Wine Tourism Businesses. *Advances in Hospitality and Tourism Research (AHTR), 10*. <https://doi.org/10.30519/ahtr.929800>

- Kastenholz, E., Fernández-Ferrín, P., & Rodrigues, Á. (2021). Nostalgia, Sensations and Local Products in Rural Tourism Experiences in a Portuguese Schist Village. *European Countryside, 13*, 599–621. <https://doi.org/10.2478/euco-2021-0034>
- Kersten, M., Cox, C. R., & Van Enkevort, E. A. (2016). An exercise in nostalgia: Nostalgia promotes health optimism and physical activity. *Psychology & Health, 31*(10), 1166–1181. <https://doi.org/10.1080/08870446.2016.1185524>
- Kim, M. J., Lee, C.-K., & Jung, T. (2020). Exploring Consumer Behavior in Virtual Reality Tourism Using an Extended Stimulus-Organism-Response Model. *Journal of Travel Research, 59*, 69–89. <https://doi.org/10.1177/0047287518818915>
- Kim, S. (Sam), & Kim, S. (Sean). (2018). Segmentation of potential film tourists by film nostalgia and preferred film tourism program. *Journal of Travel & Tourism Marketing, 35*(3), 285–305. <https://doi.org/10.1080/10548408.2017.1284705>
- Kozinets, R. V. (2020). *Netnography: The essential guide to qualitative social media research / Robert Kozinets. (3e.)*. SAGE.
- Leong, A. M. W. M. W., Yeh, S.-S. S. S.-S., Hsiao, Y.-C. Y. C., & Huan, T.-C. T. C. T. C. C. (2015). Nostalgia as travel motivation and its impact on tourists' loyalty. *Journal of Business Research, 68*(1), 81–86. <https://doi.org/10.1016/j.jbusres.2014.05.003>
- Lorenzo, C., Alarcón-del-Amo, M.-C., & Gomez-Borja, M. A. (2016). Analyzing the User Behavior toward Electronic Commerce Stimuli. *Frontiers in Behavioral Neuroscience, 10*. <https://doi.org/10.3389/fnbeh.2016.00224>
- Lu, Y., Lai, I. K. W., Liu, X. Y., & Wang, X. (2022). Influence of memorability on revisit intention in welcome back tourism: The mediating role of nostalgia and destination attachment. *Frontiers in Psychology, 13*. <https://doi.org/10.3389/fpsyg.2022.1020467>
- Mehrabian, A., & Russell, J. A. (1974). *An Approach to Environmental Psychology*.
- Nilnoppakun, A., & Ampavat, K. (2015). We are integrating Cultural and Nostalgia Tourism to Initiate Quality Tourism Experiences in Chiangkan, Leuy Province, Thailand. *2nd GLOBAL CONFERENCE on BUSINESS, ECONOMICS, MANAGEMENT, and TOURISM, 30-31 October 2014*; 763-771.
- Rahman, M. S., Osmangani, Aa. M., Hassan, H., Anwar, M. A., & Fattah, F. A. M. A. (2016). Consumption values, destination cues and nostalgia on the attitude in the selection of destination for educational tourism: The mediating role of destination image. *International Journal of Tourism Cities, 2*(3), 257–272. <https://doi.org/10.1108/IJTC-06-2016-0013>
- Renko, S., & Bucar, K. (2014). Sensing nostalgia through traditional food: An insight from Croatia. *British Food Journal, 116*(11), 1672–1691. <https://doi.org/10.1108/BFJ-02-2014-0089>
- Shi, Y., Bettache, K., Zhang, N., & Xue, L. (2021). Constructing nostalgia in tourism: A comparison analysis of genuine and artificial approaches. *Journal of Destination Marketing & Management, 19*, 100488. <https://doi.org/10.1016/j.jdmm.2020.100488>
- Vieira, V. A. (2013). Stimuli–organism–response framework: A meta-analytic review in the store environment. *Journal of Business Research, 66*(9), 1420–1426. <https://doi.org/10.1016/j.jbusres.2012.05.009>
- Xu, X. (Even), Le, T. H., Kwek, A., & Wang, Y. (2022). Exploring cultural tourist towns: Does authenticity matter? *Tourism Management Perspectives, 41*(September 2021), 100935. <https://doi.org/10.1016/j.tmp.2021.100935>

- Zhang, H., Lu, Y., Gupta, S., & Zhao, L. (2014). What motivates customers to participate in social commerce? The impact of technological environments and virtual customer experiences. *Inf. Manag.*, *51*, 1017–1030.
- Zhou, B., Xiao, J., Liu, S., Yang, J., Wang, Y., Nie, F., Zhou, Q., Li, Y., & Zhao, G. (2013). Simultaneous detection of six food-borne pathogens by multiplex PCR with a GeXP analyzer. *Food Control*, *32*, 198–204. <https://doi.org/10.1016/j.foodcont.2012.11.044>
- Zhou, J., Xiang, K., Cheng, Q., & Yang, C. (2021). Psychological and behavioural consistency value seeking of tourists in niche tourism: Nostalgia, authenticity perception, and satisfaction. *Psychology Research and Behavior Management*, *14*, 1111–1125. <https://doi.org/10.2147/PRBM.S322348>