



The Effects of Urban Logistics and Destination Competence on Tourism: Comparative Analysis of Gastronomy Cities of Afyonkarahisar, Hatay and Gaziantep

*Kentsel Lojistik ve Destinasyon Yeteneklerin Turizme Etkileri: Afyonkarahisar,
Hatay ve Gaziantep Gastronomi Şehirlerinin Karşılaştırmalı Analizi*

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Abstract

People migrate from rural areas to urban areas to have a better standard of living and education, healthcare and job opportunities. Along with trade and tourism, the high living standards of citizens are developing due to communication and transportation. The reason why gastronomy cities want to join the UNESCO Creative Cities Network is that they want to increase the living standards of the city and country residents by taking the share they want from the tourism market in the world. Therefore, logistics and destination competences are important for gastronomy cities. In the literature review, it was seen that there was no study on the relationship and effects of urban logistics and destination capabilities with gastronomy cities. For this reason, this study was conducted as a comparative research on the logistics and destination capabilities of gastronomy cities. It is seen that Afyonkarahisar ranks first in gastronomy and destination capabilities. However, It is seen that Afyonkarahisar ranks 10th in the life index of Turkey. Hatay ranks the first in the life index. Gaziantep and Afyonkarahisar, which are gastronomy cities, have the same ranking in livability. Furthermore, considering sustainability, Afyonkarahisar ranks first with the highest score. In terms of mobility, Gaziantep is the first and Afyonkarahisar ranks the second.

Keywords: Logistic competence, destination competence, gastronomy cities, tourism

Paper Type: Review

Öz

İnsanlar daha iyi bir yaşam standardı, eğitim, sağlık hizmetleri ve iş fırsatlarına sahip olmak için kırsal alanlardan kentsel alanlara göç ederler. Ticaret ve turizmin yanı sıra iletişim ve ulaşım sayesinde vatandaşların yüksek yaşam standartları gelişmektedir. Gastronomi şehirlerinin UNESCO Yaratıcı Şehirler Ağına katılmak istemelerinin nedeni, dünyadaki turizm pazarından istedikleri payı alarak şehir ve ülke sakinlerinin yaşam standartlarını yükseltmek istemeleridir. Bu nedenle lojistik ve destinasyon yetkinlikleri gastronomi kentleri için önemlidir. Literatür taramasında, kentsel lojistiğin ve destinasyon yeteneklerinin gastronomi kentleri ile ilişkisi ve etkileri üzerine bir çalışmaya rastlanmamıştır. Bu nedenle bu çalışmada, gastronomi şehirlerinin lojistik ve destinasyon yetenekleri üzerine karşılaştırmalı bir araştırma olarak yapılmıştır. Afyonkarahisar'ın Türkiye'nin yaşam endeksinde 10. sırada yer aldığı görülmektedir. Yaşam endeksinde Hatay birinci sırada yer alırken, Afyonkarahisar, gastronomi ve destinasyon yeteneklerinde birinci sırada yer almaktadır. Gaziantep ve Afyonkarahisar gastronomi şehri yaşanabilirlik açısından aynı sıralamaya sahiptir. Sürdürülebilirlik açısından Afyonkarahisar gastronomi şehri en yüksek puana sahip olup ilk sırada yer almaktadır. Hareketlilik açısından Gaziantep birinci, Afyonkarahisar ikinci sıradadır.

Anahtar Kelimeler: Lojistik yetenekler, destinasyon yetenekleri, gastronomi şehirleri, turizm

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Introduction

People migrate from rural areas to urban areas. The main reasons for this movement is to desire for a better life standards and employment. In cities with increasing population, urban logistics takes more attention. They not only increases life quality of individuals but also ensures the efficiency and effectiveness of global supply chains (Gürel and Asan, 2018, p. 225). With the development of logistics, urban logistics is one of the concepts that need to be studied and applied for operations in a global market. Urban logistics is an approach, related to economics, mathematics, social sciences, and environmental science. Sustainability of economic growth and development is likely with the increase in urban opportunities. It is expected that the city population will increase progressively. Depending on the increase, the developments in economy, commerce, logistics, environment and similar issues will affect countries and global world. Urban logistics will quickly affect individuals and ensure the quality of life standards at a certain level (Akben and Bahçeci, 2018, p. 211).

Logistics activities gain importance with the feature of transportation to attain space and time beneficial to products and services, eventually transportation is essential in effectiveness of the entire logistics process (Yorulmaz and Birgün, 2016, p. 313). Information and communication technologies also contribute to the balancing of the market information. Changes in the market make it difficult for businesses to find new customers and retain existing customers markets (Ölmez ve Mutlu, 2017, p. 79). One of the elements that enable countries to gain commercial advantage in this competitive environment is logistics. For this reason, the importance of logistics has increased today. Logistics activities can increase the market volumes and market shares of countries. There is a positive relationship between logistics performance and economic growth (Aksungur and Bekmezci, 2020, p.20).

The effectiveness of a process is related to the effective use of the competences involved in processes. Businesses can gain a competitive edge not only by determining their competences but also establishing the competence they need. Because of these competences; businesses play a key role in competing. Competence; is defined as the coordination of complex skills and functional activities through the use of organizational processes. The competition between the sectors is constantly increasing and getting more intense with the globalization. With the technological developments and the change of political and economic policies followed by the governments, the widespread of communication, businesses should have managerial, organizational, dynamic and strategic competences. One of the foremost of these competences is the logistics competence of the businesses (Bakan et al., 2017, p.207). For this research, literature is reviewed and the logistics competences of the cities are examined. As a result, logistics competences of the gastronomy cities are determined.

In the studies on logistics competences in the literature, the elements of them can be stated as follows; organizational performance, human resources, reliability, consistency, innovation, delivery speed, service quality, cost, flexibility, and the emphasis is placed on the compliance of the service ability of suppliers with customer requirements (Bakan et al., 2017, p. 207).

1. Literature Review

In the studies on logistics competences in the literature, the elements of logistic competence are stated as follows; organizational performance, human resources, reliability, consistency, innovation, but mostly speed of delivery, service quality, cost, flexibility. The emphasis is placed on the service ability of suppliers with customer requirements (Bakan et al., 2017, p.207). Studies related to city logistics in Turkey, are shown below in Table 1.

Table 1. Studies on urban logistics (conference papers & articles)

Authors	Title	Year	Source
Erdurumlu, R.M.	City Logistics and Freight Village Application	2006	Master's Thesis
Erdir, A.	City Logistics: An Application for İzmir	2013	Master's Thesis
Akçay, M.E.	A Research on Interaction of Urban Freight Transportation and E- Commerce	2013	Master's Thesis
Bilişik, Ö.N.	Urban Logistics center location selection: Fruits and Vegetables Market Hall Application	2014	Doctorate Thesis
Kunter, U.C.	City logistics system design under cost uncertainty	2015	Master's Thesis
Tanyaş, M., Bedük, S.	Green City Logistics: A Literature Review	2015	Conference Paper
Aydınalp, Z.	A Multi-Criteria Decision Making Approach for Selection Site for Urban Distribution Center and the application of Istanbul	2016	Master's Thesis
Ö.Turan, K.	Intermodal Transportation in City Logistics: An Application for Istanbul	2016	Doctorate Thesis
Yardımcı, İ.	Vehicle Routing In City Logistics With A Case Study	2016	Master's Thesis
Öztürk, Z., M., Aydın,	City Logistics; İstanbul	2017	Conference Paper
Dağıstan, B., Akkaya, M.A	City Logistics and Local Governments	2017	Conference Paper
Küçük, O. ve Diğ.	Determining the importance of Performance Scale of Urban Logistics and Logistics Village: An example of Kastamonu	2017	Conference Paper
Aydın, G.T.	In city logistics an application for Istanbul	2017	Master's Thesis
Örnek, Ö.	Investments in Urban Transportation in Istanbul and the Impact of these Investments on Urban Logistics	2018	Master's Thesis
Yeşilyurt, E.	The Relationship between Urban Logistics, Distribution Logistics and Firm Performance: A Study in Kastamonu	2019	Article

Source: Savrın and Mutlu, 2019, p. 371.

As it can be seen in Table 1, although there are many studies on urban logistics, it has been observed that there is no study on the logistics competences of gastronomy cities.

The effectiveness of a process is related to the effective use of the skills in the processes. Businesses can gain competitive advantage only by determining their competences or establishing the competence system they need. Competences play a key role in the competition. A competence is defined as the coordination of complex skills and functional activities with the use of organizational processes (Bakan et al., 2017, p. 207).

Some studies on other urban logistics obtained as a result of the literature review are shown below in Table 2.

Table 2. Articles about urban logistics

Author	Year	Subject	Method
Munuzuri ve ark.	2004	Solutions and initiatives that local governments can take to develop Urban Logistics	Literature Review
Goldman ve Gorham	2006	Importance of mobility, liveability and smart sustainable transportation systems for urban logistics.	Literature Review
Dablanc	2007	The slowness of Urban Logistics services in meeting the needs of cities	Field Work
Ambrosini ve Routhier	2007	Comparison of developed countries in Europe, Asia and America in urban logistics	Case Study
Dablanc	2007	The slowness of Urban Logistics services in meeting the needs of cities	Field Work
Alarcon ve ark	2012	Competitiveness of logistics market in the metropolis	Case Study
Betanzo	2012	Developing a methodology to evaluate and score the entire urban freight system	Literature Review / Field Work / Questionnaire
Quezada ve ark. He ve Cheng	2012	Analysis of key factors in urban logistics development	Decision Support System / Interview
Dexheimer ve ark	2013	Urban perception of logistics activities in the city	Interview / Questionnaire
Bakar ve ark.	2014	Classification of logistics performance measures	Interview
Comi ve Rosati	2013	Creating a simulation system and urban logistics analyses	Demand Model
Amaral ve Aghezzaf	2015	Optimizing Urban Traffic Congestion	Optimization
Anand ve ark.	2015	Defining Urban Logistics Criteria, models and targets	Literature Review

Source: Kasımoğlu, 2018, p. 20-21.

Both in Table 1 and Table 2, it has been observed that there is no study and comparison about the logistics competences of gastronomic cities. Because of this reason, this study was created on the comparison of the logistics competences of gastronomy cities.

1.1. Logistics

The origin of the word logistics comes from to the ancient Greek word λόγος (logos) and λογιστικός (logistikos) means "applied arithmetic", "rationality", "ability to calculate". It is also claimed that the concept of logistics, which means "the science of calculating" and "skillful in calculating" in encyclopedias is a combination of the words "Logic" and "Statistics". These words express "statistical logic" in Turkish (İstanbul Development Agency, 2014, p. 20).

Logistics derived from the Greek word Logitikos is first used in the armies. After World War II, it had uses in the field of businesses and rapidly developed after the 1950s. Then, it became a separate discipline (Ölmez and Mutlu, 2017, p. 80). "Logistique" in French has a meaning of barracks-mansion place. The concept of logistics is obtained from the concepts of soldiers' mansion, calculation and logic.

Logistics management is defined as the integration of all movements and storage of materials between the origin and destination points. Logistics management starts with the integration of transportation and warehousing activities and expands itself by adding elements such as customs clearance, insurance, packaging and value added services, inspection and surveillance, stock management, order management to these activities. Logistics is a concept that always exists as long as there is a difference between production and consumption points (İstanbul Development Agency, 2014, p. 7)

Logistics can be defined as a tool for the movement of raw materials, goods and people to the desired at the right place and at the right time. Logistics is an important function and an

important element of modern transportation systems in both national and global world. It is clear that logistics is supported by the development of supply chain concepts, centralization of production and globalization (İncaz, 2015, p.149).

There are different definitions of logistics defined by logistics professionals. The Council of Supply Chain Management Professionals (CSCMP) define logistics as "a stage of the supply chain process that plans, executes and controls the flow and storage of goods, services and related information from the point of production to the point of consumption efficiently in order to meet customer requirements". This definition does not include the actions of people. When we evaluate the movements of people in this situation, we can express logistics in general (Akben et al., 2018, p. 212).

The concept of logistics is the realization and planning of the forward and reverse flow of products, services and information from the beginning point to the consumption point effectively and efficiently to meet the needs of customers. The increasing population and economic growth in urban areas have brought increasing demand for products and services by commercial and individual users. This increase in demand causes more congestion in traffic, increase in noise and air pollution, and increase in costs such as energy consumption and decrease in safety. For this reason, the importance of the concept of urban logistics has increased in recent years and the concept has become more important. These definitions contain information about the efficient and effective transportation of products within the city, taking into account the congestion caused by the loads, safety and the negative effects on the environment (Savrun and Mutlu, 2019, p.365). Logistics is the process of storing, planning, implementing and controlling the products, starting from the procurement stage of the raw material to the consumption of the product to meet customer demands and needs (Yangınlar and Bal, 2019, p. 154).

Logistics includes the effective and efficient planning and implementation of many activities that control and cover transportation such as creating, designing, information flow, warehouse management and stock management related to logistics processes. Logistics also has elements such as information sharing, planning, organizing, organization, coordination and control in its nature. According to the point of view that, the main goal of logistics is to satisfy the customer and logistics is to present the right product and service to the customers in the right place, at the right time, under the desired conditions and in a way that will make the greatest contribution to the business (Yorulmaz and Birgün, 2016, p. 314).

The Council of Supply Chain Management Professionals (CSCMP) defined logistics as the process of planning, implementing and supervising the necessary procedures for effective and efficient transportation and storage of all products and information flow, including services in accordance with consumer needs, including internal and external movements (inbound and outbound) from the starting point to the consumption point. For this reason, efforts to gain competitive advantage among countries in order to increase the quality of logistics service have required the measurement of global logistics performance (Aksungur and Bekmezci, 2020, p. 22).

Logistics is a system of processes involving the planning, execution and control of the physical flow of goods, services and information from the beginning point to consumption point in order to meet customer expectations. In short, they are activities that allow the right product to be delivered to the right customer at the right place and the right time (Bilginer et al., 2015, p. 2). Logistics is also considered as the effective implementation of the actions that will ensure that the right product is available in the right amount, at the right time, in the right way, at the right place, at the right cost and for the right customer (Ölmez and Mutlu, 2017, p. 80).

1.2. Urban Logistics

There is no widely accepted definition of city logistics in the literature (Gürel and Asan, 2018, p. 226). Urban Logistics is very important for the quality of life of citizens and plays an economic role that benefits multiple stakeholders along the complex, dynamic supply chain (Akben and Bahçeci, 2018, p. 213). Urban logistics is a field of study that covers many issues regarding the organization of mobility, sustainability and livability in the city by playing an important role in the creation of efficient, environmentally friendly and safe urban freight transport systems, and then solving possible problems. In other words, urban logistics deals with logistics and transportation activities in urban areas and it is seen as the last stage of supply chain management (Savrun and Mutlu, 2019, p. 365).

As cities and urban life change and develop, many logistical activities are carried out in order to meet the needs of the city residents such as food and transportation. Urban logistics covers the planning, organization, implementation, supervision / control and evaluation of goods and passenger movements entering and leaving and within the city. The main purpose of scientific studies on the mentioned movements is to identify the negative effects and inefficient activities experienced in these movements and to develop appropriate solutions (Akben and Bahçeci, 2018, p. 212).

The effects of urbanization, urban transformation and change in lifestyles have to be used in predicting the logistics needs. Cities must be more livable spaces for sustainable development. Urban logistics requires the development of strategies in planning and management, urban transport, safety and security, human resources and education, research and development and innovation, information and communication technologies, energy efficiency and environment. Urban logistics, and transportation actions carried out by different companies; in urban areas, taking into account the energy consumption together with the traffic conditions and environmental effects, there are also optimization studies within the social market economy (İstanbul Development Agency, 2014, p. 46). Depending on the increase in the population in the cities, the economics, logistics, and developments in these issues will affect their country and even the world. In order for the quality of life and environmental conditions to be at a certain standard, the concept of urban logistics should be well analyzed and implemented (Akben and Bahçeci, 2018, p.215).

Urban logistics activities have goals on economy, efficiency, road safety, environment, infrastructure, management and urban structure. These components are essential for a higher quality of life. Urban logistics contributes to urban spaces and make them more attractive and productive. Urban logistics is one of the most debated topics in many cities around the world, dealing with current issues related to events such as: the rise of urbanization and the expected level of welfare of the citizens (Savrun and Mutlu, 2019, p. 366).

Table 3. Aim of urban logistics

Economical Aims	Environmental Aims	Social Aims
<ul style="list-style-type: none"> • Providing infrastructure within the framework of economic development • Providing cheap, fast and high-capacity logistics service • Reducing Congestion • Creating connections between rural area and urban area • Allowing different types of transportation. • Increasing the financial opportunities for logistics infrastructure 	<ul style="list-style-type: none"> • Increasing healthy and safe transportation opportunities • Reducing local, regional and global pollution caused by transportation • Reducing the use of space • Including environmental and economic aspects in transportation plans. • Establishing an environmentally oriented strategic structure in transportation 	<ul style="list-style-type: none"> • Ensuring that all segments of the society can benefit from transportation services • Reducing the negative effects of transportation policies on low incomes • Ensuring democratic participation in determining transportation policies • Preventing the harm to the historical monuments

Source: Savrun and Mutlu, 2019, p. 366.

Table 3 shows the aims of urban logistics. The objectives of urban logistics can be summarized under three titles. These are economical, environmental, and social aims.

1.3. Logistics Competences

Many different approaches are used in the classification of business competences. The most common of these approaches are according to the functional areas of the enterprises and the value chain. (Yorulmaz and Birgün, 2016, p. 314). In the literature, competences are the organizational business processes that the business performs better than its competitors with the behaviors, knowledge and skills that enable the company to reach superior performance compete successfully in the market and develop its markets (Acar and Zehir, 2009, p. 412).

Logistics competence is the attitude, competence, process, knowledge and skill required to provide the company with superb performance and competitive advantage. Logistics competences within the businesses play a key role in the integration of businesses into the global supply chain. They are seen as critical competences for the successful implementation of competitive strategies due to their ability to provide fluidity and reduce costs. Logistics competences significantly affect the competitive advantage of businesses. In the global competitive environment, one of the most important factors that create sustainable competitive advantage for businesses is effective logistics management. Advanced logistics competences are also needed for effective logistics management. Competitive advantage can be gained to the extent that the resources that affect the performance of the enterprises and the skills that have the ability to use them combine at an appropriate level. The success of an enterprise is closely related to its ability to transform its resources and talents into higher value than its competitors (Yorulmaz and Birgün, 2016, p. 316)

Competences can be expressed as the ability to carry out tasks and activities. For companies, competences are what the firm does with its equity and how it evaluates the result. They represent the methods firms use to influence performance. Gaining superior talents can provide superior performance for a company (Bakan et al.,2020, p. 416)

Today, the success of logistics management has a great importance in terms of countries and businesses. All logistics activities that have been successfully carried out are closely related to maintain the targeted customer service system at the ideal level and to minimize the cost at the end. In addition to logistics management, planning, implementation and control processes, are considered as the whole of what needs to be done to perform logistics activities such as financing, human resources, physical distribution, purchasing and production support in the most effective way (Bakan et al., 2017, p. 207) .

The purpose of the application of logistics strategies is to positively affect the competitive advantage. For this purpose, the logistic competences available in the organization should be effectively managed and continuously improved in order to achieve competitive advantage. The logistics competences of businesses are what the company does with its equity and how it benefits from it (Bakan and Şekkelı, 2015, p.399).

Table 4. Logistics capability dimensions, variables and published studies

Logistics Competence	Variables	Published Studies
Innovation	Innovation in services Process improvement Following and adapting to new systems and technologies Innovative and creative thoughts	Hayes, Wheelwright & Clark (1988); Fawcett, Stanley & Smith (1997); Lu & Yang (2006); Li & Dingti (2010) Lu & Yang (2010); Huang & Huang (2013).
Flexibility	Responding to unexpected changes in customer demands Flexibility in operations Flexibility in delivery location and time	Hayes, Wheelwright & Clark (1988); Fawcett, Stanley & Smith (1997); Morash & Lynch (2002); Shang & Marlow (2005); Lu & Yang (2006); Yang, Marlow & Lu (2009); Lu & Yang (2010); Yang (2012); Xue (2013); Huang & Huang (2013).
Speed and Reliability	Delivery without damage Delivery on time Fast Delivery Transport Documents Correctness	Morash, Droge & Vickery (1996); Fawcett, Stanley & Smith (1997); Morash & Lynch (2002); Cho, Ozment & Sink (2008); Yang, Marlow & Lu (2009); Yang (2012)
Information Systems and Integration	IT infrastructure Obtaining Information Sharing Information Integrated Information Technologies Load Tracking	Zhao, Dröge & Stank (2001); Lai (2004); Shang & Marlow (2005); Lu & Yang (2006); Yan & Sima (2007); Yang, Marlow & Lu (2009); Li & Dingti (2010) ;Yang (2012); Xue (2013)
Quality	Quality Tracking Tracking Complaints Solving Problems	Hayes, Wheelwright & Clark (1988); Fawcett, Stanley & Smith (1997); Wen (2012)
Cost	Logistics Costs Stock Costs Cost of Delivery Cost of Operation	Morash, Droge & Vickery (1996); Fawcett, Stanley & Smith (1997); Cho, Ozment & Sink (2008); Wen (2012).

Source: Yorulmaz and Birgün, 2016, p. 323.

It is seen on Table 4 that logistics competences have been mostly studied on transportation logistics. However, the sectors in which gastronomy cities affect the abilities have not been studied.

2. Method

The main motive behind this research is to analyze the logistics' effect on the lives of people worldwide. In the last 10 years, although there are studies in literature on urban logistics shown with the tables above worldwide, there are not many studies in Turkey. The main aim of this research is to give a perspective to the cities so that they can measure and compare their own place according to the places that may be best practices, creating action plans according to the gap analysis. The cities can also do the necessary improvements and search the urban logistics competences.

In the literature, it is seen that there are not studies on the logistics competences in UNESCO Creative Cities Network. For that reason, logistics competences of the gastronomy

cities are evaluated, and discussed accordingly. In which areas, there is a need of improvements will be discussed according to the study.

The study is based on the four main goals determined in the urban logistics vision established by Taniguchi et al.,(2001). It will be analyzed by grouping on mobility, sustainability, livability and resilience.

In addition, in this study, the structures that the logistics competences of gastronomy cities have affected or activated will be analyzed.

According to Taniguchi, 'Mobility' adjusts traffic capacity and ease the congestion of cities. 'Sustainability' is an important issue. Environmental protection and energy saving are the main topics. 'Liveability' has the subjects in quality of life, such as safety, health, silence, attractiveness of the place of living, etc. In Taniguchi's opinion 'city logistics improves the quality of life with developing new solutions for urban areas.' (Witkowski and Kiba-Janiakb, 2012, p.570).

In addition to the factors in Taniguchi's article mentioned above, in this paper, we recommend to add the factors of life index, gastronomy and tourism competence are also evaluated.

3. Findings

Below the table's index takes a value between 0 and 1, and the closer it is to 1, the better the life level. Data about the life index of gastronomy cities are shared below.

Table 5. Life indexes of gastronomy cities

Province	Overall index		Housing		Work life		Income and wealth		Health		Education	
	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index
Afyonkarahisar	10	0,6275	33	0,7864	15	0,6568	47	0,4148	13	0,7028	48	0,5331
Gaziantep	60	0,4716	60	0,5710	64	0,4657	65	0,2551	70	0,4798	67	0,4088
Hatay	64	0,4402	62	0,5477	71	0,3930	52	0,3536	65	0,5046	51	0,5254
Province	Environment		Safety		Civic engagement		Access to infrastructure services		Social life		Life satisfaction	
	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index	Rank	Index
Afyonkarahisar	49	0,5943	8	0,7412	24	0,4618	34	0,4561	11	0,5899	2	0,9655
Gaziantep	44	0,6033	59	0,5470	71	0,3143	19	0,5435	15	0,5480	54	0,4515
Hatay	46	0,6022	67	0,5180	60	0,3786	43	0,4223	53	0,3633	77	0,2335

Source: Turkish Statistical Institute, 2015.

As seen in table 5, According to the life indexes, Afyonkarahisar is on the 10th place, Gaziantep is on 60'th place and Hatay is on 64 the place.

Table 6. Data about gastronomy cities in between 2015-2019

2019	Number of museums affiliated to the ministry of culture	Number of museum visitors affiliated to the Ministry of culture and Tourism	Total number of overnight days	Foreign Tourists overnight days	Number of Important Day Festival and other events
Afyonkarahisar	1	12.239	2.177.672	59.215	30
Hatay	4	427.923	1.328.148	120.973	27
Gaziantep	3	401.494	1.294.725	234.423	14

Source: Turkish Statistical Institute, 2015; Afyonkarahisar Culture and Tourism Provincial Directorate, 2021; Hatay Governorship, 2021; Gaziantep Provincial Directorate of Culture and Tourism, 2021.

Due to the visits of both locals and tourists to the gastronomy cities, the lowest rate of increase in GDP (TL) per capita is Hatay City. The province of Hatay increased the number of museums from 2 to 4. Hatay Museum increased the number of visitors from 45,189 to 427,923. There is an increase in the total number of overnights in the Hatay and Gaziantep as well.

Table 7. Gastronomy cities' data on environment and energy

Environment and Energy	Gaziantep	Hatay	Afyonkarahisar
Rate of Population that provides Waste Service	% 10	% 16	% 59
Rate of Population that Provides Wastewater Treatment Services	% 96	% 42,5	% 75,2
Rate of Population that Provides Sewerage Service	% 98	% 70	% 95
Ratio of Population that has Drinking Water Network	% 100	% 99	% 98
Ratio of Population Provided with Drinking Water Treatment Services	% 65	% 1	% 33
Electricity Consumption Per Person	3988 kWh	3841 kWh	2510 kWh

Source: Turkish Statistical Institute, 2021.

In Table 7, it is seen that the Ratio of Population that has Drinking Water Network has made a significant progress and have the highest percentages respectively, 100% Gaziantep, 99% Hatay and 98% in Afyonkarahisar.

Table 8. Gastronomy cities' data on education, culture, sports and tourism

Education, Culture, Sport and Tourism	Gaziantep	Hatay	Afyonkarahisar
Number of Universities	4	2	2
Associate Degree Program (Number of Programs about tourism and gastronomy and logistics)	11	7	7
Undergraduate Program (Number of Programs about tourism, gastronomy, logistics)	4	5	6

Source: Higher Education Program Atlas, 2021.

In Table 8, it is seen that Education, Culture, Sports and Tourism Gaziantep have the highest number of Associate and Undergraduate departments.

Table 9. Gastronomy cities' data on employment, unemployment and wage

Employment, Unemployment and Wage	Gaziantep	Hatay	Afyonkarahisar
Labor Force Participation Rate (as a sub region)	% 47,5	% 47,9	% 58,2
Rate of Employment Rate (as sub region)	% 40,2	% 39,2	% 47,6
Rate of unemployment rate (as sub region)	% 15,2	% 18,1	% 9,8

Source: Turkish Statistical Institute, 2021.

In Table 9, the Labor Force Participation Rate, Rate of Employment Rate and Rate of Employment Rate of the gastronomy cities Gaziantep, Hatay and Afyonkarahisar are given. (as a sub region) and Afyonkarahisar have the highest rates with 58,2% and Rate of Employment Rate with 47,6% (as a sub region)

Table 10. Gastronomy cities' data on health and social protection

Health and Social Protection	Gaziantep	Hatay	Afyonkarahisar
Total Number of Hospital Beds per 100 Thousand People	297	260	301
Total Number of Physicians Per Thousand People	1	1	1

Source: Turkish Statistical Institute, 2021.

As it is seen in Table 10, the highest number of hospitals per capita is Afyonkarahisar, Gaziantep and Hatay gastronomy cities, respectively.

Table 11. Transport and communication data of gastronomy cities

Transport and Communication	Gaziantep	Hatay	Afyonkarahisar
Number of Cars	242 419	223 694	90 642
Number of Motor Vehicles	540 397	509 542	230 313
Number of Cars per thousand people	115	135	123
Number of Traffic Accidents	3 550	3 779	2 053

Source: Turkish Statistical Institute, 2021.

Table 11 shows the highest number of vehicles located in Gaziantep. Gaziantep's number of motor vehicles ranks first with 540.397. Whereas considering the number of traffic accidents, the city of Hatay gastronomy ranks the first.

Table 12. Transportation and communication data of gastronomy cities

HIGHWAY (2019)	Gaziantep	Hatay	Afyonkarahisar
Motorway	148	77	-/-
Divided Road (Km)	375,8	369,8	567
Bituminous Hot Mix Coated Road Length (Km)	390,1	294	631
RAILWAY (2019)			
Outline Length	287	78	518
Number of Passengers	65.428	242.518	153.957
AIRLINE (2019)			
Airport Opening Date	1976	2007	2012
Distance of Airport to City Center (Km)	20	27	55
Aircraft Traffic	19.573	8.762	893
Number of Passengers	2.544.944	1.209.363	82 109
Parking Lot (Number of Vehicles)	585	305	90
Runway(3000x45-48 m)	1	1	1
COMMUNICATION (2019)			
Broadband Subscribers	1.686.606	1.327.308	626.677
Fiber Cable Length (Km)	5.967	4.043	4.353
Workplaces Open to Automation	88	128	99

Source: Ministry of Transport and Infrastructure, 2021.

In table 12, it is seen that Gaziantep has the highest divided road in terms of kilometers in highways and it is 375,8 kilometers. Considering railways, number of passengers is high in Hatay with the number of 242.518. Airlines has the highest number of passengers in terms of years with the number of 2.544.944 in Gaziantep. Evaluating the communication, Gaziantep has the highest subscribers with the number of 1.686.606.

Table 13. Gastronomic cities' data on tourism and hotel management

Tourism and Hotel Management (08.02.2021)	Gaziantep	Hatay	Afyonkarahisar
Number of Municipal Certified Accommodation Facilities	16	144	102
Number of Municipal Certified Rooms	554	3613	5038
Number of Municipality Certified Beds	1074	8534	13578
Number of Facilities with Operation and Investment Certificate	61	61	37
Number of Rooms with Operation and Investment Certificate	5042	4059	4690
Number of Beds with Operation and Investment Certificate	10213	8374	9785
Number of Ecofriendly Facilities with Operation Certificate	4	2	4
Number of Ecofriendly Rooms with Operation Certificate	603	349	1283
Number of Ecofriendly beds with Operation Certificate	1210	698	2666
Number of Travel Agencies	131	103	56

Source: General Directorate of Investments and Businesses, 2021; Afyonkarahisar Culture and Tourism Provincial Directorate, 2021; Hatay Culture and Tourism Provincial Directorate, 2021; Gaziantep Provincial Directorate of Culture and Tourism, 2021.

In table 13, it is seen that Gaziantep has the number of beds with operation and investment certificate with the number of 10.213.

Discussion and Conclusion

In the literature review, it is seen that there was no comparative study on the logistics and destination competences of the cities included in the field of UNESCO Creative Cities Network Gastronomy. This study can be a good start for other researchers as well. Undoubtedly, there are limitations in results and research methodology, but the most important factor that makes the research subject valuable is that such a study is conducted for the first time. Within this framework, it is thought that conducting research on the subject to form an index will provide an important contribution to the literature.

All the data are taken from the Turkish Statistical Institute, Culture and Tourism Ministry, Higher Education Program Atlas, Minister of Transport and Infrastructure Limitations. In evaluation, there is not a statistical known scale to compare the results of this study. Because of this reason, the ranking between 1-3 is created. Number “3” shows the most, and the “1” is the least. When “2” is moderate.

Results and Suggestions

Table 14. Scoring of living index

Life Indexes	Gaziantep	Hatay	Afyonkarahisar
General Index	2	1	3
Housing	2	1	3
Work Life	2	1	3
Income and Wealth	1	2	3
Health	1	2	3
Education	1	2	3
Environment	3	2	1
Security	2	1	3
Civic Participation	1	2	3
Access to infrastructure services	3	1	2
Social Life	2	1	3
Life Satisfaction	2	1	3
	22	17	33

In the life index, it is seen that the gastronomy city of Afyonkarahisar ranks first with 33 points. It means Afyon has the highest living standards which is related to the city logistics.

Table 15. Scoring of gastronomy and tourism competences

Gastronomy and Tourism Competences	Gaziantep	Hatay	Afyonkarahisar
Number of museums affiliated to the Ministry of Culture and Tourism	2	3	1
Number of museum visitors affiliated to the Ministry of Culture and Tourism	2	3	1
Total number of overnights	1	2	3
Foreign overnights	3	2	1
Number of Municipal Certified Accommodation Facilities	1	3	2
Number of Municipal Certified Rooms	1	2	3
Municipality Certified Number of Beds	1	2	3
Number of Facilities with Operation and Investment Certificate	2	2	1
Number of Rooms with Operation and Investment Certificate	3	1	2
Number of Beds with Operation and Investment Certificate	3	1	2
Number of Rooms with Environment Friendly Operation Certificate	2	1	2
Number of Beds with Environment Friendly Business Certificate	2	1	3
Number of Beds with Environment Friendly Business Certificate	2	1	3
Number of Travel Agencies	3	2	1
Important Days, Festivals and Other Events Celebrated	1	2	3
	29	28	31

Gastronomy and tourism competences Afyonkarahisar gastronomy city ranks first with 31 points. However, it is seen that foreign tourists do not stay overnight. If necessary promotion or advertising is available to foreigners, there might be a high chance of presenting gastronomy.

Table 16. Scoring of liveability

LIVEABILITY	Gaziantep	Hatay	Afyonkarahisar
Rate of Population Provided with Waste Service	1	2	3
Rate of Population Provided with Wastewater Treatment Services	3	1	2
Rate of Population Provided with Sewerage Service	3	1	2
Ratio of Population with Drinking Water Network	3	2	1
Ratio of Population Provided with Drinking Water Treatment Services	3	1	2
Electricity Consumption Per Person	3	2	1
Total Number of Hospital Beds per 100 Thousand People	2	1	3
Total Number of Physicians Per Thousand People	1	1	1
Labor Force Participation Rate (as a Sub-Region)	1	2	3
Employment Rate (By Sub-Region)	2	1	3
Unemployment Rate (By Sub-Region)	2	1	3
	24	15	24

It is observed that Gaziantep and Afyonkarahisar shared the same score in livability. Liveability has the subject of quality of life, such as safety, health, silence, attractiveness of the place of living, etc. Therefore, both cities might be preferred to be lived in terms of city logistics.

Table 17. Scoring of sustainability

SUSTAINABILITY	Gaziantep	Hatay	Afyonkarahisar
Number of Illeterate people	1	2	3
Number of Universities	3	2	2
Number of Associate Programs	3	2	2
Number of Undergraduate Programs	1	2	3
	8	8	10

Afyonkarahisar ranks first in sustainability. This is because it has the high number of illeterate people and high number of undergraduate programs compared to other cities.

Table 18. Scoring of mobility

MOBILITY	Gaziantep	Hatay	Afyonkarahisar
Number of Cars	1	2	3
Number of Motor Vehicles	1	2	3
Number of Cars per Thousand People	3	1	2
Number of Traffic Accidents	2	1	3
HIGHWAY (2019)			
Motorway	3	2	1
Divided Road (Km)	2	1	3
Bituminous Hot Mix Coated Road Length (Km)	2	1	3
RAILWAY (2019)			
Outline Length (Km)	2	1	3
Number of Passengers	1	3	2
AIRLINE (2019)			
Distance of Airport to City Center (Km)	3	2	1
Aircraft Traffic (Year)	3	2	1
Number of Passengers (Year)	3	2	1
Parking lot (Number of vehicles)	3	2	1
Runway (3000x45-48 m)	3	3	3
COMMUNICATION (2019)			
Broadband Subscribers	3	2	1
Fiber Cable Length (Km)	3	1	2
Number of PTT Workplaces Open to Automation	1	2	3
	39	30	36

Gaziantep ranks first in the city of gastronomy in terms of mobility. The main goal of 'mobility' is to provide a balance between sufficient traffic capacity and decrease in congestion.

As evaluating the sum of the numbers, Gaziantep has less traffic capacity therefore it has a high degree of mobility.

In the future studies, researchers can contribute to the literature to create an index on the logistics and destination competencies of gastronomy cities.

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Bu çalışmanın tüm hazırlanma süreçlerinde etik kurallara ve bilimsel atıf gösterme ilkelerine riayet edildiğini yazar(lar) beyan eder. Aksi bir durumun tespiti halinde Afyon Kocatepe Üniversitesi Sosyal Bilimler Dergisi'nin hiçbir sorumluluğu olmayıp, tüm sorumluluk makale yazarlarına aittir.

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