



## Culinary Tourism Development Based on Marketing Mix Strategy: The Case of Khorasan Razavi Province

Younos Vakil Alroaia<sup>a\*</sup>, Zahra Zolfaghari<sup>b</sup>, Mohammad Reza Sotoudeh<sup>c</sup>,

a. Department of Management, Semnan Branch, Islamic Azad University, Semnan, Iran.

b. Faculty of Tourism, Semnan University, Semnan, Iran.

c. Faculty of Economics & Management, University of Semnan, Semnan, Iran.

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### Abstract

Food is considered as an integral part of tourism experience, and culinary tourism is a relatively new concept in the tourism industry. Culinary tourism deals with cookery, cuisines, and food ways of a country, region, or locale as a unique and memorable activity. The present study was aimed to prioritize factors influencing culinary tourism development using marketing mix strategy in Khorasan Razavi province, Iran. This applied research was performed by descriptive-survey method. The population consisted of experts in tourism and hotel management as well as experts in food industry, cookery, and restaurant management. Using stratified random sampling, first 200 participants were selected to fill the questionnaire, in order to identify effective factors, and then, 10 experts were asked to rank these factors. Confirmatory factor analysis and Fuzzy Analytical Hierarchy Process were employed to analyze the data. Findings of the study suggested that, among the four marketing mix strategies, price-related factors with a normal weight of 0.033 ranked first, and in terms of sub criteria related to study dimensions, matching prices to product quality and branding of local food products with a weight of 0.095 and 0.093, respectively were identified as the top factors influencing culinary tourism development.

## 1. Introduction

Tourism is regarded as a major part of the contemporary economy, in which food plays an important role. Food is a key part of all cultures, a major element of global intangible heritage and an increasingly important tourist attraction. The linkages between food and tourism also provide a platform for local economic development, which can be strengthened by the use of food experiences for branding and destination marketing (OECD, 2012). The opportunity created by culinary tourism is not concerned with the necessity of consumption, but it is linked with spending time to enjoy and experience food. Studies carried out by the Office of Travel and Tourism Industries (OTTI) in the US suggested that, food ranks second in tourism activities (OTTI, 2003).

\* [y.vakil@semnaniau.ac.ir](mailto:y.vakil@semnaniau.ac.ir)

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Tourists travel the world to try different cuisines, and to add to their memorable experiences (Long, 2004). Local cuisines are an essential component of destinations, encompassing a range of locale attractions and tourist experiences (Symons, 1999). Food plays an important role in any tourist's daily life although it may be the tourist's primary goal. Many studies suggested that, food is an integral part of tourists' experience, and it is identified as a lens to perceive the local culture of destinations (Minihan, 2014). Food and tourism are highly interconnected, and food is a vital resource for tourism. For some people, food can be the primary stimulus and focus, while it brings enjoyment and entertainment for others, and it is also considered as a social objective (Henderson, 2009). Increasing interest in local cuisines has not only influenced the tourism income, but also the local community, both economically and socially. People's interests in the quality of food, need for sustainable agriculture due to ecological concerns, health and nutrition concerns, access to wider information on foods and beverages, information gained regarding different cuisines all have effect on the expectations and the buying behavior of tourists (Sahin, 2015). Sometimes tourists merely travel to experience a particular local cuisine or to enjoy the taste of new ones (Hall & Sharples, 2003). Food consumption by tourists is a complicated experience requiring more research. In order to obtain a clearer view on the role of food in tourism, it is necessary to pay heed to multi-dimensional criteria instead of focusing on one dimension like motivation or food preferences (Yo Chen, 2013).

Consumption of food and beverages comprises one of the most important sectors involved in the tourism industry. Wolf (2002) stated that, almost all tourists have food and drink on their trips such that it ranks first in their shopping list. Since, Iranian food and drink are largely unknown even to Iranians, effective measures should be taken to introduce them to the public. Through appropriate presentation of these foods and beverages as well as using an appropriate information system, not only a large part of the Iranian cultural heritage will be revealed, but also a diverse range of local food will be presented at the restaurants, which will lead to consumer satisfaction and public demand to invest in this industry (Mortazavi, 2013). Yo Chen (2013) stated that, the role of food in tourism is highlighted significantly in recent years. The image of food in the tourists' minds and advertising is closely related to the specific purposes and interests of tourists. Today, many people travel specifically to experience different foods (Hall & Sharples, 2003; Long, 2004). Farajzadeh and Esmaili (2017) state that rising prices of the products as high as their trend over the last two decades has resulted in an annual welfare loss of 2.2 percent. In recent years, in terms of consumption and market power, culinary tourism development has made globalization and access to local food products possible. Obviously, food is very important in tourism, because the tourists have to eat, and food is a cultural aspect of the destinations. However, the real challenge is distinguishing between different types of tourists and different types of destinations (Halkier, 2012).

Culinary tourism is a type of cultural tourism, thus given Iran's attention to the development and expansion of cultural tourism, the development of culinary tourism can be effective in this sector (Izadi, 2015). In addition, Smith and Xiao (2008) stated that, despite numerous studies on culinary tourism, there is a deep gap with respect to the supply chain theory in the field of culinary tourism. According to the studies conducted by the author and observations on cooking styles and tourist tastes, as well as the recent public desire for healthy foods, it has been turned out that, today's tourists prefer slow food to fast food. This means that, today's people, especially professional tourists are looking for those foods that are greener, healthier and more intimate with the local culture of the people. Studies on culinary tourism have mainly focused on case studies (Boniface, 2003; Hashimoto & Telfer, 2003). Khorasan Razavi is an important tourist destination in Iran. Due to its historical background and cultural richness and diversity of customs, this province has a great potential in tourism. Among these potentials, which can be used for tourism and cultural tourism development, is culinary tourism that despite the potentials observed in the province regarding this sector, no actions have been taken to develop it. Having two main sources for culinary tourism development, namely cultural diversity and geographical location, Khorasan Razavi has the potential to turn into a culinary tourism hub. Due to the diversity and the number of historical and cultural destinations in the province, as well as the presence of the Holy Shrine of Imam Reza (PBUH) in Mashhad, culinary tourism can be used as a complement to other sectors in order to increase the diversity of tourists visiting the province. Culinary tourism development in this province will change the massive form of cultural and religious tourism. Among the cuisines available in the culinary tourism sector in the province are digcheh<sup>1</sup>, balghoor-e shir<sup>2</sup>, khoesht-e rivas<sup>3</sup>, shashlik<sup>4</sup>, Shandiz, aash khalook, kuku shirin<sup>5</sup>, sholeh<sup>6</sup> Mashhadi, as well as different types of bread like fatir<sup>7</sup> and ghalfi. A lot of foods and food products have been mostly overlooked in the province even though they enjoy factors that are important in culinary tourism. This study attempted to investigate factors influencing culinary tourism development in Khorasan Razavi province.

In this case, the next section explains the theoretical framework, literature review of the study and methodology used in measuring culinary tourism development. The fourth section finds out the decision-making process of culinary tourism development in Khorasan Razavi. The last section is the conclusion.

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<sup>1</sup> Made of sweet rice porridge with milk, saffron and cardamom

<sup>2</sup> Made of groats with milk

<sup>3</sup> A kind of dish made of meat and rhubarb served with rice

<sup>4</sup> A kind of dish made of skewered and grilled cubes of meat

<sup>5</sup> Made of sweet potato omelet with saffron, cardamom, rose water, pistachio and almond

<sup>6</sup> A kind of pottage made of meat, legumes and spices

<sup>7</sup> A type of hardtack

## 2. Theoretical Foundations

Providing food and beverages during travel is one of the major effective factors in the Tourism Industry. Considering that most of the Iranian food and beverages are unknown to others, even Iranians themselves, measures should be taken for introducing them (Mortazavi, 2013). Khorasan Razavi Province is one of the important tourism bases in Iran. This province has a great potential in tourism with respect to its historical background, cultural richness and the diversity of customs. Food tourism is amongst the potentials that could be used to develop cultural tourism and event tourism, despite the potentials and capacity in this field in this province, no measures were taken to develop this sector. Enjoying two major factors in the development of food tourism, i.e. cultural diversity and special geographic situation, this province has the potential to become a food tourism hub. Developing food tourism in this province could help to improve the cultural and religious tourism of this province. Digche, Bulgur Wheat with Milk, Rhubarb Stew, Shishlik Shandiz, Ash Khelavak, Sweet Kou Kou, Shole Mashhadi, and various types of bread such as Fatir and Gholfi. There is a great variety of food and food products in this province that are neglected despite enjoying the parameters of food tourism.

Several terms have been used to describe the linkage between tourism and food, including gastronomic tourism, culinary tourism, and cuisine tourism. Cuisine tourism focuses on how to prepare and cook food. Gastronomic tourism deals with having food and beverages in more general terms. In other words, "gastronomy" is the science of the relationship between food and culture (Hornig & Tsai, 2010), Sahin (2015) also stated that gastronomy refers to the properties differentiating cooking styles and cuisines of different countries and regions, including food products, eating habits and food preparation techniques in a country or region.

In 2013, the World Food Travel Association reported that food tourism comprises the entire food industry, and defined it as "the pursuit and enjoyment of unique and memorable food and drink experiences, both far and near." This definition implies the link between the food and drink services and the tourism industry; for example, restaurants, street food vendors, local markets, and cafés offering unique enjoyment and unforgettable experiences during trips (Ngoc, 2013). Du Rand and Heath (2006) stated that food tourism is:

- A part of local culture consumed by tourists.
- An element to promote regional tourism.
- A component and part of local economic and agricultural development.
- A key element for competitive marketing of the destinations.
- An index for globalization and localization.
- A product or service used by the tourists according to the preferences and patterns of consumption

## 2.1 Motives of Culinary Tourists

López-Guzman et al. (2011) believed that culinary tourism results from physical, cultural, social, as well as prestige motives. Physical motivation is the first kind of motivation. Food is a must in life, and tourists eat to live and travel. The second one is cultural motivation; meaning that tourists eat to learn about the culture of the region. In this regard, simple local cuisines also suffice to motivate tourists. Therefore, focusing on visiting the primary places of production, restaurants and festivals, where local food is served, plays an important role. The third one is the social motivation of tourists. Tourists play an active role in gastronomic activities (cooking) which create social motivation. The fourth one is prestige motivation. By sharing their experience regarding the visiting of the specific area or environment, they gain credence for themselves (Sahin, 2015)

## 2.2 Culinary Tourism and Culture

As stated by Surenkok et al. (2010), in addition to its nutritional value, food has cultural value, and it is a sign of cultural identity as well as a symbol and image of idealized realities. Culinary tourism, studied in terms of cultural tourism, is involved in all tourism activities and it is considered as an alternative tourism. Alternative tourism both creates mass tourism and expands it in the changing world. In addition to the traditional mass tourism, creating and improving alternative tourism, addressing the needs of tourists with special interests and increasing this demand in a highly competitive environment will derive important benefits for the country, destination and investment (Sahin, 2015). Food products are increasingly recognized as an important part of the cultural tourism market (Lee & Arcodia, 2011) since they represent the lifestyle and culture of the people in different regions (Karim, 2006).

## 2.3 Culinary Tourism and Branding

In a highly competitive world of tourism marketing, each region or destination is constantly looking for a unique product to make itself distinguished from other destinations. Local cuisines, which are specific to one area, are considered as one of the sources that can be used as a marketing tool to attract more visitors (Shenoy, 2005). According to Molayi et al. (2016), factors influencing tourism branding include: unique and distinctive cooking styles, the quality of food and food products, promotions, price and cost, and skillful people in providing food and services.

## 2.4 Culinary Tourism and Marketing

Culinary tourism generates added value for destinations, so that it turns them into tourist destinations and creates a special market for them (Kivela & Crofts, 2005). Du Rand and Heath (2006) stated that culinary tourism constitutes a destination attraction and therefore, it can be a part of the marketing strategy of a destination. In this regard, it is clear that destination marketing and culinary

tourism are interrelated. Public and private sector should spend more on advertising and marketing (Najafi Nasab et al. 2018). Therefore, the importance of food as a key, or in most cases as a supportive attraction cannot be ignored in a destination (Du Rand & Heath, 2006).

## 2.5 Marketing Mix Strategy and Tourism

Tourism marketing system is based on the marketing mix strategy, because it involves the elements necessary for planning and implementing the marketing process. Different scholars proposed different open elements of tourism marketing. According to McCarthy (1960), the four Ps of marketing mix includes price, promotion, product and place. Booms and Bitner (1981) classified the marketing mix into 7Ps, and two categories, i.e. tangible (food, place, transportation and physical space) and intangible (services, events, and experiences). Morrison (2010) introduced 4P's as people, packaging, planning and participation. According to Middleton and Hawkins (1998), and Pomeroy et al. (2010), tourism marketing mix includes price, product, place and promotion. Furthermore, Kotler et al. (2014) believed that marketing mix of tourism is the same as 4P's in traditional marketing mix. In their studies, Pomeroy et al. (2010) stated that no optimal model is available for tourism marketing mix. Therefore, in this study, the traditional 4P's marketing mix was applied, consisted of price, product, place and promotion.

## 2.6 Khorasan Razavi Province and Food Diversity

Khorasan Razavi province enjoys a great variety of climates. This climatic and geographical diversity is a turning point for the diversity of food products prepared in the cities of this province. In addition, the proximity of some of the county's provinces to foreign borders has partly influenced the habits of border residents. Furthermore, the livelihood and the production of food ingredients are directly related to the type of food and how it is prepared, and this has been very influential in shaping the habits of the inhabitants. Therefore, the villagers have matched their cooking style with their lifestyle.

The presence of different ethnicities with different cultural elements is another point regarding the food diversity of the province. For example, in Sabzevar, different ethnicities live including Turk, Kurmanj, Fars and Baluch. The combination of cuisines from some of the cities of the province such as Torbat Heydarieh is also very simple, and butter, dried whey, yogurt and cream are the primary foods consumed with bread.

In addition to searching for answers to the main research questions, comprehensive information was collected on food and beverages prepared in Khorasan Razavi province. To this purpose, different sources were employed, including cook books, anthropological studies by Cultural Heritage and Tourism Organization in all counties of this province, and interviews with local people. In addition, the local foodfestivals were visited to match the information found

in books with cooked food found in the event. Table 1 shows the diversity of foods, beverages and the tourism potential of the province in culinary tourism.

**Table 1. Potential of culinary tourism in Khorasan Razavi**

Classification	County	Foods and beverages
Local and Traditional Cuisines	Mashhad	Shashlik kebab, digcheh Mashhadi, sholeh Mashhadi, kuku shirin, ghormeh
	Neyshaboor	Khorak adas badenjan <sup>1</sup> , khoresh-t-e rivas, eshkeneh rivas <sup>2</sup> , kuku gharch <sup>3</sup> , halim <sup>4</sup> neyshaboori, zarak joosh, keshteh joosh.
	Sabzevar	Kame joosh <sup>5</sup> Sabzevar, Aash masti Sabzevar, dorgeh, ghisaveh, tiki, gharash sholoon, shir ali sholoon
	Tayebad and Torbat Jam	Kashk zard, gholoor torsh, khelowk
	Khwaf	Gholoor, eshkeneh baneh <sup>6</sup> , goozar polo
	Dargaz	Aash ghareh migh, ghare blamagh, mastava, keshteh joosh, mashoo, balkeh, ghabeli, yakhni polo
	Torbat Heydariyeh	Toogi, poolani, polo haft gookesht, eshkeneh rob-be anar <sup>7</sup> , jan-e amme
	Common cuisines	Balghoor shir, goormast, aash lakhshak, changi (changali)
Local beverages	Common beverages	Grape syrup, cherry syrup, berry syrup, rhubarb syrup, almond tea, thyme tea, chamomile tea
Local breads	Common types of bread	Rowghan jooshi, ghalifi, taftoon, komaj, fatir, panjeh kesh, nan ghotolmeh, nan chazmeh, nan anjeh, nan saji, nan shirdar, nan zorrat, nan jow, nan jezlagh, jajaneh choori, nan chalpak, nan shirmal, nan jowz rowghani, nan jowz piyazi, nan khashkhashi, nan alafi
Confectionery	Common sweets	Ginger chocolate, kak Razavi, various noghl <sup>8</sup> (walnut, saffron etc.) Halva jowzi, halva siah, halva shireh, halva konjedi, halva sowhan
Medicinal cuisines	Dargaz	Shoorva berenj, porzaneh, holveh sholeh, ghoymagh
	Torbat Heydariyeh	Zireh tu, aghayi, maghoot, ab-e joojeh khorooos
	Common medicinal cuisines	Various soups, aash, porridge, kachi

**Source:** Primary data from 14 destinations in Khorasan Razavi

<sup>1</sup> Lentil and eggplant dish with lemon juice, onion and saffron

<sup>2</sup> Rhubarb broth

<sup>3</sup> Mushroom omelet

<sup>4</sup> Meat and wheat porridge

<sup>5</sup> Broth made with a dairy product like Greek yogurt, eggs and spices

<sup>6</sup> Pistacia atlantica broth

<sup>7</sup> Pomegranate souse broth

<sup>8</sup> Sugar-coated almonds, walnut, etc.

### 3. Literature Review

Although few studies were found on culinary tourism mix, some of the studies conducted on culinary are following:

[Bertella and Vidmar \(2019\)](#) works on the face global food challenges through tourism experiences. The main goal of this article is to incite reflections on the potential commitment of food tourism experiences to accomplish the sustainable development scopes for annihilating craving and ailing health. In accordance with the inventive investigative practice in scientific inquiry, this research expands a futuristic scenario inspired by a factual company. The case depends on thoughts got from on educational and food tourism and entrepreneurship, more precisely ecopreneurship. Food tourism can offer a great chance for discussing food challenges in the context of ideas and projects to alleviate hunger and malnutrition. This research proves that envisioning such prospects and project is challenging because of the complexity of the issue. This investigation recommends that despite some limitations, educational food tourism experiences might go well beyond the issues of regional development, localism and authenticity. Practitioners, including tourism entrepreneurs and private and public food and tourism organizations, might be essential to exploring alternative food tourism futures in ways that truly contribute to urgent global challenges.

[Shaterian et al. \(2018\)](#) carried out a research titled “Modeling the Factors Shaping Culinary Tourism and Its Impact on the Loyalty of Tourists of Esfahan City”. This was an applied research with respect to its purpose and its method was analytical descriptive. The statistical society of this study were the domestic and foreign tourists in Esfahan City. The sample size was calculated using the Cochran Formula which resulted in 384 tourists, 246 domestic and 138 and foreign tourists were questioned. The experts' judgment technique was used for the validity assessment and the reliability assessment was carried out using Cronbach's Alpha coefficient. And for modeling, the structural equation technique was employed. The results indicated that culinary tourism influenced the amount of satisfaction of domestic and foreign tourists in Esfahan City. It was also stressed that there is a relationship between the positive experience of domestic and foreign tourists from the local food and the economic income it generates. The results of the application of structural equation modeling (SEM) technique are as follows: The tourists' familiarity with the native food of Esfahan, with factor load of 26/0, and positive mental attitude with regard to the native food of Esfahan, with factor load 22/0, have a considerable impact on the tourists' tendency to experience the culinary tourism and various traditional food of Esfahan again.

[Sorour et al. \(2017\)](#), investigated “the Determination of the Effective Variables in Food Tourism Development Model in Iran”. The data were collected using interviews and questionnaires, afterward, the relationship between variables of food tourism development was determined and the whole data were analyzed in an integrated manner through an analytical methodology

called the Interpretive Structural Modelling (ISM), finally, the MICMAC analysis was employed in order to specify the effectiveness of the variables on each other. The results indicated that the factors such as providing healthy food, observing health guidelines during preparation and serving the food, with the effect degree of 9, have the major impact on food tourism development in Iran, also, holding festivals and promotion of local food have an important role on the creation of this field.

Vedadhir et al. (2015) conducted a study titled “The Ethnographic Study of Local Food in Fooman County” The culinary culture of Fooman county was described through the multi-sited, interpretive and systemic ethnographic method, the behaviors and customs pertaining to the food in warm seasons were studied, and the results were extracted and presented as themes or components of the traditional food system. Some of these themes include main ingredients in the local food in Fooman, linguistic representation of food, tablecloth, side dish, the origin of foodstuffs, kitchenware, identity, cultural mix, health, foods in ceremonies.

Zamani Kasmani (2015) carried out a study with the purpose of investigating “the Role of Local Food in Developing the Tourism Concentrating on the Marketing and Economic Development amongst People Working In Tourism Businesses in Rasht City”. A structured questionnaire was employed to carry out this survey research. This researcher found that local food has the potential to develop tourism, however, it has not been used properly in the marketing.

Izadi (2015), investigated “the Food Tourism, an Opportunity for Sustainable Development in Iran”. This study was conducted on the basis of the descriptive and analytical method and investigated the researches carried out in this field and the analysis of the various dimensions of food tourism and its use. The findings of this study indicated that food tourism in some countries included this field in their planning enabled them to impacts the sustainable rural and regional development that resulted in economic prosperity and forming a unique identity for these communities. The initial investigations demonstrated that Iran has significant potential in food tourism and this country could achieve sustainable rural development by overcoming the challenges and problems in this regard.

Minihan (2014) determining the cookery and culinary tourism experience. This project was a creative investigation of the culinary and gastronomy tourism that evaluated and built up a comprehensive model of culinary tourism experience from the perspective of the supply sector.

Yo Chen (2013) investigated the Role of Food in the Experience of Tourists. This manuscript, tried to locate a profound knowledge into the tourist experience by breaking down its different stages, impacts and results, to accomplish a superior comprehension of the the role of food in the tourist experience.

Redl (2013) evaluated the the culinary tourism for youthful grown-up voyagers and its association with destination management. This project indicated young tourists have an extraordinary enthusiasm for consuming food and local beverages during holidays. There is likewise an incredible willing for culinary activities in tourists.

Mortazavi (2013), conducted a study titled “The Role of Demography on Food Tourism” Statistical society of the research included all domestic tourists visiting Mashhad, Tehran, and Shiraz within the time period from May through September 2013. This survey research was carried out using a structured questionnaire. Analyzing 387 questions indicated that all demographic variables investigated in this study including age, sex, academic degree, marital status, occupational status, and income, could affect food tourism. Also, categorizing the tourists demonstrated that there are three tourism clusters: culinary tourists, experimental tourists, and general tourists. Accordingly, the findings indicated that there is a significant relationship between these three clusters and age and occupational status.

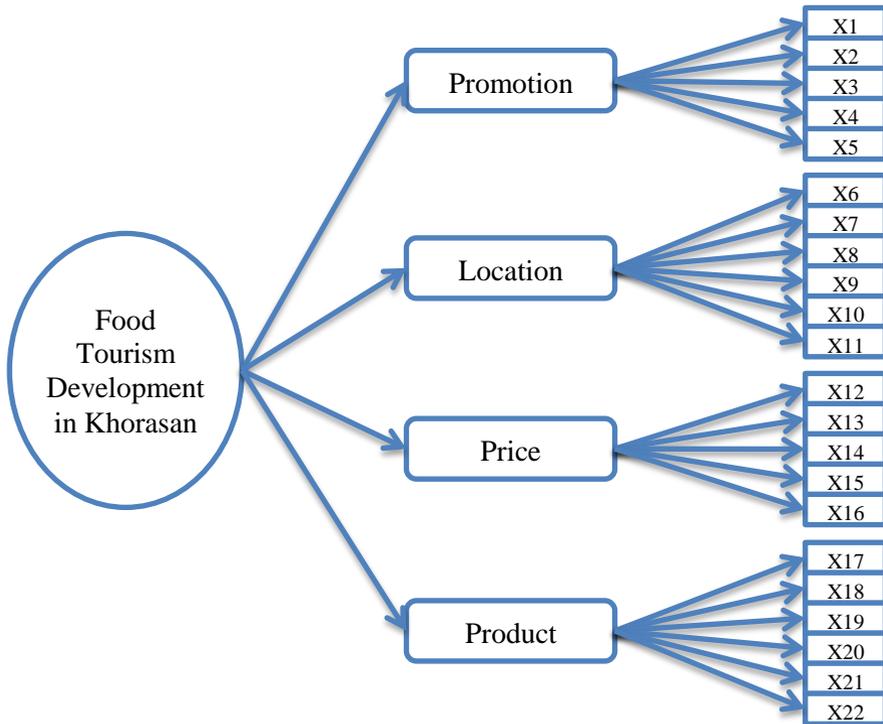
Lee (2012) inspected the inventive food economy and culinary tourism through place branding. This project gave an applied premise to tourism industry as a major aspect of an innovative food economy through brands, and dissected the development of culinary bunches in rustic networks. It likewise centered on generally new ideas in creative food economy, eco-friendly culinary tourism and location brand that added to the arrangement of culinary bunches in rural advancement.

Yurtseven and Kaya (2011) investigated the local cuisines in local restaurants menus. The exploration was done at the thought processes influencing the utilization of neighborhood foods by tourists were talked about. The specialists recognized five persuasive variables, to be specific the quality and taste of food, valid and genuine experience, rural development, wellbeing concerns and procuring information. So, the quality of cuisines is presented as the first and most significant persuasive factor influencing the utilization of local cuisines by the tourists.

Jazayeriyan (2012), carried out a study in order to identify “the Factors on the Demand for Food and Beverages in Shiraz from the viewpoint of European Tourists”. This study was survey-descriptive research that was carried out using questionnaires and library resources. After analysis of the findings of the research, 8 factors were identified as main factors impacting the consumption of the local foods and beverages in Shiraz by European Tourists visiting Shiraz City, afterward, the effective factors were prioritized. The impact of the demographic factors on the effective factors was investigated and it was found that the following factors have an impact on the effective factors: sex, occupational status, and nationality.

Based on the literature review, the researcher investigated the impact of mixed marketing elements on food tourism development and designed the conceptual model of this study which is presented in figure 1.

This research was aimed to prioritize factors influencing culinary tourism development using marketing mix strategy. The important difference of the present study is that according to the researcher's studies, firstly, this study is done for the first time in Khorasan Razavi and secondly, people's attitudes towards creating and diversifying local foods have been promoted and branding. While previous studies have focused on hotels and restaurants in general. Furthermore, Iranian food and drink is largely unknown, even for Iranians, effective measures must be taken to identify food and beverages for society. Not only will a large part of the Iranian cultural heritage be revealed through the proper presentation of local food and drink, as well as the use of an appropriate information system, but also a diverse collection of local food will be offered in restaurants. As a result, it will lead to consumer satisfaction and people's demand for investment in the industry food and beverages.



*Figure 1. Conceptual Model from Review of the Literature*

Table 2 describes the variables of the conceptual research model.

**Table 2. Descriptions of conceptual model items**

Factor	Code	Sub criteria	Factor	Code	Sub criteria
Product	X <sub>1</sub>	Supplying quality food products	Price	X <sub>12</sub>	Supervising the prices of local restaurants
	X <sub>2</sub>	Supplying local food souvenirs		X <sub>13</sub>	Introducing price dispersion to the wide range of indigenous food products
	X <sub>3</sub>	Supplying local food souvenirs		X <sub>14</sub>	Matching prices to product quality
	X <sub>4</sub>	Adding local cuisines to hotel menus		X <sub>15</sub>	Employing influential pricing policies
	X <sub>5</sub>	Branding food products		X <sub>16</sub>	Controlling and stabilizing food prices
Location	X <sub>6</sub>	Using great figures and chefs to introduce indigenous cuisines	Promotion	X <sub>17</sub>	Facilitating tourist access to food attractions
	X <sub>7</sub>	Introducing food attractions by tour guides		X <sub>18</sub>	Distributing food attractions in different regions by their capacity
	X <sub>8</sub>	Introducing special food products of the province		X <sub>19</sub>	Distance of food attractions from rapid transportation networks
	X <sub>9</sub>	Holding local and indigenous food festivals		X <sub>20</sub>	Spatially optimizing locations providing local food products
	X <sub>10</sub>	Holding food-related cultural events		X <sub>21</sub>	Health and quality of food attractions and restaurants
	X <sub>11</sub>	Using special discounts for local and indigenous cuisines		X <sub>22</sub>	Selling local food souvenirs online

*Source: from Review of the Literature*

#### 4. Materials and Methods

This applied and cross-sectional study was carried out using a descriptive design. This qualitative study was conducted using questionnaire and quantitative techniques to rank factors influencing culinary tourism. In this research, first, a review of literature was provided and the questionnaire was designed according to the indices and then, it was distributed among the participants. Then, the most important factors influencing the culinary tourism development were identified using the confirmatory factor analysis, and using FAHP, the weight of each index was estimated and, they were ultimately ranked.

#### 4.1 Population and Sample

The statistical population included all experts in tourism and hotel management as well as experts in the food industry, cookery and restaurant management in Khorasan Razavi province. Boomsma (1982) proposes that the sample sizes  $\geq 200$  are appropriate for most research in SEM. Hence, 200 participants were selected through convenience sampling using expert review. In the second phase, for prioritizing the criteria and sub criteria, the most important factor was not the number of participants; rather it was their selection, since their responses were related to the main criteria and sub-indices, and the degree of importance of each of them. Therefore, the sample population included experts on the research area so that they can participate effectively in decision-making. Saaty (1992) believes that 10 experts suffice for paired comparison studies. In most cases, less than 10 experts are available, and this is a common approach used to solve Multiple Criteria Decision Making (MCDM) problems (Habibi et al., 2015). At least one of the following inclusion criteria should be met for the selection of experts:

- Having a master's degree in tourism
- Having at least 10 years of experience in tourism, food industry or reception
- Managers of affiliated tourism organizations

#### 4.2 Reliability of the Questionnaire

In order to evaluate the reliability of the questionnaire, Cronbach's alpha was used. Nunnally (1978) has indicated 0.7 to be an acceptable reliability coefficient but lower thresholds are sometimes used in the literature. The reliability co-efficient for the items of each construct are assessed and are given below in Table 3.

**Table 3. The reliability coefficient of research dimensions**

Dimensions	Reliability coefficient of each dimension	Total reliability coefficient
Product Factors	0.773	0.868
Distribution Factors	0.707	
Price Factors	0.723	
Promotion Factors	0.780	

*Source: Primary Data*

The reliability of product factor is 0.773, distribution factor is 0.707, price factor is 0.723, and promotion factors is 0.780 the coefficient for all the constructs are above 0.7, which exceeds the common threshold value recommended by (Nunnally 1978). Therefore all the items in the construct are reliable.

### 4.3 Reliability of the Expert Questionnaire

Given that the questionnaire is based on the Saaty's hierarchical analysis, the compatibility rate was used to evaluate the questionnaire. Accordingly, if the incompatibility of the pair comparisons is greater than 0.1, it would be better to revise the comparison (Saaty, 1992).

## 5. Results

In this research, the most important subcriteria were identified using first- and second-order confirmatory factor analysis, and then among MCDM prioritizing techniques, the FAHP method was used for weighting the most important factors and subcriteria for prioritization.

Descriptive statistics indicated that, among 200 respondents, 8% (16 People) of them were under 30 years old, 35.5% (71 People) of them aged between 30 and 40 years old, 44.5% (86 People) of them aged between 40-50 years old, and 12% (24 People) of them were older than 50 years old. In terms of education level, 6% (12 People) of participants held high school diploma or less, 13% (26 People) of them held associate degrees, 44.5% (89 People) of them were bachelors, 32.5% (65 People) of them were masters and 4% (8 People) of them were PhD degree holders.

Then, first- and second-order confirmatory factor analysis was employed to measure study variables. First, the confirmatory factor analysis was used for research variables to assess the validity of the questionnaire, which included four variables with 22 items.

The results of scale factor analysis used after four stages of saturation of the model are presented in Table 4. The factor loading observed in all cases was greater than 0.3, indicating that the correlation between hidden variables (dimensions of each of the main structures) and acceptable variables was acceptable. Once the correlation of variables was identified, the significance test was performed. T-value was employed to evaluate the significance of the relation between variables. Given the significance evaluated at the 0.05 error level, if the t-value test is greater than the critical value of 1.96, then the relationship is significant. The results showed that, at confidence level of 95%, the t-value was found to be greater than 1.96, indicating that the observed correlations are significant.

**Table 4. the PLS software output for t-values and factor loadings of the research model's criteria**

Criteria	Subcriteria	Factor loading	t-value
Product	Supplying quality food products	0.61	11.09
	Supplying local food souvenirs	0.52	8.83
	Standardizing reception units	0.61	10.23
	Adding local cuisines to hotel menus	0.76	10.55
	Branding food products	0.67	10.54
Promotion	Using great figures and chefs to introduce indigenous cuisines	0.51	9.80
	Introducing food attractions by the tour guides	0.65	9.00
	Introducing special food products of the province	0.70	9.03
	Local food festivals	0.62	8.97
	Holding food-related cultural events	0.52	7.78
	Using special discounts for local and indigenous foods	0.25	6.61
Price	Supervising the prices of local restaurants	0.37	8.82
	Introducing price dispersion to the wide range of indigenous food products	0.52	9.21
	Matching prices to product quality	0.75	9.34
	Employing intrusive pricing policies	0.65	8.66
	Controlling and stabilizing food prices	0.68	9.51
Distribution	Facilitating tourist access to food attractions	0.45	9.09
	Distributing food attractions in different regions by their capacity	0.69	8.30
	Distance of food attractions from rapid transportation networks	0.66	8.59
	Spatially optimizing locations providing local food products	0.67	6.85
	Health and quality of food attractions and restaurants	0.62	8.77
	Selling local food souvenirs online	0.59	8.70

*Source: Research Finding*

The second-order factor analysis was used to study culinary tourism development. Therefore, while the relationship between visible variables (items) and hidden variables (factors) is determined, the compatibility of hidden variables with the main structure of culinary tourism development can also be investigated. Results are presented in Table 5.

**Table 5. Compatibility of factors with the structure of culinary tourism development**

Structure	Main factors	Standard factor loading	t-value	Confirmed / Not confirmed
Culinary tourism development	Product	0.92	7.66	✓
	Promotion	0.57	5.38	✓
	Price	0.65	5.12	✓
	Distribution	0.80	7.17	✓

*Source: Research Finding*

A significant relationship was found (standard factor loading) between each of the factors and the structure of culinary tourism development. T-value was over the critical value, i.e. 1.96 in all cases and therefore, the factors were found to assess the related structure well.

The next step was concerned with the goodness of fit of the model. The normal chi-square is one of the general indicators used for calculating free parameters with respect to the fitting indices, which is the chi-square fit index divided by the model's degrees of freedom. If it is less than 3, it is considered as favorable.

$$x^2/df = \frac{213.76}{194} = 1.101$$

In this study, the normal chi-square was equal to 1.101. In addition, the root mean square error of approximation value (RMSEA) was used in most of the confirmatory factor analyses and structural models as a main fitting index. If it is less than 0.05, it is considered as favorable. The RMSEA of 0.035 indicated that the model fitness is favorable.

### 5.1 Ranking Indices Using FAHP Technique

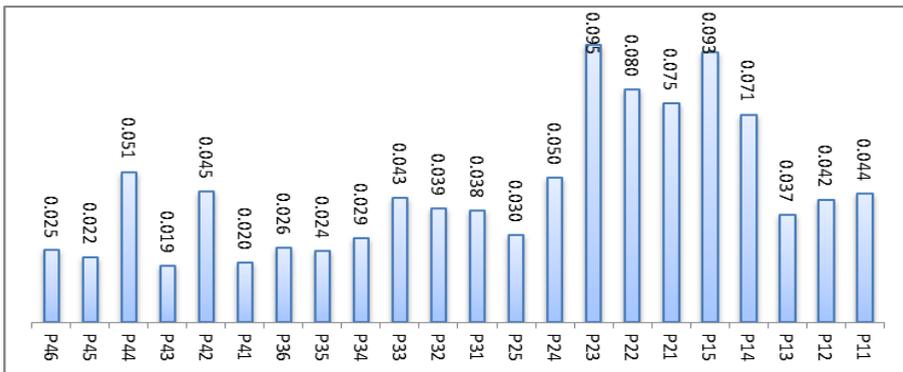
Using the second-order confirmatory analysis, factors and items of each factor were confirmed. Each factor was considered as the main criterion, and each item was considered as a sub criterion. The criteria and sub criteria of the study along with a numerical index are shown in Table 6 for easy access during the research. Then, the phases of analysis were done based on prioritizing the main criteria and each sub criteria in its own cluster by pairwise comparison, as well as determining the weight and the final priority of the indices.

As shown in Table 6 and figure 2, matching prices to product quality with a weigh of 0.095 is the most important indicator of culinary tourism development in Khorasan Razavi province. Food product branding with a weight of 0.093 ranked second. In addition, indicators including price diversity in a wide variety of indigenous food products and monitoring the prices of local restaurants, and adding local cuisines to hotel menus were of high priority.

**Table 6. Determining the final priority of indices using FAHP technique**

Criteria	Sub criteria		Initial weight	Total weight	Rank
Product P <sub>1</sub>	Supplying quality food products	P <sub>11</sub>	0.154	0.044	9
	Supplying local food souvenirs	P <sub>12</sub>	0.147	0.042	11
	Standardizing reception units	P <sub>13</sub>	0.129	0.037	14
	Adding local cuisines to hotel menus	P <sub>14</sub>	0.248	0.071	5
	Branding food products	P <sub>15</sub>	0.322	0.093	2
Price P <sub>2</sub>	Supervising the prices of local restaurants	P <sub>21</sub>	0.228	0.075	4
	Introducing price dispersion to the wide range of indigenous food products	P <sub>22</sub>	0.242	0.080	3
	Matching prices to product quality	P <sub>23</sub>	0.288	0.095	1
	Employing influential pricing policies	P <sub>24</sub>	0.150	0.050	7
	Controlling and stabilizing food prices	P <sub>25</sub>	0.091	0.030	15
Promotion P <sub>3</sub>	Using great figures and chefs to introduce indigenous cuisines	P <sub>31</sub>	0.193	0.038	13
	Introducing food attractions by the tour guides	P <sub>32</sub>	0.197	0.039	12
	Introducing special food products of the province	P <sub>33</sub>	0.215	0.043	10
	Holding local and indigenous food festivals	P <sub>34</sub>	0.145	0.029	16
	Holding food-related cultural events	P <sub>35</sub>	0.123	0.024	19
	Using special discounts for local and indigenous foods	P <sub>36</sub>	0.128	0.026	17
Distribution P <sub>4</sub>	Facilitating tourist access to food attractions	P <sub>41</sub>	0.112	0.020	21
	Distributing food attractions in different regions by their capacity	P <sub>42</sub>	0.245	0.045	8
	Distance of food attractions from rapid transportation networks	P <sub>43</sub>	0.106	0.019	22
	Spatially optimizing locations providing local food products	P <sub>44</sub>	0.280	0.051	6
	Health and quality of food attractions and restaurants	P <sub>45</sub>	0.122	0.022	20
	Selling local food souvenirs online	P <sub>46</sub>	0.135	0.025	18

Source: Research Finding



**Figure 2. The final priority of indices using FAHP technique**

In order to validate the results of the AHP, the consistency ratio (CR) is calculated using the formula,  $CR = CI/RI$ . The value of RI is related to the dimension of the matrix. It should be noted that consistency ratio lower than 0.10 verifies that the results of comparison are acceptable (Saaty, 1980). In this study, the consistency ratio of product, price, promotion and distribution were equal to 0.039, 0.049, 0.014 and 0.046, respectively, which were less than 0.1, indicating that the comparisons were reliable.

## 6. Concluding Remarks

Nowadays, the tourism industry is known as one of the largest industries in the world, consisting several divisions and subdivisions. Different countries in the world attempt to identify the capabilities of different branches of tourism industry, and provide a platform to attract tourists. Iran is known for its religious and historical-cultural tourism in the world. However, for attracting a wider range of tourists, firstly the potentials of the country in various tourism sectors should be identified and realized through planning. As stated in the present study, Khorasan Razavi province has the potential for growth and development of culinary tourism. To this purpose, a successful marketing plan must be developed after planning and investment in this sector. In addition, one aspect that can bolster tourism development is precisely identifying its current status through tourism marketing. Four P's model of marketing mix is one of the strategies considered in tourism marketing, and it is a concept that can be used in explaining the current situation and planning in order to achieve the intended status of tourism industry in a region. In this regard, in this study, the factors influencing the development of culinary tourism were identified with respect to marketing mixes, and the factors such as branding of food products and matching prices to product quality were among the most important factors in the development of culinary tourism in Khorasan Razavi province. Although culinary tourism in Khorasan Razavi province has not been introduced with this label, the evidence suggests that the province has had many capacities in this field so far and some activities have been undertaken in this regard. For example, shashlik is known as the brand of Shandiz city in Iran and the world, which is considered as a strong point for development of culinary tourism in the province. During this study, the author attended several provincial and local food festivals, meetings of hotel associations on food and beverages, and the first Slow Food Seminar in Mashhad to observe expert discussions, particularly regarding the current status of culinary tourism in the province. Findings suggested that Khorasan Razavi province, especially Mashhad, has been successful in introducing several cuisines such as sholeh and shashlik, and Mashhad restaurants are very active, however, there are still plenty of plans to be implemented for development of culinary tourism. In the case of local food souvenirs such as barberry and dried fruits, actions have been taken in the province; however, they still need to be branded. The poor performance of the

province authorities on presenting local beverages was found as another point raised when interviewing the activists in this field , which despite the variety of beverages in the province, they are not well-known by the tourists, and even some local residents. The promotion has been quite weak in this regard, and this sector must be emphasized more. In addition, the following apply suggestions are provided for the development of culinary tourism;

- Considering the priorities of the factors mentioned in this study, matching prices to product quality provided to tourists is of great importance.
- Branding of local food souvenirs in Khorasan Razavi province, such as noohl and rock candy, saffron, spices of Mashhad, etc.
- Creating price diversity and offering a wide variety of indigenous food products to attract various groups of tourists with different levels of income in Khorasan Razavi province.

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