Chapter 1 Dynamism of sustainable rural tourism. The case of Ajalpan, Altepexi and Santiago Miahuatlán, Puebla

Capítulo 1 Dinamismo del turismo rural sostenible. Caso Ajalpan, Altepexi y Santiago Miahuatlán, Puebla

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Abstract

Tourism is an activity that represents an important income, both to service providers and to the governments that administer the different geographical regions of the country, as well as to the inhabitants of rural communities. This study is a quantitative analysis that included the participation of 128 tourists who were asked about the perceptions of doing rural tourism in three municipalities adjacent to a medium-sized city such as Tehuacán, where, although there is some industrial production, the predominant activity is farm work. Through the use of normality analysis and descriptive statistics, it is possible to observe that lodging and gastronomy are relatively careful aspects, however, cultural activities, as well as attractions in artistic infrastructure are pending subjects for municipal and state governments, to promote rural tourism in these places and achieve tourism promotion in rural areas that has the characteristics of promoting culture and historical values, as well as long-term sustainability.

Tourism dynamics, Municipalities, Rural Tourism

Resumen

El turismo es una actividad que representa un ingreso importante, tanto a los proveedores de servicios como a los gobiernos que administran las diferentes regiones geográficas del país, así como a los habitantes de comunidades rurales. El presente estudio es un análisis cuantitativo que contó con la participación de 128 turistas a quienes se les preguntó acerca de las percepciones de hacer turismo rural en tres municipios adyacentes a una ciudad de tamaño mediano como lo es Tehuacán, mismas en donde si bien existe cierta producción industrial, la actividad predominante son las labores del campo. Mediante el uso de análisis de normalidad y de las estadísticas descriptivas se logra observar que el hospedaje y la gastronomía son aspectos relativamente cuidados, sin embargo, las actividades culturales, así como los atractivos en infraestructura artística son asignaturas pendientes para los gobiernos municipales y estatal, para fomentar el turismo rural en estos lugares y lograr la promoción turística en las zonas rurales que posea las características de promoción de la cultura y valores históricos, así como la sostenibilidad a largo plazo.

Dinámica del turismo, Municipios, Turismo rural

1.1 Introduction

It is difficult to talk about tourism in the area adjacent to Tehuacán, because the conurbation of Santiago Miahuatlán in the north and Ajalpan and Altepexi in the south have their economic environments based on subsistence agriculture and livestock farming. There is some industry, but it does not have an impact on the demonstrable economic and social development of the places. Infrastructure for entertainment and recreation is basic and efforts to attract visitors are limited to food services predominantly.

Efforts to develop tourism have been important, given that the area has no tourist infrastructure; each place itself does not have any element that attracts tourism on a recurrent basis. The historical value of the region is understood only in the perspective of a larger whole. For example, Ajalpan has an important cultural richness, but this can be appreciated by visiting the area and the surrounding sites, which implies a trip to different places and knowing exactly what to visit in each place. This explains why it is the largest municipality (with total fixed assets of: \$54,135.00 million according to INEGI data in 2008), in terms of economic activities, but with less infrastructure for culture, unlike the other two municipalities that are smaller in size (INEGI, 2015).

With regard to the Pandemic, the fate of many micro and small businesses was that while the events of the voluntary confinement took place, businesses closed their doors, but did not cease to have activities and in the case of those that closed, they managed to survive because the entrepreneurs dedicated themselves to the primary activities that are part of the place. Once activities resumed, the businesses resumed offering their products and services. Currently, according to the National Statistical Directory of Economic Units (DENUE), the three municipalities have 7,614 micro and small businesses, of which 755 are dedicated to tourism activities (INEGI, 2021a).

The entrepreneurial dynamism of the municipalities analysed is important in terms of resilience, given that the low economic activity and high costs have led them to do business with the understanding that the beneficiaries are the people they serve, and this shows that more than for-profit businesses, businesses are also part of the culture of service. According to figures from the State Development Plan of the Government of the State of Puebla, the economic revenue from tourism in the area of Tehuacán generated a total of \$758,619,720 pesos (Government of the State of Puebla, 2019), income from accommodation and food and beverage preparation generated \$506.9 million pesos and the tourist influx was 911,504 visitors. Altepexi has a house of culture; Altepexi and Santiago Miahuatlán have a public library; Altepexi reports eight chroniclers, while Santiago Miahuatlán has three. The municipality with 98 recognised artisan groups is Santiago Miahuatlán.

Therefore, the objective of this paper is to expose these differences in infrastructure and standardisation of services, information and spaces for tourist attraction, but from the point of view of the visitors to the sites, by means of surveys with the intention of disseminating the results and that the efforts of the authorities focus on achieving a permanent and innovative tourist attraction, with the participation of the inhabitants of the sites.

1.2 Theoretical review

Tourism has received attention from governments, as public policies have been created for its development, given that it contributes to economic growth, in 2016, the sector achieved 8.7% to the Gross National Domestic Product and produced more than two million jobs and has an important impact on the states, therefore the Ministry of Tourism has mentioned that the tourist must be characterised and supply and demand linked with promotional strategies (Rosales, Salas, and Palacios, 2019).

At the regional level, two elements have been identified, on the one hand, the development of the "cosmovision" of the inhabitants of the original peoples, to this Miguel, Torres and Hernández (2015) mention that a development strategy of the peoples could be stimulated with urban development and achieve a territorial policy with greater scope. In some cases, rural tourism has managed to increase the quality of life in rural areas (Scutariu and Scutariu, 2023).

On the other hand, social imaginaries are focused on local cultures, but not on tourists, so that there are no themes that allow analysis from the perspective of the discipline of tourism (Osorio, 2022). In this respect, Rodríguez and Sánchez (2022) believe that agriculture has a good potential to attract tourism in regions that lack their own themes.

In terms of macroeconomics, Brida, London and Rojas (2014) created an economic model in which they predicted continuous growth, depending on the availability of natural resources and their preservation; a reduction in poverty; a high level of investment, used to strengthen tourism, could translate into widespread economic development.

According to Navarro and Schlüter (2010) warned a decade ago about the risks that rural villages have for not having tourist attractions in addition to a manifest cultural identity that is only observed in gastronomy, is the lack of attraction. Also, another risk occurs when tourism investment actions obey political interests rather than the recommendations of specialists and researchers (Ardigó and Limberger, 2018).

As can be seen from the two views above, the success of tourism programmes associated with rural activities has to focus on the inhabitants and visitors. An alternative point of view argues that partnerships between farmers, authorities, municipal leaders and tourism operators would allow a better understanding of the way of life of the communities, which would be opportune to detonate tourism (Macías, Fernández, & Munguía, 2021). Obviously, cordial personal relations are necessary to avoid disputes between the inhabitants of the places, otherwise it is difficult to achieve the benefits of the activities to achieve attraction (Méndez Méndez, García Romero, Serrano de la Cruz Santos-Olmo, & Ibarra García, 2016).

Del Barrio, García and Jamilena (2012) mention, in a study done in Spain, that the promotion of rural tourism, such as excursions and care for the environment, are more attractive than non-congruent non-monetary incentives (gifts and raffles) to improve visits to rural environments.

1.3 Methodology

Due to the conditions of the sites and their tourist affluence, and the fact that there are no systematic records, a sample calculation was made, where one tourist corresponds to the annual average, according to the National Institute of Statistics and Geography: Mexico in Figures: Tabulados de integración: Turismo 2021 (INEGI, 2021b); the National Institute of Anthropology and History (INAH, 2022); information obtained from the Ministry of Tourism (SECTUR, 2022) and data available for 2019 from the website of the Government of the State of Puebla (Gobierno de Puebla, 2022). In which a monthly average and a daily average were calculated, for which the average base of 15 days of affluence was established.

In the case of the municipalities of Ajalpan, Altepexi and Santiago Miahuatlán, the opinions of 128 tourists were collected, forming a sample with 92% reliability and 8% error, with a 50% probability of successful collection. The sample was taken between the months of April and May 2022 and was attended by 40 students from the Business Development educational programme at the Technological University of Tehuacán. In this case, it focused on the demand for tourism services, as mentioned by Osorio and Rodríguez and Sánchez.

The data were analyzed with SPSS software and descriptive analyses were made of the responses of the respondents by gender and type of tourist; then some relationships were measured on the perception of the quality of tourism services and finally variables were measured on the perception of the quality of services consumed.

1.4 Results

The first measurement obtained about the relationship of the scale variables was a Cronbach's Alpha statistic for 30 items which gave a value of 0.957, showing that the data has consistency. Next, the place of residence and the degree of studies were related to the gender of the interviewees as shown in Table 1.1, observing that 54 women are tourists coming from the same state of Puebla and 11 from the Mexican Republic; while 42 male tourists come from the same state, 4 come from the United States and 28 come from some part of the national territory.

Table 1.1 Composition of tourists by place of origin

Place of residence									
	State International National Total								
Gender	Male	54	0	11	65				
	Female	42	4	17	63				
Total		96	4	28	128				
Note: Data correspond to survey responses (2022).									

Regarding schooling, Table 1.2 shows that 4 of the female tourists have primary school, 11 have secondary school, 34 have high school and 16 have a bachelor's degree. Men: 4 have primary school, 15 have secondary school, 22 have high school, 20 have a bachelor's degree and 2 have other studies.

Table 1.2 Composition of tourists by level of education

Visitors' level of education									
General		Primary	Secondary	High School	Bachelor's degree	Other	Total		
Gender	Male	4	11	34	16	0	65		
	Female	4	15	22	20	2	63		
Total		8	26	56	36	2	128		
Note: Data were obtained from the survey (2022).									

To measure the dynamics of tourism in the study areas, a descriptive analysis of the variables was made, taking into account the perceptions of the visitors presented in Table 1.3 regarding the valuation of the site and the prices they paid for the service received as shown in Table 1.4, whether it was accommodation, food or recreation services.

Table 1.3 Tourists' general perception of the sites visited

Site assessment									
	Good Excellent Bad Lousy Regular Total								
Gender	Male	33	4	1	0	27	65		
	Female	28	4	2	1	28	63		
Total 61 8 3 1 55 128									
Note: The data were obtained from the survey (2022).									

For the part where the experiences about checking and monitoring the prices of the sites are located, it can be observed that, in the case of women, they are the ones who pay attention to the prices of the services consumed 17 almost always do it; unlike men who almost never (11) pay attention to the prices and compare the prices of view in comparison with previous visits, neither in the comparison of the visit sites between businesses. But in both cases the response "sometimes" is the one that brings together the perceptions of the tourists where 34 of the respondents are women and 38 are men.

Table 1.4 Tourists' perceptions of prices at visited sites

Price monitoring									
General		Sometimes	Almost never	Most of the time	Never	Always	Total		
Gender	Male	34	8	17	2	4	65		
	Female	38	11	8	3	3	63		
Total 72 19 25 5 7 128							128		
Note: Th	Note: The data show the degree of price monitoring prior to visiting the sites (2022).								

Two questions that seek to know the dynamics of tourism in the area, were asked based on the identity of the locality and what is important for visitors, one of these is gastronomy and the other with the existence of businesses and companies as shown in table 1.5, it was found that gastronomy is the activity that allows identification with the places on the implementation of a business; In the case of women, 60 affirmative opinions on the 45 that denote the visit due to a business; in the case of men, 59 affirmative opinions on gastronomy, more than the 40 on the identity based on a company or business.

Table 1.5 Tourists' perceptions about identity

Identity as an important part of the locality									
			Gastronomy Companies and Busine						
		No	Yes	Total	No	Total			
Gender	Male	5	60	65	20	45	65		
	Female	4	59	63	23	40	63		
Total		9	119	128	43	85	128		

Note: Data are shown for both gastronomy and the presence of a business or company that affects the identity of visitors to the sites (2022).

To observe the dynamics of tourism, normality tests were carried out on the questions about the corporate reputation of the businesses, taking into account the treatment in the accommodation, as shown in table 1.6. Due to the number of responses, a Kolmogorov-Smirnov test was used, where responses 1, 3, 4 and 5 show normality and response 2, which mentions "bad treatment", presents a p-value of 0.116, which is greater than the alpha value of 0.05, which does not show normality. It stands out that "friendly treatment" has the highest number of incidences (47), which indicates that there is satisfaction with the rented accommodation services.

Table 1.6 Measurement of the responses on the treatment in the accommodation

Normality tests										
	Friendly treatment in accommodation	Kolmogoro	Shapir	lk						
		(Lilliefors signific	cance c	orrection)						
		Statistician	gl	Sig.	Statistician	gl	Sig.			
Hosting complied	1	0.354	9	0.002	0.685	9	0.001			
	2	0.248	9	0.116	0.913	9	0.338			
	3	0.227	38	0.000	0.898	38	0.002			
	4	0.318	47	0.000	0.825	47	0.000			
	5	0.260	25	0.000	0.785	25	0.000			
Note: Data were of	Note: Data were obtained from the sample (2022).									

On the other hand, normality tests were performed on the questions about the corporate reputation of the businesses, taking into account the price-quality relationship in the accommodation where we observe that in Table 1.7, due to the number of responses, a Kolmogorov-Smirnov test was used where all the responses exhibit normality. It stands out that "good relationship" has the highest number of incidences (46), which indicates that there is satisfaction with the prices of the rented accommodation services.

Table 1.7 Measurement in the responses on the quality and price ratio of accommodation

Normality tests										
	Friendly treatment in accommodation	Kolmogórov-Sm		Shapiro-Wil						
		(Lilliefors signification)	cance c	orrection)						
		Statistician	Gl	Sig.	Statistician	gl	Sig.			
Hosting complied	1	0.289	10	0.018	0.778	10	0.008			
	2	0.304	7	0.050	0.781	7	0.026			
	3	0.266	37	0.000	0.884	37	0.001			
	4	0.342	46	0.000	0.776	46	0.000			
	5	0.280	28	0.000	0.849	28	0.001			
Note: Data were of	Note: Data were obtained from the sample (2022).									

About the dynamics of tourism for its gastronomy, we included the perception of tourists about food prices as we can see in Figure 1.1 where this was questioned, taking into account that a 5-point Likert scale was used where 1 = lousy; 2 = bad; 3 = fair; 4 = good and 5 = excellent. On the question of perception of bill payment, 94 respondents stated that the price was fair. The other aspect that complements on-site accommodation is places to eat, in this case, respondents were asked about the place they most choose to visit.

Figure 1.1 Perceptions of value for money according to tourists

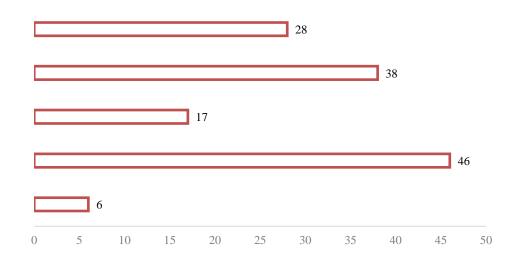
Traditional food venue account



Note: Data were obtained from the sample (2022).

As can be seen in Figure 1.2 the preferred place to eat is restaurants, over market stalls and fondas. Specialty restaurants and street stalls were also considered in this question. From this graph, it is striking that the other options are considered; and in lesser preference: speciality restaurants.

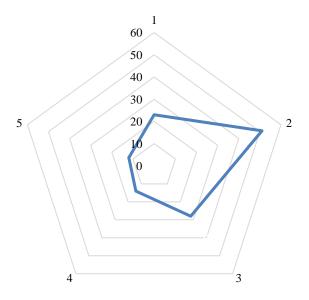
Figure 1.2 Usual place to eat according to tourists



Note: Data were obtained from the sample (2022)

On the other hand, questions were asked about the site conditions. Among these, the public places, which are the zócalo, the market and others, are the most important of the three sites as can be seen in Figure 1.3, where the general perception is that they get an overall rating of poor to fair.

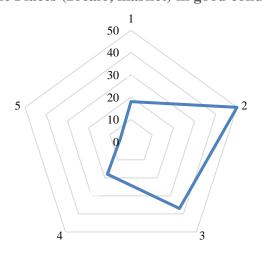
Figure 1.3 Valuation of spaces for consumption



Note: Data were obtained from the sample (2022)

Figure 1.4 Assessment of visiting spaces

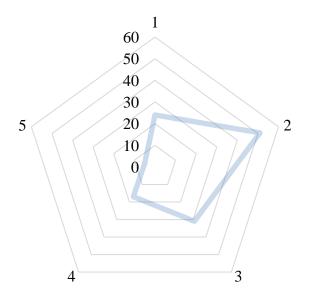
Public Places (zócalo, market) in good condition



Note: Data were obtained from the sample (2022)

As far as historical sites and archaeological zones are concerned, Figure 4 shows low scores, but this is due to the fact that the three municipalities do not have historical sites or monuments to reinforce the visit of people who were not born in the areas. The weighting of the activities towards tourism is 2 which represents 25% of the respondents as shown in Figure 1.5.

Figure 1.5 Rating of activities towards tourism



Note: Data were obtained from the sample (2022).

As far as cultural activities are concerned, low approval by tourists is also observed. Despite the fact that the municipality of Ajalpan has more dance-related activities and a calendar of cultural activities throughout the year, it must be acknowledged that the activities are spread over several months. The perception of the tourists is that the cultural activities are rated as "bad", which means that the municipalities of Ajalpan, Altepexi and Santiago Miahuatlán have few activities that entertain visitors in the area.

1.5 Discussion

According to the results it can be said that tourism is a series of activities that produce work and services as mentioned by Rosales et al (2019), but in the case of the municipalities analysed, the activity does not have a boom that allows a promotion Del Barrio García et al. (2012) because they have not benefited from investments that generate identities and therefore an interest in being visited by tourists and despite the existence of public policies, these municipalities have not proposed long-term models that stimulate a strategy to attract tourism through resource preservation activities as mentioned by Brida et al. (2014), despite the fact that the sites have a cultural worldview that defines them Velasco (2015). The responses of the tourists surveyed show that the reason for going to the municipalities is due to other reasons such as visits to relatives, but they are not part of the search for experiences with identity themes as stated by Rodríguez and Sánchez (2022). What is important to highlight is the quality of the gastronomy, which is the only element that attracts people, as mentioned by Navarro and Schlüter (2010).

1.6 Conclusions

The dynamics of tourism in the municipalities analysed show an effort on the part of the authorities, which has not been sufficient. There is an imbalance between the existence of public libraries, chroniclers and support for the creation of artisan organisations that have the means to set up commercial establishments.

Also, long-term models have not been created to stimulate the identity of the municipalities so that the inhabitants can offer cultural and sporting activities, as well as the preservation of natural resources and their sustainable use. In the three municipalities there is a lack of a commercial element that allows the identification of the place and that stimulates the visit of tourists in search of different experiences.

The dynamics of the visitors is that they come to the municipalities to enjoy the gastronomy, but there is no activity that effectively makes people stay overnight in the municipalities, due to the proximity to the city of Tehuacán, but there are also no other activities that stimulate the view. Thus, tourism impacts the restaurants with its consumption, and the services of accommodation, sports and cultural activities are enjoyed elsewhere. In the end, the economic sectors grow disproportionately.

The results of the measurement of the respondents' answers show that gastronomy is an element that expresses the comparative advantage of the three municipalities and deserves to be the cohesive element to link other activities that allow the attraction of tourism on a regular basis throughout the year. A promotional campaign could stimulate curiosity and trigger visits to the municipalities.

By a slight margin, people visit the municipalities surrounding Tehuacán the most. Although they find the municipalities with the services to stay and spend a few days, the places are boring and do not create spaces for recreation, culture and fun throughout the year. Rural tourism could become a series of activities to make up for the shortage of recreational activities.

However, it is also recommended to make use of creativity in activities such as seasonal celebrations, parades on important dates, publicity on some characteristic of the places, in order to attract tourism throughout the year, given that gastronomy is already a theme dominated by the three municipalities.

It is important that the municipal authorities recognise the importance that towns and communities should have spaces for the transmission of culture, so the modernisation of squares, parks and recreation sites are a central element to achieve first, cultural identification with the members of the community, but also as a way of transmitting history and values to tourists. All three sites received low ratings because the sites have squares, markets and sites of interest that look devoid or already outdated.

1.7 References

Ardigó, C. M., & Limberger, P. F. (2018). Infraestrutura turística realizada pelo ministério do turismo - mtur: relações entre os critérios institucionais e a influência política allocation of federal public resources in tourism infrastructure by the ministry of tourism - mtur: political influe. 360–390.

Brida, J. G., London, S., & Rojas, M. (2014). El turismo como fuente de crecimiento económico: Impacto de las preferencias intertemporales de los agentes. *Investigacion Economica*, 73(289), 59-77. https://doi.org/10.1016/S0185-1667(15)30003-5

Del Barrio García, S., Moreno, L. L., & Jamilena, D. M. F. (2012). El Tipo De Incentivo Como Determinante En El Atractivo De La Promoción De Venta En Turismo Rural. Efecto Moderador Del Sexo, La Edad Y La Experiencia. *Revista Española de Investigación de Marketing ESIC*, 16(2), 103–126. https://doi.org/10.1016/s1138-1442(14)60016-4

Gobierno de Puebla. (2022). Visitanters por municipio Puebla. Estadisticas de visitantes website: http://datos.puebla.gob.mx/datos/afluencia-visitantes-destino-turistico-estado-puebla-anio-20191231-csv#%257Bview-

graph: %257B graphOptions: %257B hooks: %257B processOffset: %257B %257D, bindEvents: %257B %257D %257D %257D, graphOptions: %257B hooks: %257B processOffset: %257B %257D, bindEvents: %257B %25

Gobierno del Estado de Puebla. (2019). *Tehuacán*. https://planeader.puebla.gob.mx/pdf/ProgramasRegionales2020/0_ProRegionales 13 Tehuacán.pdf

INAH. (2022). Visitantes en abril de 2022. Visitantes en el Esado de Puebla website: https://www.estadisticas.inah.gob.mx/

INEGI. (2015). *Censos económicos 2014. Resumen de los resultados definitivos*. https://www.inegi.org.mx/contenidos/programas/ce/2014/doc/frrdf_ce2014.pdf

INEGI. (2021a). Información general sobre turismo.

INEGI. (2021b). México en cifras. https://www.inegi.org.mx/app/areasgeograficas/default.aspx#collapse-Resumen

Macías, M. V., Fernández, R. I., & Munguía, A. (2021). Evaluación potencial del turismo rural en el municipio de Santa Elena, Yucatán. *Península*, *XVI*(2), 99–120. https://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S1870-57662021000200099&lang=es

Méndez Méndez, A., García Romero, A., Serrano de la Cruz Santos-Olmo, M. A., & Ibarra García, V. (2016). Determinantes sociales de la viabilidad del turismo alternativo en Atlautla, una comunidad rural del Centro de México. *Investigaciones Geograficas*, 2016(90), 119–134. https://doi.org/10.14350/rig.48297

Miguel Velasco, A. E., Torres Valdez, J. C., & Hernández Hernández, B. R. (2015). El turismo y las redes territoriales en ciudades de pueblos originarios. El caso de Oaxaca, México. *TURyDES. Revista de Investigación En Turismo y Desarrollo Local*, 8(19), 14 p. Retrieved from http://www.eumed.net/rev/turydes/19/pueblos.zip

Navarro, F., & Schlüter, R. (2010). El turismo en los pueblos rurales de Argentina ¿Es la gastronomía una opción de desarrollo? *Estudios y Perspectivas En Turismo*, 19, 909–929.

Osorio, R. (2022). Sobre las epistemologías enmarcadas en los imaginarios sociales frente al turismo rural-indígena. *Revista Brasileira de Pesquisa Em Turismo*, 16, 2422. https://doi.org/10.7784/rbtur.v16.2422

Rodríguez Ferreira, D. I., & Sánchez-Martín, J.-M. (2022). La función de las áreas agrícolas en el debate epistemológico sobre el turismo rural, el agroturismo y el agroecoturismo. *Revista de Geografía Norte Grande*, 261(81), 235–261. https://doi.org/10.4067/s0718-34022022000100235

Rosales, J. C., Salas, J. M., & Palacios, M. I. (2019). Trends of tourism in four magic villages of puebla, Mexico. ... *Tourism and Heritage Research*, 1, 235–259. Retrieved from http://jthr.es/index.php/journal/article/view/60

Scutariu, A., & Scutariu, P. (2023). Perceptions of the local government and the residents regarding rural tourism development effects . Survey in the Suceava County – Romania. *Rural Sociology*, *53*(4), 1–16. https://doi.org/http://doi.org/10.1590/0103-8478cr20210911

SECTUR. (2022). Datatur. Datos del Turismo en el estado de Puebla website: https://www.datatur.sectur.gob.mx/ITxEF/ITxEF_PUE.aspx