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Research article

Food tourism to revitalize the Basque Country



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ABSTRACT

The research examines the impacts of sensory experiences, taste, and destination food imagery on tourists' attitude. This study changes risks into positive attributes like safety and security, which significantly shape tourist decision-making processes. It underscores the significance of emotional well-being and safety concerns impacting tourists' visiting intentions. Employing Partial Least Squares Structural Equation Modelling, the study focuses on exploring the relationships among food tourism motivators, destination food image, safety perceptions, and the pandemic's impact on tourists' behavioural intentions within the Basque region. With a sample of 601 participants, this research emphasizes the importance of integrating risk mitigation actions and managing emotional states to design strategies for the sustained growth of the tourism industry.

1. Introduction

Food tourism plays a crucial role in influencing tourists' decisions, as it entails experiences ranging from cultural immersion to the pleasurable activity of tasting different cuisines [1,2]. It involves exploring a destination's culture through its culinary offerings and narratives, transcending mere sightseeing or travel [3,4]. Trying local cuisine meaningfully enriches tourists' experiences and leaves a lasting impact on their memories [5,6]. Recent studies have identified three primary motivators cultural experience, learning and connection, and the taste of food [2,7–10], which significantly influence tourists' preferences in immersive culinary activities.

The research setting is the Basque Country, renowned for its culinary expertise, precisely the New Basque Cuisine, which blends traditional and cutting-edge cooking methods. This region locates Michelin-starred restaurants strategically positioned along the historic Camino de Santiago de Compostela, contributing to the resurgence of cultural tourism [3,11]. This area has shaped a distinctive place-branding strategy that appeals to both tourists and food enthusiasts who appreciate the region's rich culinary heritage [12].

The COVID-19 pandemic has transformed the tourism industry, modifying tourists' perceptions, behaviours, and preferences, including their approach to local food consumption [13]. This study presents a novel approach to understanding food tourism by examining the motivations, preferences, and behaviours of both tourists and food enthusiasts [8,11]. Recognizing the significant role of gastronomy in destination selection [14], this research integrates innovative dimensions such as cultural experience, learning and connection, taste of food, cognitive image, affective image, destination food image, travel serenity, physical safety, psychological safety, financial security, functional safety, and trust into the Theory of Planned Behavior (TPB) framework [15,16]. By incorporating these diverse dimensions, the study offers a more holistic perspective on the factors influencing tourist behavior in food tourism. Additionally, the methodology employs Partial Least Squares Structural Equation Modelling (PLS-SEM), providing a robust analytical framework to examine the complex interrelationships among these factors.

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Using Partial Least Squares Structural Equation Modelling (PLS-SEM) analysis, this research provides a robust analytical framework to examine the complex relationships among these factors. Precisely, it aims to examine how food tourism motivators, destination food imagery, safety perceptions, and the impact of the COVID-19 pandemic collectively influence tourists' behavioral intentions regarding culinary experiences in the Basque region [5,17]. Given the shifting dynamics of the tourism industry, this approach seeks to reveal the relationships and significantly enhance understanding of tourists' attitudes towards local food consumption [13,15,16].

2. Literature review

2.1. Study setting

The model shown in Figs. 1 and 2 was tested in the setting of the Basque Country, a well-known culinary destination. Due to its established reputation in the culinary world, this region was chosen as the study setting. The Basque Country has long been recognized for the quality of its gastronomy and cuisine [3].

The rise of the New Basque Cuisine, a recognized culinary style blending traditional cooking with the sophistication of Haute cuisine, has played a significant role in elevating the reputation of Basque chefs [11]. A team of innovative, skilled chefs in this region collaborates to craft a culinary masterpiece by melding classic high-quality ingredients with contemporary avant-garde techniques. Notable figures in this culinary movement include Martín Berasategui, Karlos Arguiñano, Pedro Subijana, and the Arzak duo (Juan Mari Arzak and his daughter Elena), along with Andoni Aduriz.

These Michelin-starred restaurants are primarily located along or close to the Camino de Santiago de Compostela's historic cultural routes, which are currently being revived. This is especially the case in some of the route's towns and centres of arts and cultural tourism, like San Sebastian or Guernica [3].

2.2. Effects of food tourism motivators on attitude

Food tourism mainly focuses on cultural experiences, wherein tourists engage with diverse traditions through culinary experiences. A crucial aspect of these cultural experiences involves comprehending the local cultural identity, often influenced by regional cuisines and culinary practices. Tourists are willing to understand the social, cultural, and historical significance embedded within local gastronomy [18,19]. In this regard, tourists seek opportunities to acquire knowledge and forge connections during their gastronomic experiences [2]. It has been affirmed that a substantial majority of leisure tourists (79 %) actively seek to learn about food and beverages when exploring a destination [20]. Moreover, research indicates that tourists who engage in learning something new tend to develop a deeper appreciation for the value of co-creation within food tourism experiences [21].

The taste of food significantly influences visitors' perceptions of travel experiences, with elements such as quality, enjoyment, cooking methods, and presentation impacting their attitudes and choices of destination [2,19]. Attitude encapsulates an individual's assessment regarding an object, subject, or behaviour, comprising various dimensions such as positive or negative opinions and preferences [22–24]. This evaluation measures the intensity of an individual's attitude toward a particular behaviour [25]. Agyeiwaah et al. (2019) found that motivational factors have a considerable impact on future behaviours [26]. To understand the connection between tourists' motivation toward food-related experiences and their subsequent attitudes, several dimensions become significant.

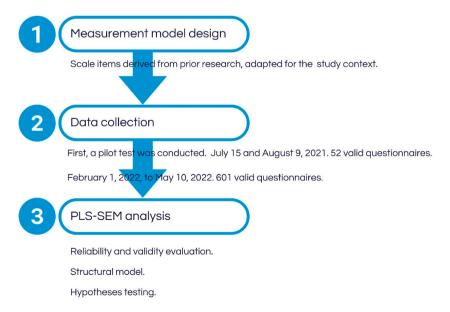


Fig. 1. The methodology employed.

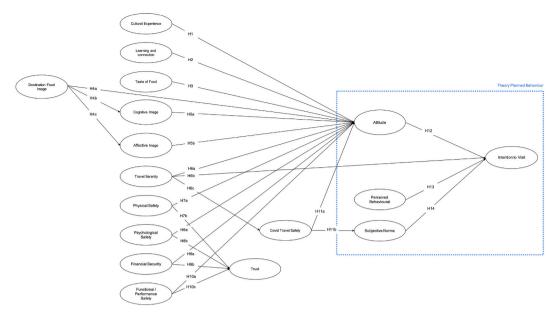


Fig. 2. The proposed model.

Aspects such as the varied quality and execution of food events, sensory attributes, and the taste of the food significantly contribute to shaping positive attitudes [27,28]. Considering the discussion, the following hypotheses are proposed:

- H1. Cultural experience has a positive and significant influence on attitude.
- **H2.** Learning and connection has a positive and significant influence on attitude.
- **H3**. Taste of food has a positive and significant influence on attitude.

2.3. Influence of tourism images on attitude

Destination food image refers to tourists' perceptions and evaluations of the local cuisine at a destination, encompassing factors such as quality, authenticity, diversity, and attractiveness [29]. This concept significantly influences tourists' motivations, preferences, and overall tourist experiences [17,30–32]. In wine tourism, destination image comprises both cognitive and affective dimensions. Cognitive dimensions focus on tangible elements such as wine and food experiences, while affective dimensions involve emotional associations like relaxation and pleasure [33–35].

Affective image influences feelings towards a destination [35,36], often acting as a mediator between cognitive destination images and behavioural intentions [37]. Both cognitive and affective images impact intentions towards destinations, influencing tourism satisfaction, place attachment, and intentions to revisit or recommend a destination [38,39]. It has been highlighted that a positive destination food image has a significant impact on tourists' attitudes and emotional perceptions, resulting in a more favourable attitude which improves affective image [40]. Affective image describes the emotional response tourists have when interacting with a destination, and their emotional connection to a destination's culinary identity significantly impacts their overall perception [33,41]. The importance of affective image in shaping tourists' overall perceptions and behaviour toward a destination has been emphasized, highlighting the importance of gastronomic experiences in developing these emotional connections [33]. Building upon this explanation, the following hypotheses are proposed:

- H4. Destination food image has a positive and significant influence on (a) attitude, (b) cognitive image and (c) affective image.
- H5. Cognitive image (a) and affective image (b) have a positive and significant influence on attitude.

2.4. The role of serenity, safe and security in enhancing attitude, trust, and intention

Risk perception encompasses various dimensions such as financial, performance, psychological, and physiological risks [42,43]. In the context of tourism, perceived risk impacts attitudes and behavioural intentions towards specific destinations and can predict travel avoidance [42]. Conversely, perceived safety aligns external safety conditions with individual safety needs [44].

During the COVID-19 pandemic, travel anxiety, a significant emotional response to stress and perceived risks associated with travel, has emerged as a prominent concern [16,51]. It impacts perceptions, tour selection, recreational choices, and overall psychological behaviour among tourists [51]. Travel anxiety involves feelings of nervousness, stress, vulnerability, fear, panic, frustration, and discomfort, particularly in unfamiliar or risky situations [22]. In contrast, travel serenity represents a calm or peaceful state during

travel, that can positively impact on attitudes, intentions to visit, and perceived COVID travel safety [15].

Physical risk refers to potential dangers or threats that can endanger an individual's physical health or safety during activities or transactions [44]. When assessing the safety and risks of consuming products or services, it is essential to consider the physical health and condition of consumers [43].

Psychological risk can significantly impact attitudes and mental well-being [42,43]. The concept of "sense of away-from-home" explains the emotional reactions visitors undergo in new environments, such as discomfort and loss of control [44]. This highlights the significant impact of psychological safety on visitors' perceptions and trust [42,45].

Financial risk in tourism refers to potential losses or uncertainties regarding the value obtained from travel experiences, significantly influencing consumer behaviour and attitudes [42,43,46]. Financial risk perception is a critical factor shaping consumption decisions, affecting purchasing behaviour, attitudes, personal satisfaction, loyalty, and willingness to pay in tourism settings [47,48]. Financial security refers to perceptions related to potential monetary loss or instability associated with travel decisions [45].

Perceived functional encompasses concerns related to the product or service's inability to meet anticipated functional or performance standards. This factor influences consumers' confidence and attitudes towards the product or service [43,49].

COVID travel risk refers to perceived threats and vulnerabilities in the tourism sector, which has an impact on economic stability, employment, and tourist confidence. Fear intensified by media influences individuals' sentiments and behaviours during travel [13,22,50]. COVID travel safety is associated to the measures and protocols adopted by the industry to safeguard tourists' well-being. These include health protocols, sanitation standards, and social distancing guidelines aimed at curbing the spread of the virus [51].

Trust shapes tourists' perceptions of destinations and influences their travel decisions [45]. It is an essential factor for establishing positive relationships and mitigating risks [52,53]. It is discussed in terms of transparency, uncertainty, and authenticity, as tourists are looking for reliable information [51].

Travel serenity reflects a calm state during travel, which positively influences attitudes and perceptions of safety as it mitigates fear and anxiety [15,54]. Moreover, trustworthy destinations tend to evoke positive perceptions, leading to favourable experiences [45]. Hence, it is reasonable to consider that perceived safety positively influences attitudes and trust in service providers. Specifically, ensuring physical safety has been suggested to positively affect individuals' attitudes and trust in the service [46]. Similarly, maintaining financial security contributes positively to increase favourable attitudes and trust [48]. The COVID-19 pandemic has raised global travel safety concerns, emphasizing the importance of health risk in influencing travel decisions [47]. Considering the previous arguments, the following hypotheses are proposed:

- H6. Travel serenity has a positive and significant influence on (a) attitude, (b) intention to visit and (c) covid travel safety.
- H7. Physical safety has a positive and significant influence on (a) attitude, and (b) trust.
- H8. Psychological safety has a positive and significant influence on (a) attitude, and (b) trust.
- H9. Financial security has a positive and significant influence on (a) attitude, and (b) trust.
- H10. Functional/performance security has a positive and significant influence on (a) attitude, and (b) trust.
- H11. Covid travel safety has a positive and significant influence on (a) attitude, and (b) subjective norms.

2.5. Theory planned behaviour

The TPB stands as a widely adopted psychological model used in diverse disciplines such as psychology, medicine, marketing, and tourism [24,54,55]. TPB includes attitudes, subjective norms, and perceived behavioral control to predict human behaviour [16,56].

TPB integrates additional elements such as authenticity, destination image, travel conditions, place attachment, and tourists' characteristics to understand tourist behaviors [54]. Empirical evidence has demonstrated the predictive power of attitude towards intentions, highlighting its influence on shaping individuals' behavioral intentions [57]. Attitude, as a psychological construct, reveals a significant influence on predicting human behaviors across diverse contexts [22–24].

Perceived behavioral control emerges as a critical determinant of intention, demonstrating a significant association with intended behavior in tourism research [24]. Moreover, subjective norms, representing social pressures that either encourage or discourage actions, tend to influence behavioral intentions. However, there are contradictory findings regarding the impact of subjective norms on intention. While some studies suggest a positive causal relationship between subjective norms and intended behavior [24], others indicate that the influence of subjective norms on intention may not be significant in certain contexts [56]. Therefore, it is pertinent to consider the following hypotheses:

- H12. Attitude has a positive and significant influence on intention to visit.
- H13. Perceived behavioural control has a positive and significant influence on intention to visit.
- H14. Subjective norms have a positive and significant influence on intention to visit.

Table 1 Profile of respondents (*n*=601).

Characteristics		Frequency	Percentage (%)
Gender			
	Female	408	67,9
	Male	193	32,1
4ge			
	18–25	92	15,3
	26–35	184	30,6
	36–45 46–55	71 65	11,8
	46–33 56–65	65 99	10,8 16,5
	66–75	84	14,0
	Over 75	6	1,0
Level of Completed Educa			,-
* *	Primary studies	10	1,7
	Secondary studies	78	13,0
	Bachelor's Degree	283	47,1
	Master's Degree or Postgraduate Studies	208	34,6
	Doctorate	22	3,7
Occupation	Fundame	0.41	56.7
	Employee	341 11	56,7
	Director/Owner of a Company Retired	11 127	1,8 21,1
	Self-employed	30	21,1 5,0
	Student	51	8,5
	Unemployed	41	6,8
Monthly Gross Salary			-,-
, ,	<600 €	75	12,5
	600–1200 €	97	16,1
	1201–2000 €	209	34,8
	2001–3000 €	164	27,3
	3001–4000 €	38	6,3
	>4000 €	18	3,0
Place of Residence			
	Andalusia	41	6,8
	Aragon	5 7	0,8
	Asturias Cantabria	12	1,2 2,0
	Castile and León	29	4,8
	Castilla-La Mancha	11	1,8
	Catalonia	23	3,8
	Extremadura	12	2,0
	Galicia	7	1,2
	Balearic Islands	4	0,7
	Canary Islands	3	0,5
	La Rioja	1	0,2
	Madrid	410	68,2
	Melilla	1	0,2
	Murcia	6	1,0
	Navarre (6	1,0
	Basque Country	9	1,5
Fraguency (number of trir	valencia s) of Regular Travel (annual, pre-COVID)	14	2,3
гтециенсу (питьет ој и ц	0	7	1,2
	1	50	8,3
	2–3	251	41,8
	4–6	199	33,1
	7–10	48	8,0
	>10	46	7,7
Current Frequency (numb	er of trips) of Travel (annual)		
	0	61	10,1
	1	168	28,0
	2–3	245	40,8
	4-6	78	13,0
	7–10	26	4,3
Haalth Chatus	>10	23	3,8
Health Status	Excellent	201	<i>1</i>
	Excellent Good	281 288	46,8 47,9
		400	4/,7

Table 2 Descriptive analysis.

Construct/Associated Items	Reversed item	Mean	Standard Deviation	
Affective Image (AFM)				
1.	I believe the Basque Country is an interesting destination.		6.489	0.996
2.	I believe the Basque Country is a pleasant destination.		6.366	1.094
3.	I believe the Basque Country is a fascinating destination.		5.902	1.329
4.	I believe the Basque Country is a relaxing destination.		5.864	1.284
Attitude (ATT)				
1.	I believe that visiting the Basque Country for gastronomic tourism is a positive behavior.		6.002	1.301
2.	I believe that visiting the Basque Country for gastronomic tourism is a valuable behavior.		5.807	1.373
3.	I believe that visiting the Basque Country for gastronomic tourism is a beneficial behavior.		5.827	1.328
Cognitive Image (CIM) 1.	I believe the quality of infrastructure in the Basque Country is very good.		5.767	1.216
2.	I believe personal safety can be well ensured when traveling to the Basque Country. ^d		5.872	1.382
3.	I believe the Basque Country has a good nightlife and entertainment options.		5.404	1.275
4.	I believe the Basque Country has adequate accommodation services.		5.993	1.101
5.	I believe the Basque Country has attractive local cuisine.d		6.331	1.010
6.	I believe the Basque Country has interesting and friendly people. ^d		5.804	1.337
7.	I believe the Basque Country has interesting historical and cultural attractions. ^d		6.140	1.119
8.	I believe the Basque Country has beautiful landscapes.d		6.745	0.699
Cultural Experience (CLI				
1.	I would visit the Basque Country to understand the local culture.		5.779	1.491
2.	I would visit the Basque Country to see how people live in a culinary tourist destination.		4.950	1.746
3.	I would visit the Basque Country to increase my knowledge about different cultures.		5.617	1.650
4.	I would visit the Basque Country to experience an authentic gastronomic journey.d		5.879	1.453
Covid Travel Safety (CTS	S)			
1.	Even with the current situation, I still want to take a gastronomic trip to the Basque Country.	Reversed	5.328	1.789
2.	Even with the current situation, I would continue planning a gastronomic trip to the Basque	Reversed	5.316	1.797
	Country of the same duration as usual.			
3.	I still want to take a gastronomic trip to the Basque Country even with the ongoing risk of the	Reversed	5.205	1.835
	COVID-19 pandemic.			
Destination Food Image (
1.	I believe the Basque Country, as a tourist destination, offers a rich culinary culture.		6.411	0.972
2.	The Basque Country, as a tourist destination, offers a diverse culinary culture.		6.120	1.130
3.	The Basque Country, as a tourist destination, offers a traditional culinary culture.		6.165	1.047
4.	I believe the Basque Country, as a tourist destination, offers a unique culinary culture.		5.842	1.326
Financial Security (FIS) 1.	The probability that a gastronomic trip to the Basque Country is worth the price paid is:	Reversed	5.517	1.226
2.	The probability that the price of a gastronomic trip to the Basque Country is worth the price paid is.	Reversed	5.349	1.277
3.	The probability that a gastronomic trip to the Basque Country has a fair price is:	Reversed	5.265	1.310
5. Functional/performance		reversed	3.203	1.510
1.	The probability that gastronomic tourism in the Basque Country is functional/of quality is:	Reversed	5.757	1.284
2.	The probability that a gastronomic trip to the Basque Country meets my expectations is:	Reversed	5.977	1.202
3.	The probability that gastronomic tourism in the Basque Country is a high-quality experience	Reversed	6.070	1.167
	is:			
Intention to Visit (INV)				
1.	I will make an effort to take a gastronomic trip through the Basque Country in the near future.		4.789	1.860
2.	I intend to take a gastronomic trip through the Basque Country.		4.797	1.945
3.	I am willing to take a gastronomic trip through the Basque Country.		5.378	1.754
4.	I am willing to spend time and money on a gastronomic trip through the Basque Country.		5.168	1.776
Learning and Connection	(LCO)			
1.	I would visit the Basque Country to develop my culinary skills.		4.348	1.945
2.	I would visit the Basque Country to expand my knowledge of gastronomy.		5.146	1.691
3.	I would visit the Basque Country to make new friends. ^d		4.546	1.885
4.	I would visit the Basque Country to familiarize myself with chefs and culinary producers.		4.220	1.980
5.	I would visit the Basque Country to meet famous chefs. ^d		3.894	2.069
6.	I would visit the Basque Country to talk to local chefs.		4.008	2.090
7.	I would visit the Basque Country to share gastronomic experiences.		5.062	1.837
Perceived Behavioural Co	ontrol (PBC)			
1.	I am sure that if I wanted to, I could visit the Basque Country for gastronomic tourism.		6.118	1.294
2.	I am able to visit the Basque Country for gastronomic tourism.		5.982	1.441
3.	I have enough time to visit the Basque Country and indulge in gastronomic tourism. ^d		5.113	1.737
Physical Safety (PHS)	mt 11th d	ъ .	5.060	
1.	The probability that gastronomic tourism in the Basque Country is physically safe is:	Reversed	5.862	1.327
	The probability that a gastronomic trip to the Basque Country maintains my physical well-	Reversed	5.912	1.316
2.		reversed		
2. 3.	being or comfort is: The probability that a gastronomic trip to the Basque Country maintains my physical safety is:	Reversed	5.945	1.276

(continued on next page)

Table 2 (continued)

Construct/Associated Items	Reversed item	Mean	Standard Deviation	
1.	The probability that gastronomic tourism in the Basque Country maintains my psychological well-being is:	Reversed	5.930	1.404
2.	The probability that a gastronomic trip to the Basque Country preserves the traveller's mental well-being is:	Reversed	5.993	1.341
3.	The probability that a gastronomic trip to the Basque Country aligns with my peace of mind is:	Reversed	5.920	1.406
Subjective Norm (SUN)				
1.	Most of the people who are important to me support my visit to the Basque Country for gastronomic tourism.		5.546	1.575
2.	Most of the people who are important to me understand my visit to the Basque Country for gastronomic tourism.		5.656	1.497
3.	Most of the people who are important to me recommend my visit to the Basque Country for gastronomic tourism.		5.446	1.604
Taste of Food (TFO)				
1.	I would visit the Basque Country to try local cuisine.d		6.285	1.163
2.	I would visit the Basque Country to try different types of cuisine.		5.945	1.378
3.	I would visit the Basque Country to find special food.		5.687	1.477
4.	I would visit the Basque Country to develop an interest in food.		5.140	1.699
Travel Serenity (TSE)				
1.	I feel comfortable thinking about taking a gastronomic trip to the Basque Country during the pandemic.	Reversed	5.068	1.769
2.	I feel my body is prepared after planning a gastronomic trip to the Basque Country after the pandemic.	Reversed	5.745	1.523
3.	I was calm about taking a gastronomic trip to the Basque Country during the pandemic.	Reversed	4.780	1.885
4.	I will feel safe when I take a gastronomic trip to the Basque Country while COVID-19 lasts.	Reversed	5.116	1.800
5.	I am relaxed after deciding to take a gastronomic trip to the Basque Country during the pandemic.	Reversed	5.023	1.827
6.	I feel serene when I think about taking a gastronomic trip to the Basque Country during the pandemic.	Reversed	5.052	1.796
Trust (TRU)	-			
1.	I believe that taking a gastronomic trip to the Basque Country is reliable.		6.023	1.217
2.	I have confidence in taking a gastronomic trip to the Basque Country.		5.925	1.348
3.	I believe that a gastronomic trip to the Basque Country is genuine.		5.854	1.282

NOTE

3. Methodological approach

3.1. Measurement model

Fig. 1 details the methodological process followed in this research. The scale items were derived from prior research and subsequently adapted to the context of this study, specifically the Basque Country. All items were assessed using a seven-point Likert scale, ranging from strongly disagree (1) to strongly agree (7). Before the pre-test, reverse coding was applied to the negatively worded items of six constructs. This measure aimed to avoid common method bias and improve clarity, ensuring that respondents could effortlessly understand how to use the Likert scale throughout the questionnaire. The objective was to minimize potential misunderstandings [58–62].

Subsequently, the constructs have been renamed using positive terms. Hence, (1) "covid travel risk" has been transformed into "covid travel safety", (2) "travel anxiety" has been changed to "travel serenity", (3) "financial risk" has been retitled as "financial security", (4) "functional/performance risk" has been called as "functional/performance safety", (5) "physical risk" has been replaced for "physical safety", and (6) "psychological risk" has been redesigned as "psychological safety".

Destination food image, cognitive image, and affective image were assessed using the scale items developed by Wu and Liang (2020) [35]. The evaluation of taste of food, cultural experience, and learning and connection utilized the scale items employed by Su, Johnson and O'Mahony (2020) [2]. Functional/performance safety, physical safety, psychological safety, financial security, and trust were derived from the scale items introduced by Han, Yu, and Kim (2019) [43]. The measurement for Covid travel safety drew inspiration from Sánchez-Cañizares et al.'s (2020) [54], while travel serenity was adapted from Luo and Lam's research (2020) [22]. Lastly, the scale items for the theory of planned behaviour, including attitude, subjective norm, perceived behavioural control, and intention to visit, were adapted from V.G, Park, and Lee's research (2020) [10].

3.2. Data collection procedure

Prior to survey administration, a pilot test was conducted with a final sample of 52 valid questionnaires collected between July 15 and August 9, 2021, to clarify the wording and optimize the survey procedure, such as refining the questionnaire layout. Following pilot feedback, a few statements were altered slightly to increase clarity.

^d Dropped during the estimation of the measurement model.

Data collection took place from February 1, 2022, to May 10, 2022. Participants were invited to participate in an online survey conducted in Spanish. The primary objective of the study was to explore the post-COVID perceptions of tourists regarding the Basque Country as a culinary destination. Participants were recruited using a non-probabilistic convenience sampling method.

The online questionnaire was developed using the Google Forms platform. Before taking part, participants received an introductory section outlining the research objectives. They were assured that their responses would be anonymous, used exclusively for research purposes, and that there were no correct or incorrect answers. This approach was intended to promote sincere responses, in line with the recommendations of Podsakoff et al. (2003) [61].

Table 3Reliability and convergent validity of the final measurement model.

Factor	Indicator									
		Standardized Loading	t-Value (bootstrap)	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)			
Affective Image	AFM1	0.899	66.795	0.912	0.915	0.938	0.792			
	AFM2	0.920	83.394							
	AFM3	0.901	78.641							
	AFM4	0.839	39.777							
Attitude	ATT1	0.952	162.544	0.953	0.953	0.970	0.915			
	ATT2	0.957	166.982							
	ATT3	0.960	166.269							
Cultural Experience	CLE1	0.911	94.878	0.843	0.850	0.905	0.762			
ourturur Emperiemee	CLE2	0.821	36.941	0.0.0	0.000	0.500	01, 02			
	CLE3	0.884	59.572							
Covid Travel Safety	CTS1	0.968	169.607	0.968	0.968	0.979	0.940			
Covid Traver Sarcty	CTS2	0.973	273.495	0.500	0.500	0.575	0.540			
	CTS3		185.941							
Destination Ford		0.967		0.070	0.075	0.011	0.701			
Destination Food	DFI1	0.872	56.574	0.870	0.875	0.911	0.721			
Image	DFI2	0.871	50.273							
	DFI3	0.800	31.169							
	DFI4	0.851	65.717							
Financial Security	FIS1	0.935	137.732	0.940	0.940	0.961	0.892			
	FIS2	0.955	181.665							
	FIS3	0.943	138.926							
Functional/	FUS1	0.892	63.545	0.914	0.916	0.946	0.853			
performance	FUS2	0.943	106.011							
Safety	FUS3	0.935	114.615							
Intention to Visit	INV1	0.886	69.162	0.936	0.940	0.954	0.839			
	INV2	0.929	130.192							
	INV3	0.910	81.105							
	INV4	0.936	146.127							
Learning and	LCO1	0.874	72.019	0.914	0.921	0.936	0.744			
Connection	LCO2	0.868	77.253							
	LCO4	0.886	73.938							
	LCO6	0.842	52.998							
	LCO7	0.842	53.917							
Perceived	PBC1	0.905	56.079	0.827	0.854	0.919	0.851			
Behavioural	PBC2	0.939	119.821	0.027	0.034	0.515	0.031			
Control	PBG2	0.939	119.021							
	PHS1	0.961	159.809	0.952	0.952	0.969	0.912			
Physical Safety				0.952	0.952	0.969	0.912			
	PHS2	0.955	150.582							
D111111111111-	PHS3	0.950	108.010	0.055	0.050	0.070	0.001			
Psychological Safety	PSS1	0.957	101.885	0.957	0.958	0.972	0.921			
	PSS2	0.965	155.955							
	PSS3	0.956	122.312							
Subjective Norms	SUN1	0.944	121.778	0.937	0.937	0.960	0.888			
	SUN2	0.957	199.171							
	SUN3	0.927	90.679							
Taste of Food	TFO2	0.847	41.474	0.836	0.840	0.901	0.753			
	TFO3	0.904	89.495							
	TFO4	0.851	53.968							
Travel serenity	TSE1	0.919	97.679	0.947	0.948	0.960	0.826			
-	TSE2	0.819	43.810							
	TSE3	0.908	77.986							
	TSE4	0.944	151.272							
	TSE5	0.948	171.465							
Trust	TRU1	0.931	96.952	0.925	0.925	0.952	0.869			
	TRU2	0.935	106.833							
	TRU3	0.931	96.670							

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Table 4
Measurement model discriminant validity.

Factor		1	2	3	4	5	6	7	8	9	#	#	#	#	#	15	16
1	Affective Image	0.890	0.672	0.622	0.683	0.606	0.730	0.533	0.428	0.494	0.539	0.618	0.704	0.751	0.639	0.489	0.777
2	Attitude	0.627	0.956	0.511	0.632	0.636	0.758	0.634	0.518	0.618	0.624	0.792	0.737	0.710	0.817	0.579	0.831
3	Cultural Experience	0.548	0.459	0.873	0.539	0.509	0.504	0.509	0.549	0.323	0.377	0.453	0.468	0.481	0.457	0.541	0.509
4	Destination Food Image	0.610	0.579	0.459	0.849	0.608	0.669	0.535	0.565	0.433	0.440	0.620	0.526	0.505	0.561	0.667	0.652
5	Financial Security	0.561	0.602	0.453	0.552	0.945	0.644	0.598	0.499	0.450	0.470	0.633	0.567	0.560	0.614	0.482	0.704
6	Functional Safety	0.667	0.708	0.445	0.598	0.598	0.924	0.607	0.533	0.661	0.657	0.764	0.801	0.763	0.725	0.598	0.876
7	Intention to Visit	0.492	0.602	0.449	0.485	0.561	0.564	0.916	0.637	0.596	0.586	0.703	0.520	0.512	0.682	0.659	0.642
8	Learning and Connection	0.395	0.489	0.481	0.510	0.466	0.495	0.590	0.863	0.476	0.461	0.508	0.402	0.379	0.483	0.712	0.480
9	Covid Travel Safety	0.464	0.594	0.293	0.399	0.430	0.620	0.569	0.452	0.969	0.905	0.620	0.641	0.610	0.654	0.514	0.694
10	Travel Serenity	0.501	0.594	0.338	0.402	0.443	0.610	0.555	0.432	0.868	0.909	0.633	0.669	0.641	0.669	0.480	0.715
11	Perceived Behavioural Control	0.538	0.708	0.380	0.525	0.557	0.666	0.628	0.448	0.562	0.568	0.923	0.698	0.701	0.821	0.569	0.822
12	Physical Safety	0.656	0.702	0.422	0.480	0.537	0.748	0.493	0.380	0.616	0.637	0.620	0.955	0.878	0.683	0.443	0.857
13	Psychological Safety	0.702	0.679	0.435	0.463	0.531	0.713	0.487	0.360	0.588	0.612	0.625	0.839	0.959	0.658	0.417	0.825
14	Subjective norms	0.591	0.772	0.407	0.509	0.577	0.671	0.641	0.452	0.623	0.631	0.725	0.645	0.624	0.943	0.567	0.805
15	Taste of Food	0.429	0.518	0.452	0.572	0.427	0.523	0.582	0.628	0.462	0.427	0.475	0.395	0.373	0.502	0.868	0.542
16	Trust	0.714	0.780	0.452	0.587	0.657	0.806	0.600	0.448	0.656	0.670	0.721	0.805	0.777	0.749	0.477	0.932

Note: Diagonal values are AVE square root, values below the diagonal are latent variable correlations values and above the diagonal are HTMT ratios.

3.3. Data analysis technique

The selection of the PLS-SEM technique for this research is well-justified. Initial examinations conducted on our sample indicated the presence of non-normal data, and PLS-SEM is recognized for its flexibility in managing such biases, as underscored by Hair et al. (2014) [63]. A total of 601 questionnaires were collected, all of which were deemed suitable for analysis. To enhance the study's reliability, power analysis was conducted using G*Power 3, following the procedure outlined by Faul et al. (2007) [64].

The sample size was calculated to achieve a power level exceeding 99 percent for the R2 deviation from zero test, as outlined in the proposed model (Fig. 2), consistent with Cohen's (1988) recommendations [65]. With 601 participants, the study attained a statistically significant power level, indicating a sufficient sample size for the analysis. Table 1 provides a comprehensive overview of the sample's characteristics, while Table 2 delineates the measurement model and descriptive data analysis.

4. Results

4.1. Reliability and validity evaluation

The evaluation began with the scrutiny of the measurement model's reliability and convergent validity. The results of these assessments are detailed in Table 3. While all loading factors were deemed acceptable, except the items CLE4 (cultural experience, item 4), LCO3 (learning and connection, item 3), PBC3 (perceived behavioural control, item 3), TFO1 (taste of food, item 1) and all the items of cognitive image were excluded due to their respective values falling below the 0.7 threshold, as recommended by Hair et al. (2011) [66].

To establish construct reliability, internal consistency indicators were examined, specifically the Cronbach's alpha coefficients, all of which exceeded the 0.70 benchmark, as recommended by Hair et al. (2006) [67]. Composite reliability coefficients were also calculated to quantify the shared variance among a set of observed items assessing each construct, following the guidelines of Fornell and Larcker (1981) [68]. Notably, all these coefficients surpassed the 0.60 threshold, consistent with the recommendations of Bagozzi and Yi (1988) [69]. The demonstrated composite reliability values consistently exceeded 0.60, confirming the shared variance among the observed items measuring each construct, in accordance with Fornell and Larcker's guidelines (1981) [68].

The assessment of convergent validity and discriminant validity is crucial for establishing the credibility of the results, as highlighted by Hair et al. (2011) [66]. Convergent validity is supported by the Average Variance Extracted (AVE) values, each of which surpasses 0.50, as recommended by Fornell and Larcker (1981) [68].

Discriminant validity was confirmed by assessing the shared variance between pairs of constructs and ensuring it was lower than the corresponding Average Variance Extracted (AVE), following the guidelines of Fornell and Larcker (1981) [68]. This examination validates the extent to which each construct differs from other latent variables within the measurement model, consistent with the insights of Hair et al. (2016) [70]. Additionally, the study employed the heterotrait-monotrait (HTMT) ratio method proposed by Henseler et al. (2016) [71]. All computed values were found to be below the recommended threshold of 0.90, as established by Teo et al. (2008) [72], except for the travel serenity - COVID travel safety pair, which registered at 0.905, indicating its proximity to the specified threshold of 0.9. Detailed discriminant validity values are presented in Table 4.

4.2. Structural model

The determination of R2 was conducted to elucidate the explanatory power of the proposed model. The results indicated that all dependent constructs exceeded the recommended threshold of 0.10, in accordance with the criteria established by Falk and Miller (1992) [73]. Additionally, positive Stone-Geisser's Q2 values were computed using blindfolding with an omission distance of D=7. The findings for both indicators are presented in Table 5.

Consistent with the recommendation by Hair et al. (2011) [66], bootstrapping with 5000 resamples was employed to provide standard errors and t-values, facilitating the assessment of individual significance changes.

4.3. Hypotheses testing

The results show that cultural experience has no significant effect on attitude (H1; β = 0.340). Also, it has been proved that learning and connection has no significant effect on attitude (H2; β = 0.041). But it has been determined that taste of food has a positive and

Table 5 Evaluation of the estimated models.

Concept	R ²	Q ²
Affective Image	0.372	0.367
Attitude	0.648	0.630
Intention to Visit	0.494	0.448
Covid Travel Safety	0.753	0.753
Subjective norms	0.388	0.387
Trust	0.781	0.775

significant effect on attitude (H3; $\beta = 0.043p < 0.05$). Besides, it has been revealed that destination food image has a positive and significant effect on attitude and affective image (H4a; $\beta = 0.041$ p < 0.01; H4c; $\beta = 0.048$ p < 0.01). However, the relationship between affective image and attitude has been concluded as not significant (H5b; $\beta = 0.054$).

The effect of travel serenity on attitude has been established as not significant (H6a; $\beta=0.062$), whereas it was positive and significant on intention to visit and covid travel safety (H6b; $\beta=0.045$ p <0.01; H6c; $\beta=0.014$ p <0.01). Besides, it was found that physical safety has a positive and significant effect on attitude and trust (H7a; $\beta=0.059$ p <0.01; H7b; $\beta=0.054$ p <0.01). The effect of psychological safety has been uncovered as positive and significant on attitude and trust (H8a; $\beta=0.059$ p <0.01; H8b; $\beta=0.049$ p <0.01).

In addition, results have estimated that financial security has a positive and significant effect on attitude and trust (H9a; $\beta = 0.038$ p < 0.01; H9b; $\beta = 0.031$ p < 0.01). The effect of functional/performance safety on attitude and trust has been verified as positive and significant (H10a; $\beta = 0.053$ p < 0.01; H10b; $\beta = 0.050$ p < 0.01). But it has been demonstrated that covid travel safety has no significant effect on attitude, whereas it has a positive and significant effect on trust (H11a; $\beta = 0.065$; H11b; $\beta = 0.032$ p < 0.01).

Concerning the theory planned behaviour, it has been determined that attitude has a positive and significant effect on intention to visit (H12; $\beta = 0.070 \, p < 0.1$). In addition, perceived behavioural control has a positive and significant effect on intention to visit (H13; $\beta = 0.061 \, p < 0.01$). Finally, it has been concluded that subjective norms have a positive and significant effect on intention to visit (H14; $\beta = 0.067 \, p < 0.01$) (see Table 6).

5. Conclusions

5.1. Theoretical implications

This research makes significant theoretical contributions by highlighting the role of sensory experiences, taste, and destination food image in shaping tourists' attitudes toward food tourism, thus corroborating previous findings [2,7-10].

This research makes a significant contribution to understanding safety and security in food tourism and the hospitality industry by converting conventional risks into positive attributes, which notably impact tourist decision-making [42,43].

Furthermore, the perception of safety, which includes physical, psychological, and financial aspects, has been identified as a determinant factor influencing attitudes and trust toward food tourism destinations [19,44].

Interestingly, research indicates that two food tourism motivators, cultural experience and learning and connection, do not significantly influence attitude. Cultural experience in food tourism involves understanding local identity through culinary traditions [18,19], but surprisingly, it does not influence attitude [19]. Similarly, although tourists actively seek learning and connection during gastronomic experiences [2], this factor does not significantly influence attitude toward food tourism [21]. Despite their recognized importance in food tourism, these factors do not shape tourists' attitude in this study, contradicting prior findings [27,28].

Furthermore, it has been determined that affective image does not influence attitude, contradicting previous research [33,38,40]. This unexpected finding contradicts the established significance of affective image in shaping tourists' perceptions and behaviours

Table 6Hypotheses testing.

Hypothesis	Path	Standardized Path Coefficients	t-value (bootstrap)		
H1	Cultural Experience - > Attitude	0.034			
H2	Learning and Connection - > Attitude	0.041	1.131		
НЗ	Taste of Food - > Attitude	$0.043^{\rm b}$	2.017		
H4a	Destination Food Image - > Attitude	0.041 ^a	2.574		
H4c	Destination Food Image - > Affective Image	0.048 ^a	12.593		
H5b	Affective Image - > Attitude	0.054	0.896		
Н6а	Travel Serenity - > Attitude	0.062	0.641		
H6b	Travel Serenity - > Intention to visit	0.045 ^a	3.987		
Н6с	Travel Serenity - > Covid Travel Safety	0.014 ^a	63.547		
Н7а	Physical Safety - > Attitude	0.059 ^a	3.367		
H7b	Physical Safety - > Trust	0.054 ^a	5.291		
H8a	Psychological Safety - > Attitude	$0.059^{\rm b}$	2.070		
H8b	Psychological Safety - > Trust	0.049 ^a	3.912		
Н9а	Financial Security - > Attitude	0.038 ^a	3.699		
H9b	Financial Security - > Trust	0.031 ^a	6.514		
H10a	Functional Safety - > Attitude	0.053 ^a	2.576		
H10b	Functional Safety - > Trust	0.050 ^a	6.735		
H11a	Covid Travel Safety - > Attitude	0.065	1.389		
H11b	Covid Travel Safety - > Subjective norms	0.032 ^a	19.722		
H12	Attitude - > Intention to visit	0.070^{c}	1.711		
H13	Perceived Behavioural Control - > Intention to visit	0.061 ^a	4.357		
H14	Subjective norms - > Intention to visit	0.067 ^a	3.655		

Note

 $^{^{}a}$ p < 0.01.

 $^{^{}b}$ p < 0.05.

 $^{^{}c}\ p < 0.10.$

toward destinations [31,74].

Despite suggestions that the concept of travel serenity positively influences attitudes and potentially mitigates negative perceptions [15,54], it has been revealed to not influence attitude. This finding contradicts the prior studies [15,22]. Additionally, this research found that COVID travel safety measures have no influence on attitude, contrary to prior findings [15,47]. Finally, it is noteworthy that attitude has been determined to not influence the intention to visit, contradicting the consistent evidence from studies highlighting the strong influence of attitude on behavioural intentions [23,24,57].

The study highlights the linkage between COVID travel safety and subjective norms, which suggests that travel perceptions of safety during the COVID-19 pandemic were influenced by social pressures or norms [24,55]. Finally, the link between destination food image and affective image emphasizes that positive destination food image significantly influences tourists' emotional perceptions, thereby enriching the affective image with the destination's culinary identity [33,40,41].

5.2. Managerial recommendations

The research contributes significantly to managerial field by highlighting areas that are essential for improving experiences and ensuring safety in the food tourism and hospitality. Firstly, the study reveals the importance of prioritizing sensory experiences and culinary identity within food tourism, as it impacts tourists' perceptions and experiences [1,29,43].

It highlights the need of integrating risk mitigation strategies, especially during times of uncertainty. Effectively communicating and implementing these safety measures emerge as crucial aspects that influence tourists' behavioural intentions and confidence in destinations [15,44].

Secondly, the research stresses the significance of addressing emotional well-being and safety concerns, particularly in the context of travel anxiety and fear prevalent during uncertain times. Tailoring experiences to foster positive emotional states and assuring tourists about the efficacy of coping safety measures become essential strategies [21].

Considering that the motivators cultural experience, learning, and connection, do not significantly influence attitudes in food tourism, managerial approaches should focus on re-evaluating the emphasis placed on these factors. Despite their historical significance, understanding their current impact on shaping attitudes is crucial for refining marketing strategies and experience design. To revitalize cultural experiences, initiatives that celebrate local culinary traditions could be developed by collaborating with local communities, organizing cultural festivals, cooking classes, or guided tours [75]. Fostering learning and meaningful connections can be achieved by developing tailored experiential programs. This might involve partnerships with local artisans, chefs, or historians to offer hands-on experiences like farm visits or food crafting workshops [76].

Besides, it is recommended to develop activities such as authentic experiences, personalizing gastronomic tours, and dining encounters to cater to diverse preferences. Furthermore, prioritizing strategies that enhance serenity during travel and strengthen the appeal of destination food images is essential to create emotional connections with tourists [77].

5.3. Social implications

A crucial aspect enlightened by this study is the multidimensional nature of risk and safety perceptions and their consequential impact on decision-making processes, [15,42,43,45].

This study has emphasized the importance of coordinating strategies to mitigate perceived threats and manage emotional states [15,29,43]. Policymakers and stakeholders should understand the relationship between emotional responses and cognitive perceptions, which will improve their ability to develop effective strategies and policies [2,8].

5.4. Limitations and future research lines

First, the primary focus on the COVID-19 pandemic within this research could limit the generalizability of findings to different periods or contexts [7,50]. Also, the temporal scope of the collected data likely spans a specific period (February to May 2022) and may not encapsulate seasonal variations or trends in tourist motivations.

Second, although participants were asked about their place of residence during data collection, only nine respondents identified themselves as residing in the Basque Country, encompassing merely 1.5 % of the sample. Whilst this limited representation does not significantly impact this study, researchers should strive to avoid resident responses for a more comprehensive understanding and boost international tourists' responses.

In addition, the data collection process resulted in an unequal gender distribution, with 67.9 % of the sample being women, thus not fully representing the gender balance. Researchers should aim for a more balanced gender representation to ensure a comprehensive analysis of culinary tourism motivations. Moreover, future lines of research could explore the differences in motivations between genders within the context of culinary tourism.

Third, since this research predominantly focuses on the impact of the COVID-19 pandemic, shifts in behavioural patterns post-pandemic might influence the validity and relevance of certain results. Hence, continuous monitoring and analysis would be crucial to comprehend evolving patterns [29].

Fourth, the generalizability of this study across diverse cultural contexts or regions with differing perceptions and hospitality norms could be limited as the current study exclusively focuses on the Basque Country. Further exploration through cross-cultural studies could enrich the understanding of these variations and their implications [43].

Considering the identified limitations, several research lines emerge. Initially, it would be rather interesting to conduct longitudinal

studies post-pandemic to track the sustained changes in attitudes and behaviours within food tourism and hospitality as these would provide valuable contributions into the enduring impacts [8; 50; 78].

Also, it would be pertinent to examine the influence of other variables to have a holistic understanding of culinary tourist motivations. For instance, exploring the role of emerging technologies, such as AI-driven safety measures or virtual reality experiences, in shaping tourists' perceptions of safety and enhancing their experiences within food tourism and hospitality could be a promising avenue for future research [14].

Finally, analysing the effectiveness of various policy interventions aimed at managing perceived threats and emotional states to support the recovery and growth of the tourism industry could provide insights for industry stakeholders and policymakers [15; 23].

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Data availability statement

Data will be made available on request.

CRediT authorship contribution statement

Nuria Recuero-Virto: Writing – review & editing, Writing – original draft, Visualization, Validation, Supervision, Project administration, Methodology, Investigation, Formal analysis, Conceptualization. **Cristina Valilla Arróspide:** Writing – review & editing, Resources, Project administration, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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